

LAURINDA ABREU AND SALLY SHEARD (EDS)

# Hospital Life

**THEORY AND PRACTICE FROM  
THE MEDIEVAL TO THE MODERN**



Peter Lang

This edited volume originates in the 2011 conference of the International Network for the History of Hospitals, held in Lisbon and Évora, Portugal. It focuses on how institutions for the care and cure of the sick have organised their activities at every level, from the delegation of medical treatments between groups of practitioners, to the provision of food and supplies and the impact of convalescence on lengths of hospital stays. It draws on new European and North American research which highlights an area of medical history that has not yet had adequate, sustained attention, discussing the tensions between theory and practice and between patients and practitioners. Through detailed case studies and comparative analyses it explores the changing and evolving understanding of the function of hospitals, and their wider relationships with their communities.

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Edited by Laurinda Abreu and Sally Sheard



PETER LANG

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COVER IMAGE: Traditional Christmas Eve procession through the wards of the Liverpool  
Royal Infirmary c. 1930.

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*British experience since 1750* (Oxford: Routledge, 2006); S. Sheard, *The Passionate Economist. How Brian Abel-Smith shaped global health and social welfare* (Bristol: Policy Press, 2013).

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LAURINDA ABREU AND SALLY SHEARD

## Introduction

I look to the abolition of all hospitals. But it is no use to talk about the year 2000.

— FLORENCE NIGHTINGALE TO SIR HENRY BONHAM CARTER, 1867

Nightingale's faith in the progress of health and society was naïve. The millennium arrived, and we still placed hospitals at the heart of most national healthcare systems. She would have applauded the World Health Organisation's Alma Ata declaration in 1978, which aimed to re-balance healthcare towards primary health care – a more efficient and equitable use of resources – but this has not yet come to pass. Hospitals continue to dominate, to suck the majority of funds from national healthcare budgets. This might seem an unnecessarily negative or cynical attitude, but it resonates with expert opinion accumulated since Nightingale's time. The late nineteenth century witnessed a sea-change in attitudes to hospitals. The impact of scientific advances, especially through the development of anaesthesia and antisepsis, new imaging techniques and pharmaceutical treatments have contributed to improvements in the capacity of hospitals to treat patients, not just to care for them. But we still lack a sensible justification for devoting such a large proportion of scarce financial resources to these expensive physical, social and economic constructions.

This book, in which the majority of the chapters were initially presented at the International Network for the History of Hospitals conference, held in Lisbon and Évora, Portugal in April 2011, is focused on the enduring tensions between theory and practice, between expectations and experiences. It reflects the fact that hospitals are *living* entities, they are more than the individual components of buildings, staff and patients.

Previous hospital histories – whether monographs or edited collections – have usually chosen to focus on one of these particular aspects. Although they have provided an essential depth of analysis, they have often avoided discussing the bigger picture – how the operation of these institutions has depended on ritual and routine, and on a fine balance between internal systems and external pressures – economic, social, cultural and political.<sup>1</sup>

Hospital life should be easy to write about – it has clear routines based on daily, weekly, and sometimes seasonal requirements. One imagines that the patient is at the centre of these routines, especially of eating, drinking, sleeping, washing and treatments. However, although they are the subject of such activities – and without patients there would be no hospitals – we find that frequently the routines have been shaped by other objectives, such as financial or staffing needs. Analysing the history of how hospitals have functioned is a very different task to looking at its human and physical components. There is knowledge that can be contributed from studies of how doctors and nurses work (teams, shifts, pay, skills), and from occasional patient perspectives, but it is difficult to put one's finger on what makes a hospital tick at any point in time. Getting to the *ordinary* in hospital history is challenging. It is often silent, unrecorded. Patient records, for example, before the twentieth century rarely recorded the point at which medical treatments were stopped as patients recovered.<sup>2</sup> Hospitals are the most frustrating of institutions to study, with the human component – patients – constantly changing. Heraclitus' saying: 'No man ever steps in the same river twice' seems particularly apposite for hospital histories.

A more fundamental question that needs to be raised is whether it is possible to write about such a diverse range of institutions and hope to define them all by the same label. Can we usefully (and legitimately) compare the medieval hospital with the twentieth century hospital? Medieval western societies which shared the same religious economic and social

- 1 This introduction chapter does not attempt to provide a full literature review for hospital history, given that most researchers now find tailored literature searches more helpful.
- 2 Guenter Risse and John Harley Warner, 'Reconstructing Clinical Activities: Patient Records in Medical History', *Social History of Medicine* 5/2 (1992), 204.

frameworks developed similar practices of poor relief and health care. Linked to the spread of Christianity, the hospitals – founded by the church, royal patronage or lay people – were the most important institutional expression of piety and social commitment to the more fragile and helpless, particularly in urban contexts.<sup>3</sup> There were numerous *hospitals* in medieval Europe: an estimated 1,103 just in England and Scotland.<sup>4</sup> They are as difficult to define as they are to count. The term ‘hospital’ could cover diverse institutions such as hospices and foundling houses. Except for the residents of leprosaria, hospitals housed an eclectic mix of *patients*, including pilgrims, travellers, poor, elderly, orphans, sick and prostitutes. A minority of hospitals welcomed pregnant women or new mothers. Most were small places, often ordinary houses with two or three allocated bedrooms, one of them for the nurse. Few of them were close to the contemporary concept of a hospital. A common unifying feature was religion: expressed through monastic architecture in the larger hospitals, and everywhere through the moral obligations of the users to pray for the souls of the founders and benefactors. In the medieval hospital charity had strong contractual and utilitarian characteristics.

Only larger hospitals had access to health professionals and medication – and participated in the development of medical training and new methods of treatment and healing. The Hospital of St Bartholomew, London, the Hotel-Dieu de Paris, the Holy Spirit Hospital in Rome and the Hospital of Santa Maria Nuova in Florence are among the most important medieval *medical* hospitals.<sup>5</sup> Medicalisation, in the sense of medical therapy, is a difficult concept to apply to the medieval period. Certainly there is

3 Cf. Brian Pullan, *Rich and poor in renaissance Venice: The social institutions of a Catholic state, to 1620* (Cambridge-Harvard: Harvard University Press, 1971), 42.

4 Cf. Martha Carlin, ‘Medieval English Hospitals’, in Lindsay Granshaw and Roy Porter (eds), *The Hospital in History* (London: Routledge, 1989), 21.

5 Cf. Silvia de Renzi, ‘“A fountain for the thirsty” and a bank for the Pope: Charity, conflicts, and medical careers at the Hospital of Santo Spirito in seventeenth-century Rome’, in Ole Peter Grell, Andrew Cunningham, Jon Arrizabalaga (eds), *Health Care and Poor Relief in Counter-Reformation Europe* (London: Routledge, 1999), 104–105.

evidence from the thirteenth century regulations of hospitals such as St John the Baptist in Bridgwater, England that hospitals were beginning to exclude those considered contagious or incurable.<sup>6</sup> Lepers were already segregated – one of the earliest organised solutions for the protection of the public health – and during epidemic crises such as the Black Death exclusion policies were more rigorously enforced by hospitals. One thing that united most of these medieval hospitals, however, was their central role in the provision of community health and poor relief resource, and of course spiritual support.<sup>7</sup>

Yet when particular aspects of hospital life are considered, some clear similarities and continuities are evident in medieval and modern hospitals. One of the most useful comparative themes is routine. There are a number of phrases historically associated with this concept. The words ‘regimen’ and ‘regime’ are derived from the Latin *regere*: ‘to rule’. It can be interpreted as ‘a systematic way of life’ or ‘system of administration’. In hospital settings both words usually implied a more forceful directive – a set of rules by which patients must abide. Christopher Bonfield’s essay on the English medieval institutions uses the concept of regimes to raise the bigger problematic of what exactly is a hospital. His case studies expose dietary and hygiene regimes which are still apparent in the twentieth century hospitals discussed by Sally Sheard, but their ‘purpose’ cannot be read easily. The use of weekly meal rituals (fish on Friday) may have had some therapeutic as well as spiritual intent, but there is no evidence that this was their primary function. Despite the lack of archival evidence, Bonfield is able to construct some of the patterns of hospital life that enhance the work of other medieval hospital scholars. Regimes emerge as an early concern, which is picked up in a number of other chapters within this collection.

Fritz Dross’ essay looks at German early modern hospitals from the perspective of annual routines, as exposed through account books. These

6 Cf. Miri Rubin, ‘Development and Change in England Hospitals, 1100–1500’, in Granshaw and Porter, *The Hospital in History, The Hospital in History*, 49.

7 Cf. Martin Dinges, ‘Health Care and Poor Relief in Regional Southern France in the Counter-Reformation’, in Grell, Cunningham and Arrizabalaga, *Health care and poor relief in Counter-Reformation Europe*, 240.



sources are frustrating to use, shifting as they do between different quantitative measures and with frequent omissions. Yet they share some similarities with Bonfield's sources in that they show these institutions as providing food and shelter, and very occasionally medical care, for small groups of long-term residents. The motivation of their founders and supporters was primarily religious – to help the progress of souls in the afterlife. Investment in such institutions can therefore be understood as the construction of a 'budget for the beyond'. Securing and maximising the income from these capital endowments was a primary duty of the hospital master. As Dross shows for the Duesseldorf hospital in 1542–1543, this was a well-established annual routine, which involved the master in lengthy negotiations to lease out agricultural estates and subsequent arrangement of the collection and sale of the crops. Through these ritualised interactions with municipal officials and tenants (which often involved the gift and consumption of large quantities of wine) we can see the early modern hospital as a key component in local economies, yet with virtually no indication of a medical function.

Sharon Strocchia's essay on the 'Incurabile' – institutions for syphilis patients in Renaissance Italy – also has a regime perspective. In this case it was seasonal and daily in contrast to Bonfield's weekly dietary regimes. Strocchia discusses the process of preparing the guaiac treatment, which was made from a resin derived from the wood of the native American *guaicacum* tree. The seasonal arrival of the resin, and its daily preparation in large vats helped to define both the length of stay of patients, and their daily routines, as well as the seasonal and daily demands for nursing staff. This also structured the daily rounds of the physicians. Hospital life in a Renaissance hospital is revealed through these routines as a 'daily grind'. There was hard manual labour for the nurses. The preparation of the guaiac also illuminates the integration of different professional groups such as the physicians and pharmacists. The hospital begins to be shaped by its routines and a clear therapeutic purpose, if not yet an expectation of cure.

Another key unifying theme of this volume is the tension between theory and practice within hospitals. There is no guarantee that recorded regimes – rule books or nursing instructions – were actually enacted. Perhaps it is helpful to see them as ideals to be aimed for, but often tempered

in practice by mundane issues such as availability and costs of specific foods or medicines. Hospitals can be seen as sites of negotiation. Bonfield found evidence that his hospital residents 'ought' to have a certain allocation of fresh fruit each week, but this was not always possible within the limited medieval transport and market networks. This tension emerges more clearly in the differences between medical theory and practice. Strocchia's essay demonstrates that Renaissance Florence was an important site for the production of knowledge on successful treatments for syphilis (and we stress here that 'successful' must be understood as a relative concept). The nurses and physicians developed regimes that were subsequently adopted by other European hospitals that treated syphilis.

Responses to syphilis are a useful lens through which to see the development of early modern Europe, especially changes to the established religious and monarchical authorities who were faced with new problems from socio-economic change, population growth and urban development. Hospitals, through the nature of the social services they provided and their systems of governance, emerged as contested political territories. The established authority of the Catholic Church over hospitals was modified by the Council of Vienne (1311), which suggested greater lay control.<sup>8</sup> There followed a period of hospital governance reform in Europe. In France, in the thirteenth century, there were cases of religious authorities losing control of their hospitals for failing to uphold their religious mission.<sup>9</sup> In Aragon hospital reform by the monarchy began in 1401. In England there were crises in the mid-fifteenth century, along with notable examples in Florence and Milan.<sup>10</sup> At the same time in Portugal the monarchy chose

8 Cf. Jean Imbert, Michel Mollat, *Histoire des hôpitaux en France* (Toulouse: Privat, 1982), 72, 86.

9 Cf. Colin Jones, 'Perspectives on poor relief, health care and the Counter-Reformation in France', in Grell, Cunningham and Arrizabalaga, *Health Care and Poor Relief in Counter-Reformation Europe*, 219.

10 Cf. John Henderson, 'The hospitals of late-medieval and Renaissance Florence: a preliminary survey', in Granshaw and Porter, *The Hospital in History*, 63–92. Also, John Henderson, *The Renaissance Hospital, Healing the Body and healing the Soul* (New Haven-London: Yale University Press), 2006.

to employ Papal support to reform corrupt hospital administrators who were no longer fulfilling the requirements of holding masses for the souls of hospital founders or caring for the poor. The church's response to this show of secular interest in managing hospitals was an attempt to strengthen the bishops' authority, as agreed at the Council of Trent (1545–1563), which was strongly contested by the reforming monarchs. The systems that were created within many European countries in the fifteenth and sixteenth centuries thus reflect a development in relationships between hospitals and authorities.

The impact of changing authority in early modern European hospitals – between religious and secular bodies – can be seen clearly in the production of rules which determined methods of hospital administration, selection of patients and types of care offered. The Ca' Granda hospital of Milan, founded in 1453, was one of the earliest to formalise an administration guided by principles of profitability and rationality. The rules developed in Milan are similar to those used at the Santa Maria Nuova Hospital of Florence and also the Hospital de Todos os Santos, in Lisbon, in 1504. They all placed healthcare as the central purpose of the institution, and employed exclusion policies to select only those patients that were considered treatable. Within the hospital, patients with diseases such as syphilis were segregated for ease of treatment, not because of social stigma, and hospitals increasingly invested in new cure experiments.<sup>11</sup>

Jon Arrizabalaga's essay considers the tension between theory and practice in treating syphilis within Iberian Renaissance institutions, especially the Hospital de Todos os Santos [Real Hospital] in Lisbon. His approach is to concentrate on the activities of one Spanish surgeon – Ruy Díaz de Isla – who worked in a number of places in the Iberian peninsula in the late fifteenth and early sixteenth centuries. Arrizabalaga shows how this

11 Cf. Robert Jütte, 'Syphilis and confinement: hospitals in early modern Germany' in Norbert Finzsch, Robert Jütte (eds), *Institutions of Confinement: Hospitals, Asylums, and Prisons in Western Europe and North America 1500–1950* (New York: Cambridge University Press, 1996), 97–115; Jon Arrizabalaga, John Henderson and Roger French, *The Great Pox. The French disease in Renaissance Europe* (New Haven: Yale University Press, 1997).

itinerant medical practitioner transferred knowledge and skills between hospitals, especially from Seville where an outbreak of syphilis had been left to 'experimenters' to treat after the physicians admitted defeat. Díaz de Isla developed an 'evidence-based' treatment regime at Lisbon. This had to be negotiated within the strict medical professional jurisdictions, but became easier as hospital staffing and spatial regimes became more structured. Increasingly patients were allocated to wards according to their diagnoses, and those with diseases such as syphilis were removed from the main hospital building (and its wards) into a separate building under a separate nursing regime.

Laurinda Abreu's essay neatly complements that of Arrizabalaga, focusing on how hospitals were used to train health professionals in Portugal between 1500 and 1800, beginning with a discussion of the controversy of granting licences to practice to apprentice-trained practitioners, which brought conflict with the university-trained practitioners. She too follows the activities within Lisbon's Real Hospital. The formation of a school of surgery within the hospital in the sixteenth century exacerbated inter-professional problems, especially around the activities of unsupervised bleeders, and a new set of rules were drawn up in the seventeenth century. By the eighteenth century the problems begin to look like those of a modern hospital: keeping waiting times on arrival to under one hour, implementing timetables for meals and distribution of medicines. By this stage there were also tighter regulations for prospective students, and status issues between physicians and surgeons. The early modern Portuguese hospital emerges from Abreu's study as a site of constant conflict and tension, and it is no coincidence that the archives of rules and orders seem to tell us more about the practitioners than about the patients.

The care of the sick, however, was increasingly a primary function of European hospitals by the seventeenth century. In many cases this was in parallel to their ongoing role as places of refuge and care for the poor and the elderly. Many of the new institutions founded during this period also had a state origin rather than a religious one. Even in smaller communities with scarce economic resources, hospitals were desired as symbols of power and social importance. It was hoped, among other things, that they would facilitate settlement growth. This desire for amalgamating small

hospitals to provide provincial ones, to respond to increased demands, was behind the period of expansion seen in countries such as France, Sweden, Finland, Denmark and England.<sup>12</sup> It was not a peaceful process, and was only possible through authoritarian intervention of central powers, capable of imposing their orientations over to the resistance of local elites.<sup>13</sup> However, this was not the experience in Portugal where, after the sixteenth century reforms, the Crown more or less abandoned hospitals until the mid-eighteenth century.

Elisabeth Belmas' essay looks at the creation of one of the greatest and most iconic of French hospitals: the Hôtel Royal des Invalides which was founded in Paris in 1670 by Louis XIV for invalid soldiers. This was one of the earliest royal initiatives in the provision of health care, and provided a permanent medical staff who worked within a well-structured and disciplined environment. Belmas presents this hospital as an eighteenth century 'laboratory'. There are strong parallels with innovations occurring in other European hospitals, such as the segregation of patients according to their medical conditions and the establishment of a hospital staffing 'team' of a physician, surgeon and dispenser. Nursing care and hospital administration was however still seen as the remit of nuns – in this case the Filles de la Charité – who imposed strict daily routines that complemented the ward rounds of the medical staff. The wards were designed to make caring for the sick as efficient as possible, with parallel service corridors which were used to access the lavatory cubicles spaced between each pair of beds.

- 12 Cf. D. Hickey, *Local hospitals in Ancien Régime France: rationalization, resistance, renewal, 1530–1789* (Montréal: McGill – Queen's University Press, 1997); E.I. Kouri, 'Health care and poor relief in Sweden and Finland: c. 1500–1700', in Ole Peter Grell and Andrew Cunningham (eds), *Health Care and Poor Relief in Protestant Europe, 1500–1700* (London: Routledge, 1997), 167–203; E. Ladewig Petersen, 'The wrath of God: Christian IV and poor relief in the wake of the Danish intervention in the Thirty Years' War', in Grell and Cunningham, *Health Care and Poor Relief in Protestant Europe*, 147–166; Craig Rose, 'The gift relation: Politics and the London Royal Hospitals, 1683–92', in Granshaw and Porter, *The Hospital in History*, 1–17.
- 13 This was an authoritarian power but not an absolutist power. On this historiographical controversy, see Tim McHugh, *Hospital Politics in Seventeenth-Century France: The Crown, Urban Elites and the Poor* (Aldershot and Burlington, 2007), 2–3.

This promoted good hygiene, the impact of which can be seen in the lack of outbreaks of infectious diseases within the hospital, despite the high numbers of patients. During the eighteenth century the pressure on the hospital to take non-military patients increased, and the revised regulations demonstrate that keeping order was becoming more problematical. Strict visiting hours had to be imposed, and patients were required to be properly clerked into the hospital, to wear hospital clothing and to leave as soon as they were cured. The archives for the Hôtel Royal des Invalides, as used by Belmas for this essay, provide a useful corrective to the seminal article by Waddington on the role of the hospital in the development of modern medicine, and suggest that the shift in the balance of power in the doctor-patient relationship perhaps can be placed earlier in the eighteenth century than he suggests.<sup>14</sup>

As Belmas' essay shows, hospitals were not static institutions, but continually changed in response to demand, scientific knowledge and medical practice. This is also reflected in Anne Løkke's essay, which focuses on the Royal Lying-in Hospital in Copenhagen in the late eighteenth century, which had a remarkable social mix of patients – 95 per cent were poor, unmarried women, and the remainder were respectable, paying women, some of whom came from the nobility. They were attracted to the hospital by the reputation of its obstetrician, Matthias Saxtorph, who also attended royal births, and by its reputation as a relatively healthy environment. The women were strictly segregated within the hospital according to the fees they paid. The highest daily fee gained them a luxurious home-like apartment and the individual attention of Saxtorph and the chief midwife. The women who were admitted for free were looked after by trainee doctors and midwives, on public wards. Saxtorph managed to maintain low levels of puerperal fever in the Copenhagen Lying-in Hospital (well before Semmelweis was able to demonstrate how this infectious disease was transferred within the Vienna hospital) by insisting on a quarantine system that kept the paying women completely separate and out of the hand

14 Ivan Waddington, 'The role of the hospital in the development of modern medicine: a sociological analysis', *Sociology* 7/2 (1973), 211–224.

of the trainees. If a fever case did appear in the free wards, the woman was immediately discharged, and the ward was 'deep cleaned', with the mattresses and bedding being replaced. Løkke thus shows us a relatively sophisticated system of hospital management (for the late eighteenth century) in which risks were carefully assessed but also one in which the image of the hospital was manipulated to ensure the hospital's long-term viability.

Part of the appeal of the Copenhagen Lying-in Hospital to the aristocratic pregnant woman was its comfort. This was a clear part of its marketing strategy – especially the provision of individual suites of rooms and gourmet food. However, it was still an institutional experience, and no amount of fine furnishings could disguise the basic intrusion into personal space, and a conflict with what Nobert Elias has called the civilising process of privacy. Hospital patients had begun to see privacy as an issue in Enlightenment Vienna.<sup>15</sup> This tension between the public and the private, and between the institutional and the domestic, is a central theme in John Chircop's paper. He analyses the operation of two lunatic asylums of the mid-nineteenth century – one on Malta and the other on Corfu – both then part of the British Empire. Their public institutions were therefore subject to British regulations. These were, however, clearly tempered by local culture and social norms. Whereas public asylums in Britain had very restricted visiting arrangements and draconian regimes, these Mediterranean institutions were more 'permeable', as Chircop puts it. They encouraged the families of patients to visit often, sometimes daily, bringing food and providing company and some supervision. The relationship with the families was critical: at times of overcrowding in the Maltese asylum they might be asked to temporarily take the less vulnerable patients home until inmate numbers reduced. This is but one example of the continuous negotiation that kept these institutions functioning, along with their flexible management and informal social arrangements. Yet there was also order to the regimes within these asylums: they had specified times for meals, and the staff

15 John Henderson, Peregrine Horden and Alessandro Pastore, 'Introduction' in John Henderson, Peregrine Horden and Alessandro Pastore (eds), *The Impact of Hospitals 300–2000* (Bern: Peter Lang AG, 2007), 18.

attempted to create a sense of 'normality' – of time passing and progress towards recovery and discharge. As overcrowding increased in the 1850s, the authorities were forced to construct a purpose-built asylum for Malta. The favoured panoptican design initiated a closer adherence to the British regulations for how lunatics should be treated, and a strengthening of the colonial perception of them as 'childlike' and in need of social discipline to restore 'moral cleanliness'. The 'less permeable' walls of the new asylum hindered the continual negotiations between families and authorities that had made the earlier asylum so successful.

Sue Hawkins and Andrea Tanner approach the issue of hospital rules and routines from the perspective of who they were intended to benefit. Their study of three nineteenth century British paediatric hospitals (Great Ormond Street and the Evelina in London, and the Royal Hospital for Sick Children in Glasgow) illustrates that these hospitals had to adopt clear policies and admission rules if they were to acquire sufficient charitable funding. There was a clear tension between appealing to parents to bring their children by presenting a caring and compassionate face, and appealing to benefactors who wished to see strict daily regimes designed to instil a civilising process on these working class children for example through standardising eating manners and levels of personal hygiene. The rules for staff were as detailed and restrictive as those for patients, yet Hawkins and Tanner show how these were regularly flouted by doctors, especially on ban on admitting children under the age of two and those with incurable or chronic conditions. As with John Chircop's nineteenth century lunatic asylums, the intense pressures of too many patients meant that rules were often bent or not enforced. There was a constant emphasis in the activities of these hospitals on fundraising and ensuring a favourable image through good news stories in newspapers – a theme that also resonates with Anne Løkke's findings for the Copenhagen Lying-in Hospital. There were different sets of rules too – visiting hours for relatives were strictly limited and enforced; while benefactors were free to visit at their convenience.

The commercial imperatives of hospitals, as seen in the British children's hospitals, is also a strong theme within Stephen Kenny's essay on the slave hospitals of the American south in the mid-nineteenth century. He discusses three different types of slave hospitals – the urban, the plantation and the medical college – to show how they produced racialised diagnoses



and treatments. They clearly perpetuated ideas of black racial inferiority, especially through the education of white medical students in the colleges, which made extensive use of black slave patients for surgical demonstrations and of their dead bodies for autopsy classes. The medical treatment of slave patients in all types of slave hospital was but another form of exploitation. Kenny discusses how some of these institutions specialised in obstetrics and gynaecology – reflecting the added ‘productivity’ value of female slaves. The intense interest in such specific slave health issues did not however, extend to their general welfare. Even when in hospitals, the subordination of slaves’ lives and well-being to the interests of doctors, slave owners and medical students was paramount, and they were expected to conform to detailed bye-laws and exhibit ‘good behaviour’. Although other chapters in this volume have touched on the issue of patient subordination – as for example in Hawkins and Tanner’s study of children’s hospitals, or Chircop’s study of lunatic asylums – Kenny’s American slave hospitals appear at the furthest end of the spectrum. Yet despite these differences, the slave hospitals shared some similarities with European hospitals of the nineteenth century. They too were busy medical spaces, the site of interactions between physicians and patients (and slave owners), and they also were shaped by the Parisian clinical school model. Patients were organised and processed in an orderly and systematic manner. They were positioned within the hospitals according to their diagnoses and were the focus of structured research activity. Case studies were written up for journals, which helped to disseminate racialised medicine throughout the USA. Yet these experiences were rarely articulated by the black slave patients themselves: we can only approach the slave patient perspective through looking at the rules and routines to which they had to conform.

The last two chapters in this volume focus on twentieth century hospital life. Together they illustrate a very different organism, which has strong similarities to the assembly line of factories. The industrialisation of hospital medicine was retarded in comparison to the adoption of this mode of production in other areas of twentieth century life. How much of this is explained by the fact that hospitals produced services rather than products is difficult to say. However both David Theodore and Sally Sheard’s chapters show how nursing processes and patient experiences became ‘standardised’, often in search of the same elusive goals of efficiency and effectiveness.

They also illuminate hospitals as sites of resistance – in which tradition and culture could be significant barriers to change. Theodore's comment that 'sometimes hospital life can change dramatically while the architectural form stays constant, and sometimes the inverse is true' is resonant for both of these wide-ranging chapters that look at the transformation of American and British hospitals in an era when hospital-based health care came to be seen as a universal human right.

Theodore uses architectural sources, especially the plans of hospital designers, to construct an alternative history in which hospital nursing emerges as a more complicated trajectory than is usually presented. The introduction of Taylorism and scientific management to hospitals in the post Second World War period – and especially the use of computers for patient notes, laboratory tests and ordering medicines – transformed the role of the nurse. Likewise, he shows how time and motion studies of nurses helped to shape the design of wards in new hospitals. There was a clear break with the nineteenth century Nightingale pavilion style in favour of small 8 bed units that offered more patient privacy, but often increased the distance that nurses had to walk. The new designs resulted from commissioned studies such as those by the British Nuffield Provincial Hospitals Trust. Nurses were filmed carrying out key duties such as changing beds and administering medicines. The researchers were keen to use the 'fattest possible nurses' in their studies to make sure that there would be adequate space between the beds. This acknowledgement that nurses were not a standard shape or size marked a significant departure from the ethos of pre-war scientific management. Instead, cybernetics dealt with the statistical possibilities for a whole set of outcomes rather than a concern for generating a standardised form. However, there were concerns that the new operations research methodologies would not be able to measure the traditional values of nursing such as care-giving. The 'professionalisation' of nursing, which improved nurses working lives, also risked transforming them into 'assembly-line' type workers in the pursuit of efficiency and effectiveness. Nurses were undoubtedly now part of the bigger machine: the *machine à guérir* (the 'curing machine'). But where did patients fit within this twentieth century creation?

One of the individuals discussed by Theodore is the hospital designer Gordon Friesen, who expressed concern in the 1950s that automated hospitals risked turning people into machine-processed objects. Friesen advocated that ‘The design “team” must insure that the *services*, but not the patient, are on the assembly line.’<sup>16</sup> Ironically, as Sally Sheard shows in her essay, less than a decade later, the British health economist T.E. Chester was advocating using patients as ‘tracers’ within the hospital to identify where there were systematic weaknesses: making an overt analogy to a car factory and its production line. Sheard’s essay is concerned with the process of post-surgical recovery – traditionally called convalescence – although this term (and the practice) is no longer in fashion. She explores various factors that have contributed to a medicalisation of convalescence, and pressures to make the process more efficient and ‘faster’. The medical profession, in both Europe and America, albeit not always in synchronisation, moved to make it a more active experience in two senses: introducing early ambulation after surgery, and using exercises and dietary supplements to reduce the length of hospital stays. The medical literature on both sides of the Atlantic shows distinct peaks and troughs on this topic, linked to biomedical research stimulated by war-time needs and the pressures of economic recessions.

Despite an increasing understanding of the physiological and psychological markers of convalescence, which showed that it was a ‘real’ process, it became a marginalised activity in Britain, partly because the majority of private convalescent hospitals were not incorporated within the new National Health Service in 1948. During the second half of the twentieth century hospitals aimed at shorter lengths of stay, aided by more sophisticated data collection such as the Hospital Activity Analysis of the 1980s. By the end of the twentieth century, in-patient hospital stays in both Europe and the USA now appeared to be driven as much by economic imperatives as by medical authority.

16 Gordon Friesen, ‘Automation in Hospital Design’, *Architectural Design* (January 1961), 9; emphasis in the original.

'Efficiency' and 'effectiveness' are terms most usually associated with twentieth century 'modern' hospitals. They are central to Sheard's analysis of convalescence and length of hospital stay, and to Theodore's exploration of changes in hospital designs and nursing routines. Yet they are also applicable to earlier periods of hospital history, as shown by Belmas and Løkke. Even Abreu and Arrizabalaga note the custom in Spanish and Portuguese early modern hospitals of grouping patients in wards according to their diagnoses, which must have been prompted more by efficiency of treatment regimes (such as for the tricky application of guaiac for syphilis) than for the educational benefit of medical students. They illustrate the challenges of defining clear periods in hospital history.

This volume is not primarily concerned with defining hospitals by their patient types, funding mechanisms or even their broad purpose.<sup>17</sup> Hospital historiography in many countries has been dominated by a quantitative approach, which can exploit long-run data series on patient admissions, but cannot grasp the lived reality, and how these institutions formed part of wider networks of care. Instead it looks for similarities and differences in hospital life, and especially of how theories are shaped by practical needs. What emerges from this volume is a clearer understanding of how *fluid* hospital life can be – constant change in response to various influences. Some of this change is planned, deliberate. Belmas echoes Colin Jones in seeing large state-funded military hospitals as laboratories for medical experimentation.<sup>18</sup> Likewise, Kenny shows how the small, private American slave hospitals adapted to changing demands for slave health, and Hawkins and Tanner illustrate that British paediatric hospitals consciously manipulated their admission rules in response to the concerns of their benefactors.

All countries are united in their experience of growing demand for hospital treatment from the mid-nineteenth century, and a widening of patient types away from the 'deserving poor', and those other marginal groups that

17 For discussion of this aspect see Guenter B. Risse, 'Before the Clinic Was "Born": Methodological Perspectives in Hospital History', in Finzsch and Jütte, *Institutions of Confinement*, 75–6.

18 Colin Jones, 'The Construction of the Patient in Early Modern France', in Finzsch and Jütte, *Institutions of Confinement*, 68.

were such a key component of the medieval and early-modern hospitals.<sup>19</sup> In England and Wales there was a fourfold increase in the number of hospital beds between 1861 and 1938.<sup>20</sup> But although developed countries still spend the majority of their health care budgets on secondary (hospital) care, the physical space devoted to hospitals has changed considerably in the last forty years. New hospital designs expect patients to stay a very short time – sometimes often less than a day, even for surgery. Not only are beds less a feature of the modern hospital, but hospitals are less often a feature of the urban landscape. In England and Wales 187 hospitals were closed between 1982 and 1988 (10 per cent of the total), and available beds cut by 29 per cent.<sup>21</sup> It is no surprise that these reforms to the hospital sector followed one of the worst economic recessions of recent times, and coincided with discontent among hospital staff. British nurses held their first ever strike in 1987, and hospital doctors have several times threatened to work to contract. There have been numerous scandals, not just in British hospitals, about working practices and treatment of patients. We have seen a resurgence of hospital acquired infections that would have been familiar to Saxtorph and Semmelweiss, and have had to revisit Nightingale's lessons on hospital hygiene and the importance of restricting visitors to maintain a healthy environment.

Hospital management has passed from the hands of clergy and governors, briefly into a period of medical control in the twentieth century, before the arrival of the professional (and usually non-medical) hospital manager of the late twentieth century. This has been driven not by changes

- 19 There is a vast literature on pre-modern patient types. See for example Jean-Pierre Gutton, *La société et les pauvres en europe (XVIe–XVIIIe siècles)* (Paris: Presses Universitaires de France, 1974); Pedro Carasa Soto, *Pauperismo y revolución burguesa (Burgos, 1750–1900)* (Valladolid: Universidad de Valladolid, Secretariado de Publicaciones, 1987); Colin Jones, *The charitable imperative: hospitals and nursing in ancien régime and revolutionary France* (London-New York: Routledge, 1989).
- 20 Hilary Marland, 'The Changing Role of the Hospital, 1800–1939', in D. Brunton (ed.), *Medicine Transformed: Health Disease and Society in Europe 1800–1930* (Manchester: Manchester University Press, 2004), 239.
- 21 Brian Abel-Smith, *Cost containment and new priorities in health care: a study of the European Community* (Aldershot: Avebury, 1992), 107.

in medical knowledge but by medical economics – a return to management by balance sheets. Bonfield and Dross' chapters illustrated that balancing income and expenditure was one of the main concerns for medieval and early modern hospitals. Concerns about costs have never been far from the consciousness of hospital managers, but as hospital care came to be seen as a right, the pressure put on supply could not be managed simply by restricting demand. By the 1970s escalating hospital costs facilitated a return to non-medical hospital management, and developed countries looked to management consultancy firms for advice. Parallel to shifting some of the cost of hospital care from the state to the individual has been the sophistication of internal hospital management practices, made possible by the arrival of computer technologies. This enabled evaluations of the quality as well as the quantity of medical care being delivered, and further systematised another aspect of hospital life. Avedis Donabedian's seminal paper in *Milbank Memorial Fund Quarterly* in 1966 marks the consolidation of these new concerns.<sup>22</sup> His model proposed a three category analysis of 'structure', 'process' and 'outcomes'. Such overt analysis of what went on inside hospitals enabled the creation of Diagnostic-Related Groups [DRGs], which allowed specific medical treatments to be more accurately costed, and then those costs passed on to external funders. Progressive Patient Care was developed in response to increasing pressures on American hospitals, which was touted as being able to 'place the right patient in the right bed to receive the right treatment for the right length of time.'<sup>23</sup> New data sources also allowed the development in the 1980s in the USA of Medicare's Prospective Payment System [PPS], which has transformed the way in which hospitals managed patient hospital stays.

These chapters – as disparate as they are – help to further consolidate the successful case-study approach to hospital history, as recognised by the editors of the first volume of collected chapters produced by the

22 Avedis Donabedian, 'Evaluating the Quality of Medical Care', *Milbank Memorial Fund Quarterly* 4 (1966), 166–206.

23 John Thompson and Grace Goldin, *The Hospital: A Social and Architectural History* (New Haven Conn.: Yale University Press, 1975), 314.

International Network for the History of Hospitals in 2007. This was the most ambitious set of chapters since the 1989 volume edited by Lindsay Granshaw and Roy Porter.<sup>24</sup> Henderson, Horden and Pastore caution against the assumption that true hospitals are medicalised and require the presence of medical staff, and that there has been ‘a great “before” and “after” in hospital history; some pivotal period in which charity gives way to medicine, care to cure, stigma to pride, the mortuary to the recovery room, the poor to the middle classes.’ Their explanation for this style of history lies with the allegiances of their authors, who have ‘tended to exaggerate the difference of “before” and “after”, as if they are always engaged in dragging their particular hospitals from medieval darkness into modern light.’<sup>25</sup>

The chapters in this volume build on the recent historiographical revolution in medical history – the move from a preoccupation with doctors and treatments, to a more nuanced analysis of hospitals within their social, economic and cultural environments. The chapters here emphasise the importance of external events – price fluctuations, harvest failures, wars, epidemics, popular uprisings – which in turn increased demand for hospital care of all types: shelter and food for the poor, treatment for the diseased. The impact of such events is manifest in the ability of hospitals to bend their rules, and to respond to changes in emerging urban communities by collaborating with other agencies.<sup>26</sup> This interactive, situational approach to hospital history mirrors the emergence and application of general systems theory to contemporary hospitals, based on the biological analogy, to explain the *behaviour* of hospitals. They must interact with their environments to secure the resources necessary for survival, adaptation and

24 Granshaw and Porter, *The Hospital in History*.

25 John Henderson, Peregrine Horden and Alessandro Pastore, ‘Introduction’ in Henderson, Horden and Pastore, *The Impact of Hospitals 300–2000*, 32–3.

26 Cf. Marina Garbellotti, ‘Assets of the Poor, Assets if the City: The Management of Hospital Resources in Verona between the Sixteenth and Eighteenth Centuries’, in Henderson, Horden and Pastore, *The Impact of Hospitals, 300–2000*, 118–119. Although it is recognised that women were the main beneficiaries of early-modern out-door poor relief, and for that reason they were less likely to enter hospitals, there are no studies as yet that look at the dynamics of this gender-based care.

growth.<sup>27</sup> Further, these chapters seek not only to provide narrative case studies, but to examine the tension between theory and practice – an area of medical history identified in the 1960s by Ackerknecht as neglected, but one that has proved remarkably hard to penetrate.<sup>28</sup> These tensions emerge as continuities from the medieval to the modern – the timeless adaptation of ideals to meeting everyday demands.<sup>29</sup> Are we on the tipping point of being able to define a hospital as a location or a set of practices? Britain stopped counting ‘hospitals’ in 1992, and now publishes statistics on the activities of hospital *trusts* – often spread across multiple sites. In the United States hospital activities now include the provision of rehabilitation and post-discharge care under schemes with names such as ‘hospital without walls’ and ‘hospital at home.’<sup>30</sup> The only remaining certainty is the patient.

- 27 Martin McKee and Judith Healy (eds), *Hospitals in a changing Europe* (Buckingham: Open University Press, 2002), 11.
- 28 Erwin H. Ackerknecht, ‘A plea of a “behaviourist” Approach in Writing the History of Medicine’, *Journal of the History of Medicine and Allied Sciences* 22 (1967), 211–214. See also a review of subsequent historiography that has used patient records to address Ackerknecht’s plea: Guenter Risse and John Harley Warner, ‘Reconstructing Clinical Activities: Patient Records in Medical History’, *Social History of Medicine* 5/2 (1992), 183–205.
- 29 For a good example of the tension between public and private science see Gerald L. Geison, *The Private Science of Louis Pasteur* (Princeton: Princeton University Press, 1995).
- 30 M. Hensher and N. Edwards, ‘Hospital provision, activity and productivity in England since the 1980s’, *British Medical Journal* 319 (1999), 911–914; M. Hensher, N. Edwards and R. Stokes, ‘International trends in the provision and utilisation of hospital care’, *British Medical Journal* 319 (1999), 845–848.



CHRISTOPHER BONFIELD

## Therapeutic Regime for Bodily Health in Medieval English Hospitals

Few medical historians would now accept the idea that most European hospitals before the sixteenth century showed, either in theory or practice, 'little careful thought for the comfort, cleanliness, or, ironically, health of the patients.'<sup>1</sup> Even so, those who have studied medieval English hospitals have focused primarily on the spiritual rather than physical life of patients.<sup>2</sup> It has been argued that in their ideal form, hospitals were quasi-monastic religious institutions that prioritised sacramental care and, specifically, the provision of *Medicina sacramentalis* (the medicine of the soul).<sup>3</sup> The latter has recently been termed the 'true' medicine of hospitals which, unlike

- 1 Timothy S. Miller, *The Birth of the Hospital in the Byzantine Empire* (Baltimore: John Hopkins University Press, 1985), 6.
- 2 For instance: Carole Rawcliffe, *Medicine for the Soul: The Life, Death and Resurrection of an English Medieval Hospital* (Stroud: Sutton Publishing, 1999); Carole Rawcliffe, 'Medicine for the Soul: The Medieval English Hospital and the Quest for Spiritual Health', in John R. Hinnells and Roy Porter, eds, *Religion, Health and Suffering* (London: Kegan Paul International, 1999), 316–338; John Henderson, *The Renaissance Hospital: Healing the Body and Healing the Soul* (London: Yale University Press, 2006); John Henderson, 'The Hospitals of Late-Medieval and Renaissance Florence: A Preliminary Survey', in Lindsay Granshaw and Roy Porter, eds, *The Hospital in History* (London: Routledge, 1989), 63–92.
- 3 Peregrine Horden, 'A Non-Natural Environment: Medicine without Doctors and the Medieval European Hospital', in Barbara S. Bowers, ed., *The Medieval Hospital and Medical Practice* (Aldershot: Ashgate, 2007), 133–146. See also Carole Rawcliffe, 'Christ the Physician Walks the Wards: Celestial Therapeutics in the Medieval Hospital', in Matthew Davies and Andrew Prescott, eds, *London and the Kingdom: Essays in Honour of Caroline Baron* (Donington: Paul Watkins Publishing, 2008), 78–97.

drugs or invasive surgery, did not require the presence of physicians or surgeons yet could potentially affect the body.<sup>4</sup>

To some extent, this approach has either ignored, or marginalised, the measures that patrons and founders put in place for a regime for *bodily* health. Indeed, this chapter, set within the wider context of medicine and therapeutics, will hopefully provide a useful supplement to recent work by offering a more balanced and complete picture of the theory and practice of patient welfare in hospitals wards. In particular, it will gather evidence of the provision of therapeutic measures such as fresh food, clean bedding, change of clothing and a hygienic environment. This approach raises the question of whether it is useful to distinguish between ‘care’ and ‘cure’; the former being interpreted as the preservation of bodily and spiritual health, and the latter as a medical ‘triumph’ over disease and sin. Indeed, hospital records of the period rarely make a clear distinction between the two terms.<sup>5</sup> Furthermore, it is seldom helpful to determine whether or not Galenic therapeutics (or medieval medicine in general) actually worked in practice.<sup>6</sup> The medieval English hospital was not an emergency department, and we do not witness a ‘victory of cure over care, of doctors over nurses, and [...] treatment over regimen.’<sup>7</sup> Rather, medicine for the soul, and I would argue also therapeutics such as diet and cleanliness, took precedence over drugs in a reversal of our own twenty-first century priorities.

Consequently, there is no attempt here to equate directly therapeutics with medicalised treatments and procedures (hence the reason why this

4 Horden, ‘Non-Natural Environment’, 141. See also Katharine Park and John Henderson, ‘“The First Hospital among Christians”: The Ospedale di Santa Maria Nuova in Early Sixteenth-Century Florence’, *Medical History* 35 (1991), 164–188.

5 Park and Henderson, ‘The First Hospital’, 173.

6 However, see John M. Riddle, ‘Research Procedures in Evaluating Medieval Medicine’, in Bowers, *The Medieval Hospital*, 3–19.

7 Peregrine Horden, ‘Religion as Medicine; Music as Medicine in Medieval Hospitals’, in Peter Biller and Joseph Ziegler, eds, *Religion and Medicine in the Middle Ages* (York: York Medieval Press, 2001), 135–153, on 138. See also Roberta Gilchrist, ‘The Archaeology of Life and Death in Later Medieval Hospitals’, in Steven Bassett, ed., *Death in Towns: Urban Responses to the Dying and the Dead, 100–1600* (London: Leicester University Press, 1992), 101–118, on 116.

chapter is not entitled *Medicine for the Body*). An initial investigation has, however, been undertaken to determine if therapeutics, as then understood, could, in theory at least, provide for the restoration of health and the palliation of illness (either partially or in full). The paper also prompts the question: was the therapeutic regime for bodily health as practiced in medieval hospitals 'healthy' and upon what (if any) medical theory was it based? It then focuses on the dietary provision in one particular hospital in London, reconstructing the diet of patients and comparing this to contemporary domestic and monastic practice. Finally, the supply and cleanliness of hospital bedding and clothing is examined, the emphasis being placed on morality and physical hygiene.

Evidence will be drawn from a representative sample of institutions, as well as three unusually well documented ones: St Giles, Norwich; St Anthony's, London; and St Leonard's, York. Built during the first wave of foundations, these open ward hospitals cared for the poor and sick of three of medieval England's largest cities.<sup>8</sup> St Giles, Norwich, for instance, was founded in 1249 by Bishop Walter de Suffield, who provided thirty beds and an additional dole of food and drink for thirteen paupers every day.<sup>9</sup> St Anthony's, erected in the thirteenth century in the heart of London on Threadneedle Street, was subsequently famous for its grammar school and its pigs, which were allowed to wonder freely among the streets, each identified by a bell.<sup>10</sup> Its inventory and other records, which provide a wealth of information about both routine and extraordinary expenses,

8 Orme and Webster, *English Hospital*, 15–32; Gilchrist, *Contemplation and Action*, 9.

9 Norfolk Record Office, DCN, 43/48. A facsimile of the foundation charter, and English translation, is available online: <http://www.thegreathospital.co.uk> (accessed on 10/03/2011). A printed translation can be found in Rawcliffe, *Medicine for the Soul*, pp. 241–248.

10 See David K. Maxfield, 'St Anthony's Hospital, London: A Pardoner-Supported Alien Priory, 1219–1461', in James L. Gillespie, ed., *The Age of Richard II* (Stroud: Sutton, 1997), 225–247; John Stow, *A Survey of London*, ed. Charles L. Kingsford, 2 vols (Oxford: Clarendon Press, 1908; reprint, 1971), 2: 120.

have remained relatively untapped.<sup>11</sup> St Leonard's, York, which was one of England's largest and richest hospitals, maintained 200 beds.<sup>12</sup> Its main purpose was to care for the poor, the sick, the old and infirm.<sup>13</sup>

## Medieval therapeutics

Arriving at a precise definition of the term medieval therapeutics, which can be applied in the context of this chapter, is no easy task. Yet, to the historian of medicine, the history of therapeutics is a central topic that demands closer inspection.<sup>14</sup> The chief problem that arises is how the term can be applied to the theory and practice of healing adopted in the past.

- 11 For the inventory of the hospital, see Rose Graham, 'The Order of St Antoine de Viennois and its English Commandery, St Anthony's Threadneedle Street', *Archaeological Journal* 84 (1927), 341–406, on 396–400. Also see St George's Chapel, Windsor: MSS XV. 37.8, 21, 23, 25, 27, 33; John N. Dalton, ed., *The Manuscripts of St George's Chapel, Windsor Castle* (Windsor: Oxley & Son, 1957), 275–281.
- 12 See the following: Patricia H. Cullum, *Cremetts and Corrodies: Care of the Poor and Sick at St Leonard's Hospital, York in the Middle Ages* (York: University of York, 1991): 'St Leonard's Hospital, York in 1287', in David M. Smith, ed., *The Church in Medieval York: Records Edited in Honour of Professor Barrie Dobson* (York: University of York, 1999).
- 13 Cullum, *Cremetts and Corrodies*, 7. Margaret Seymour has edited three visitation reports (1376, 1399 and 1402) of the hospital; Margaret A. Seymour, 'The Organisation, Personnel and Functions of the Medieval Hospital in the Later Middle Ages' (MA thesis, University of London, 1947); appendix two, 344–354 (Public Records Office, Chancery Miscellanea, Bundle 20, File 1, No. 6); appendix three, 356–368 (Public Records Office, Chancery Miscellanea, Bundle 20, File 3, No. 2); appendix five, 369–376 (Public Records Office, Chancery Miscellanea, Bundle 20, File 3, No. 13).
- 14 See Vivian Nutton, 'Introduction', in Yosio Kawakita, Shizu Sakai and Yasuo Ostuka, eds, *History of Therapy: Proceedings of the 10th International Symposium on the Comparative History of Medicine – East and West. September 8–September 15, 1985* (Tokyo; Ishiyaku EuroAmerica, Inc., 1990), ix–xviii, on ix.

Therapeutics is a culturally determined activity and in many cases the definition can vary widely depending on the society and century.<sup>15</sup> For instance, the *Oxford English Dictionary* defines therapeutics as ‘the art of healing’; and although this branch of medicine was concerned with the remedial treatment of disease, the study of its history none the less has been narrowly restricted to the treatments themselves, when it ought to be set in the entire context of medical practice.<sup>16</sup> Galen’s works on therapeutics, for example, primarily discussed the preparation of medicines and the treatment of specific diseases.<sup>17</sup> However, the success of any therapeutic medicine depended on the nature of disease, and how both the medicine and disease altered the physiological components of the body. It will be useful to recap some of the underlying theoretical assumptions of the body shared by physicians here.

In the earlier Hippocratic treatise *De natura hominis* (*On the Nature of Man*), it was argued that the body owed its existence and growth to an admixture of four humours: sanguine (hot and wet); choleric (hot and dry); phlegmatic (cold and wet); and melancholic (cold and dry).<sup>18</sup> As humoral imbalance appeared to be responsible for disease, maintaining a state of equilibrium was of vital importance. The all-pervasive Classical doctrine of health hinged upon the avoidance of *dyscrasia* or excessive imbalance, the

15 Nutton, ‘Introduction’, ix.

16 [http://dictionary.oed.com/cgi/entry/50250722/50250722se1?single=1&query\\_type=word&queryword=therapeutics&first=1&max\\_to\\_show=10&hilite=50250722se1](http://dictionary.oed.com/cgi/entry/50250722/50250722se1?single=1&query_type=word&queryword=therapeutics&first=1&max_to_show=10&hilite=50250722se1) (accessed on 10/02/2012); Guenter B. Risse, ‘The History of Therapeutics’, in William F. Bynum and Vivian Nutton, eds, *Essays in the History of Therapeutics* (Amsterdam: Rodopi, 1991), 3–11, on 5–6.

17 See Alain Touwaide, ‘Byzantine Hospital Manuals (*Iatrosophia*) as a Source for the Study of Therapeutics’, in Bowers, *The Medieval Hospital*, 147–165 (esp. 147, 158); and Touwaide, ‘La thérapeutique médicamenteuse de Dioscoride à Galien: du pharmaco-centrisme au medico-centrisme’, in Armelle Debru, ed., *Galen on Pharmacology. Philosophy, History and Medicine: Proceedings of the 5th International Galen Colloquium, Lille, 16–18 March 1995* (Leiden: Brill Academic Publishers, 1997), 255–282.

18 *Œuvres complètes d’Hippocrate*, ed. Émile Littré, 10 vols (Paris: Ballière, 1839–1861; reprint Amsterdam: Adolf M. Hakkert, 1961–1982), VI (1962), 39–40.

favoured means of achieving which was through diet or a broader *regimen* of health.<sup>19</sup> In the treatise *De regimine sanitatis*, for instance, Galen (d. c.129 AD) offered a holistic approach to health, recommending that one should moderate the *sex res non naturales* (six non-naturals).<sup>20</sup> The latter included such essentials to survival as diet (the first instrument of medicine), the retention and elimination of bodily fluids (through activities ranging from sex to purgation and phlebotomy), environment, exercise, rest and the psychological state of the individual. This theoretical and practical approach to self-help was an appealing one, which ‘provided the conceptual frame for [...] medical writing directly concerned with health and its preservation’, and gave rise to an overtly therapeutical body of literature, as exemplified by the appearance of numerous medieval *regimina sanitatis*.<sup>21</sup>

It does not necessarily follow that hospital rules, however apparently informed in theoretical matters of hygiene and diet, demonstrated more than a casual awareness of ideas about the six non-naturals, or that the practical, day-to-day, implementation of the *regimen*, or associated texts, ‘inevitably formed part of a hospital founder’s plan, unless that founder was an educated physician.’<sup>22</sup> At present, we cannot establish if there was a

- 19 In the Middle English Gilbertus Anglicus, diet was used to correct an imbalance of the humours: *Healing and Society in Medieval England: A Middle English Translation of the Pharmaceutical Writings of Gilbertus Anglicus*, ed. Faye Marie Getz (Madison: University of Wisconsin Press, 1991), f. 49, 2.
- 20 Pedro Gil-Sotres, ‘The Regimens of Health’, in Mirko D. Grmek (ed.) and Anthony Shugaar (trans.), *Western Medical Thought from Antiquity to the Middle Ages* (London: Harvard University Press, 1998), 291–318, on 302–314; Luis García-Ballester, *Galen and Galenism: Theory and Medical Practice from Antiquity to the European Renaissance*, in Jon Arrizabalaga *et al.*, eds (Aldershot: Ashgate, 2002) pt. 4, 105–115, and pt. 6, 127–135. See also Marilyn Nicoud, *Les régimes de santé au Moyen Âge: naissance et diffusion d’une écriture médicale (13e-15e siècle)* (Rome, 2007).
- 21 Luis García-Ballester, ‘Dietetic and Pharmacological Therapy: A Dilemma Among Fourteenth-Century Jewish Practitioners in the Montpellier Area’, in Kawakita, Sakai and Ostuka, *History of Therapy*, 23–38, on 24. It is important to note that these works were initially directed at the rich, although in the later Middle Ages, copies also appeared in the vernacular.
- 22 Gil-Sotres, ‘Regimens of Health’, 291–318; Christopher A. Bonfield, ‘The *regimen sanitatis* and its Dissemination in England, c. 1348–1550’ (PhD, University of East Anglia, 2006), chapter 1.

direct connection (or perhaps even *disconnection*) between contemporary medical advice and therapeutics as practised in medieval English hospitals.<sup>23</sup> Indeed, our best approach might be to adopt Peregrine Horden's recommendation that any investigation of health and treatment in hospitals should extend 'beyond religion', and that, at least potentially, these institutions offered 'a *total non-natural environment*' in which therapeutics, as understood at that time, might work directly or indirectly on the body.<sup>24</sup>

In this context, it is worth asking if founders and patrons ever intended to provide for the *restoration* of physical health. It is clear that some institutions expressed an interest in patient recovery, if only to ensure a quick turnover of inmates.<sup>25</sup> At St Leonard's, York, for instance, the evidence 'suggests that there was considerable need for [...] beds and that there was pressure on the hospital to get people in and out as quickly as possible.'<sup>26</sup> The statutes of St Paul's hospital, Norwich, compiled in the first half of the thirteenth century, declared that the 'sick and infirm, and child-bearing poor [...] shall be fed [...] while they are sick. And when they have grown strong [...] they shall depart in peace.'<sup>27</sup> Likewise, the founder of the nearby hospital of St Giles, Bishop Walter Suffield, introduced a scheme which ensured that 'any poor man beset by illness [...] would be] taken care of honestly and appropriately as befits his illness, until he is restored to health.'<sup>28</sup>

23 In fact, only one medieval English hospital, St Mary Elsing, Cripplegate in London, appears to have owned its own copy: the *Secreta secretorum* (*Secret of Secrets*): Carole Rawcliffe, 'The Eighth Comfortable Work: Education and the Medieval English Hospital', in Caroline M. Barron and Jenny Stratford, eds, *The Church and Learning in Later Medieval Society: Essays in Honour of R.B. Dobson* (Donington: Shaun Tyas, 2002), 371–398, on 390.

24 Horden, 'Non-Natural Environment', 144.

25 A significant number of fifteenth-century almshouses, for instance, 'instituted measures for the prompt removal of lepers and anyone else who posed a risk to health': Carole Rawcliffe, *Leprosy in Medieval England* (Woodbridge: Boydell Press, 2006), 277.

26 Cullum, *Cremetts and Corrodies*, 13–14.

27 Norfolk Record Office, DCN 2/5/8; Edward H. Carter, 'The Constitutions of the Hospital of St Paul (Normanspitel) in Norwich', *Norfolk Archaeology* 22 (1935), 342–358, on 350.

28 Norfolk Record Office, DCN 43/48.

Henry, Earl of Lancaster and Leicester, enacted similar provisions at St Mary's, Leicester, in 1300–1301,<sup>29</sup> although an episcopal visitation in 1525 complained that the 'founder's pious will has been sorely wounded as regards the admission of the hundred poor folk'.<sup>30</sup> The rich were being admitted instead, and the strong given precedence over the weak. This abuse was contrary to the foundation statute, which has clearly stipulated that 'If any of the poor folk have so recovered from his infirmity that by his toil he can get him victuals and raiment, let him be expelled [...] and another weak man and poor be supplied in his stead'.<sup>31</sup> Following a visitation in 1316 of St Bartholomew's hospital, London, Gilbert Segrave, Bishop of London, was also forced to remind the brothers and sisters that they should attend to the needs of the sick poor.<sup>32</sup> Significantly, he ordered that patients were not to be discharged until they had been restored to health.<sup>33</sup>

Not surprisingly, the optimistic expectations of benefactors sometimes differed from the actual practice documented by visitation reports. A further obstacle to assessing attitudes to patient recovery is that surviving documents do not specify if health was to be brought about solely by spiritual medicine, or in tandem with the application of physical therapeutics. It is also hard to ascertain if a therapeutic regime was simply intended to benefit the sick, or to be applied more generally within an institution. By far the biggest challenge, however, is that most English hospitals have left behind tantalisingly few records which reveal the extent to which the bodily needs of inmates were addressed.<sup>34</sup> Due to the wholesale destruction

29 Alexander H. Thompson, *The History of the Hospital and the New College of the Annunciation of St Mary in the Newarke, Leicester* (Leicester: E. Backus, 1937), 17.

30 Thompson, *History of the Hospital*, 184.

31 Thompson, *History of the Hospital*, 46.

32 *Registrum Radulphi Baldock, Gilberti Segrave, Ricardi Newport, et Stephani Gravesend, Episcoporum Londoniensium*, ed. and trans. Robert. C. Fowler (London: Canterbury and York Society, vol. 7, 1911), 191.

33 Fowler, *Registrum*, 191. The statutes of many *leprosaria* also reveal that there was 'a lively concern about the physical welfare of patients': Rawcliffe, *Leprosy*, 210, 324–337.

34 Cullum, *Cremetts and Corrodies*, 1. Carole Rawcliffe has examined the wholesale loss of hospital records since the Middle Ages: 'Passports to Paradise: How English Medieval Hospitals and Almshouses kept their Archives', *Archives* 27 (2002), 1–22.



of hospital archives during and after the Dissolution of the Monasteries, many records were lost and it is impossible to recover the amount of detail found in the accounts and day books of continental hospitals such as Santa Maria Nuova, Florence, and St John's, Bruges.

It is also necessary to bear in mind that medieval English hospitals were themselves too diverse to allow for easy generalizations.<sup>35</sup> For certain, well over a thousand medieval English hospitals and almshouses have been identified to date, and previous studies have documented two main phases of foundation: a period from the late eleventh to the early fourteenth century dominated by *leprosaria*, refuges for travellers and open ward hospitals; and a later one from the fourteenth century to the sixteenth when almshouses flourished.<sup>36</sup> Older institutions, such as St Leonard's, York, tended to be richer, larger and quasi-monastic in nature, whilst more recent almshouses, such as Whittington's in London, were usually based on a collegiate plan with separate dwellings.<sup>37</sup>

All of the points raised above pose a significant challenge to anyone who seeks to piece together a picture of a therapeutic regime as practiced in medieval English hospitals. Yet, although the documentary material is scarce and fragmentary, this aspect of hospital daily life deserves our fullest attention. Indeed, a close reading of the available evidence reveals that, in theory at least, medieval English hospitals did not neglect their patient's bodily health; and that a good diet or regular supply of clean water was a matter of concern to patrons and benefactors. Consequently, this chapter will investigate more fully the therapeutics offered in these institutions, and how this contributed to a religio-therapeutic environment which could nourish both body and soul.

35 See David Knowles and Richard N. Hadcock, *Medieval Religious Houses: England and Wales* (London: Longman, 1971), 310–410.

36 Orme and Webster, *The English Hospital*, 15–32; Roberta Gilchrist, *Contemplation and Action: The Other Monasticism* (London: Leicester University Press, 1995), 9.

37 Carlin, 'Medieval English Hospitals', 1. The ordinances of Whittington's Almshouse expected inmates to be 'meek of spirit and destitute of temporell goodes ... chaste of ... body and named of good conversacion': Jean Imray, *The Charity of Richard Whittington: A History of the Trust Administered by the Mercer's Company 1424–1966* (London: Athlone, 1968), 114.

## Diet

The theoretical dividing line between ‘food’ and ‘medicine’ was one which no medieval physician (or cook) would ever have drawn, not least because eating the wrong type of food, or failing to digest even the right type properly, could easily upset a patient’s humoral balance. According to medieval medical theory, when food entered the body it passed through a series of digestive processes, most notably in the liver, where it was transformed into humoral matter and blood. Blood, whose principal dwelling place was ‘in the liuer and herte’,<sup>38</sup> transported heat and nourishment around the body.<sup>39</sup> Some of this nutritive liquid passed from the liver (home of the natural spirit) through the heart (home of the vital spirit) into the arteries, whence it transported a special life-giving substance called *pneuma* to the brain (home of the animal spirit).<sup>40</sup> Arterial blood was special, as it contained air from the lungs which rendered it ‘more hot, more sotile, more red, more clere, and swete in sauour’.<sup>41</sup> It was a source of heat, and thus of life itself. Blood was a particularly vulnerable substance, however, and, like the other humors, was at its best when the body was fed by a temperate diet and energised by moderate exercise. In order to keep the blood supply at a healthy level, regular bloodletting was advised ‘as part of a normally healthy regimen’.<sup>42</sup> In fact, some hospitals and monastic *leprosaria* are known to have phlebotomised their clerical brethren (if not also the sick inmates),

38 Cambridge University Library, MS li.6.17, ff. 5v–6r.

39 As a fifteenth-century guide to health observed, ‘the blood is moystep which noryche þe lyffe’: British Library, London, MS Sloane 706, f. 95r.

40 Nancy G. Siraisi, *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice* (London: University of Chicago Press, 1990), 108–109.

41 Bartholomaeus Anglicus, *On the properties of things: John Trevisa’s Translation (from the Latin) of Bartholomaeus Anglicus ‘De proprietatibus rerum’*, ed. Michael C. Seymour, 3 vols (Oxford: Clarendon Press, 1975), 1: bk. 4, 159.

42 Linda E. Voigts and Michael R. McVaugh, *A Latin Technical Phlebotomy and its Middle English Translation* (Philadelphia: American Philosophical Society, 1984), 5.

and, after this routine surgical procedure had taken place, to have allowed them to rest and enjoy a special diet.<sup>43</sup>

At St Anthony's, London, we are unusually fortunate in being able to reconstruct a clear picture of what meat, fish, dairy products and other foodstuffs were purchased daily during the late-fifteenth and early-sixteenth century, how much the hospital paid for these provisions, and for whom they were intended.<sup>44</sup> An examination of the accounts reveals that 'clear distinctions were maintained between the almsmen, patients and children ('the hospital') and members of the clerical establishment ('the hall').<sup>45</sup> As we shall see, the diet of the hall and hospital was often a class-based one, and not everyone ate the same food. It should also be stressed that, in keeping with practice in aristocratic households and ecclesiastical communities, the hospital observed meat days on Monday, Tuesday, Thursday and Sunday, and fast (that is fish) days on Fridays and Saturdays. On Wednesdays, the average expenditure on meat was equal to that of fish.<sup>46</sup>

In order to analyse the information in the accounts more effectively, a database has been created from a typical sample covering the quarter 1 July to 28 September 1495 (MS Windsor, XV.37.8, ff. 2r–13r). This particular account has been chosen because the distinction between hall and hospital becomes less clear after *c.* 1500 when, in fact, it would appear that almsmen rather than the sick poor were being cared for; and, even before that date, the accounts do not always specify for whom each item was purchased.<sup>47</sup>

43 Successful bloodletting depended on a number of important factors, including the phase of the lunar cycle, as well as the habits, age and strength of the individuals: Voigts and McVaugh, *Latin Technical Phlebotomy*, 54.

44 After a series of upheavals during the early fifteenth century, St Leonard's, York, was annexed by the Crown and appropriated to the college of St George, Windsor, in 1475.

45 Rawcliffe, *Medicine for the Soul*, 179.

46 Christopher Dyer, *Everyday Life in Medieval England* (London: Cambridge University Press, 2000), 86; Christopher M. Woolgar, 'Group Diets in Late Medieval England', in Woolgar, Dale Serjeantson and Tony Waldron, eds, *Food in Medieval England: Diet and Nutrition* (Oxford: Oxford University Press, 2006), 191–200, on 192.

47 See *The Victoria History of London*, ed. William Page (1909), vol. 1, 583 (n. 45).

In such circumstances, the intended recipient has either been listed in the database under the heading ‘not specified’ or ‘both’, the latter indicating a dish that was shared between the hall and the hospital.

Although the accounts are particularly rich and detailed, it has not been possible to study individual diets, or comment with any degree of accuracy on the contribution of different foodstuffs to the calorific intake of patients, as Barbara Harvey has done for the monks of Westminster abbey or Christopher Woolgar for the members of large lay and ecclesiastical households.<sup>48</sup> Harvey has shown, for instance, that the *per capita* diet, outside Advent and Lent, of the monks at Westminster *c.* 1495–1525, consisted of 6,207 kcal (this included 340 grams of protein, 185 grams of fat and 558 grams of carbohydrate).<sup>49</sup> In contrast, at St Anthony’s hospital, exact quantities of food were sporadically recorded, and precise numbers of staff and inmates in the hospital at any one time are unclear – we do not have a record of occupant numbers. Consequently, estimating *per capita* consumption is virtually impossible as we do not know, with any accuracy, the numbers of patients these foodstuffs were intended to feed; even the quantities are, at times, vague. Instead, we will first examine the total expenditure on all foodstuffs, before paying closer attention to the different type and cost of those items served to the hall and hospital at dinner and supper.

The account in question covers ninety-two days and records a total expenditure of £29 15s. 11d.<sup>50</sup> A similar amount was spent every quarter, giving an annual outlay (Midsummer 1494 – Midsummer 1495) on daily

48 Barbara F. Harvey, *Living and Dying in England, 1100–1540: The Monastic Experience* (Oxford: Clarendon Press, 1993); Christopher M. Woolgar, *The Great Household in Late Medieval England* (New Haven: Yale University Press, 1999); Christopher M. Woolgar, ‘Fast and Feast: Conspicuous Consumption and the Diet of the Nobility in the Fifteenth Century’, in Michael Hicks, ed., *Revolution and Consumption in Late Medieval England* (Woodbridge: The Boydell Press, 2001), 7–25.

49 Harvey, *Living and Dying in England*, Table II.4, 64.

50 *S.*, *d* and *ob.* are standard abbreviations for pre-decimalised British currency in the Middle Ages. *S.* stands for shillings, *d.* for *denarius* – (or pence) –, and *ob.* means *obulum* (or half pence).

expenses of £127 16s. 5d. This is just over double the annual expenditure on similar items at St Giles' Norwich, between 1488–1489 (£59), yet it is substantially lower than comparative outgoings in a contemporary monastic house or a great household.<sup>51</sup>

The quarterly expenditure at St Anthony's, London, can be further analyzed to demonstrate how much was spent on meat, fish, pottage, eggs, dairy products, wine, fruit and herbs:

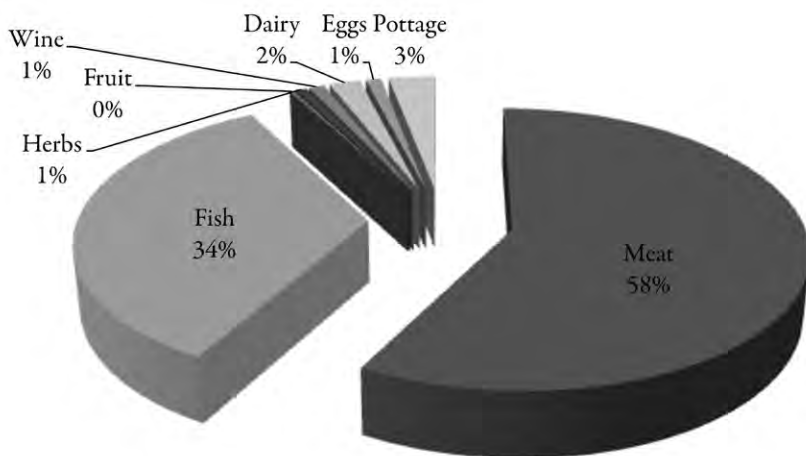


Figure 2.1 Estimated Total Expenditure at St Anthony's, London, for the Quarter 1 July to 28 September 1495.

51 Rawcliffe, *Medicine for the Soul*, Table A, 182. Between 1318 and 1375, St Giles', Norwich, is known to have spent about 53 per cent of total expenditure on dietary provision. In times of famine, as in 1519–1520, this figure could rise to a remarkable 76.8 per cent.

## Fruit, vegetables, herbs and spices

Fruit and vegetables cost just 1s. 7d. per quarter, which is not surprising, given that local garden produce could reach the table without being accounted for.<sup>52</sup> That said, at St Anthony's, London, which was established within the walls of London where space was at a premium, there was initially insufficient land for 'a garden for the recreation of the inmates, or to provide them with pot-herbs.'<sup>53</sup> Even after Henry VI made expansion possible, various herbs and vegetables had to be bought on a regular, if not daily, basis. By contrast, many other major suburban hospitals established gardens, orchards, fishponds and home farms, which enabled them to produce their own food and remedies.<sup>54</sup> The ten acre precinct of St Giles', Norwich, which, until the late fifteenth century, retained most of its pasture and meadows, boasted a 'patchwork of green space, courtyards, ponds and fruit trees.'<sup>55</sup> The hospital also cultivated a number of gardens which appear to have been very productive. During the fourteenth century surplus apples, pears, leeks, garlic, onions and honey were sold on the open market for a modest profit.<sup>56</sup> At the Savoy, London, which could afford a gardener who took orders from the matron, as well as from the physician and surgeon, herbs were specifically grown 'for the relief and refreshment of the poor.'<sup>57</sup>

52 See Harvey, *Living and Dying in England*, 33, 60–61. See also Woolgar, 'Fast and Feast'; Christopher C. Dyer, 'Gardens and Garden Produce in the Later Middle Ages', in Woolgar, Serjeantson and Waldron, *Food in Medieval England*, 27–40.

53 *Calendar of Patent Rolls 1423–1449* (London: HMSO, 1891), 517. Hereafter cited as *CPR*.

54 Rawcliffe, *Leprosy*, 327; Cullum, *Cremetts and Corrodies*, 14–15.

55 Rawcliffe, *Medicine for the Soul*, 51.

56 Carole Rawcliffe, *The Hospitals of Medieval Norwich* (Norwich: Centre of East Anglian Studies, 1995), 105; Rawcliffe, *Medicine for the Soul*, 52.

57 British Library, London, Cotton MS Cleopatra, C V, f. 11v. Gardens were also welcome pockets of green space that could promote a sense of well-being: Carole Rawcliffe, 'Gardens and Health in Late Medieval and Early Modern England' (forthcoming). See also Albertus Magnus, *De vegetabilibus libri VII*, ed. Ernest Meyer (Berlin: G. Reimeri, 1867), lib. VII, tract I, cap. XIV, 636–638.

The foreign expenses at St Anthony's, London, also reveal the purchase of spices, which boasted intrinsic medicinal qualities, predicated upon the ability to alter levels of heat and moisture within the body. These included saffron, cloves, mace, powdered ginger, cinnamon, lavender, pepper and mustard.<sup>58</sup> Mustard and pepper were also purgatives; saffron was a general prophylactic; almonds (which also appear in the accounts)<sup>59</sup> were believed to replicate the ideal humoral temperament.<sup>60</sup> These luxuries were, however, clearly reserved for the master, his guests and perhaps the senior clergy. As Woolgar states, 'the use of spices was a hallmark of cookery at the highest level'.<sup>61</sup>

## Dairy products, eggs and pottage

In common with monastic establishments and great households, St Anthony's, London, made extensive use of dairy products.<sup>62</sup> Milk, eggs and butter and were purchased every Saturday. Milk, which usually cost 3*s. ob.* for an unspecified amount, was especially good for 'te[m]perate bodies'; in fact, many hospitals are known to have kept their own dairy herds.<sup>63</sup> Eggs, which were a staple of the diet in a number of hospitals, cost 10*d.* per 100 and were consumed by everyone at supper.<sup>64</sup> Butter, at a

58 St George's Chapel, Windsor, MS XV. 37. 8, f. 14v (salt, saffron, sugar, cloves, mace, cinnamon, mustard, vinegar).

59 St George's Chapel, Windsor, MS XV. 37. 21, f. 11r (almonds).

60 Terence Scully, 'The Sick dish in Early French Recipe Collections', in Sheila D. Campbell, Bert Hall and David Klausner, eds, *Health, Disease and Healing in Medieval Culture* (Basingstoke: Macmillan, 1992), 132–40, on 137.

61 Woolgar, 'Fast and Feast', 20; Rawcliffe, *Medicine for the Soul*, 179.

62 Woolgar, *Great Household*, 128.

63 Bonfield, 'Regimen', 219.

64 The Westminster monks are also known to have eaten large quantities of eggs outside Lent: Harvey, *Living and Dying in England*, 61.

cost of 7*d.*, was frequently used for basting meat and in the preparation of common dishes.<sup>65</sup> Cheese does not feature in the account, although the foreign expenses for October – December 1484 do record a one-off payment of 8*d.* for cheese.<sup>66</sup> In comparison, the accountant at St Leonard's, York, for 1451–1452 set aside a designated allowance of 3¼*d.* every two months for cheese.<sup>67</sup>

During a typical week, the entire community also shared several dishes dish of pottage (a nutritious porridge of oats or rye to which bacon and vegetables would be added).<sup>68</sup> It was served on Mondays, Wednesdays and Thursdays (and occasionally on Fridays, when peas would be added) and each dish cost 5*d.* to produce (it is unclear how many people this was intended to feed). Apparently, as was the case at Westminster abbey, it was merely a preliminary or accompaniment to other courses; the hall would frequently consume both dinner and supper too.<sup>69</sup>

## Wine, ale and bread

Wine, which usually cost 8*d.* (we do not know for what quantity), was only served to the master and the hall at dinner and supper on special occasions and feasts.<sup>70</sup> As at St Giles, Norwich, it was not intended for general consumption; this was also true in other households, where wine was generally reserved for the highest echelons of aristocracy.<sup>71</sup> Ale, on the other hand,

65 St George's Chapel, Windsor, MS XV. 37. 8, f. 7r.

66 St George's Chapel, Windsor, MS XV. 37. 8, f. 14r.

67 Cullum, 'Cremetts and Corrodies', 17.

68 Pottage constituted a dietary staple among the medieval labouring classes: Christopher Dyer, *Standards of Living in the Later Middle Ages: Social Change in England, c. 1200–1520* (Cambridge: Cambridge University Press, 1989), 58, 64, 134, 157–158.

69 For example, St George's Chapel, Windsor, MS XV. 37. 8, f. 2r.

70 For example, St George's Chapel, Windsor, MS XV. 37. 8, ff. 6v–7r.

71 Woolgar, *Great Household*, 126; Rawcliffe, *Medicine for the Soul*, 180.



was presumably the common drink consumed by all the hospital, as it was in monastic houses and elsewhere.<sup>72</sup> Like bread, it was an important and rapidly absorbed source of energy and nourishment; neither, however, was factored into the daily expenses.<sup>73</sup> Instead, expenditure on both appeared after the total for the quarter, and before the foreign expenses.

In all, 98 barrels of ale and 18 quarters of wheat bread were purchased by St Anthony's, London at a cost of £16 17s. 2d.<sup>74</sup> At just over half the total expenditure for the quarter, this sum represented a significant outlay. One barrel of ale contained about 30 gallons and one quarter of wheat produced about 476lbs of bread.<sup>75</sup> On this reckoning, the house required 2,940 gallons of ale (or 32 gallons per day) and, assuming that a standard loaf weighed 2lbs, 4,284 loaves of bread (or 46 loaves per day).<sup>76</sup>

How does this evidence compare to what we know about other hospitals and institutions? It must be stressed that these calculations take no account of variations in the quality of the wheat crop or in the strength of the ale, nor do we know how much ale was used in cooking, or how these supplies were divided up between the hall and the hospital.<sup>77</sup> At St Giles', Norwich, in 1318–1319, an average of 20,800 gallons of ale (57 gallons per day) and 110,432 lbs of wheaten bread (up to 151 loaves per day) was being consumed; by 1500–1501, this figure had fallen to approximately 12,320 gallons of ale (38 gallons per day) and 20,468 lbs of wheaten bread (up to 56 loaves per day). Thus, by 1500 St Giles', Norwich, and St Anthony's, London, were consuming a similar amount of ale and bread per day. Individual rations are harder to calculate, although we know that the

72 Harvey, *Living and Dying in England*, 58; Woolgar, *Great Household*, 126.

73 James A. Galloway, 'Driven by Drink? Ale Consumption and the Agrarian Economy of the London Region, c. 1300–1400', in Martha Carlin and Joel T. Rosenthal, eds, *Food and Eating in Medieval Europe* (London: The Hablmedon Press, 1998), 87–100, on 87.

74 St George's Chapel, Windsor, MS XV. 37. 8, f. 14r.

75 Rawcliffe, *Medicine for the Soul*, 183; Harvey, *Living and Dying in England*, 58 (n. 70). In Professor Dyer's study of the diet of harvest workers, one quarter of wheat was expected to produce 510 lbs of bread: *Everyday Life*, Appendix 5.1, 99.

76 Rawcliffe, *Medicine for the Soul*, 182.

77 Harvey, *Living and Dying in England*, 58.

brethren and their guests at Westminster abbey received a gallon of ale a day and a loaf weighing 2.5 lbs.<sup>78</sup> In comparison, each leper in the hospital of St Mary Magdalen, Reading, was promised a basic daily allowance of half a 2lb loaf; and at St Julian's, near the town of St Albans, each leprous inmate could expect a loaf of bread a day, a pig once a year and 40 gallons of good beer and two quarters of pure and clean corn every Christmas.<sup>79</sup>

## Meat and fish

In general, more was spent each day on meat than fish. This initially surprising phenomenon reflects a growing trend in the noble, gentry and peasant diet from the first part of the fifteenth century to the early sixteenth century.<sup>80</sup> The total spent on meat during the quarter was £16 4s. 3d. (55 per cent), while fish accounted for £9 1s. 3d. (30 per cent); significantly, though, the average outlay *per diem* on meat and fish for the hall was normally just over double that for the hospital.<sup>81</sup> By noting the intended destination of each meat and fish product listed in the accounts, we can also establish the following patterns:

78 Harvey, *Living and Dying in England*, 58–59.

79 British Library, London, MS Cotton Vespasian E V, ff. 38r–39v; Peter Richards, *The Medieval Leper: and his Northern Heirs* (Woodbridge: D.S. Brewer, 1977), 133.

80 Woolgar, *Great Household*, 133.

81 At St Giles', Norwich, 'whereas the bulk purchase of fish in 1374–1375 amounted to £26, it only came to £10 or more in the eight years for which there are accounts between 1465–1466 to 1526–1527': Dale Serjeantson and Christopher M. Woolgar, 'Fish Consumption in Medieval England', in Serjeantson, Woolgar and Waldron, Eds, *Food in Medieval England*, 102–130, on 127.

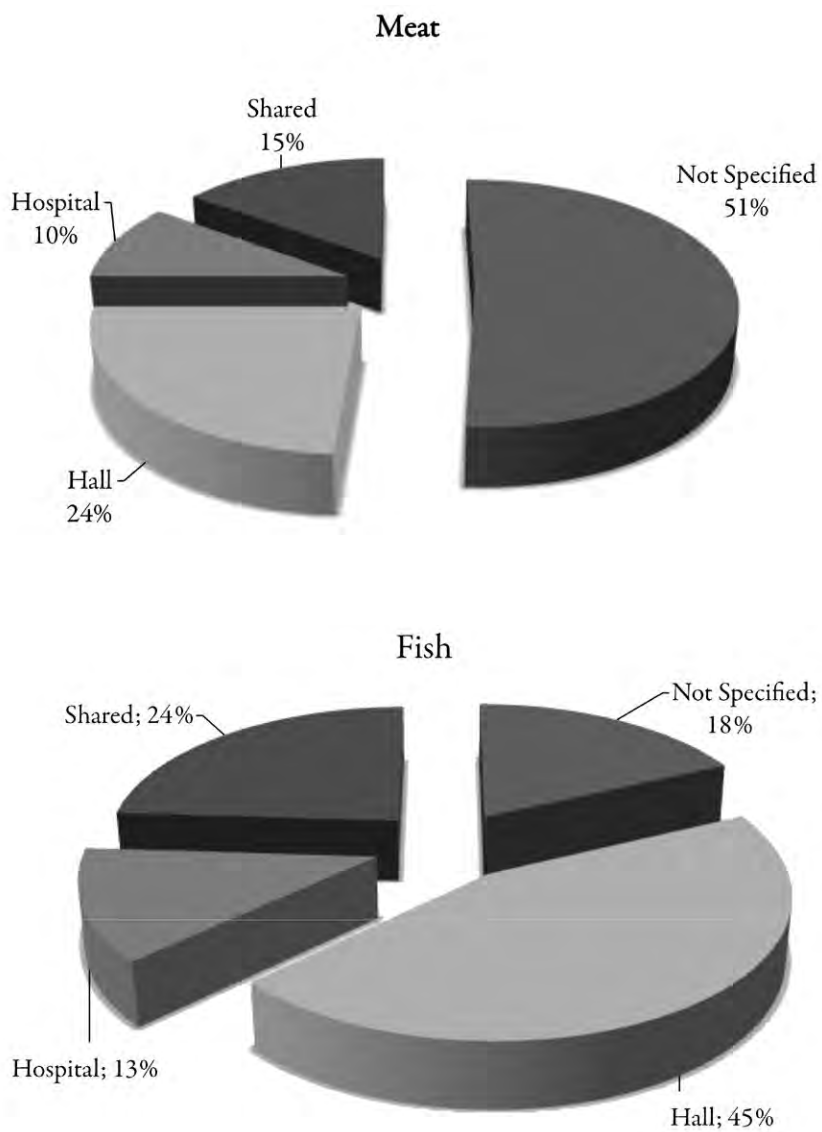


Figure 2.2 Estimated Total Expenditure on Meat and Fish for the Quarter 1 July to 28 September 1495.

Clearly, St Anthony's only accounted for a small proportion of the overall expenditure on both meat and fish, although shared dishes (such as ribs of beef, veal and salt fish) were generally served every other day. The most common dishes not to have a specific destination included half a beef carcass (at 9s. a time), pigs' trotters and calves' feet, mutton, veal and lamb, which were presumably shared. It is also apparent that the hall consumed by far the greater variety of meat and fish dishes:

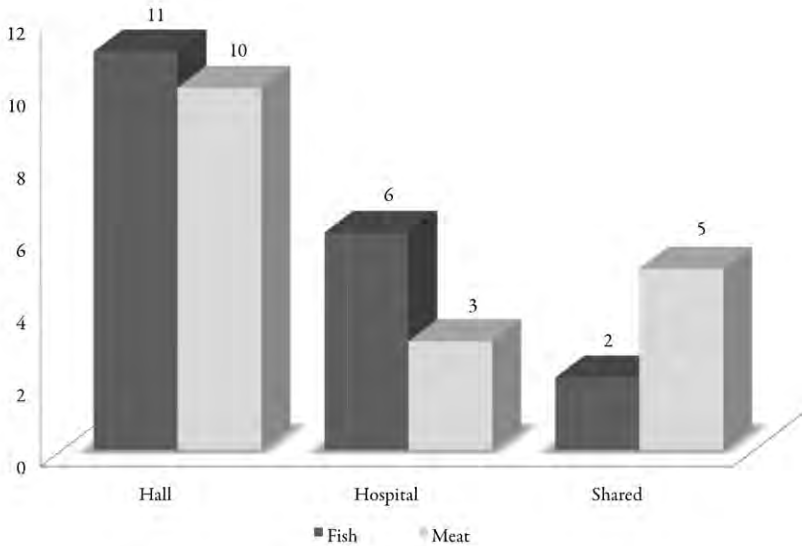


Figure 2.3 Number of Different Meat and Fish Items Served Either to the Hall, Hospital or as a Shared Dish During the Quarter 1 July to 28 September 1495.

The different types of meat and poultry served to the hall included chicken (a particularly wholesome food, known for its restorative qualities),<sup>82</sup> pork, rabbit, small ducks and geese; fish included sole, fresh salmon, conger

82 Mahmoud Manzalaoui, *Secretum secretorum: Nine English Versions* (Oxford: EETS, original series, no. 276, 1977), 50, 60. See also Scully, 'Sickdish', 134–135; Chicken broth was also served at the hospital of Santa Maria Nuova, Florence. Along with

eel (which was considered to be ‘unholsome for sick folkes’),<sup>83</sup> roach and plaice. Freshwater fish, such as roach and eel, generally contributed to the diet of the more privileged, although salmon was eaten in almost every reasonably affluent household.<sup>84</sup> The hospital, on the other hand, was served mutton, roast veal (beneficial for the sick as it was deemed to be sanguine and thus temperate in heat and moisture),<sup>85</sup> salted salmon, mackerel and haddock. In fact, the residents of the hospital consumed a comparatively restricted (although nutritious) diet; every meat day, for instance, they were served a quarter of mutton, either at dinner, supper or both meals.

This detailed analysis of the accounts has shown that, during a typical week, the entire community shared dishes of pottage, veal, mutton and eggs; the hall alone consumed pork, ribs of roast beef, duck, fresh salmon and eels; and the hospital was supplied with mutton, plaice and haddock.<sup>86</sup> On feast days the discrepancy was even more apparent: while the hall ate fresh salmon, turbot, shrimps, pork, capons, beef, geese and rabbit, the residents of the hospital were served a less exotic diet of roast mutton and perhaps some beef.<sup>87</sup> In short, the hall’s diet mirrored that enjoyed by wealthy individuals, with an appetite for ample meat and fish dishes, while hospital patients were fed simpler and cheaper food.<sup>88</sup> This distinction, however,

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fruit and vegetables, it formed the basis of the hospital’s therapeutic *regimen*: Park and Henderson, “First Hospital among Christians”, 174.

- 83 Sir John Harington, *The Englishman’s Doctor* (London, 1608), Sig. Bijr (salmon and eels).
- 84 Woolgar, *Great Household*, 121; Harvey, *Living and Dying in England*, 49; Dyer, *Everyday Life*, 106.
- 85 Thomas Paynell, trans., *Regimen sanitatis Salerni* (London, 1528), Sig. Eijjr–v; Hippocrates, *De diaeta [Regimen]*, ed. and trans. Robert Joly (Berlin: Akademie-Verlag, 1984), ‘Du Regime II’, no. 46, 169.
- 86 St George’s Chapel, Windsor, MS XV. 37. 8, ff. 4r–5v.
- 87 St George’s Chapel, Windsor, MS XV. 37. 8, ff. 6v–7v. At St Leonard’s, York, for instance, the hospital regularly provided its patients with beef, mutton, pork, bread, ale, pottage, honey and beans: Cullum, ‘St Leonard’s’, 19.
- 88 For the diet of artisans, and changes in diet after the Black Death, see Dyer, *Standards*, 158–160; Dyer, *An Age of Transition?: Economy and Society in England in the Later Middle Ages* (Oxford: Clarendon Press, 2005), 131.

reflects wider developments in late medieval England, when there was a decline in the consumption of pork, and an increase in lighter meats and birds for the highest reaches of society, but with substantial quantities of beef and mutton for the bulk of the household.<sup>89</sup>

It is harder to ascertain if the diet of those in the hospital was intended simply to sustain them, or actively assist their recovery. Again, the sources do not reveal any instructions on behalf of the patron, or an explicit medical rationale behind the choice of food. Mutton was, none the less, a nutritious meat that would have been suitable for consumption by the sick poor at St Anthony's, London. Indeed, the 'robust digestive systems of "labouryng men" [... was thought to function] better on plain, simple fare.'<sup>90</sup> This point was also reinforced by the teachings of Galen, who advised that a person's diet should accord with his or her social class and lifestyle.<sup>91</sup>

What provision was made for special diets to be given to those who found it impossible to consume normal food? We lack sufficient evidence to frame an answer for St Anthony's, London, although at Whittington's Almshouse in London, it was understood that 'any poor person [... would be] provided with a suitable diet.'<sup>92</sup> Bishop Richard Kellaw ordered that the lepers at Sherburn Hospital should be given foodstuffs which, as Rawcliffe has argued, *were* recommended in the treatment of their disease, such as fresh meat, fish and cheese and, if in season, leeks and beans.<sup>93</sup> It is also unclear if patients were happy with their meals, as the accounts cast no light on the *quality* of the food served. We might, however, assume that not everyone relished the prospect of eating mutton so regularly; and visitation records reveal that inmates at a number of *leprosaria* often grumbled at the inadequacy of food and drink.<sup>94</sup> It is, however, clear that at St

89 Christopher M. Woolgar, Dale Serjeantson and Tony Waldron, "Conclusion", in Woolgar, Serjeantson and Waldron, *Food in Medieval England*, 267–280, on 273.

90 Rawcliffe, *Urban Bodies*.

91 Brian Tierney, "The Descretists and the "Deserving Poor"", *Comparative Studies in Society and History* 1 (1959), 360–373, on 366.

92 *CPR 1423–1449*, 215 – dated 1424.

93 Rawcliffe, *Leprosy*, 213, 304–305, 327.

94 Rawcliffe, *Leprosy*, 214, 326.

Anthony's, London, at least, careful provision was made to supply patients with a regular and generous diet of simple food that would have helped to preserve (if not necessarily restore) bodily health.

## Bedding, cleanliness and clothing

In the majority of medieval hospitals, patients were cared for with the help of sisters and lay nurses, even if their contribution has not always been fully appreciated by medical historians.<sup>95</sup> At St Leonard's, York, a visitation in 1364 recorded that the sisters undertook basic nursing duties, ministered to the sick, washed them and gave them food and drink as needed.<sup>96</sup> Hospital nurses also purchased, laundered, mended and stored sheets and nightclothes.<sup>97</sup> At the Hôtel Dieu, Paris, upwards of 500 sheets were washed every week by the sisters and novices who served in the two laundries; and at the Hôpital Comtesse, Lille, during the mid-thirteenth century, the statues punished sisters who had failed to supply the sick with 'good clean linen and coverlets'.<sup>98</sup>

There is also evidence that English hospitals placed a similar emphasis on clean clothes and sheets. At the Savoy, which contained 100 beds, patients slept alone, each in a bed appointed with a mattress of wool or soft feathers, one feather pillow, two pairs of blankets, three pairs of sheets and embroidered counterpane of white and green interwoven with one

95 As Horden argues, there has been a persistent tendency to ignore the role of 'empirics' and female healers, the focus instead concentrating on elite 'dead white male' physicians and surgeons: 'Religion as Medicine', 137.

96 Cullum, *Cremets and Corrodies*, 15.

97 Carole Rawcliffe, 'A Marginal Occupation?: The Medieval Laundress and her Work', *Gender and History* 21 (2009), 147–169, 151.

98 Rawcliffe, 'Marginal Occupation', 151; Rawcliffe, 'Hospital Nurses', 43. On a more modest scale, St Anthony's, London, paid 8s. to a 'launder' in 1522: St George's Chapel, Windsor, MS XV. 37. 33, f. 10r.

red rose.<sup>99</sup> According to the statutes, any linen 'stained or soiled by blood, urine or faeces' should be immediately replaced.<sup>100</sup> At the Sherburn *leprosaria*, on the other hand, two washerwomen were employed to launder the lepers' clothes twice a week and their utensils every day.<sup>101</sup> Moreover, every Monday a woman was directed to 'gather all the poore mens clothes together and see them cleane washen'.<sup>102</sup>

Few medieval English hospitals could afford the level of luxury witnessed at the Savoy, although many institutions offered their patients beds covered with sheets and equipped with pillows. St Giles, Norwich, for instance, supported thirty beds with 'mattresses and sheets and coverlets for the use of the infirm poor'.<sup>103</sup> At the hospital at Brackely, Lincolnshire, it was decreed at some point between 1425 and 1432 that there should 'be six or four sets of bedding with suitable beds for the relief and lodging of the poor'.<sup>104</sup> As was the case in a number of hospitals, St Thomas, Southwark, attracted bequests for bedding; in 1540, a merchant tailor of London left £2 to buy 'sheets and coverletts for poor people resorting thereto and harbored'.<sup>105</sup> The early fifteenth century statutes of the almshouse at Higham Ferrers, Northampton, however, decreed that 'every poore man that shalbe chosen shall bring in his bedd and bedding with him that is to say a mattrise, a boulster, a pillowe, two payre of sheets, a blanckett and a coverlett'.<sup>106</sup>

99 British Library, London, Cotton MS Cleopatra, C V, f. 35r. Staff were also provided with well-furnished beds. At St Anthony's, London, in 1484, one priest was given 'a ffedyrbed, a bolstyr, ij pelewes of downe [...] a peyre of blancatt[es] and a bedyng of blew w[ith] yelu branchis and byrd[es] theron': St George's Chapel, Windsor, MS XV. 37. 21, f. 14v.

100 Rawcliffe, 'Marginal Occupation', 151.

101 Richards, *Medieval Leper*, 127.

102 British Library, London, MS Lansdowne, f. 79r (no. 27).

103 Norfolk Record Office, NCR, 2.4B, nos. 1 and 3.

104 *Visitations of Religious Houses in the Diocese of Lincoln*, ed. Alexander H. Thompson, 3 vols (Lincoln: Lincoln Records Society, 1929), 1, 19.

105 Carlin, 'Medieval English Hospitals', 12.

106 British Library, London, MS Lansdowne, f. 77r (no. 6).



In fact, as a recent article on medieval laundering suggests, there is little evidence to support the claim that medieval men and women were indifferent to the cleanliness of their linen.<sup>107</sup> Many secular and ecclesiastical households also employed a launderer or laundress on a regular basis. For example, Harvey has shown that each of the principal officials at Westminster abbey engaged at least one laundress and that the chamberlain purchased up to 150 lbs of soap annually for washing bed covers alone.<sup>108</sup> Leading members of the nobility also retained, or hired-in, washerwomen. During a seven week period in the summer of 1501, the Duke of Buckingham had frequent changes of linen, including sixteen shirts, six head-kerchiefs and five pairs of linen sheets.<sup>109</sup>

Washing clothes did not just reflect a theoretical concern with outward appearances; clean white linen was also thought to purify the skin and cleanse the body of dirt. Its effect was 'comparable to that of water [... and changing it] was, in effect, to wash.'<sup>110</sup> John of Gaddesden (d. 1361), in his *Rosa Anglica*, even went so far as to argue that dirty garments appeared to exacerbate skin diseases, such as leprosy, and warned against the wearing of infested hair shirts.<sup>111</sup> Thus, it appears that providing hospital patients with freshly laundered clothes indeed had a therapeutic effect.<sup>112</sup>

A number of hospitals also placed considerable emphasis on the general cleanliness of individual patients and their clothing. Patrons, keen to maximise the potential of their charitable investment, would not have appreciated the sight of filthy clothes and dirty inmates or the message they conveyed. This was especially the case in *leprosaria* and almshouses, where many residents were ambulant and constantly in the public eye.

107 Rawcliffe, 'Marginal Occupation', 149.

108 For numerous examples, see Rawcliffe, 'Marginal Occupation', 161–162; Harvey, *Living and Dying in England*, 153.

109 Harvey, *Living and Dying in England*, 169.

110 George Vigarello, *Concepts of Cleanliness: Changing Attitudes in France since the Middle Ages*, trans. Jean Birrell (Cambridge: Cambridge University Press, 2008), 41, 60.

111 See Rawcliffe, *Leprosy*, 226.

112 Rawcliffe, *Leprosy*, 330.

Applicants to the almshouse at Higham Ferrers would only be admitted if they were ‘cleane men of theire bodies without bitched biles or blanes.’<sup>113</sup> Arrangements were also made in houses which enjoyed a regular income to provide inmates with whatever apparel might be needed, and to keep garments in a good state of repair.<sup>114</sup> At St Bartholomew’s, London, in 1215–1216, the income raised from a grant by Alexander de Norfolk was used ‘for clothes for the poor in the great ward and for linen for the sick.’<sup>115</sup> The leprous brethren at Saint Giles’, Chester, were likewise the recipients of two generous gifts from Henry III in 1243 (£20) and 1252 (£10) for clothing and ‘other necessities.’<sup>116</sup> Similar provisions were in place at the hospital of St Mary Magdalen, Winchester, where each inmate received 6s. *id.* a year for clothing.<sup>117</sup> In practice, however, clothes must often have been recycled, and, whenever possible, patients were expected to bring with them their own blankets and linen.<sup>118</sup>

The emphasis on cleanliness and modesty probably had as much to do with morality as physical hygiene; we should not assume an awareness of any direct link between dirt and infection as we understand the concept today. Clothing the poor ranked among the Seven Comfortable Works:<sup>119</sup> and, as George Rosen has argued, ‘throughout large periods of human history, cleanliness has been next to godliness because of religious beliefs and practices.’<sup>120</sup> Indeed, beyond the ubiquitous theory that miasmatic air could infect the body, a knowledge of pathogens in the modern sense was

113 British Library, London, MS Lansdowne, f. 78r (no. 17).

114 Rawcliffe, *Leprosy*, 330.

115 *Cartulary of St Bartholomew’s Hospital Founded 1123: a Calendar*, ed. and trans. Nellie J.M. Kerling (London, 1973), no. 583, 64. At Sherburn hospital, the lepers were each to have a yearly allowance of three ells of woollen cloth, six ells of linen cloth and six ells of canvas for making towels: Richards, *Medieval Leper*, 126.

116 *Calendar of Inquisitions Miscellaneous, 1240–1254* (London: HMSO, 1916 onwards), 205; Rawcliffe, *Leprosy*, 330.

117 British Library, London, MS Harley 328, f. 28r.

118 Rawcliffe, *Leprosy*, 330.

119 Rawcliffe, *Leprosy*, 329–330.

120 George Rosen, *History of Public Health* (Baltimore and London: Johns Hopkins University Press, 1993), 3.

lacking in the Middle Ages, although it would be anachronistic to suggest that medieval people were either wilfully ignorant or had a casual attitude towards cleanliness.<sup>121</sup> Medieval guides to health, for instance, frequently warned that ‘from infected bodies comme [...] infectious and venomous fumes and vapours, the whiche do infecte and corrupte the aire’.<sup>122</sup> The contagious nature of sin was also feared; the Fourth Lateran Council in 1215 ruled that any practitioner who was found to have treated a patient before he or she had made a full confession would be excommunicated, or, more graphically, ‘cut off’ (*arceatur*), from the body of the faithful.<sup>123</sup> This explains why so many patrons of medieval hospitals stipulated that patients should not be allowed to enter the building before they had made a full and frank confession.<sup>124</sup> Then, and only then, would they be admitted to the infirmary ward and placed in a bed in sight of the high altar.

## Conclusion

Despite the fragmented nature of the sources, this chapter has demonstrated that it is not a fruitless exercise to examine hospital statutes, accounts and inventories for evidence of a theoretical or practical therapeutic regime for bodily health. However, many questions remain unanswered or hard to tackle, not least regarding the extent to which patrons intended daily hospital regimes to restore their patients to a semblance of health (or even ‘cure’ them). In addition, much more work needs to be done before we

121 See Norman J.G. Pounds, *The Medieval City* (London: Greenwood Press, 2005), 68.

122 See Rawcliffe, *Leprosy*, 276.

123 *Constitutiones Concilii quarti Lateranensis una cum Commentariis glossatorum*, ed. Antonius García y García (Vatican City: Biblioteca Apotolica Vaticana, 1981), cap. 22, 68–69.

124 For example, at St Mary in the Newarke (Leicester), it was stipulated in 1330 that all newcomers were to confess their sins before gaining entry: Thompson, *History of the Hospital*, 18.

can fully determine if the therapeutic regime apparent in many English hospitals was based on the 'theory' of established medical authorities, on the advice of 'non-professionals', on manuscript and printed medical literature, or simply on no medical advice whatsoever. If such an exercise were to be undertaken, it would also require some consideration of what other influences might have shaped the care of hospital inmates. It is hoped that this essay will promote further research and debate, and stimulate others to investigate the provisions made for physical welfare in medieval hospitals. Patrons clearly placed especial emphasis on the care of the soul, yet this scale of priorities did not lead them to ignore the bodily health of patients on a daily basis, and neither should we.

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## Their Daily Bread: Managing Hospital Finances in Early Modern Germany

Roy Porter's famous call in 1985 for the 'patient's view' in the history of medicine, coupled with the development of a theoretical framework of 'medicalisation', has focused research attention on the relationship between patients and physicians and the organisational arrangement of hospitals in providing physical and medical care.<sup>1</sup> The underlying hypothesis was that the increasing use by hospitals of paid university-trained physicians instead of priests and other religious workers to perform medical operations justified their description as 'modern'. However, John Henderson, after intensively studying (northern) Italian hospitals of the Renaissance, which are generally considered to represent a major turning-point within the history of hospitals, has denied 'that the Renaissance represented an abrupt break with the Middle Ages, whether in terms of political thought

- 1 Roy Porter, 'The Patient's View. Doing Medical History from Below', *Theory and Society* 14 (1985), 175–198; Philip Rieder, *La figure du patient au XVIIIe siècle* (Genève: Droz 2010), 9–1. The term 'medicalisation' goes back to Michel Foucault and aims to conceptualise a general development in modern societies starting in late eighteenth century France and historiographically strengthening the conjunction of social history with the history of medicine. See Colin Jones, 'Montpellier Medical Students and the Medicalisation of 18th-Century France', in Roy Porter, and Andrew Wear, eds, *Problems and methods in the history of medicine* (London: Croom Helm 1987), 57–81; Colin Jones and Roy Porter, eds, *Reassessing Foucault. Power, medicine and the body* (London: Routledge 1994); Philip Rieder, 'Medicalisation out of context: public institutions and medical agency in Geneva during the early modern period', in Laureano M. Rubio Pérez, ed, *Instituciones y centros de reclusión colectiva. Formas y claves de una respuesta social (siglos XVI–XX)* (León: Universidad de León, Área de Publicaciones, 2012), 239–250.

and organisation, social and economic realities, or artistic developments.<sup>2</sup> Yet the most ‘modern’ hospitals of Florence, Milano and Venice of the early sixteenth century, were still dedicated to healing the body *as well* as healing the soul.

This essay explores the example of the Duesseldorf Hospital in 1542–1543. In a somewhat ahistorical modernist interpretation of ‘medicalisation’ it would be considered as ‘underdeveloped’ or ‘unmedicalised’, not only compared to the Italian hospitals but also relative to important German hospitals such as those found in Nuremberg and Cologne.<sup>3</sup> It is, however, perhaps more representative of the northern European norm, and thus worth attention. The Duesseldorf hospital was founded in the fourteenth century and dedicated to ‘feed the poor pilgrims, the sick, the lame and the blind’.<sup>4</sup> This small hospital housed around a dozen ‘beneficiaries’ and was located in the town of Duesseldorf which had 4–5,000 inhabitants by the mid-sixteenth century. It is an example of continuity in the face of the more well-studied ‘change’ exemplified by better known Italian hospitals. It supports recent research that shows there is no single, comprehensive definition of the hospital which adequately embraces all of its various types and functions, of which physical care by medical advice is but one permu-

- 2 John Henderson, *The Renaissance Hospital: Healing the Body and Healing the Soul* (New Haven, Connecticut, and London: Yale University Press 2006), xxix.
- 3 Fritz Dross, ‘Patterns of Hospitality: Aspects of Institutionalisation in 15th & 16th Centuries Nuremberg Healthcare’, *Hygiea Internationalis* 9/1 (2010), 13–34; Monika Frank, ‘Krank in der Reichsstadt. Auf der Suche nach einem Krankenhaus im frühneuzeitlichen Köln’, in Monika Frank, and Friedrich Moll, *Kölner Krankenhaus-Geschichten. Am Anfang war Napoleon ...* (Köln: Kölnisches Stadtmuseum 2006), 40–47; Robert Jütte, *Ärzte, Heiler und Patienten. Medizinischer Alltag in der frühen Neuzeit* (Zürich: Artemis und Winkler 1991); Annemarie Kinzelbach, ‘Hospitals, medicine, and society: southern German imperial towns in the sixteenth century’, *Renaissance Studies* 15/2 (2001), 217–228.
- 4 Ulrich Brzosa, *100 Jahre Caritasverband für die Stadt Düsseldorf. Die Geschichte der Caritas in Düsseldorf von den Anfängen bis zur Gegenwart* (Köln, Weimar, Wien: 2004), 365–396, quotation of a charter of 13 May 1395 p. 366 (‘de arme peilgrime, seeken ind lamen ind blynden to spysen ind to laven’); Fritz Dross, *Krankenhaus und lokale Politik 1770–1850. Das Beispiel Düsseldorf* (Essen: Klartext 2004), 157–171.

tation.<sup>5</sup> Narrowing the historical gaze to only what appears to lead to the 'modern' medical hospital in an oversimplified notion of 'medicalisation' risks paralysing a deeper historical understanding of medieval and early modern hospitals. This essay's aim, therefore, is to provide a 'micro-history' that demonstrates how one hospital *functioned*. It does not use conventional patient or practitioner-centred approaches, but looks at the institution from the perspective of the hospital master's routine, particularly with respect to generating and safeguarding the hospital's income.

The primary aim of the Duesseldorf hospital in the sixteenth century was the same as it had been since its foundation: sheltering and feeding the needy. The healing of the sick by medical professionals was not a key role of such institutions, but one should not underestimate the role of sufficiently feeding and housing the poor and needy as an instrument of early modern health care in a wider sense.<sup>6</sup> Although the hospital account books go back to 1421, their first reference to a healing professional only appears in 1538, when a sum is paid to a barber for treating a maidservant

- 5 Michel Pauly, *Peregrinorum, pauperum ac aliorum transeuntium receptaculum: Hospitaler zwischen Maas und Rhein im Mittelalter* (Stuttgart: Steiner 2007), 13–18; Neithard Bulst, 'Zur Geschichte des spatmittelalterlichen Hospitals. Eine Zusammenfassung', in Neithard Bulst, and Karl-Heinz Spiess, eds, *Sozialgeschichte mittelalterlicher Hospitaler* (Ostfildern: Thorbecke 2007), 301–316; Gisela Drossbach, Franois-Olivier Touati, and Thomas Frank: 'Einfuhung. Zur Perspektivitat und Komplexitat des mittelalterlichen Hospitals – Forschungsstand, Arbeitstechniken, Zielsetzungen', Andreas Meyer: 'Das Proprium des spatmittelalterlichen und fruhneuzeitlichen Hospitals. Zusammenfassung', both in Gisela Drossbach, ed, *Hospitaler in Mittelalter und Fruher Neuzeit: Frankreich, Deutschland und Italien. Eine vergleichende Geschichte / Hopitaux au moyen age et au temps modernes. France, Allemagne et Italie. Une histoire comparee* (Munchen: Oldenbourg 2007), 9–24, 261–265.
- 6 Ken Albala, *Eating right in the Renaissance* (Berkeley: University of California Press 2002); Andreas Kuhne, *Essen und Trinken in Suddeutschland. Das Regensburger St Katharinenhospital in der Fruhen Neuzeit* (Regensburg: Pustet 2006); Ulrike Thoms, *Anstaltskost im Rationalisierungsprozess. Die Ernahrung in Krankenhusern und Gefangnissen im 18. und 19. Jahrhundert* (Stuttgart: Franz Steiner Verlag 2005); Barbara Krug-Richter, *Zwischen Fasten und Festmahl. Hospitalverpflegung in Munster 1540 bis 1650* (Stuttgart: Franz Steiner Verlag 1994).

in the nearby town of Hilden.<sup>7</sup> This entry also shows us that by this date the hospital was recognised as the location at which one could make contact with medical practitioners who were willing to treat patients outside the institution, and with those who were willing to travel to work at the hospital. In 1542 the hospital account book mentions three different barbers as well as the installation of a new lock for the cellar door in order to lock-up a lunatic. In 1549, the hospital had to pay for a journey to the town of Neuss on the other bank of the Rhine to meet a healer. From the archives, it seems that it was only in 1688 that the first doctor and surgeon were paid by the hospital, and it was not until 1748 that a surgeon received a regular salary by the hospital.

It is important therefore to regard the small German hospital of the early modern period as the most important local healthcare institution in function. The urban élite were able to pay an academic physician to come from Cologne to Duesseldorf, but the local population were not. To give an idea of its life this essay focuses upon the hospital administration and the activities of the hospital master, which are documented in the hospital's account books. These are analysed not by conventional statistical summaries but by looking at the strategies used by the hospital master to guarantee the hospital's 'daily bread'.

## A budget for the beyond

Early modern hospital finances were based on the medieval economy of almsgiving. These foundations represented their benefactors' desires to 'trade celestial merchandise against the earthly goods.'<sup>8</sup> In recent research

7 Stadtarchiv Düsseldorf (municipal archive of the town of Düsseldorf) 4-100 (NL-Nr. 100).

8 Carole Rawcliffe, "A Word from Our Sponsor": Advertising the Patron in the Medieval Hospital, in John Henderson, Peregrine Horden, and Alessandro Pastore,



these strategies have been called a 'budget for the beyond' in which economic acts are made in this life to benefit the soul of a person who has already died.<sup>9</sup> All hospitals which were charitable foundations operated a reciprocal spiritual economy dealing beyond the boundary of death. Consequently, any threats to the financial viability of a hospital not only endangered the town's capacity to fulfil its duty to care for the sick and needy, but also could harm the ongoing commemoration of souls. Misuse and mismanagement of hospital resources caused serious scandals.<sup>10</sup> A number of scholars, including Michael Borgolte and Frank Hatje have thus viewed such foundations from the perspective of sociology of the gift following Marcel Mauss, who sees them as a 'total social fact'.<sup>11</sup> The

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- eds, *The Impact of hospitals: 300–2000* (Oxford: Lang 2007) 172. See Marjorie Keniston McIntosh, *Poor relief in England, 1350–1600* (Cambridge: Cambridge University Press 2012), 63.
- 9 Bronislaw Geremek, *Geschichte der Armut. Elend und Barmherzigkeit in Europa* (München: dtv, 1991; translation of the unpublished Polish Original *Litość i szubienica*, 1978); Jacques Chiffolleau, *La comptabilité de l'au-delà: Les hommes, la mort et la religion dans la région d'Avignon à la fin du Moyen Age* (Roma: Ecole française de Rome, 1980); Ulrich Knefelkamp, 'Stadt und Spital im späten Mittelalter. Ein struktureller Überblick zu Bürgerspitälern süddeutscher Städte', in Peter Johaneck, ed, *Städtisches Gesundheits- und Fürsorgewesen vor 1800* (Köln, Weimar, Wien: Böhlau, 2000), 19–40; Brigitte Pohl-Reisl, *Rechnen mit der Ewigkeit. Das Wiener Bürgerspital im Mittelalter* (Wien, München: Oldenbourg, 1996); Brigitte Reisl, 'Hospitals in Mediaeval England', in Martin Scheutz, Andrea Sommerlechner, Herwig Weigl, and Alfred Stefan Weiß, eds, *Europäisches Spitalwesen – Institutionelle Fürsorge in Mittelalter und Früher Neuzeit* (Wien, München: Oldenbourg, 2008), 41–52; Andreas Meyer, 'Organisierter Bettel und andere Finanzgeschäfte des Hospitals von Altopascio im 13. Jahrhundert', in: Gisela Drossbach, ed, *Hospitäler in Mittelalter und Früher Neuzeit: Frankreich, Deutschland und Italien. Eine vergleichende Geschichte / Hôpitaux au moyen âge et au temps modernes* (München: Oldenbourg, 2007), 55–72.
- 10 Matthew Thomas Sneider, 'The Treasury of the Poor: Hospital Finance in Sixteenth and Seventeenth-Century Bologna', in John Henderson, Peregrine Horden, and Alessandro Pastore, eds, *The Impact of hospitals: 300–2000* (Oxford: Lang 2007), 95–96.
- 11 Frank Hatje: 'Gott zu Ehren, der Armut zum Besten.' *Hospital zum Heiligen Geist und Marien-Magdalenen-Kloster in der Geschichte Hamburgs vom Mittelalter bis in die Gegenwart* (Hamburg: Convent-Verl. 2002), 27–41.

enduring economic success of hospital foundations meant the model was easily adopted: not only in the medieval world but also by protestant communities after Reformation as well as throughout the modern western world in nineteenth century.

The administration of late medieval and early modern hospitals was primarily concerned with financial issues.<sup>12</sup> Caring for the poor and sick is documented in the account books as disbursements. The account books identify the payment of salaries of physicians, surgeons, nurses, chaplains, clerical staff and craftsmen, as well as paying for consumables such as corn to make the bread. Thus one of the primary purposes of the hospital administration was to safeguard its assets. As charitable foundations, their masters were not allowed to use capital for recurrent costs. They aimed at generating the best possible return on the founded and reinvested capital. As such charitable foundations usually consisted of several kinds of immovable estate property, this could be done in a variety of ways, but mainly by selling agricultural products or by leasing out the property.<sup>13</sup> At times of sufficient monetary income, hospitals also lent money through providing mortgages or tried to increase their profit by enlarging their property.

An additional source of income was from the hospital residents themselves. They 'bought' the services which the hospital sold as a corrody – 'a form of borrowing which occupied a shadowy space between charity and credit'.<sup>14</sup> A corrody to an individual or a married couple was granted in return for an advance payment of money or land. It guaranteed that they would, if necessary, receive specified food, clothing, and occasionally cash sums for life, as well as residence in the institution. People invested in the

12 Sneider, *The Treasury of the Poor*, 93–116; Marina Garbellotti, 'Assets of the Poor, Assets of the City: The Management of Hospital Resources in Verona between the Sixteenth and Eighteenth Century', in John Henderson, Peregrine Horden, and Alessandro Pastore, eds, *The Impact of hospitals: 300–2000* (Oxford: Lang 2007), 117–134; Silvia De Renzi, "A Fountain for the Thirsty" and a Bank for the Pope: Charity, Conflicts and Medical Careers at the Hospital of Santo Spirito in Seventeenth-Century Rome', in Ole Peter Grell, Andrew Cunningham, and Jon Arrizabalaga, eds, *Health care and poor relief in Counter-Reformation Europe* (London: Routledge 1999), 102–131.

13 Sneider, *The Treasury of the Poor*, 98–101.

14 Sneider, *The Treasury of the Poor*, 104.

purchase of corrody, in the hope of acquiring a secure place for themselves, or for a relative after they died or became disabled.<sup>15</sup> In economic terms corrodies 'were effectively annuities providing a real income for life'.<sup>16</sup> It is important therefore to understand that hospital incomes actually came from a variety of sources: agricultural products, interest (paid monthly or annually and in several currencies), as well as rights, entitlements and expectancies. Incomes were difficult to predict, as were hospital expenses. Thus, hospital management required dealing with several unknown variables. If income fell hospital masters usually had to cut the benefits provided for residents.

## Hospital account books: the source and its interpretation

Early modern hospital account books are a highly important, if tricky, source for studying the economics of hospital care as well as for economic history in general. However, this essay focuses on hospital 'life' – its practices and routines, rather than pure statistical analysis. Rather than discussing figures and balance sheets, it considers what these sources can tell us about hospital administrators: their practical ideas and solutions for operational issues.<sup>17</sup> Hospital account books have often been used within the historiography of hospitals. They are often the best-preserved parts

- 15 McIntosh, *Poor relief in England*, 77. See Guenter B. Risse, *Mending bodies, saving souls. A history of hospitals* (New York, NY: Oxford Univ. Press 1999), 165: 'In England a corrody was a pension or allowance provided by the house that enabled an inmate or corrodian to retire to the hospital as a boarder'. As a comprehensive analysis on early modern corrodies and a social history of the corrodians in early modern southern Germany see Rudolf Neumaier, *Pfründner: die Klientel des Regensburger St Katharinenospitals und ihr Alltag (1649 bis 1809)* (Regensburg: Pustet 2011).
- 16 Edmund Cannon, and Ian Tonks, *Annuity markets* (Oxford: Oxford University Press 2008), 45–46.
- 17 Enrico Bracci, Laura Maran, and Emidia Vagnoni: 'Saint Anna's Hospital in Ferrara, Italy: Accounting and organisational change during the Devolution', *Accounting History* 15 (2010), 463–504.

of hospital archives, and they are found extensively in German collections. Furthermore, they are often preserved as series covering relatively long periods of time.<sup>18</sup> At first sight, hospital account books can appear overwhelming with their sheer mass of numbers, but they are a valuable resource in economic history.<sup>19</sup> They can be used to establish historical data series, especially of corn prices and rents, but also of earnings. In addition, they often provide lots of names (of creditors and debtors) which, by extensive cross-linking with complementary material can enhance local historical analyses.<sup>20</sup>

Yet analysis of hospital account books is frustrating and time-consuming for historians. They have their own internal logic and often require a full analysis in order to extract the smallest piece of information: a single name, the selling price for rye, oats or wheat, the income of one special tithe. Early modern German accounts always used several different currencies and various apparently unrelated measures. At the most basic level,

- 18 'Management records – including account books, lists of annuities and the like – which from the 14th century onwards, according to regions, become the quantitatively strongest, often serial and highly comprehensive sources, are certainly under-represented in the present volume; the question of feasibility and possible forms of editing arises in any case'. Martin Scheutz, Andrea Sommerlechner, Herwig Weigl, and Alfred Stefan Weiß, 'Introduction', in Martin Scheutz, Andrea Sommerlechner, Herwig Weigl, and Alfred Stefan Weiß, eds, *Sources for the History of Hospitals in Medieval and Early Modern Europe* (Wien, München: Böhlau, Oldenbourg, 2010), 37; Annemarie Kinzelbach, *Gesundbleiben, Krankwerden, Armsein in der frühneuzeitlichen Gesellschaft. Gesunde und Kranke in den Reichsstädten Überlingen und Ulm, 1500–1700* (Stuttgart: Steiner), 327; Hannes Lambacher, *Das Spital der Reichsstadt Memmingen. Geschichte einer Fürsorgeanstalt, eines Herrschaftsträgers und wirtschaftlichen Großbetriebes und dessen Beitrag zur Entwicklung von Stadt und Umland* (Kempten: Verlag für Heimatpflege 1991), 266–267.
- 19 Jens Aspelmeier, "Das beim haus nutz und kein unnutz geschehe" – Norm und Praxis der Wirtschaftsführung in kleinstädtischen Spitälern am Beispiel von Siegen und Meersburg', in Sebastian Schmidt, and Jens Aspelmeier, eds, *Norm und Praxis in der Armenfürsorge in Spätmittelalter und früher Neuzeit* (Stuttgart: Steiner, 2006), 169–190.
- 20 Hans Medick, *Weben und Überleben in Laichingen, 1650–1900. Lokalgeschichte als allgemeine Geschichte* (Göttingen: Vandenhoeck & Ruprecht 1996).

the account books are structured by revenues and expenses, and usually each chapter follows a rough chronological line. This does not mean that there are clear sequential daily entries: often the chronology is disrupted.

Of course, these books don't give a comprehensive account of the hospital masters' activities. But they provide a first insight in how the hospital worked, if one accepts that these recorded transactions are a proxy for activity. Like in municipal and commercial bookkeeping the hospital accounts are presented using an 'accounting currency' that does not represent one of the several coinages in circulation.<sup>21</sup> The hospital master usually did not make actual currency transactions for incomes and expenditures, but translated the value of goods and services for the purposes of preparing the account books. Thus a close analysis of these accounts requires abandoning traditional economic history assumptions and methodologies. As a first step, it is useful to see each hospital almost as a closed economic system in order to observe the hospital master's strategies for maintaining its economic viability.

## The account books of the Duesseldorf *Hubertus-Hospital*

The archives of the Hubertus-Hospital (renamed after its re-foundation in the early eighteenth century) are held in the Duesseldorf municipal archive and span fourteen linear meters, including the account books.<sup>22</sup> They cover the period (with some minor gaps) from 1421 to 1849 and enable a detailed investigation on how the 'daily bread' of this early modern hospital was earned and spent. They list expenditures for workmen, messengers, servants, nurses and the healing personnel, but also for food, clothes, coffins

21 Konrad Schneider, 'Rechenmünzen,' in: Friedrich Jaeger, ed, *Enzyklopädie der Neuzeit* [vol. 10: Physiologie–Religiöses Epos] (Darmstadt: WBG 2009), 684–686.

22 Stadtarchiv Düsseldorf (municipal archives of Düsseldorf), 4–100; account books 4–100.1–25. Dross, *Krankenhaus und lokale Politik*, 158–162.

and other consumables. Income derived from different agricultural products (according to the harvest of the year) and from monetary annuities is also recorded.

This essay examines the account books for the years 1542 and 1543 to try to understand what the transactions documented in the account books actually mean.<sup>23</sup> Both years consist of fifteen folios divided into two separate accounts for each year, one for annuities and one for ground rents. The accounting currency is based on Dutch coinage (*brabantsches payment*), with 12 *Denar* to 1 *Schilling* and 12 *Schilling* to 1 *Mark*. These were not real coins but arithmetical units for accounting.<sup>24</sup> In this analysis I refer to all amounts in *Mark* as my focus is not on reconstructing precise prices or monetary value.

The accounting for ground rents and annuities were kept strictly separate within the Duesseldorf hospital's account books. The revenues and the expenses were listed and the differences calculated, and presented in two bonded books each year. Furthermore, the account books name different individuals as being accountable for the annuities and the ground rents respectively. In 1542 the hospital master Alf Offerkamp was the person responsible for the annuities accounts (*kirch vnnnd gasthuiß renthenn*). In the following year he was responsible for the ground rents accounts, which comprised the Uerdingen tithe, the Pempelfort farm and a small mill. Johan zum Stade was the hospital master in 1541 and in 1542 he was accountable for the ground rents. Wilhelm Kilmann was hospital master in 1543 and had been responsible for the annuities in that year and the following year was responsible for the ground rents. So there appears to have been a clear progression of responsibility: the hospital master was accountable for the smaller annuities account in his first year of office and for the much bigger account of the ground rents in the following year.

23 Stadtarchiv Düsseldorf 4-100.2b.

24 Clemens von Looz-Corswarem, 'Das Rechnungsbuch der Stadt Düsseldorf aus dem Jahre 1540/41. Ein Beitrag zur Stadtgeschichte in der Mitte des 16. Jahrhunderts', *Düsseldorfer Jahrbuch. Beiträge zur Geschichte des Niederrheins* 72 (2001), 52-53.

Separate bookkeeping according to different kinds of revenues was the standard procedure in early modern accounting in German-speaking Europe.<sup>25</sup> However, having one account named *Geldrenten* (monetary benefit) and another named *Kornrente* (grain benefit) does not mean that the latter book accounts for payments in kind only. As the wealth of hospitals generally stemmed from real estate holdings, and as this was usually the biggest part of their income, this part was accounted separately.<sup>26</sup> In the Duesseldorf case in sixteenth century it comprised only three entries of revenues and was always expressed in monetary values. On the other hand, the account book listing the annuities starts with the income and expenditure of rye and oats accounted in *Malter*, a contemporary quantitative measure (150 litres approximately but with regional and local differences), before listing the monetary annuities. Historically, real estate property and different rights to take crops were the base of hospital finances. Monetary resources could then be lent to borrowers who had to pay interest once a year, either in agricultural products or in cash. The debtors mortgaged their real estate property which in the long run enlarged the real estate of the hospitals. Finally, within their respective regions early modern hospitals controlled the real estate business by loaning, selling and buying landed property. They also controlled the agricultural market by selling crops to the wealthy and giving them free to the needy. In effect they were the dominant players in the regional economies. However, these financial functions bore no relationship to the kind of care the hospitals delivered.

25 Oliver Landolt, 'Finanzielle und wirtschaftliche Aspekte der Sozialpolitik spätmittelalterlicher Spitäler', in Neithard Bulst, and Karl-Heinz Spiess, eds, *Sozialgeschichte mittelalterlicher Hospitäler* (Ostfildern: Thorbecke 2007), 275; Lambacher, *Das Spital der Reichsstadt Memmingen*, 265–365; Friedrich Merzbacher, *Das Juliusspital in Würzburg Bd. 2: Rechts- und Vermögensgeschichte* (Würzburg 1979), 220–265.

26 Sneider, *The Treasury of the Poor*, 93; Garbellotti, *Assets of the Poor*, 126.

Table 3.1 Revenues and expenses of the Duesseldorf hospital, 1541–1542.  
Source: Stadtarchiv Duesseldorf 4–100.2b.

	ground rents		annuities	
	revenues ( <i>Mark</i> )	expenses ( <i>Mark</i> )	revenues ( <i>Mark</i> )	expenses ( <i>Mark</i> )
1542	1047	610	181	176
1543	1396	549	179	257

In keeping with the general pattern of late medieval and early modern economics, the income from ground rents was 500–800 per cent of the income from annuities in mid-sixteenth century.<sup>27</sup> The combined ground rents and annuities income was 1,228 *Mark* in 1542 and 1,575 *Mark* in the following year, while the expenses came to 786 *Mark* (1542) and 806 *Mark* (1543). Compared to the Duesseldorf municipal budget of the year 1541, which had revenues of 2,250 *Mark* and expenses of 1,799 *Mark*, the budget of the small hospital caring for just a dozen residents was equal to more than the half of the budget of the town, which had 4–5,000 inhabitants one half living within and the other half outside its walls.<sup>28</sup> In south western Germany the hospital of the imperial city of Ulm was equal to a tenth of the municipal budget, while in Ueberlingen the hospital's budget exceeded the towns budget.<sup>29</sup>

## The Uerdingen tithe

To get closer to actual practices, I will examine the biggest asset within the ground rents of the Duesseldorf hospital: the Uerdingen tithe. This asset alone contributed for about eighty four per cent of the revenues of ground

27 Snieder, *Treasury of the Poor*, 99–101.

28 Looz-Corswarem, *Rechnungsbuch*, 13–95.

29 Kinzelbach, *Gesundbleiben, Krankwerden*, 327–329.



rents and for more than two thirds of the general income in 1542. This changed in the following year, when it contributed about fifty six per cent of the ground rent revenues and for about fifty per cent of the general income.

Table 3.2 The Uerdingen tithes, 1542–1543.  
Source: Stadtarchiv Duesseldorf 4–100.2b.

	Uerdingen tithes				
	revenues ( <i>Mark</i> )	expenses ( <i>Mark</i> )	revenues as <i>per cent</i> of ground rent revenues	expenses as <i>per cent</i> of ground rent expenses	revenues as <i>per cent</i> of annuities revenues
1542	883	87	84	14	488
1543	779	79	56	14	435

The Uerdingen tithes gave Duesseldorf Hospital the right to take a certain percentage of crops grown in or around the town of Uerdingen, which was about 20km from Duesseldorf on the other side of the Rhine in the foreign territory of the Archbishop of Cologne. Managing the hospital's finances in the sixteenth century was thus an 'international' business. The hospital did not farm the crops directly but rented out the Uerdingen tithes. The rent was paid by a fixed contribution of crops, namely 100 *Malter* of rye, 100 *Malter* of oats, and 2 *Malter* of colseed (rape) plus a special due of 6 *Horn Gulden*, which was a specific coin that was in circulation in the fifteenth and sixteenth centuries in north western Germany and was valued as one and a half *Mark* (1 *Mark* 6 *Schilling* in 1542 and 1 *Mark* 7 *Schilling* in 1543).

When the Duesseldorf hospital master collected the 'rent' in Uerdingen in both years 1542 and 1543 he reduced the accounted rate of 100 *Malter* of rye and oats by 2 *Malter* respectively omitting crop of lesser quality (*krumpkorn*). Moreover, he had to leave 2 *Malter* of rye to cover an annuity that the Duesseldorf hospital had to pay in Uerdingen. But in 1542 when he came to Uerdingen he only received 94 *Malter* of rye without giving any reason for this further reduction of 2 *Malter*. Back in Duesseldorf this amount equated to 104 Duesseldorf *Malter*, as Uerdingen and Duesseldorf did not share the same measurement system.

In the following year, 1543, the tenant in Uerdingen suffered a poor harvest so that the hospital master reduced his claim by a further 13 *Malter* of rye to 83 (Uerdingen) *Malter*, of which he actually received 71 (Uerdingen) *Malter*, which translated into 84 (Duesseldorf) *Malter*. The hospital account book shows that after examining and selecting the crop again, the master was able to sell and account for 61 *Malter* that year. Comparing the contracted rent for the Uerdingen tithe and entries in the account book it is possible to see the impact of 'currency conversion' which meant that a considerable amount of the hospital's income appears to be lost within the accounting system.

The final stage in the transaction occurred when the hospital master needed money and sold the selected crops. A small part of the rye, the oats and the coleseed were sold immediately to the tenant in Uerdingen. The rye – the most common component of bread and therefore fundamental to early modern economics – was sold for three different prices each year and the oats were sold for two different prices. The Uerdingen tenant invariably paid the highest price. If the prices could vary within one year by about thirty per cent, as we have seen, depending on conditions which were unspecified in the account books, one begins to appreciate the difficulties of outlining the history of prices and salaries in the early modern period.

However, the Uerdingen tithe is also named several times within the expenses section of the hospital's ground rent account books. In both years the expenses for the Uerdingen tithe add up to about ten per cent of its overall income (equal to about fourteen per cent of the total expenditures paid from ground rents). A closer look at the hospital master's expenses in selling the crop allows further insight into of his function.

First, the hospital master had to construct a contract arranging the details of the lease of the tithe. The usual contract period was six years and in 1542 a new contract had to be drawn up. In order to prepare the contract, a messenger travelled several times to Uerdingen transferring correspondence between the hospital master, the tenant and the mayor in Uerdingen. To close the deal, a delegation comprising the hospital master and two aldermen accompanied by a clerk travelled from Duesseldorf to Uerdingen where the mayor was given a gift of some twelve litres of wine. Because the tenant in Uerdingen was unable to immediately pay his dues,

the clerk had to stay overnight which meant he had to give another bottle of wine to the mayor and the clerk in Uerdingen. The following morning when the tenant was able to pay, the Duesseldorf clerk took the money and hired a security guard to be safe for his 20 km trip back to Duesseldorf, which required crossing the border between the Archbishopric of Cologne and the Duchy of Berg.

In the following year, 1543, the mayor of Uerdingen came in person to Duesseldorf to bring the money. Seizing the opportunity offered by this business, the Uerdingen mayor and the hospital master consumed nearly 3.5 litres of wine. Several weeks later, the Uerdingen mayor and the tenant of the Uerdingen tithe came to Duesseldorf together to re-negotiate the contract. That evening they had dinner with the council of Duesseldorf, the cost of which was split equally between the hospital master and the tenant. As the Uerdingen delegates predicted yet another bad crop, two aldermen from Duesseldorf travelled to Uerdingen to visit the estate. This meant that the hospital master had to pay their expenses, particularly food but especially for the drinks.

Finally, the hospital master had to organise the retrieval of the crop from Uerdingen. First, a messenger was sent to Uerdingen to see if the harvest was due. When he reported the crop to be mature, the hospital master sent a messenger to Neuss on the opposite bank of the Rhine to lease (or buy) several big bags which apparently were not available in Duesseldorf. He then travelled with a small crew to Uerdingen. On arrival he hired several workers to put the crop into the bags and, finally, a horse to transport the bags to the Rhine. Once there, he hired a ship to travel along the river to Wittlaer where they stayed overnight with two of the team guarding the ship. The next morning the boat was towed upstream to Kaiserswerth about 10 km in the north of Duesseldorf where it had to pass through the customs controls of the archbishop of Cologne. To avoid paying the full tariff the hospital master made a payment to the bailiff of Kaiserwerth. Finally, the valuable cargo reached Duesseldorf where the bags were carried to the hospital cellars. There the crop was examined and sorted so that only the coleseed, oats and rye of better quality were sold.

## Conclusion

In recent research, late Medieval and Early Modern hospital finance has been discussed as a ‘budget for the beyond’ (‘comptabilité de l’au-dela’/ ‘mit dem Jenseits Rechnen’). Using such a framing device allows us to see hospitals as business establishments which had to balance income and expenditure at the same time as securing their founders’ and benefactors’ capital in the afterlife.<sup>30</sup> At the same time, this valuable model focussing the organisational framework enables a broader perspective on medieval and early modern hospitals which is not restricted to the issue of the relationship between university medicine and its translation to hospital practice. In theory, the interest on the capital donations from hospital benefactors was to provide a recurrent income, irrespective of when the donations were made or when the benefactors had died. In practice, caring for the sick and poor provided the best ‘return’ on this expenditure for the hospital benefactors’ souls. The job of the hospital master was to ensure the continuity of the hospital and its caring function. This justified prioritising the enrichment of the hospital’s capital reserves, especially in agricultural estates, over maximising the care of the residents. Judging welfare institutions by their cost-effectiveness was already conventional in sixteenth century Europe.<sup>31</sup> The Duesseldorf case study shows that the management of the hospital’s resources through diverse financial strategies was one of the main duties

30 Christina Vanja, ‘Offene Fragen und Perspektiven der Hospitalgeschichte’, in Martin Scheutz, Andrea Sommerlechner, Herwig Weigl, and Alfred Stefan Weiß, eds, *Hospitals and Institutional Care in Medieval and Early Modern Europe* (Wien, München: Oldenbourg, 2008), 25–27; Gerhard Aumüller, ‘Die Hohen Hospitälere Hensens als geordnete christliche Haushalte – Die ökonomischen Grundlagen der Hospitälere in einer frühen Phase der Medikalisation’, in Gerhard Aumüller, Kornelia Grundmann, and Christina Vanja, eds, *Der Dienst am Kranken. Krankenversorgung zwischen Caritas, Medizin und Ökonomie vom Mittelalter bis zur Neuzeit. Geschichte und Entwicklung der Krankenversorgung im sozioökonomischen Wandel* (Marburg: Elwert, 2007), 113–151.

31 Garbellotti, *Assets of the Poor*; Ulrich Knefelkamp, *Stiftungen und Haushaltsführung im Heilig-Geist-Spital in Nürnberg 14.–17. Jahrhundert* (Bamberg: 1989), 203–211.

for its masters. During this period the German municipalities also tried to supervise hospital management (at least of the richer hospitals). This required advocating care of the local poor community as a form of payment for the afterlife of benefactors' souls.<sup>32</sup>

This essay has shown how hospital accounting records can go beyond the existing historiography on the medieval economy of almsgiving to try to understand how a hospital functioned from the master's perspective. It suggests that accounting was part of the 'daily life' of the hospital master. The account books demonstrate that he was a literate and numerate individual, who could also negotiate with external authorities and enter into contracts. This was a critical and demanding part of his job, given what we know about early modern social and economic life. The 1542 the annuities account book also contains numerous entries for small transactions, ranging from 12 *Mark* to only 4 *Schilling*, which were probably paid in several different local coins and currencies, but which then had to be accounted for in one uniform arithmetical unit. One wonders how the hospital master maintained control over the fuzzy economics of this hospital. Similarly, the municipal account book of Duesseldorf for 1541 indicates that it must have been equally difficult for the mayor to keep track of the town's finances.<sup>33</sup>

For historians too, there are clear methodological difficulties with working with these early modern hospital accounts, especially in converting various currencies, coinages and vague measures into modern standards. There are also issues with disappearing assets: late medieval and early modern hospital account books frequently listed items in one year which in a subsequent year may not appear if the harvest was poor or disrupted by warfare, or when debtors defaulted on their payments.<sup>34</sup> So, for economic history purposes these sources remain problematic.

The hospital account books articulate the care of the sick and poor as a series of financial transactions – paying for food and drink, for heating,

32 Garbellotti, *Assets of the Poor*, 128.

33 Looz-Corswarem, *Rechnungsbuch*, 41: 'Ob der Bürgermeister überhaupt einen kontinuierlichen Überblick über Einnahmen und Ausgaben hatte, muß bezweifelt werden.'

34 Knefelkamp, *Stiftungen und Haushaltsführung*, 217–218.

for the refurbishment of the building and, very rarely, paying a doctor or a barber. All this was dependent on the master securing an income for the hospital. The account books of the Duesseldorf hospital for the years 1542–1543 show that a significant amount of the hospital master's time was taken up with bringing in the revenues. This included travelling to the estates several times each year: first to negotiate the annuity agreement and then later to collect the crop. This was not an easy job and also required managing trans-border logistics. Finally, the hospital master had to sell the crop, which often resulted in losing a significant part of its original value.

These findings support recent research on the financial systems and strategies also used by Italian cities and hospitals of the same period. It helps to broaden our knowledge of the complexity of hospital income and expenditure, the impact of crises, and of the convoluted relationships between hospitals and municipalities.<sup>35</sup> But more importantly, these account books provide a valuable insight into how individuals who worked within hospitals – in this case the master – balanced theory and practice: keeping the ultimate religious purpose of the institution in sight, parallel to the daily struggle to generate the necessary income for the delivery of poor relief and healthcare provision. With this gaze, conversion rates and gaps in the accounts books cease to matter: we gain instead a more useful picture of an early modern European hospital, in which university medicine is non-existent.

35 Sneider, *The Treasury of the Poor*; Garbellotti: *Assets of the Poor*; Meyer, *Organisierter Bettel*.

SHARON T. STROCCHIA

## Caring for the 'Incurable' in Renaissance Pox Hospitals

The eruption of syphilis onto the European stage in the mid-1490s prompted a public health crisis of the first order. The disease itself was known by a variety of names – the 'French disease', the 'Neapolitan sickness', 'French scabies', the 'Spanish sickness', or more simply the pox – all of which blamed other, neighbouring peoples as the source of contamination.<sup>1</sup> Learned physicians steeped in Latin Galenism proposed different causal explanations for this new disease, ranging from corrupt air, poor health regimens, and divine punishment to infection by sexual contact.<sup>2</sup> As syphilis became more widely recognized as a venereal disease by the 1520s, it also generated a range of moralizing attitudes that differed from place to place.<sup>3</sup> Yet one of the most consistent responses to this new threat by public health authorities and charitable organizations across Europe was the creation of specialized hospitals to treat poor pox victims. Major Italian cities saw a rash of new hospital foundations between 1499 and 1526 aimed at assisting paupers suffering from what was initially thought to be an

- 1 Claude Quézel, *History of Syphilis*, trans. Judith Braddock and Brian Pike (Baltimore: Johns Hopkins University Press, 1990), 11–16. In this essay, I use the terms French disease, pox and syphilis interchangeably.
- 2 Jon Arrizabalaga, 'Medical Responses to the "French Disease" in Europe at the Turn of the Sixteenth Century', in Kevin Siena, ed., *Sins of the Flesh: Responding to Sexual Disease in Early Modern Europe* (Toronto: Centre for Reformation and Renaissance Studies, 2005), 33–55.
- 3 Winfried Schleiner, 'Moral Attitudes towards Syphilis and its Prevention in the Renaissance', *Bulletin of the History of Medicine* 68 (1994): 389–410.

incurable disease.<sup>4</sup> At least twenty syphilis hospitals were founded in early sixteenth-century Germany, mainly in the southwest; London hospitals treated poor pox patients from at least the 1550s.<sup>5</sup> The significant resources these institutions commanded indicate the widespread determination to confront this disease threat head-on.

Recent studies have greatly expanded our knowledge of how the French disease was understood and treated in sixteenth-century pox hospitals. One area that remains poorly understood, however, is the role that hospital nursing staffs played in treating syphilitics. Apart from Mario Vanti's study of the *Ministri degli Infermi*, an Italian male religious order devoted to the institutional care of syphilitics in Rome, little is known about the women and men who treated pox sufferers elsewhere, the duties they performed, and the kinds of medical expertise they possessed.<sup>6</sup> Only recently have scholars considered the medical value of care provided by hospital nurses, especially women, whose responsibilities were so naturalized that their importance to larger charitable and therapeutic systems has been obscured.

Using the case study of the hospital for 'incurables' [*Incurabili*] established in Florence in 1521, this essay considers the significance of women's medical work in Renaissance pox hospitals and probes the knowledge derived from their everyday practices. Despite their lack of formal schooling, female hospital nurses were important medical agents who contributed to efficient hospital management and therapeutic care. In the course

- 4 Jon Arrizabalaga, John Henderson, and Roger French, *The Great Pox: The French Disease in Renaissance Europe* (New Haven and London: Yale University Press, 1997), 145–170. Pox hospitals were founded in Genoa (1499), Rome (1515), Naples (1519), Brescia (1521), Florence (1521), Venice (1522), Ferrara (1525), and Padua (1526).
- 5 On German pox hospitals, see Robert Jütte, 'Syphilis and Confinement: Hospitals in Early Modern Germany', in Norbert Finzsch and Robert Jütte, ed., *Institutions of Confinement: Hospitals, Asylums, and Prisons in Western Europe and North America, 1500–1950* (Cambridge: Cambridge University Press, 1996), 97–115. Kevin Siena discusses the piecemeal approach to institutional care for London pox patients in 'The Clean and the Foul: Paupers and the Pox in London Hospitals, c. 1550–c. 1700', in *Sins of the Flesh*, 261–284.
- 6 Mario Vanti, *S. Giacomo degl'Incurabili di Roma nel Cinquecento* (Rome: Pustet, 1938).



of treating pox sufferers, these women developed hands-on experiential knowledge about the body and about effective therapies that proved valuable to emerging structures of public health. Much of their knowledge was artisanal in nature: it was drawn less from printed treatises than from prolonged apprenticeship, sustained observation, episodic experimentation, and continuous repetition. Drawing on the hospital's rich archival records – account books, statutes, inventories, deliberations by the hospital board, other administrative materials – I first situate this hospital in its historical landscape before turning to a more detailed examination of the female nursing community there. The first part of the essay examines the social identity and governance practices of female caregivers at the Florentine *Incurabili*, comparing local features with what is known about the nursing staff (both male and female) at other Italian and European pox hospitals. The second part of the essay turns to the content of nurses' work as well as to issues of patient care. Throughout the essay, I explore how nursing practices responded to the changing disease environment and evolving medical understanding of contagion in sixteenth-century Italy. By focusing on a key but understudied segment of hospital personnel, the essay enlarges our perspective on how institutional healthcare in early modern Europe was organized, practiced and gendered.

## The making of a medical community

What motivated the creation of new charitable institutions to treat the pox was a complex mixture of sympathy and disgust. In the early stages of the epidemic, the French disease caused hideous symptoms afflicting highly visible areas of the body. Common symptoms such as stinking, suppurating boils and putrid pustules covering the skin and face offended a sense of public decorum as well as viewers' personal sensibilities.<sup>7</sup> This sense of

7 Quétel, *History of Syphilis*, 9–32.

repulsion was magnified by the thick, noisy crowds of pox victims lining the city streets, clamoring for alms. Even if these throngs of sick beggars did not pose a direct threat to public order, contemporaries noted that the vile appearance and horrific stench of their ulcerations were revolting to the eyes and repulsive to the stomach.<sup>8</sup> Moreover, the Italian humanist historian Francesco Guicciardini remarked circa 1540 that many early syphilis sufferers 'became extremely deformed and rendered useless' by both the ravages of disease and the damaging effects of remedies like mercury ointments.<sup>9</sup> Debilitated by their illness and forced to move around on small carts or hand trestles, many of the afflicted died in the streets, since existing hospitals could not accommodate their overwhelming numbers. Hence the new *Incurabili* hospitals founded across northern Italy between 1515 and 1526 simultaneously aimed to assist sufferers who could not afford treatment and to remove them from public view, by force if necessary.

The foundation of the Florentine *Incurabili* hospital in 1521 reflected this blend of repugnance and pity. Although the French disease was first reported in the city in May 1496, it took two decades to organize a coherent institutional response.<sup>10</sup> The establishment of a local pox hospital was backed by the combined forces of Leo X, his nephew the Florentine archbishop Giulio de' Medici, and adherents of the Savonarolan movement, who took a special interest in social welfare initiatives.<sup>11</sup> The newly-founded

8 Archivio di Stato, Florence (hereafter cited as ASF). Manoscritti. Vol. 173, no. 5, unfoliated. All translations are mine unless otherwise noted.

9 Francesco Guicciardini, *The History of Italy*, trans. Sidney Alexander (London: Macmillan, 1969), 109.

10 Luca Landucci, *Diario fiorentino dal 1450 al 1516* (Florence: Sansonii, 1883), 132, reports the appearance in May 1496 of 'una certa infermità, che le chiamavano bolle franciose, ch'erano come un vagiuolo grosso' [a certain ailment that was called French boils, which were like a large pox].

11 Details of the foundation are given in Arrizabalaga, Henderson, and French, *Great Pox*, 160–162. The manuscript sources cited by the authors privilege the involvement of Cardinal Giulio de' Medici over Savonarolan networks. Among the ardent Savonarolans involved in the hospital's foundation were the apothecary Bernardo Mini, who supplied the initial stock of medicinals, and Simone Ginori, who subsidized medicinal purchases from Mini. Both men also played active roles in establishing

Florentine confraternity of the Holy Trinity was responsible for running the hospital, and it quickly attracted a wide range of donors. Among the project's early sponsors were numerous well-born pious women, whose support echoed the activism of other laywomen in establishing syphilis hospitals in Venice, Genoa, Naples, and other Italian cities.<sup>12</sup> Financial backing by female members of the confraternity was exceptionally robust; throughout the 1520s, women's voluntary contributions exceeded men's by thirty percent, even though female members paid only half the dues required from men.<sup>13</sup> Complementing this revenue stream were civic and private donations that enabled the confraternity to purchase property, medicines, furnishings, and other essentials.<sup>14</sup> The heterogeneous nature of hospital support reflected an evolving church-state partnership characteristic of early modern Italian charitable institutions; at the same time, it also led to conflicts of authority over daily hospital operations throughout the sixteenth century.

Construction on the new hospital complex, sited on Via S. Gallo, started circa 1522. This location on the urban periphery placed the Incurabili at a sufficiently 'safe' distance from the most densely populated zones,

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the pharmacy at the Savonarolan convent of S. Caterina da Siena in Florence. ASF. Ospedale della SS. Trinita detto degli Incurabili (hereafter abbreviated as Incurabili). Vol. 102, fols. 45v–46r; Sharon T. Strocchia, 'The Nun Apothecaries of Renaissance Florence: Marketing Medicines in the Convent', *Renaissance Studies* 25 (2011): 627–647.

- 12 Andrea Nordio, 'Presenze femminili nella nascita dell'ospedale degli Incurabili di Venezia', *Regnum dei* 120 (1994): 11–39; Guido Donatone, *La farmacia degli Incurabili e la maiolica napoletana del Settecento* (Naples: Delfino, 1972), 11.
- 13 ASF. Incurabili. Vol. 102, fol. 19r. Between 1522 and 1529, the confraternity collected 1089 lire in dues from women residing in the city and countryside, compared to 839 lire from men.
- 14 In 1534 Duke Alessandro de' Medici designated one-third of the income from a city-wide tax to the hospital. Ten years later, Paul III assigned revenues from the patrimonies of small, suppressed religious institutions to the hospital. After 1541, Duchess Eleonora of Toledo made monthly gifts of ten ducats and donated the hefty sum of 500 ducats in 1560. Luigi Passerini, *Storia degli stabilimenti di beneficenza e d'istruzione elementare gratuita della città di Firenze* (Florence: Le Monnier, 1853), 210–211.

much like pox hospitals in some German towns.<sup>15</sup> Renaissance hospitals across Europe normally segregated male and female patients by placing beds for men and women along opposite walls, by using chapels to partition wards, or by constructing separate floors or wings.<sup>16</sup> Some general hospitals placed sufferers in separate rooms or sections according to their ailments; in turn, these spaces were organized internally by sex. The general hospital in sixteenth-century Valencia, for instance, established discrete sections for syphilitics, abandoned infants, the mad, and those suffering from wounds and fevers.<sup>17</sup> Owing to space constraints at the site, the Florentine Incurabili opted for a compact arrangement. The men's ward was situated on the ground floor, with the women's section placed on the floor above.<sup>18</sup> Apparently, the hospital did not include separate chambers for the terminally ill suffering from late-stage syphilis, as did the pox hospital in Strasbourg (est. 1504). However, it did permit those with other incurable ailments to lodge at the complex, apart from those taking the seasonal guaiac cure, at least through the 1570s.<sup>19</sup> In its first half-century of operation, the Florentine Incurabili remained a multipurpose institution catering to a hybrid patient population. As the local hospital system became more highly differentiated in the late sixteenth century, however, the Incurabili cared exclusively for pox sufferers, unlike its much larger counterpart in Naples, which continued to house those suffering from pox, tuberculosis, cancer, and madness well into the seventeenth century.<sup>20</sup>

15 Jütte, 'Syphilis and Confinement', 101.

16 Eunice D. Howe, 'The Architecture of Institutionalism: Women's Space in Renaissance Hospitals', in Helen Hills, ed., *Architecture and the Politics of Gender in Early Modern Europe* (Aldershot: Ashgate, 2003), 63–82.

17 Maria Luz Lopez Terrada, 'El tratamiento de la sífilis en un hospital renascentista: la sala del *mal de siment* del hospital general de Valencia,' *Asclepio* 41 (1989): 19–50.

18 By contrast, the Incurabili hospitals in Rome and Venice had two parallel wards for women and men; Arrizabalaga, Henderson, and French, *Great Pox*, 185.

19 Jütte, 'Syphilis and Confinement', 103; ASF. Incurabili. Vol. 1, pp. 36–37.

20 Giulio Cesare Capaccio, *Descrizione di Napoli ne' principii del secolo XVII* (Naples: Giannini, 1882), 34, who notes that patients and staff together numbered about 1,500 persons.

Filling the beds of Incurabili hospitals were the urban poor, whose experience of pox differed markedly from their social superiors. Wealthy merchants and aristocrats suffering from the French disease most commonly were treated by physicians and family members in their own homes. For instance, when Duchess Eleonora of Toledo was in Pisa with her brother Don Luis in 1547, she asked the Medici court physician Andrea Pasquali to send her the recipe and protocol for guaiac treatment so that her brother could take the purges on his own.<sup>21</sup> At the Florentine Incurabili, patients themselves paid no fees for treatment until 1645; their medical care was fully subsidized by the hospital. However, the 1574 hospital statutes required entering patients to produce two certificates for admission: one from a local physician attesting to their need for treatment; the other from their parish priest confirming their inability to pay for it.<sup>22</sup> Intended to prevent fraud, this process also wove the Incurabili into existing administrative structures of church and state. Poor sufferers seeking admission to the Florentine Incurabili thus had to navigate two levels of bureaucracy – ecclesiastical and medical – in order to obtain care. Still, they were not subjected to the humiliating examinations and moral censure facing impoverished pox sufferers in London, who were vetted by a disapproving hospital board prior to admission.<sup>23</sup>

No patient registers from the Florentine Incurabili have survived, but hospital account books offer some clues about patient numbers and identities. Although little is known about the actual functioning of the hospital in its first two decades of operation, by 1540, when records improve, the hospital was treating hundreds of patients annually. Over the next

21 ASF. Mediceo del Principato. Vol. 1173, ins. 3, fol. 123r. Cited in Sheila Barker, 'Medical Culture and the Women of the Medici Granducal Court', in Alessio Assonitis and Brian Sandberg, ed., *The Medici and their Archive. Power and Representation in Early Modern Tuscany* (Rome: Viella, forthcoming). My thanks to Dr Barker for allowing me to read this manuscript prior to publication.

22 ASF. Incurabili. Vol. 1, pp. 29, 55–56.

23 Siena, 'Clean and the Foul', 269, 274. Venereal patients in London were also treated gratis until 1667, when they became the first hospital patients in England required to pay admission fees.

half-century, the pressure of numbers mounted. By the 1590s – a decade marked by severe famine and dearth throughout Tuscany – the hospital was forced to revise its admission policy, treating only the sick poor from Florence itself.<sup>24</sup> Hospital accounts covering the period 1572 to 1576 give partial information about the patients seeking help. Renaissance hospitals typically admitted two to three times more men than women, irrespective of capacity.<sup>25</sup> That ratio held true for patients who voluntarily paid fees or gave alms to compensate their treatment at the Florentine *Incurabili*; since the truly destitute were not included in these accounts, however, the total numbers are under-represented. In this five-year period, the hospital received voluntary payment from sixty-five men and twenty-one women, or a ratio of roughly three to one.<sup>26</sup> Historians have argued that this gender imbalance among inmates probably reflected women's more extensive social resources in the form of friends, family, and neighbours who provided home-based care. The differential was particularly acute at the famed Roman *Incurabili* hospital of S. Giacomo – the largest pox hospital on the peninsula – where women represented less than twenty per cent of total admissions in the second half of the sixteenth century.<sup>27</sup>

24 ASF. *Incurabili*. Vol. 2, fol. 47v, dated 29 Aug. 1596; Daniela Lombardi, 'Poveri a Firenze. Programmi e Realizzazioni della Politica Assistenziale dei Medici tra Cinque e Seicento', in Giorgio Politi, Maria Rosa and Franco della Peruta, ed., *Timore e Carità. I Poveri nell'Italia Moderna* (Cremona: Biblioteca Statale e Libreria Civica di Cremona, 1982), 165–184.

25 Montserrat Cabré, 'Women or Healers? Household Practices and the Categories of Health Care in Late Medieval Iberia', *Bulletin of the History of Medicine* 82 (2008): 18–51, at 25n. Bernice J. Trexler, 'Hospital Patients in Florence: San Paolo, 1567–68', *Bulletin of the History of Medicine* 48 (1974): 41–59, notes that probably twenty of San Paolo's thirty-five beds belonged to the men's ward. However, Jütte, 'Syphilis and Confinement', 110, reports that the syphilis hospital in Strasbourg catered to more women than men in the mid-sixteenth century.

26 ASF. *Incurabili*. Vols. 61, 62.

27 Arrizabalaga, Henderson, and French, *Great Pox*, 193. Consequently, the nursing staff at S. Giacomo was also disproportionately male. At least a hundred men drawn from Italy, Spain, Flanders, Provence, and France worked there in 1580. Among them was the future saint Camillo de Lellis, who served as head warden in 1582. Archivio di Stato, Rome (hereafter cited as ASR). Ospedale di S. Giacomo. Vol. 366, no. 41, fol. 56r.

This striking disparity was due to S. Giacomo's open-door policy, as well as to the highly masculinized nature of its host city. In the 1590s, sixty to sixty-five per cent of the Roman population was male, in contrast to the more evenly balanced urban populations in Bologna, Florence, and other Italian cities.<sup>28</sup>

Despite its fragmentary nature, the Florentine evidence points to an important story about the relationship between sex, gender, and venereal disease. Women seeking treatment at the Florentine *Incurabili* in the mid-1570s included the wives and widows of wool weavers, carders, and second-hand dealers, who probably contracted the French disease from their husbands. Other adult women treated at the hospital were domestic servants and former prostitutes, whose occupations left them vulnerable to sexual disease. Especially striking is the fact that ten of the twenty-one women recorded – almost half the group – were young girls described as the unmarried daughters of tailors, mercers, masons, innkeepers and other artisans, whose fathers uniformly paid their hospital fees. Most likely, they had either contracted syphilis congenitally or, as Nicholas Terpstra has argued, via some form of coercive sex that permeated sixteenth-century urban life.<sup>29</sup> By contrast, the men recorded in these registers were all adults, with one exception. They ran the gamut from a preponderance of Spanish soldiers and other 'foreigners' to local artisans such as millers and wool workers. This anecdotal information points to the ways that the experience of pox was strongly conditioned by gender as well as by class.

Attending these sufferers at the Florentine *Incurabili* was a diverse medical staff whose expertise and relationship to the hospital varied greatly. Men on staff included a salaried physician and surgeon who visited the sick daily but who did not live on-site. Their work was facilitated by a resident, salaried male nurse who accompanied them and noted the needs of individual male patients. About a dozen live-in male servants tended the men's ward; they were short-term employees paid a meager monthly salary

28 Arrizabalaga, Henderson, and French, *Great Pox*, 193.

29 ASF. *Incurabili*. Vol. 61, fols. 4r, 5r, 6r–10r, 14v–17v, 34v–35r, 44r. Nicholas Terpstra, *Lost Girls: Sex and Death in Renaissance Florence* (Baltimore: Johns Hopkins University Press, 2010).

in addition to room and board, an arrangement that led to high rates of turnover.<sup>30</sup> These men may have found other employment opportunities in the textile trades, or in the various public works projects launched by the Medici Grand Dukes. Supplementing this staff were volunteers belonging to the hospital confraternity. Four laymen were appointed to scour the streets for 'those afflicted by the French disease or other incurable ailment, except leprosy or plague' [oppressi da alcuna infermita o da morbo gallico o altra malattia incurabile excepto che di lebbra o peste].<sup>31</sup> Having differentiated among the sick, these men then conveyed them to the appropriate hospital. Emerging public health systems in sixteenth-century European cities relied on similar surveillance teams comprised of ordinary citizens, whether they were charitable volunteers or, in the case of Elizabethan London, elderly female 'searchers' employed by the parish to inspect the sick and dead for signs of plague.<sup>32</sup> This community-based arrangement undoubtedly exposed healthcare workers to what were already recognized as infectious diseases; at the same time, it presumed considerable diagnostic expertise on their part, since pox symptoms were often identified with leprosy in the early years of the outbreak, sometimes baffling even learned physicians.<sup>33</sup> Volunteers also were asked to distinguish between genuine pox sufferers and tricksters who feigned symptoms by applying 'false ointments' [falsi unguenti] in order to collect alms.<sup>34</sup> The fact that ordinary women and men were called upon to deploy their own interpretive resources when making such diagnoses speaks to the common assumption that significant vernacular medical knowledge suffused both street and household.

30 ASF. Incurabili. Vol. 1, pp. 30–32; Vol. 60, fols. 178v–179r, 180v, dated 1557, recording monthly salaries of three and a half lire, or roughly six scudi annually.

31 ASF. Incurabili. Vol. 1, pp. 11–12, 1521 hospital statutes.

32 Richelle Munkhoff, 'Searchers of the Dead: Authority, Marginality, and the Interpretation of Plague in England, 1574–1665', *Gender & History* 11 (1999): 1–29.

33 Quétel, *History of Syphilis*, 21–22. Roger French and Jon Arrizabalaga note the disfigurement caused by syphilis, and its perceived parallels with leprosy, in 'Coping with the French Disease: University Practitioners' Strategies and Tactics in the Transition from the Fifteenth to the Seventeenth Century', in Roger French, Jon Arrizabalaga, Andrew Cunningham and Luis Garcia-Ballester, ed., *Medicine from the Black Death to the French Disease* (Aldershot: Ashgate, 1998), 248–287.

34 ASF. Manoscritti. Vol. 173, no. 5, unfoliated.



The female nursing staff at the Florentine Incurabili formed a discrete, medium-sized residential community of eighteen to twenty-four women.<sup>35</sup> Traditionally, hospital nurses in late medieval Europe were mature women, often widows, who had already fulfilled their most pressing reproductive and domestic responsibilities.<sup>36</sup> Indeed, the Incurabili hospital in Pavia was staffed by twelve widowed 'matrons' [matrone] who were responsible for female patient care. At both the Savoy in London and the civic hospital of S. Maria Nuova in Florence, nurses were required to be over thirty-six years of age, while at St Giles, Norwich, they had to be over fifty.<sup>37</sup> In choosing mature women to tend the sick, hospitals had to balance the physically taxing demands of nursing against the need to maintain hospital discipline. It was commonly assumed – not always correctly – that older women would refrain from youthful indiscretions such as brawling, public drunkenness and sexual flirtations that could plunge the community into disarray.<sup>38</sup> Although these wives, widows, and single women entered hospital service from different points in their life cycle, they nevertheless capitalized on years of hands-on experience with domestic medicine that could be put to good use in a hospital setting. Scholars probably have underestimated the extent to which experiential know-how flowed into a hospital through its nursing staff, whose expertise could be circulated and deepened via bedside encounters as part of a dynamic process.

- 35 ASF. Incurabili. Vol. 3, fol. 78r/v. At the largest Florentine hospital of S. Maria Nuova, there were about a hundred female staff members by the early sixteenth century, including live-in servants and their assistants; John Henderson, *The Renaissance Hospital: Healing the Body and Healing the Soul* (New Haven: Yale University Press, 2006), 83.
- 36 Carole Rawcliffe, 'Hospital Nurses and their Work', in Richard Britnell, ed., *Daily Life in the Late Middle Ages* (Stroud: Sutton, 1998), 43–64.
- 37 Anita Malamani, 'L'Ospedale degli Incurabili di Pavia dalle origini al suo assorbimento nel P.L. Pertusati', *Archivio storico lombardo* 100 (1974): 145–170, at 158; Henderson, *Renaissance Hospital*, 199, 218.
- 38 *Ibid.*, 217. Deborah E. Harkness, 'A View from the Streets: Women and Medical Work in Elizabethan London', *Bulletin of the History of Medicine* 82 (2008): 52–85, at 77, notes instances of Elizabethan nursing sisters being reprimanded for brawling and public intoxication.

Throughout the sixteenth century, the Florentine *Incurabili* chose its female nursing staff from an unconventional pool. Rather than tapping older women experienced in domestic medicine, the hospital instead recruited unmarried teen-aged girls of good reputation [*oneste fanciulle*] between the ages of sixteen and eighteen – the customary age at which Florentine girls first married.<sup>39</sup> Many of these girls came from the countryside or nearby towns; most had no close kin; all were poor. Their plight was brought to the attention of the hospital board by confraternal members, who sponsored their candidacy and often paid their entrance fee of thirty to eighty ducats, in addition to providing clothing and linens. By the 1580s, relationships of clientage reshaped both the hospital and its nursing staff, much as they did other institutions in granducal Florence. Hospital wardens and other officials promoted their own nieces or friends' children and tenants, but the candidates remained young, poor and unmarried.<sup>40</sup>

Given the long tradition of recruiting mature women into hospital service, it is worth asking why the *Incurabili* governors entrusted a major public health initiative involving costly medicines and hundreds of patients annually to such young, inexperienced girls. Presumably, youth trumped experience for both practical and ideological reasons. Much of what has been called the 'new philanthropy' of Catholic reform centered on rescuing vulnerable girls from prostitution, mainly by housing them in various types of custodial institutions.<sup>41</sup> Staffing the hospital with poor, abandoned girls who might otherwise fall into sin formed an explicit part of the *Incurabili*'s charitable mission. Thus when the hospital governors

39 ASF. *Incurabili*. Vol. 3, fol. 13r. This age profile most closely resembled the nursing sisters called *soeurs grises*, whose 1483 statutes required that entrants be seventeen to thirty years old. The group flourished in Flanders and northern France but to my knowledge was never active in Italy. Henri Lemaitre, 'Statuts des religieuses du tiers ordres franciscain dites soeurs grises hospitalières (1483)', *Archivum franciscanum historicum* 4 (1911): 713–731, at 721.

40 For instance, in 1572 the hospital prior Marcello Acciaiuoli successfully sponsored two young nurses; in 1587 the *Incurabili* accepted the daughter of Teo Paladino, a rural tenant of the former hospital prior Antonio Salvati; ASF. *Incurabili*. Vol. 2, fol. 32r; vol. 61, fol. 3r/v.

41 Arrizabalaga, Henderson, and French, *Great Pox*, 152–153.

accepted sixteen-year old Francesca from the nearby town of Prato as a nurse in 1570, they met twin objectives: securing an able caregiver, on the one hand, while saving her from prostitution on the other. Described as 'extremely poor [...] without father, mother or other close relations [...] and good-natured with good habits' [gran povertà [...] senza padre e madre e altri stretti parenti [...] e di buona indole e costumi], Francesca easily could have become yet another lost girl, since she lacked the means to enter a convent as a serving nun and was already too old to be placed in one of the new girls' conservatories emerging after 1540. Instead, the hospital board voted unanimously to admit her as a nurse in order 'to conserve her chastity and enable her to live a celibate life' [conservarsi la pudicitia e far vita celibe].<sup>42</sup> In addition to these social characteristics, physical strength and good health were paramount in meeting the rigors of hospital service. Other Incurabili recruits were described as being 'healthy, obedient, and willing to work hard' [sana et obediante e dura fatica volentieri] or 'of large stature and robust' [essendo fanciulla grande di vita e robusta].<sup>43</sup>

The nursing community itself exercised some control over who was accepted into service. Each trainee spent a probationary period of one to nine months working in the hospital to test her aptitude. At the end of this trial period, the governing board solicited nurses' opinions about the candidate's suitability. These peer assessments were taken seriously, at least through the sixteenth century, although the hospital board always had the final say. In 1574, the hospital administration voted to reject two young applicants 'because they were unfit for the work of this hospital and unsuited to its purpose according to the information provided by the majority of all the other nurses, who were diligently consulted' [per essere inhabile alle fatiche di questo spedale et non essere a proposito per quando se havuto informatione dalla maggior parte di tutte le altre servigiale examinate con diligentia].<sup>44</sup> The nurses also had a voice in selecting their own prioress

42 ASF. Incurabili. Vol. 2, fol. 21/v, dated 6 July 1570. Terpstra, *Lost Girls*, 48–49, notes that most girls were admitted to the Pietà conservatory around age eleven or twelve.

43 ASF. Incurabili. Vol. 2, fols. 56r/v, 100r.

44 ASF. Incurabili. Vol. 49, fol. 256v, dated 12 Dec. 1574.

from among their ranks. Every year the hospital board interviewed each of the nurses individually to hear 'their opinions, one by one' [l'opinione loro a una per una] regarding which candidates displayed the requisite qualities to head the staff.<sup>45</sup> By statute, the prioress had to be at least forty years old; in theory, she could only serve two consecutive annual terms before stepping down temporarily, but it was not uncommon for talented administrators to serve longer stints. Her purview extended to all female staff and female patients, who were obliged to obey her commands; in turn, she reported to the hospital warden and governing board. The prioress also appointed a treasurer to handle nurses' earnings from textile work and to make everyday purchases on their behalf.<sup>46</sup> After 1600, however, the nurses lost much of their autonomy in electing their officers; although the same statutes remained in effect, the hospital board consulted the women less frequently and instead relied more heavily on recommendations from the hospital warden when choosing the prioress.<sup>47</sup> Even though the prioress provided an important thread of continuity about institutional practices while carrying out these supervisory duties, she exercised no formal decision making power over the institution as a whole.

Service at the Incurabili was grueling and the living quarters cramped, but girls like Francesca had few other viable options. In light of the subsistence crises and growing immiseration that dogged Italy in the second half of the sixteenth century, hospital work offered a respectable pathway to social and economic stability. Like the thousands of youngsters who filled the city's orphanages, Francesca could make a living while making a life.<sup>48</sup> The Incurabili nurses were not paid directly for their work, but instead received room and board, clothing, and other necessities during their lifetime. This set-up contrasted sharply with staffing arrangements at Elizabethan hospitals, where nurses earned a small annual income supplemented by fees for additional services, from which they were expected to buy their own

45 ASF. Incurabili. Vol. 2, fol. 5v.

46 ASF. Incurabili. Vol. 1, pp. 26–28, 33–36.

47 ASF. Incurabili. Vol. 2, fols. 59r/v, 65r/v.

48 Nicholas Terpstra, 'Making a Living, Making a Life: Work in the Orphanages of Florence and Bologna', *Sixteenth Century Journal* 31 (2000): 1063–1079.

food.<sup>49</sup> Although we lack additional demographic information about the *Incurabili* nurses, we know that, after a lifetime of service, they could anticipate an honorable burial in the hospital chapel, with appropriate pomp and ceremony – no small reward for women of scarce means.<sup>50</sup>

Dismal working conditions and constant exposure to health hazards explain why nursing carried great weight as a charitable activity in Counter-Reformation Italy, yet remained an occupation chiefly reserved for the lower classes.<sup>51</sup> The stench caused by syphilis, especially in the stuffy, overheated wards, must have been overwhelming. Visitors to the pox hospital in late sixteenth-century Valencia reportedly tapped their noses as they passed the door to the pox ward and often refused to enter the room because of its foul odor and the fear of contagion.<sup>52</sup> The air in the closed-up wards was filled with smoke from braziers as well as fetid odors from ulcerations and human waste. Nurses had to overcome their repugnance toward the sick and cope with worries about becoming ill themselves. No first-hand accounts penned by the *Incurabili* nurses have surfaced, but they may well have shared the concerns voiced by a fictive nursing sister in the 1629 dialogue written by the Barnabite priest Biagio Palma. In this dialogue, the nurse worries aloud to the hospital rector that she might fall ill while carrying out her duties; the rector responds that she must care for the sick without regard for her own health and place her trust in God's

49 Harkness, 'View from the Streets', 75–76.

50 See for example the burial pomp accorded to one of the hospital nurses at S. Paolo in 1598, described in ASF, Ospedale di S. Paolo. Vol. 878, fol. 181r.

51 The Daughters of Charity, founded by Louise de Marillac and Vincent de Paul in the early seventeenth century and officially approved in 1646, also engaged in nursing activities as well as other forms of poor relief throughout France as part of an active vocation. However, there were significant differences between Florentine hospital nurses and the Daughters of Charity, ranging from class composition to organizational structure. Most of the Daughters came from artisan families, not the peasantry. Initially, they visited house-bound patients of the parish and only embarked upon nursing work in hospitals in 1640. See Susan E. Dinan, *Women and Poor Relief in Seventeenth-Century France: The Early History of the Daughters of Charity* (Aldershot: Ashgate, 2006).

52 Lopez Terrada, 'Tratamiento de la sífilis', 26.

mercy.<sup>53</sup> The Incurabili nurses found little respite outside the wards. By 1600, crowded conditions in the nurses' living quarters gave rise to 'bad air' or miasma – one of the root causes of illness in the Galenic system – prompting the hospital board to expand their rooms a few years later.<sup>54</sup> By accepting these risks, nurses advanced their own salvation while tending their patients' spiritual and bodily health. Yet however meritorious it was from a religious standpoint, the daily grind of hospital nursing lacked the dazzling performative aspects of charitable work undertaken by pious aristocratic women like Costanza Barberini (1575–1644), sister-in-law of Pope Urban VIII, who ceremonially abased herself by serving poor sick women at table in Rome's public hospitals from time to time, often surrounded by an appreciative noble audience.<sup>55</sup>

The Incurabili hospital drew heavily on monastic models, but the nurses there did not take solemn religious vows, even after the Council of Trent (1543–1565). Instead, these women straddled two worlds. When the orphaned, teenaged Francesca officially donned the russet-colored hospital uniform – the public marker of her affiliation – she entered an ambiguous legal category that was neither fully religious nor fully secular. Incurabili nurses led a monastic lifestyle: they made a private, lifetime promise to the institution itself, pledged permanent celibacy, brought a small dowry, followed highly regulated routines, shared common living spaces, and could only leave the premises with permission. They could not marry and set up their own households, like hospital nurses in late medieval and Elizabethan England.<sup>56</sup> Both their initial status as vulnerable virgins and their long-term adherence to monastic celibacy gave them a compensatory role in the urban sexual economy. Because syphilis was quickly recognized as being transmitted through sexual contact, the pox magnified the longstanding association between physical and moral corruption in contemporary understandings of disease. One common response to the widening pox epidemic

53 Pamela M. Jones, *Altarpieces and their Viewers in the Churches of Rome from Caravaggio to Guido Reni* (Aldershot: Ashgate, 2008), 165–168.

54 ASF. Incurabili. Vol. 2, fol. 68v, dated 27 April 1604.

55 Jones, *Altarpieces and their Viewers*, 169–170.

56 ASF. Incurabili. Vol. 1, pp. 32–33, 35. Harkness, 'View from the Streets', 77–78.

was to close civic brothels and otherwise target prostitutes.<sup>57</sup> The virtues of young virgins who charitably tended venereal patients symbolically offset the effects of sexual vice, much like the kind of civic ritual cleansing that was achieved by recycling fines from sex offenders to local convents for repentant prostitutes.<sup>58</sup> Locked in a permanent state of celibacy, *Incurabili* nurses functioned as agents of moral reform whose very persons were beneficial to sufferers' moral and physical recuperation. Yet the nurses never took solemn vows, unlike the professed Augustinian nuns who had staffed Florentine hospitals since the early twelfth century. In fact, it is unclear if *Incurabili* nurses even took simple vows, as did some tertiaries engaged in hospital work.<sup>59</sup> These women are probably best understood as oblates, even though that term did not find widespread use among hospital nurses until the early nineteenth century. Their liminal legal status ensured that the hospital board retained lay control over the entire institution, even as it fostered a strict moralizing atmosphere.<sup>60</sup>

Marking this in-between status was a new occupational label. Female hospital nurses were commonly identified in multiple ways, reflecting the fluidity of occupational labeling throughout Renaissance Europe.<sup>61</sup> The term 'nurse' [*infermiera*] was used almost exclusively in a convent context to describe the nun responsible for tending her sisters in religion during bouts of illness. In the fourteenth and fifteenth centuries, nurses at S. Maria

57 Quétel, *History of Syphilis*, 66–67.

58 Michael Rocke, *Forbidden Friendships: Homosexuality and Male Culture in Renaissance Florence* (New York: Oxford University Press, 1996), 53.

59 Edgar Erschine Hume, *Medical Work of the Knights Hospitallers of Saint John of Jerusalem* (Baltimore: Johns Hopkins University Press, 1940), 64–66, 154. Hume, 65, notes that many of the order's foundations for nuns 'carried no hospitaller duties, but were purely contemplative establishments, engaged in works of piety and devotion. Some of the sisters, on the other hand, were attached to the hospitals of the Order to care for women patients'.

60 Peregrine Horden, "A Discipline of Relevance": The Historiography of the Later Medieval Hospital, *Social History of Medicine* 1 (1988): 359–374.

61 Margaret Pelling, 'Nurses and Nursekeepers: Problems of Identification in the Early Modern Period', in *The Common Lot: Sickness, Medical Occupations and the Urban Poor in Early Modern England* (London and New York: Longmans, 1998), 179–202.

Nuova were simply called ‘women of the hospital’ [donne dell’ospedale]; a few who had achieved expertise in both nursing and pharmacy were dubbed ‘house physician’ [medica di casa].<sup>62</sup> Other contemporary Italian women engaged in hospital work were described as annuitants or corrodians [commesse], who contractually exchanged their property in return for an annual stipend and sometimes residential accommodations. Some hospital nurses were termed tertiaries [pinzochere], a label regularly applied to any pious woman, even if they lacked formal affiliation with an order and had not taken vows. Still other nurses were referred to simply as ‘Mona’, the respectful form of address for wives, widows and older women.<sup>63</sup> By contrast, Incurabili nurses were called ‘servant girls’ [fanciulle serventi], a term not found elsewhere in the landscape of urban healthcare. This label embedded the nurses in a perpetual state of institutional dependence and undercut formal recognition of growing medical expertise as they matured. Once Tridentine decrees gained purchase after 1600, hospital records increasingly referenced the nurses as ‘serving nuns’ [monache servigiali], although they also dubbed them servants, serving women, and servant girls.

The institutional stability of this Florentine nursing community contrasted sharply with the small female nursing staff serving the Roman pox hospital of S. Giacomo, which consisted of a prioress and three salaried assistants. These workers, mainly migrants to Rome from other parts of Italy, usually stayed at S. Giacomo just a few months before moving on to other work.<sup>64</sup> During the warmer months when the seasonal guaiac cure was administered, the number of female and male assistants temporarily doubled, providing a ratio of one caregiver for every thirty patients.<sup>65</sup> Such

62 Biblioteca Riccardiana, Florence, Ms. 1133, fols. 48r–52r; Biblioteca Nazionale Centrale, Florence, Magliabechi. XV. 92, fols. 44r/v, 171v, 190v.

63 Henderson, *Renaissance Hospital*, 187–188.

64 Their names and salaries are recorded in ASR. Ospedale di S. Giacomo. Vol. 366 and 367.

65 Vanti, *S. Giacomo*, 48. Arrizabalaga, Henderson, and French, *Great Pox*, 188, notes that, in Rome and Bologna, the guaiac cure was given for just two to three months beginning in April or May, whereas in Florence the treatment was supplied from mid-February until the end of October.



a transient environment, in which the entire female nursing staff turned over every one or two years, makes it unlikely that these Roman health-care workers significantly sharpened their medical skills while in service. Rather, the conventualization of hospital nursing seen in Florence almost certainly reaped added institutional rewards in the form of enhanced medical expertise, albeit at a social cost to the nurses themselves.

### 'Invisible Technicians': patient care and medical know-how

With this social profile of the female nursing staff in mind, we can turn now to the medical work these women performed. The hospital's 1574 statutes charged female nurses with three major medical responsibilities: preparing the guaiac remedy consumed by all patients; tending the women in the female ward 'with charity and diligence' [con diligentia e carità]; and supporting all other needs of patients and staff such as preparing meals and doing laundry.<sup>66</sup> In the winter months, they also spun linen and other textiles both for use in-house and for sale on the local market, with proceeds filling the common purse.<sup>67</sup> Other unwritten duties included offering spiritual solace to sufferers; in addition, the presence of nurses at examinations by male physicians helped manage complex gender interactions by acting as social buffers and sources of psychological support. By vesting multiple responsibilities in its female nursing staff, the Florentine *Incurabili* obviated the two-tiered system emerging in some late medieval English hospitals, in which routine care of the sick was handled by female servants and less physically demanding work by professed nuns.<sup>68</sup>

The most highly medicalized task given the *Incurabili* nurses was the preparation of guaiac. By 1530, guaiacum – the wonder drug from the

66 ASF. *Incurabili*. Vol. 1, pp. 32–33.

67 ASF. *Incurabili*. Vol. 1, p. 35; Vol. 102, fol. 189r.

68 Rawcliffe, 'Hospital Nurses and their Work', 62.

New World commonly called ‘holy wood’ – had won the day as the most popular treatment for pox, championed by prominent sufferers and physicians alike. In his 1519 treatise, *De morbo gallico*, the German knight and humanist Ulrich von Hutten described first-hand the agonies of syphilis, the ineffectiveness of mercury treatment, and his remarkable return to health thanks to guaiac. Recipes for making this remedy circulated widely in Latin treatises and various vernaculars in both print and manuscript form after 1525.<sup>69</sup> The process of preparing this remedy was not especially difficult, although it required diligence and patience. First the tough wood bark had to be filed or shaved and the product boiled down with water to half its volume, using a combination of visual cues and measures to achieve the desired result. This concentrated liquid formed the core of pox treatment.<sup>70</sup> A second, weaker batch was brewed to be drunk with meals, while the foam produced during decoction was skimmed, dried, and applied topically to pox sores.

Making medicines was not an uncommon activity among hospital nurses. In fact, recent studies have shown that women from all walks of life made medicinal remedies in early modern Europe, with hospital nurses acknowledged to be among the most accomplished apothecaries.<sup>71</sup> In Florence, female tertiaries ran their own pharmacy at the hospital of S. Paolo in the 1560s and 70s, while several proprietary remedies created by nurses at the civic hospital of S. Maria Nuova found their way into the prestigious hospital recipe book [ricettario] compiled in 1515.<sup>72</sup> By the mid-sixteenth century, the Incurabili nurses had developed the technical skills in pharmacy needed to produce unguents, distillates, electuaries, and various other confections with health-giving properties for patient use.<sup>73</sup> In

69 Max H. Fisch, *Nicolaus Pol Doctor 1494* (New York: Herbert Reichner, 1947). The Florentine Incurabili hospital had started using guaiacum by 1533; ASF. Manoscritti. Vol. 173, no. 5, unfoliated.

70 Arrizabalaga, Henderson, and French, *Great Pox*, 187–188.

71 Recent bibliography can be approached through Strocchia, ‘Nun Apothecaries’.

72 ASF. Ospedale di S. Paolo. Vol. 771, fol. 25r; Vol. 912, fols. 9v–10r; Vol. 932, fols. 63v–64r. BNCF. Magliabechi. XV. 92. Rawcliffe, ‘Hospital Nurses’, 58–59, 61.

73 ASF. Incurabili. Vol. 58, fols. 60v, 102r; Vol. 62, fols. 75v, 79r, 89r, 99r; Vol. 49, fols. 14r, 82v, 101r. Later nursing orders, like the Daughters of Charity, performed similar

the early seventeenth century, they manufactured the sarsaparilla remedies used as an adjunctive therapy in the guaiac cure.<sup>74</sup>

Nonetheless, it was unusual to encounter a formal, statutory charge that nurses make guaiac for the entire patient population, given its extraordinary cost and the fact that the remedy was taken internally.<sup>75</sup> For centuries, local guild regulations had distinguished between medicines taken orally and those applied topically; only licensed practitioners could legitimately market medicines administered by mouth, since they might do great harm. Indeed, the assorted remedies created by hospital women at S. Maria Nuova were all ointments and salves used to treat wounds and skin ailments – external conditions at which early modern women healers reportedly excelled.<sup>76</sup> Florentine guild regulations passed between 1547 and 1559 reiterated this distinction between inner and outer, voicing concerns about quality control. Yet enforcing these rules was problematic; there was constant slippage in that some remedies like rosewater served multiple purposes and were not easily categorized. However, the Incurabili nurses were never in danger of being prosecuted for unlicensed healing. Instead, they were fully authorized, specialist practitioners who worked with solid state backing after Duke Cosimo I de' Medici designated the hospital in 1560 as the sole institution in the dominion that could offer guaiac treatment.<sup>77</sup> Whatever knowledge

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work as apothecaries in both hospitals and parishes, in part because it was so cost-effective. However, the Daughters received medical instruction at the Motherhouse during their novitiate before being sent into the field, unlike their Italian forerunners who learned on the job; Dinan, *Women and Poor Relief*, 102–107.

74 ASF. Incurabili. Vol. 68, fol. 17r.

75 Passserini, *Stabilimenti*, 209–210, states that holy wood cost eleven scudi per pound circa 1525. As a reference point, annual earnings of an unskilled construction worker in the 1580s averaged thirty-three scudi; Richard A. Goldthwaite, *The Economy of Renaissance Florence* (Baltimore: Johns Hopkins University Press, 2009), 577.

76 Susan Broomhall, *Women's Medical Work in Early Modern France* (Manchester and New York: Manchester University Press, 2004), 157–158.

77 Duke Cosimo also prohibited the use of mercury in any form when treating the pox; Lorenzo Gaetano Fabbri, *Dell'uso del mercurio sempre temerario in medicina. Della fondazione e del medicamento dell'Arcispedale degl'Incurabili nella città di Firenze* (Cologne: Federigo Tirbien, 1749), 44. Jütte, 'Syphilis and Confinement', 108, notes that some German pox hospitals designated a female nurse to prepare guaiac, but does not give additional information.

and skills these women acquired were harnessed to emerging structures of public health intended to benefit the Medici state writ large.

As syphilis began to settle into endemic patterns, Italian Incurabili hospitals focused on administering guaiac seasonally. By 1533, the wood cure was given annually at the Florentine Incurabili between mid-February and the end of October.<sup>78</sup> Care and cure were always tightly interwoven in Renaissance hospitals, but the explicit goal of 'taking the wood', as guaiac treatment was called, was to achieve a significant improvement in one's condition, not necessarily a return to perfect health. Taking guaiac was expensive and the regimen grueling. Sufferers drank the bitter decoction twice a day for thirty to forty days, which reportedly purged the body of peccant matter through copious sweating and evacuation. The cure could be administered at home, but required considerable financial and social resources, since the entire household was mobilized during the process and the patient left debilitated.<sup>79</sup> Because decoctions were judged to be most effective when fresh, the Incurabili nurses produced huge batches every two or three days during the cure months. The consumption of one to three tons of guaiac annually between 1542 and 1588 gives us a sense of the enormous volume produced.<sup>80</sup>

In preparing this precious remedy, the Incurabili nurses worked in pairs for six months at a stretch before switching to other duties. This regular rotation ensured that the specialized artisanal skills needed to manufacture guaiac on an institutional scale were distributed broadly throughout the nursing staff, rather than being restricted to a few select members. One nurse functioned as the senior member of the team, while the other worked as her assistant; they swapped positions weekly during their rotation since the labor was both intensive and somewhat tedious.<sup>81</sup> Using an apprenticeship system allowed the hospital to replicate training and transmit technical

78 ASF. Incurabili. Vol. 1, p. 31.

79 Detailed financial records kept by a German merchant are analyzed by John L. Flood and David J. Shaw, 'The Price of the Pox in 1527: Johannes Sinapius and the Guaiac Cure,' *Bibliothèque d'Humanisme et Renaissance* 54 (1992): 691–707.

80 ASF. Incurabili. Vol. 48, fols. 1v, 3v; vol. 102, fols. 269v–270r.

81 ASF. Incurabili. Vol. 1, pp. 34–35.

know-how across generations at no additional cost, functioning in much the same way as convent pharmacies and textile workshops.<sup>82</sup>

Making and administering guaiac on such a large scale also required considerable internal coordination among staff. Each of the three decoctions, which possessed specific therapeutic properties, had to be labeled and stored separately so that they could be administered at the appropriate time in treating individual patients. Drinking vessels had to be warmed before filling them with the precious liquid. In addition, specific adjustments to therapeutic routines undoubtedly became necessary over the course of thirty or forty days, since some patients responded more quickly to guaiac than others. In carrying out these and other tasks, the *Incurabili* nurses functioned as 'invisible technicians', to use Steven Shapin's term, who bore considerable responsibility for the institution's medical success and, by extension, the public health of the Medici dominion.<sup>83</sup>

Besides manufacturing guaiac, these hospital nurses prepared and supervised patients' diet, called 'the first instrument of medicine' in the Galenic system.<sup>84</sup> Feeding the sick had been at the heart of women's hospital work for centuries; in many cases, adequate nourishment alone promoted a cure. Yet guaiac treatment required a carefully orchestrated dietary regimen that could make or break its effectiveness. Sufferers could drink little else besides watered-down wine while undergoing treatment, even though the decoctions induced tremendous thirst. Patients' food intake was equally limited and unvarying, consisting at first solely of dry almond biscuits, which the nurses baked in enormous quantities – some 4,500lb over a ten-month period alone in 1542.<sup>85</sup> Portions were carefully rationed; patients consumed a few ounces of biscuits, along with a spoonful of pureéd grapes, twice a day, in tandem with the decoction.<sup>86</sup> 'One must learn to put up with hunger' was an oft-quoted maxim that accompanied

82 Strocchia, 'Nun Apothecaries'.

83 Steven Shapin, *The Social History of Truth: Civility and Science in Seventeenth-Century England* (Chicago: University of Chicago Press, 1994), ch. 8.

84 Rawcliffe, 'Hospital Nurses', 54.

85 ASF. *Incurabili*. Vol. 14, fol. 5v.

86 Vanti, *S. Giacomo*, 42.

the cure, and the patient who best endured starvation supposedly made the speediest recovery. Not until the twentieth day of treatment was a full diet permissible.<sup>87</sup> Such purposeful deprivation had a quasi-penitential aspect that enhanced spiritual as well as physical recovery. Promoting the efficacy of this diet were constantly lit stoves, heavily covered beds, and tightly sealed windows that induced copious sweating and purging. No baths were allowed; patients' faces were washed at rare intervals, and their hands never permitted to come into contact with cold water. 'With such diet and treatment', remarked Ulrich von Hutten, 'a patient afflicted with the French Disease will be cured in an infallible manner'.<sup>88</sup> In coordinating these measures for hundreds of female pox patients annually, Incurabili nurses were not so much nurturing them as they were enforcing a strenuous, all-encompassing regimen that highlighted their role as specialist practitioners. In keeping with the changing role of diet in syphilis treatment, other traditional forms of women's hospital work such as laundering sheets took on heightened medical implications after 1540 as new notions of hygiene and contagion took root.<sup>89</sup>

Issues of patient care in pox hospitals raise questions about the kind of medical expertise nurses possessed. Besides being skilled in pharmacy, nurses at the Incurabili also developed important experiential knowledge about the body by means of touch, smell, and the sustained observation involved in therapeutic practice. Pamela Smith has argued that this kind of experiential knowledge grew in standing in the sixteenth century; other scholars have noted that learned physicians across Europe increasingly used experiential evidence in their practice as the basis of a 'learned empiricism'.<sup>90</sup>

87 Girolamo Fracastoro, *Syphilis or the French Disease: A Poem in Latin Hexameters*, trans. Heneage Wynne-Finch (London: W. Heinemann, 1935), 209.

88 *Ibid.*, 210.

89 Vivian Nutton, 'The Seeds of Disease: An Explanation of Contagion and Infection from the Greeks to the Renaissance', *Medical History* 27 (1983): 1–34.

90 Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago: University of Chicago Press, 2004); Gianna Pomata and Nancy G. Siraisi, ed., *Historia: Empiricism and Erudition in Early Modern Europe* (Cambridge, MA: MIT Press, 2005).

Washing pox sores with rosewater and applying guaiac powder to them daily gave the *Incurabili* nurses both sensory and scopic data about a patient's condition; nurses might also gauge a patient's progress from the waste deposited on sheets and in bedpans, since guaiac had both sudorific and laxative effects. All of this information could be transmitted orally to the house physician and surgeon who made daily rounds, but was not captured in the historical record. Still, it is reasonable to conclude that, while nurses did not possess the theoretical knowledge that distinguished university-trained physicians, they nevertheless contributed key observational evidence to the healing process.

Subsequently, the skills in pharmacy and nursing honed at the *Incurabili* were disseminated within broader institutional networks. In 1592, Granduke Ferdinando de' Medici established a new convalescent hospital – the first of its kind in the city – which marked a turning point in the evolution of a coordinated system of care. This new facility was intended to work in conjunction with the *Incurabili* and other local hospitals. Guaiac treatment left patients debilitated, while those discharged from other institutions were often too weak to resume work immediately. To meet the needs of an already impoverished workforce, Ferdinando appropriated the venerable hospital of S. Paolo, which had recently been in turmoil, for use as a convalescent hospital. There, 'poor convalescents could be received with charity until they have recovered their former strength and health' [con carità ricevuti e poveri convalescenti fino a tanto che avessero recuperate le pristine forze et sanità].<sup>91</sup> The granduke appointed one of the experienced *Incurabili* nurses to train the new female nursing staff at S. Paolo in both practical nursing knowledge and aspects of hospital organization.<sup>92</sup> Consonant with apprenticeship practices, this method of learning by doing enabled the *Incurabili* nurses to replicate much of their skill set for use at the new hospital.

91 ASF. Ospedale di S. Paolo. Vol. 905, fol. 18v. I am currently engaged in a larger study of this hospital and the new concepts of medical care it represented.

92 ASF. Ospedale di S. Paolo. Vol. 616, p. 140.

In conclusion, the Florentine *Incurabili* provides important insights into the texture of everyday nursing practices in pox hospitals, while illuminating how those practices responded to changing disease environments and Catholic reform initiatives in sixteenth-century Italy. Drawing female caregivers from the ranks of young, poor, at-risk girls, the Florentine *Incurabili* simultaneously set out to save souls and provide key medical services at low cost. This dual mission not only offered some women a respectable career path; it also was foundational to emerging structures of public health throughout the Medici state. Integrating pharmacy and nursing, women's hospital work at the Florentine *Incurabili* joined a body of specialized vernacular knowledge about illness and therapeutics to artisanal know-how about making medicines. Although Renaissance hospitals have usually been considered in terms of medical resources and social welfare programs, the Florentine *Incurabili* also points to the hospital as a vibrant site of knowledge production. Pharmacists, physicians, and nurses both developed and refined therapies by blending observational wisdom with codified book-learning. This integration of formal knowledge and technical know-how meant that Italian pox hospitals could balance traditional healing approaches replicated by an apprenticeship system with innovative responses to market demand, evolving disease patterns, and even individualized medical conditions.

The evidence provided by the Florentine *Incurabili* also highlights deep-seated tensions between medical theory and everyday practice in Renaissance hospitals. On the one hand, local guilds of apothecaries and physicians regulated the administration of medicines by mouth with greater stringency in the second half of the sixteenth century as part of a larger process of medical professionalization. On the other, the hospital entrusted both the production and ministrations of the costly guaiac cure to a corps of low-born, unlicensed women who learned their craft on the job. Rather than posing a threat to professionalization, however, the *Incurabili* nurses were perceived by charitable groups and state officials alike as instrumental to the provision of inexpensive, sustainable health care aimed at the common good.



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## Medical Theory and Surgical Practice: Coping with the French Disease in Early Renaissance Portugal and Spain

The outbreak of what was commonly known as the ‘French disease’ (*morbus gallicus*) – and is traditionally identified with syphilis – from 1495, first in Italy, soon became a significant social and health problem throughout the Old World. Patients from all social groups were tortured by terrible pains in bones and joints, with pustules and sores on the skin and mucous membranes which made them look deformed and repulsive to the senses. A variety of ideas about the nature and causes of the scourge circulated. Initially perceived as a new pestilence, its transmission by contagion, mostly through sexual contact, and its chronic and progressively incapacitating features were, however, soon generally accepted. Yet, the long and disconcerting course of the disease – characterised by successive clinical stages separated by asymptomatic periods – and the inability of physicians to find any suitable treatment for it, made other health practitioners such as surgeons, either university or apprentice training, and empirics – introduce to the health marketplace many allegedly successful therapeutic innovations.<sup>1</sup>

1 Jon Arrizabalaga, John Henderson and Roger French, *The Great Pox. The French Disease in Renaissance Europe* (New Haven-London: Yale University Press, 1997), 29, 48, *passim*; Roger French and Jon Arrizabalaga, ‘Coping with the French disease: university practitioners’ strategies and tactics in the transition from the fifteenth to the sixteenth century’, in Roger French, Jon Arrizabalaga, Andrew Cunningham and Luis García-Ballester (eds), *Medicine from the Black Death to the French Disease* (Aldershot: Ashgate, 1998), 254–259.

In 1539, the Spanish surgeon Ruy Díaz de Isla (*fl.* 1493–1542) wrote about one of the earliest medical responses to the French disease at Seville in the last years of the fifteenth century, when he had been a young resident surgeon at the Hospital de San Salvador. He highlighted the physicians' hopeless reactions in the face of this new disease and how it was eventually decided to leave its treatment in the hands of 'experimenters'.<sup>2</sup> He also wrote about his subsequent surgical practice in the Real Hospital de Todos os Santos at Lisbon (Real Hospital, henceforth) where he had spent the majority of his professional life caring for the sufferers from the French Pox. Díaz de Isla remembered:

... during the time I resided there, I was in company of many very learned and veteran doctors, and we visited together the patients of my infirmary. Yet, despite we used with them countless laxative medicines, I saw not only that these medicines were of no benefit at all but also that many times they often caused a lot of damage.<sup>3</sup>

These recollections were published as the *Tractado ... contra el mal serpentino de la Ysla Española* (Seville, 1539), a full surgical text devoted to the French disease that he written at the end of his career to publicise the innovative treatment that he had allegedly developed as a result of decades of surgical practice.

Lisbon's Real Hospital had been founded by King João II of Portugal (1477/1481–1495) and started to function at the beginning of the sixteenth century. It included from the outset a pox house (*casa das boubas*) – the infirmary where the sufferers from *boubas* (another designation of the French disease that was popular in Portugal and Castile) were looked after, similar to other European responses to the disease at this time. This was the main focus of Díaz de Isla's work within this hospital.

- 2 Ruy Díaz de Isla, *Tractado contra el mal serpentino que vulgarmente en España es llamado bubas, que fue ordenado en el Ospital de Todos los Santos de Lisbona* (Seville: Dominico de Robertis, 1539), fol. 36v.
- 3 'Item en el famoso ospital [*Real Hospital*], en el tiempo que yo en él residí, tuve compañía con hombres muy doctos y antiguos y muchos que juntamente visitávamos los enfermos de mi enfermería en que infinito número de medicinas laxativas gastávamos y dellas ningún provecho vi resultar y muchas veces vi muchos daños'. See Díaz de Isla, *Tractado contra el mal serpentino* (Seville, 1539), fol. 36v.

In this essay, I will examine the care given to the patients of the French disease in the Real Hospital during the first half of the sixteenth century from the information provided by the two main available sources for this purpose, namely the hospital *Regimento* (1504), and Díaz de Isla's *Tractado ... contra el mal serpentino de la Ysla Española* (Seville, 1539). While the former allows us to examine its organisational model of hospital care, the latter illustrates the medical treatment given by this ambitious surgeon who saw this incurable new disease as an opportunity to develop his professional position between university-trained physicians and the apprentice-trained 'experimenters'.

## The care for the patients of the French disease in the Real Hospital de Todos os Santos at Lisbon

Between 1422 and 1528 the population of Lisbon grew from 60,000 to 85,000. It changed from being merely the principal city of a Christian Iberian kingdom that was just beginning its overseas expansion, to become the capital of the first global empire. Its magnificent harbour occupied a geo-strategic position in the Portuguese commercial relationships with Europe, both the Mediterranean and the North (Flanders, England and the Baltic region), and later on with the rest of the world (Africa, Asia and the Americas).<sup>4</sup> During the second half of the fifteenth century Lisbon and its surrounding area had about eighty institutions for health care and poor relief, namely fifty hospitals, fifteen lodging houses (*mercearias*), twelve mercy shelters (*albergarias*), and two leper houses (*gafarias*). About half of them, whose property value was of no more than 300 florins, were incorporated into a process of hospital consolidation that led to the foundation of the *Real Hospital de Todos os Santos* (Royal Hospital of All the Souls) in 1492. Promoted by the Portuguese king Joao II (1477–1495), the Real

4 M.E.C. Ferreira, 'Capital', in Joel Serrão (ed.), *Dicionário de história de Portugal* (Lisbon: Inicitivas Editoriais, 1963–1971), 6 vols: vol. I, 463–464.

Hospital was built between 1492 and 1500. It started functioning at the beginning of the sixteenth century and its first Regulations (*Regimento*) were approved in 1504.<sup>5</sup>

The royal idea of establishing a central hospital in the city of Lisbon went back at least to 1479, when the then prince Don João received from Pope Sixtus IV (1471–1484) a bull authorising the hospital's foundation, and which his successor Innocent VIII (1484–1492) renewed by means of a *breve* issued in 1485. Some years later, Alexander VI (1492–1503) validated the extension of this initiative for the rest of Portugal, authorising by means of another *breve* (23 Aug 1499) the merging of the hospitals within the cities of Coimbra, Évora and Santarém, and allowing, by means of another bull (Oct 1501), the incorporation of the incomes of the small hospitals of every town in the kingdom into a single hospital.

Similar to many contemporary initiatives in other Iberian and European kingdoms, the foundation of the Real Hospital was a response to the recommendations concerning hospital government issued from the Council of Vienne (1311) as much as the result of the royal determination to undertake a political centralisation of the state during an extraordinarily expansive period of the Portuguese monarchy. Its main objective was to gain efficiency in its health care and poor relief system. The *Crónica* de João II proclaimed the royal 'good intention' (*boa intenção*) of making the Real Hospital instrumental in ensuring that 'the poor and destitute have a more certain accommodation and remedy for their needs' (*os pobres e pessoas miseráveis passaram a ter algum mais certo acolhimento e remédio de suas necessidades*). This royal charity was ostentatiously exhibited through the hospital's architecture which occupied a central position in the capital of the empire.<sup>6</sup>

5 This synthesis is based on information from Luís A. de Oliveira Ramos, 'Do Hospital Real de Todos os Santos à história hospitalar portuguesa', *Revista da Faculdade de Letras* (Porto), 2nd series, 10 (1993), 333–350; António Carlos Gomes Panarra, 'The origin of Hospital Real de Todos-os Santos', *Revista SPMI*, 1/3 (1994), 151–153; Luís Graça, 'O Hospital Real de Todos os Santos' [Parts I & II]: <http://www.ensp.unl.pt/lgraca/textos59.html> [20 Oct 2012].

6 Ramos, 'Do Hospital Real de Todos os Santos', 337.

Reflecting the traditional commercial, political and cultural links between Portugal and Italy, the new hospital was inspired by the Santa Maria della Scala of Siena and, above all, by the Santa Maria Nova in Florence: ‘the first hospital among the Christians’, whose model was closely followed by the *Regimento* of the Real Hospital (1504), and inspired many other central or general hospitals at the time.<sup>7</sup> As Laurinda Abreu has observed, this Italian influence materialised ‘in terms of hospital administration, of the kind of professionals ascribed to it, and of the organisation and regulation of its functioning’, but above all in the institutional purposes of the new hospital whose main aim was health care and the care of the body. She has also emphasised the restriction that these hospitals were not to be used for ‘patients suffering from incurable and/or contagious diseases, or used as shelters for beggars’.<sup>8</sup>

The first Real Hospital consisted of three buildings each of three floors which formed a cross with the church. It contained three large infirmaries: one for women (Santa Clara), and the other two for men: San Cosme for surgical treatments, and San Vicente for medical treatments. It also housed other hospital services (administration, pharmacy, kitchen, furnace, refectory, and so on) and lodgings for hospital staff. The 1504 *Regimento* also refers to the existence of a pox house (*casa das boubas*) as a separate building for sufferers of the French disease. Later, a mad house (*casa dos doidos*) was also added to the complex.

- 7 Katharine Park and John Henderson, “‘The first hospital among Christians’: The Ospedale di Santa Maria Nuova in early sixteenth-century Florence”, *Medical History*, 35/2 (1991), 164–188; Laurinda Abreu, ‘O que ensinam os regimentos hospitalares? Um estudo comparativo entre os Hospitais das Misericórdias de Lisboa e do Porto (séculos XVI e XVII), a partir do Regimento do Hospital de Santa Maria Nouva de Florença’, in *A solidariedade nos séculos: a confraternidade e as suas obras. Actas do I Congresso de História de Santa Casa da Misericórdia do Porto* (Lisbon: Alêtheia Editores, 2009), 267–285.
- 8 Abreu, ‘O que ensinam’, 270. It is not clear how the existence of the *casa das boubas* fits with this prohibition. Furthermore, according to Díaz de Isla, ‘crippled and maimed patients’ (*enfermos tollidos y entrebados*) were prevented from occupying beds at the Real Hospital, although they were lodged in two other houses the hospital had in another part of Lisbon. See Díaz de Isla, *Tractado contra el mal serpentino* (Seville, 1539), fols. 52r–v.

According to the 1504 *Regimento*, the Real Hospital had fifty two employees, including administrative personnel and a chaplaincy service (two priests and two assistants). The health practitioners numbered one physician, two surgeons (one resident, one external), two assistant-surgeons, one pharmacist and three assistants, four senior male nursing officers and seven auxiliary nurses, a senior female nurse and her assistant, one barber-surgeon, and the *cristaleira*. Auxiliary personnel included a larderer, a cook and three assistants, a porter, a seamstress, a washerwoman, a miller (*atafo-neiro*), a kneader (*amassadeira*), a baker (*forneira*) and four casual employees. The salaries neatly reflected their positions: 30,000 reals (*provedor*), 18,000 reals (physician), 15,000 reals (pharmacist), 12,000 reals (resident surgeon, *almoxarife*, notary [*escrivão*], and *hospitaleiro*), 9,000 reals (chief chaplain), 8,000 reals (*vedor*), 6,000 reals (external surgeon, chief male nurses, 2nd chaplain, larderer, and cook), 4,000 reals (porter, tailor, washerwoman), 3,000 reals (chief female nurse, barber-surgeon, pharmacy assistants, and cook assistants), and so on.<sup>9</sup>

In this *Regimento* the 'house of the French disease' (*casa das boubas*) is referred to as a separate building where the sufferers from this condition were specifically cared for. Visiting and treating them was one of the multiple tasks that the Real Hospital's medical practitioners (*físico*) were required to undertake.<sup>10</sup> From Sebastião Costa Santos' work we know the names of the Real Hospital's successive physicians from its foundation to the 1570s.<sup>11</sup> However, neither of the two surgeons (either the resident or the external), nor their assistants was assigned any specific function concerning the inmates at the *casa das boubas*; and, in fact, the

9 Abílio José Salgado & Anastásia Mestrinho Salgado (eds), *Regimento do Hospital de Todos-os-Santos* (Lisbon: Edição da Comissão Organizadora do V Centenário da Fundação do Hospital Real de Todos-os-Santos, 1992).

10 'Item, o dito físico sera obrigado de curar e visitar os doentes das bubas em todo aquello que a física tocar e remedia los ha e curara o melhor que poder na casa apartada que pera os ditos doentes hordenamos no dito estrital' (Salgado & Salgado, *Regimento*, 133).

11 Sebastião Costa Santos, *O tratamento das boubas no Hospital Real de Todos os Santos em principios do seculo XVI* (Lisbon: Libanio da Silva, 1916).

earliest archival news of the existence of a ‘master of the French disease’ (*mestre de boubas*) dates from 1539 and refers to the surgeon Braz Tenreyro receiving his appointment on 1 October 1538.<sup>12</sup> Indeed, the responsibility of caring for the inmates in this section was assigned to one of the four ‘chief male nurses’ (*emfermeiros mayores*) of the Real Hospital, while the remaining three were in charge of the three main wards (*enfermarias*). The four *emfermeiros mayores* whose yearly salary was the same as that of the external surgeon, were obliged to live in assigned houses within the hospital premises and to have their meals at the hospital refectory. They were helped by seven ‘assistant male nurses’ (*emfermeiros pequenos*) who were also obliged to live and have their meals at the hospital and whose annual salary was 2,000 reals. One of these *emfermeiros pequenos* was also assigned to the *casa das boubas*.<sup>13</sup>

Initiatives of hospital care for French disease sufferers can be seen in Europe from 1495, when the *Blatterhaus* at Augsburg was founded by the municipal authorities. This is not only the earliest one in German lands, but perhaps, also, the most studied.<sup>14</sup> In contrast, the foundation at Genoa in 1499 of a *Reductus Infirmorum Incurabilium* (better-known as *Ridotto*) to treat ‘the wretched poor and with incurable disease’ – the phrase being at the time almost a synonym for the French disease – was a private initiative by a religious confraternity. This same group was also instrumental in the establishment of the *Compagnia del Divino Amore* – another confraternity that first appeared in Genoa and later spread throughout Italy and played a crucial role in the proliferation of hospitals for incurables in the early sixteenth century.<sup>15</sup>

12 Costa Santos, *O tratamento das boubas*, 19, 48.

13 Salgado & Salgado, *Regimento*, 110.

14 Claudia Stein, *Negotiating the French Pox in early modern Germany* (Farnham: Ashgate, 2009), 84–91. More generically, George Rosen referred to the existence of different municipal measures concerning hospitalisation and treatment of sufferers from the French disease in Würzburg (1496) and Freiburg (1497). See George Rosen, *A history of public health* (New York: MD Publications, 1958), 74.

15 Arrizabalaga, Henderson and French, *The Great Pox*, 145–233, 317–333.

Other European cities opted, however, to open wards specifically devoted to care for the French disease patients within existing hospitals. This appears to have been the case in cities such as Milan, Seville and Valencia. In Milan, by 1500 a section of the *Spedale Maggiore* (founded in 1456) had been devoted to the 'disease of the pustules, which has been recently discovered in the human nature' (*la egritudine de b[r]osole, nouvement scoperta de la natura humana*). Furthermore, the old twelfth century Hospital del Brolo was re-founded as a 'specialised' centre for the sufferers from the new condition (*brossolosi*).<sup>16</sup> In Seville, during the final years of the fifteenth century, the Catholic Monarchs ordered their proto-physicians to take charge of the sufferers from the French disease at the Hospital de San Salvador and to care for them with the medicines from its pharmacy.<sup>17</sup>

Valencia's General Hospital (*Espital General*) founded in 1512, that has been studied in detail by López-Terrada, provides a useful comparison for the care of French disease patients at Lisbon's Real Hospital, despite having a municipal rather than a royal foundation.<sup>18</sup> It resulted from a merger during the late fifteenth century of the four main city hospitals (*dels ignoscents, de Santa Llúcia* or *de la Reina, d'En Clapers*, and *de Sant Llätzer*). It is likely that before the foundation of the General Hospital the Hospital de la Reina (originally a royal foundation under Franciscan management from 1310, that had been refounded as a municipal hospital in 1383) was assigned the care of patients of the new condition. The evidence for this comes from the occasion of its incorporation into the new General Hospital, when the 'men suffering from the mal de Sent Ment [i.e., French Pox] were brought in procession' from the Hospital de la Reina on Sunday 12 March 1512.<sup>19</sup>

16 Arrizabalaga, Henderson and French, *The Great Pox*, 153.

17 Díaz de Isla, *Tractado contra el mal serpentino* (Sevilla, 1539), fol. 36v. For the textual quotation, see below at footnote 34.

18 María Luz López Terrada, 'El tratamiento de la sífilis en un hospital renacentista: la sala del mal de siment del Hospital General de Valencia', *Asclepio*, 41/2 (1989), 19–50; López Terrada, 'El mal de siment en la Valencia del siglo XVI: imágenes del morbo gallico en una ciudad mediterránea europea', *Dynamis*, 11 (1991), 119–146.

19 '... portaren ab profesió los homens malalts del mal de Sent Ment del Espital de la Reyna al Espital General'. See María Luz López Terrada, 'El mal de siment en la Valencia del siglo XVI: imágenes del morbo gallico en una ciudad mediterránea



Valencia's General Hospital included specific rooms for patients with fevers, with madness, sufferers from the French disease (there better-known as *mal de sement* or *siment*), the wounded and abandoned infants, in addition to a separate annexe for lepers. All the wards, except those for the wounded and abandoned infants, were segregated by sex. Before new infirmaries for the French disease were built in 1587, there were four sections for this group of patients, namely two wards or *quadres de mal de sement* (one for men with thirty one beds, and another for women with twenty four beds) and two smaller wards or *goletes de les buves* (one for men of fifteen beds and another for women with twenty six beds) where mercury ointments were applied.<sup>20</sup> The treatment also included other drugs such as purgatives and stimulants for sweating, which were intended to foster the elimination of morbid matter, and surgical interventions on lesions of the skin and mucus membranes.<sup>21</sup> When the wards were enlarged in the late sixteenth century, the hospital administrators and health practitioners established a separation of patients in different wards according to their predominant symptoms (*plagues* and *dolors*), with the purpose of avoiding contagion, and to their different social status. The rooms, called 'goletas', where ointments (*unsions*), baths (*banys*) and sweating (*suors*) sessions were performed every year between March and September, were also enlarged at the end of the sixteenth century. At the same time the period of admission was shortened in order to deal with an ever increasing influx of patients, apparently related to the prestige of the mercury treatments given at that hospital.<sup>22</sup>

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europa', *Dynamis*, 11 (1991), 119–146 (133). For the hospital system in medieval Valencia, see Agustín Rubio Vela, 'Los comienzos de la asistencia hospitalaria en Valencia (siglos XIII–XV)', in José Hinojosa Montalvo (ed.), *Hospital General de Valencia, 1512–2012. Cinco siglos de vanguardia sanitaria* (Valencia: Fundació Hospital Reial i General de València, 2012), 2 vols.: vol. I, 68–83.

20 López Terrada, 'El tratamiento de la sífilis', 22–23.

21 López Terrada calls attention about the lack of American remedies (guaiacum, sarsaparilla, sassafras, etc.) in an inventory of Valencia General Hospital made in a latest date (1591), although this feature by no means can imply that these products were not used outside the hospital. See López Terrada, 'El tratamiento de la sífilis', 33.

22 'la gran fama que així en Castella, Aragó, com en altres parts, dit Hospital té, així de bons ministres, medicaments e altres coses necessàries, com per esser la terra

A physician, a surgeon (aided from 1530 by two apprentices or *joves cirurgians*) and a pharmacist equally shared responsibility for all the inmates at the Valencia General Hospital. Between 1512 and 1580 there was also a single man in charge of the fever, French disease and wounded wards (*hospitaler dels pobres malalts*), aided by three male nurses (*enfermer*). However, the male nurse in charge of the French disease ward, who was paid between six and ten pounds every year, had no female equivalent. In the female ward patients were looked after by pious women who were usually unpaid. From 1580 the male nurse became known as the 'father of the French disease' (*pare del sement*), and a parallel female position (*mare del sement*) was created. Both had to live with their families within the hospital and received an annual salary of ten pounds (fifteen pounds in 1597). They cared for the patients, were responsible for the furniture and equipment and management of other ward staff. They were joined after 1559 by the *enfermer de la goleta*, who was in charge of administrating the mercury ointments.<sup>23</sup>

All the patients in the care of the Valencia General Hospital went there of their own free will with the exception of the prostitutes from the local brothel, who were obliged to go into the hospital as soon as they showed any symptom of the French disease and could not work because of their illness. They were expelled from the city if they contravened these instructions. According to the testimony of the traveller Antonio de Lalaing, by 1502 the prostitutes were medically inspected, paid for by the municipality. However, the earliest documented appointment was in 1548, when the city council designated 'mestre Pedro', surgeon of the General Hospital, to examine local prostitutes to make sure that they were healthy.<sup>24</sup> In 1584 the Valencia municipal authorities paid sixteen pounds per year to the surgeon

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acomodada y templada, los doctors les aconsellen que vinguen así a curar-se' (López Terrada, 'El tratamiento de la sífilis', 34).

23 López Terrada, 'El tratamiento de la sífilis', 26.

24 '... elegixen a mestre Pedro Cirurgià, lo qual residix en la Spital de la dita Ciutat, per a que tenga càrrech de regonòxer les dones que guanyen en lo públich e stiguen sanes, de tal manera que puxen guanyar, ab lo mateix salari acostumat, atès que mestre Genís Nadal, ya no te càrrech en lo Spital de cirurgia'. See López Terrada, 'El mal de siment', 140.

designated for this job, and he was required to examine the prostitutes every week. Later orders (1562, 1589, 1598) appear to have been intended not only to control the spread of the French disease but also to protect prostitutes from their procurers' abuse. The progressive toughening of these regulations suggests that the level of compliance was open to improvement.<sup>25</sup>

### The career of the surgeon Ruy Díaz de Isla (fl. 1493–1542): knowledge, experience, and innovation on the French Pox

In the absence of relevant archives about the care of French disease sufferers during the early years of Lisbon's Real Hospital, we have to rely on the accounts of the surgeon Ruy Díaz de Isla (published in Seville in 1539 and 1542).<sup>26</sup> It is worthwhile to first provide some biographical context.

- 25 López Terrada, 'El tratamiento de la sífilis', 33–34; López Terrada, 'El mal de siment', 139–144.
- 26 Ruy Díaz de Isla, *Tractado contra el mal serpentino que vulgarmente en España es llamado bubas, que fue ordenado en el Ospital de Todos los Santos de Lisbona* ['Treatise against the serpentine disease in Spain commonly known as buvas that was arranged in the Hospital de Todos os Santos at Lisbon'] (Seville: Dominico de Robertis, 1539) Henceforth: Díaz de Isla, *Tractado* 1539: [http://alfama.sim.ucm.es/dioscorides/consulta\\_libro.asp?ref=X533677008&idioma=0](http://alfama.sim.ucm.es/dioscorides/consulta_libro.asp?ref=X533677008&idioma=0) [20 Oct 2012]. Revised and substantially enlarged, this work was printed again three years later under a modified title: *Tractado llamado fruto de Todos los [S]anctos contra el mal serpentino venido de la Ysla Española* ['Treatise called the fruit of Todos os Santos against the serpentine disease from the Isla Española'] (Seville: Andrés de Burgos, 28 Nov 1542). Henceforth: Díaz de Isla, *Tractado* 1542: [http://alfama.sim.ucm.es/dioscorides/consulta\\_libro.asp?ref=X533676370&idioma=0](http://alfama.sim.ucm.es/dioscorides/consulta_libro.asp?ref=X533676370&idioma=0) [20 Oct 2012]. Moreover, a presumably previous manuscript of this work under the title *Tratado llamado fruto de Todos los Santos contra el mal de la Isla Española hecho por maestro Rodrigo de Isla, cirujano vecino de Lisboa, para común y general provecho de los pacientes enfermos de la semejante enfermedad que vulgarmente es llamada buvas* ['Tractado called the fruit of Todos os Santos, made by master Rodrigo de Isla, surgeon and neighbour of Lisbon, for the common and general benefit of those patients suffering from the diseases popularly known as

Although it is known that he was a native of Baeza (North Andalusia), there is no information on where he trained as a surgeon.<sup>27</sup> Neither do we know exactly where he practised. He claimed that he had ‘for many years’ devoted himself to the ‘theory and practice of curing this serpentine disease [*mal serpentino*, *morbo serpentino* and *enfermedad serpentina* were the names he assigned to the French disease] in many parts of Castile, Aragon and Portugal.’<sup>28</sup> His further assertion that he had been practising surgery for forty years, suggests that Díaz de Isla might have begun his professional activities during the last years of the fifteenth century, since he had finished revising his work by July 1537 – the date of the royal printing licence.<sup>29</sup>

Díaz de Isla also makes reference to treating the very first French disease victims. These are thought to have been brought back with Christopher Columbus to the Catholic court in Barcelona in 1493.<sup>30</sup> Yet it is possible that his narrative locating the origin of the *mal serpentino* on the Isla Española (i.e., La Española or Hispaniola), its alleged outbreak in Barcelona and subsequent Europe dissemination were based on indirect sources. These could include the works of Gonzalo Fernández de Oviedo (1478–1557), who claimed that Hispaniola was the original location of the condition, based on his personal observations.<sup>31</sup>

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buvas’] has been preserved in the Spanish Biblioteca Nacional at Madrid. Madrid, Biblioteca Nacional, MSS/4034, 156 fols.: [http://bibliotecadigitalhispanica.bne.es/view/action/singleViewer.do?dvs=1352300141718~894&locale=es\\_ES&VIEWER\\_URL=/view/action/singleViewer.do?&DELIVERY\\_RULE\\_ID=10&frameId=1&usePid1=true&usePid2=true](http://bibliotecadigitalhispanica.bne.es/view/action/singleViewer.do?dvs=1352300141718~894&locale=es_ES&VIEWER_URL=/view/action/singleViewer.do?&DELIVERY_RULE_ID=10&frameId=1&usePid1=true&usePid2=true) [20 Oct 2012]. Henceforth: Díaz de Isla, *Tratado*, MS. For a detailed analysis of Díaz de Isla’s work on the French disease, with particular emphasis on the alleged American origin of this condition, see Richard C. Holcomb, *Who gave the world syphilis?: the Haitian myth* (New York: Froben Press, 1937).

27 Díaz de Isla, *Tratado* 1539, fol. 3v.

28 Díaz de Isla, *Tratado* 1539, fol. 2v.

29 Díaz de Isla, *Tratado* 1539, fol. 37r.

30 Díaz de Isla, *Tratado* 1539, fols. 3r, 53r.

31 Gonzalo Fernández de Oviedo, *Sumario de la natural y general historia de las Indias* (Toledo, R. de Petras, 1526); and *Historia general y natural de las Indias* (Sevilla: J. Cromberger, 1535).

Díaz de Isla was certainly a resident surgeon at the Hospital de San Salvador in Seville during the last five years of the fifteenth century. He recorded that as a result of a visit of the Catholic monarchs to the hospital, the Castilian proto-physicians were not only ordered to admit victims of the French disease, and to care for them with the medicines from its pharmacy, but that they were also urged to work hard along with many other doctors for seven or eight months in order to 'find a cure for this torpid ailment'.<sup>32</sup> The account is detailed enough to be considered authentic. All these physicians 'spent a lot of money on laxative medicines' but they failed at all to find any remedy at all. Also at this time a great medical doctor, Francisco de Gibraleón, who was suffering from the French disease, died in Seville. Many 'famous physicians' had held daily medical discussions, but concluded 'that this disease was wrath of the heavens on the earth involving every complexion and age as well as cities, towns and villages, that they did neither see any medical knowledge (*física*) to be useful, nor find any treatment for such ailment, and that they saw that experimenters (*experimentadores*) were useful in some way'.<sup>33</sup>

As a result the physicians 'decided to stand aside from treating this disease' and recommended to 'look for whoever had most experience with it'. The Count of Cifuentes in his position of royal 'assistant' (*asistente* or *corregidor*) at Seville (1482–1506) was then ordered by the Catholic monarchs that 'the new disease should be treated by whoever would like without request of 'exam' or 'award'. It is recorded that Cifuentes thus 'looked for the experimenter with better *experience* (*esperiencia*)' and found Gonçalo Díaz, a weaver of blankets, who 'made some cures with an ointment he had'. Díaz de Isla ends his account by saying that this experimenter was 'taken to the Hospital de San Salvador, and requested to cure those sufferers [from the French disease] in exchange for being very well paid by the city', and that 'he cured there for long time'.<sup>34</sup>

32 Díaz de Isla, *Tractado* 1539, fol. 36v.

33 Díaz de Isla, *Tractado* 1539, fol. 36v.

34 'Y es assí que los Cathólicos Reyes don Hernando & doña Ysabel que reynavan en Castilla en el tiempo que vino esta enfermedad fue por ellos mandado a sus protho-médicos estando en la ciudad de Sevilla que tomassen cargo de curar los dolientes

Díaz de Isla's later career progressed mainly in Portugal. Although it is not clear when he moved there, by 1507 he was professionally settled at Lisbon.<sup>35</sup> It is not known when he began to serve the Portuguese royal house, although it seems reasonable to think that it was no later than 1511 since, according to his own testimony, he had been 'for more than ten years' at the Real Hospital in Lisbon as 'one of the surgeons paid by King Manuel' I de Portugal (1495–1521) 'to cure the sufferers from this disease

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deste morbo serpentino en el ospital de Sant Salvador desta ciudad; y que de su botica tomasen todas las medicinas que fuessen necessarias y trabajassen de hallar cura a esta torpe dolencia. Los quales físicos se juntaron y otros muchos con ellos, e siete o ocho meses trabajaron en curar y medecinar los dolientes que en el dicho ospital se acogían; y gastaron con ellos un cuento de medicinas laxativas y ninguna cosa pudieron aprovechar; y assí lo dixeron a los Cathólicos Reyes y juntamente con esto fue caso que en la ciudad de Sevilla adoleció un muy gran médico de esta enfermedad que se dezía maestre Francisco de Gibruléon, el qual falleció desta torpe enfermedad; con el qual cada día se hazían grandes ayuntamientos de médicos famosos entre los quales entravan el doctor Hojeda y el doctor Aragonés y el doctor Infante y otros muchos; y por todos fue dicho e acordado que esta enfermedad era yra del cielo secutada en la tierra, y que dava en todas las complissionses y en todas las edades y en las ciudades e villas y campos, y que ninguna física veían que aprovechava ni hallavan cura a la dicha dolencia; y que en alguna manera veían que aprouechavan los experimentadores. Y fue acordado por ellos todos de se apartar de curar esta enfermedad, pues no hallavan cura sino esperiencia y que se buscasse quien mejor la tuviesse para que por ella se siguiesse. La qual consulta fue sabida por el Conde de Cifuentes que era asistente en esta ciudad de Sevilla e dio cuenta dello a los Cathólicos Reyes; e assí visto fue mandado por ellos que curasse desta enfermedad quien quiesse sin ningún esamen ni premio, e luego buscó el Conde de Cifuentes quien mejor esperiencia tenía entre los experimentadores, y halló que un Gonçalo Díaz texedor de mantas hazía algunas curas con una unción que tenía. El qual fue tomado por el Conde de Cifuentes asistente desta ciudad y llevado al ospital de San Salvador y, entregado en él, le fue dicho que curasse aquellos enfermos y que la ciudad se lo pagaría muy bien. El qual allí curó mucho tiempo' (Díaz de Isla, *Tractado* 1539, fol. 36v).

35 '... en esta cibdad [Lisbon] acaesció que el año de mill e quinientos e siete e tres años antes adoleció una muger dun boticario de la qual médicos e cirujanos y sperimentadores todos curavamos desta muger quando unos quando otros porque el boticario de todos era amigo a causa de su oficio ...' (Díaz de Isla, *Tractado* 1542, fols. 61r–v).

[the *mal serpentino*] a great many of whom come there'.<sup>36</sup> According to his own testimony, after the death of Don Manuel, he had returned to work at the Real Hospital twice during the reign of his son João III (1521–1557). During the first period in 1524, and interrupted by a pestilence in Lisbon, he was responsible for the 'infirmary of surgery'. During the second period from 1528 he was assigned to the infirmary of the French disease (*enfermeria deste morbo serpentino*), where he claimed to have finished compiling and correcting his work (*copilar e corregir esta presente obra*).<sup>37</sup> To sum up, if Díaz de Isla's words are reliable, his surgical career at the Real Hospital may have successively passed through the positions of external surgeon during his early stay (1511–1521), resident surgeon in 1524, and *mestre de boubas* between 1528 and 1538. The establishment of the post of surgeon responsible for the *casa das boubas* at this hospital would thus go back at

36 Díaz de Isla, *Tractado* 1539, fols. 2r, 2v. Given the close links between the Hispanic and Portuguese monarchies at the time when Díaz de Isla lived, he might have easily found at any moment of his surgical career a suitable occasion to move into the service of the Portuguese royal house by taking advantage of his presumable contacts in the court of the Catholic Monarchs. In fact, these monarchs had married off two of their daughters to members of the Portuguese royal house. On the one hand, Isabel married first the Infant Alfonso in 1490 and then King Manuel I in 1496. On the other, after her sister died, María married Don Manuel in 1500. Finally, in 1526 the Catholic Monarchs' grandson the emperor Charles V married Isabel of Portugal (1503–1539), the daughter of Manuel I and the sister of João III.

37 '... yo fize este libro e tratado en el reyno de Portugal en la ciudad de Lisboa, dentro en el famoso e insigne ospital de Todos los Santos, biviendo yo con el serenissimo rey don Manuel que aya gloria, comiendo su pan y llevando su salario; por lo qual yo no podía ni devia escrevir lo menos y porque este tractado se hizo en el dicho ospital, como dicho es, dende la primera fasta la postrera letra en ningún cabo se podía imprimir que se tirasse dél cosa alguna. Otras dos vezes he residido en el dicho ospital, y la una dellas fue el año de veynte y quatro reynante el serenissimo don Juan rey tercero deste nombre. E tuve en el famoso ospital la enfermería de la cirugia y por pestilencia que en la ciudad ovo la dexé. E assi mismo fuý otra vez en el dicho ospital en el año de veynte y ocho, y me fue dada otra vez la enfermería deste morbo serpentino, donde acabé de copilar e corregir esta presente obra. Por tanto, ruego a los señores leyentes, si alguno le pareciere mal, no sea dello reprehendido porque yo fuera digno de serlo si otra cosa escriviera' (Díaz de Isla, *Tractado* 1539, fol. 51v).

least ten years, and Díaz de Isla may well have been the first surgeon to occupy it. Braz Tenreyro, was appointed *mestre de boubas* from 1 October 1538, probably when Díaz de Isla retired.<sup>38</sup>

Díaz de Isla had already linked the *Tractado contra el mal serpentino* to Lisbon's Real Hospital in its first edition of 1539. In the second edition of 1542 he emphasised on the title page that this link had been crucial. He stated that his work was the 'fruit' (*fructo*) of the 'great and famous Hospital de Todos os Santos in the notable and very well-known city of Lisbon'. He now styled himself as 'the most famous master Ruy Díaz de Ysla, neighbour of the well-known and great city of Seville' (*el muy famoso maestro Ruy Díaz de Ysla, vezino de la nombrada y gran ciudad de Sevilla*), and declared that he had 'done and ordered' (*hecho y ordenado*) it.<sup>39</sup> It thus strongly suggests that Seville was the city to which he had retired.<sup>40</sup>

The size of the debt Díaz de Isla felt he owed to the Portuguese royal house led him to dedicate his *Tractado* to King João III, although he did not forget to honour the memory of Manuel I, the founder of the Real Hospital, who had first appointed him there. On the one hand, he praised Don Manuel's constant determination 'to ennoble this famous hospital, and [to fulfill] the wish of, and to remedy the health of the sick people admitted there'.<sup>41</sup> On the other, Díaz de Isla extolled the new king's magnificence, referring to the allegedly unparalleled importance of the Real Hospital, which he repeatedly qualified as the 'great, famous and well provided', where every year 'more sufferers from this disease and from any other, than in any other hospital in all Europe' were cured.<sup>42</sup> It would have been very unusual

38 Costa Santos, *O tratamento das boubas*, 48.

39 Díaz de Isla, *Tractado* 1542, fol. 1r.

40 Díaz de Isla, *Tractado*, 1542, fol. 2r; Díaz de Isla, *Tratado*, MS, fol. 1r.

41 '... la voluntad que el sereníssimo rey don Manuel siempre tenía de ennoblecer este famoso ospital y el desseo y remedio de la salud de los enfermos que en él eran ...' (Díaz de Isla, *Tractado*, 1539, fol. 2r).

42 'A vuestra alteza torno humildemente a suplicar la quiera favorecer pues es cosa muy notoria vuestra alteza no tener menos amor ni cuydado de todas las naciones del universo que otros reyes suelen tener de los propios súbditos y naturales' (Díaz de Isla *Tractado* 1539, fol. 2r); 'Al grande e famoso e muy proveýdo hospital que en la ciudad de Lisboa el sereníssimo rey hizo en el qual, como testigo de vista y que dello



for a surgeon who declared himself ‘Castilian and neighbour of Seville’ (*castellano y vezino de Sevilla*), to dedicate ‘to the King of Portugal, our lord’ (*al rey de Portugal rey nuestro señor*), a work written in Spanish and printed in Seville. So, there must have been good reasons for it.

In presenting his work as a ‘fruit I have collected there [the Real Hospital] from my long experience and care’ (*este fruto cogido en él de mi larga experiencia y cuydado*), Díaz de Isla declared that he had done it because of his wish to emulate Don Manuel’s work. However, he had been unable to finish his ‘so singular remedy for humankind’ (*tan singular remedio del género humano*) before the latter’s death so that he looked for the benevolence of the new monarch by requesting him to indulgently receive the work and to protect it from its retractors.<sup>43</sup>

Díaz de Isla claimed that he had seen and treated tens of thousands patients in the course of four decades of surgical practice, three of them mostly in charge of ‘people in hospitals’ (*gentes en ospitales*).<sup>44</sup> He introduced the *Tractado* as the result of this long professional career, mainly at the Real Hospital.<sup>45</sup> He also emphasised the charitable zeal of the Real Hospital, noting that during Don Manuel’s reign, the hospital ‘provider’

tengo larga experiencia, puedo dezir con verdad que se curan cada año más dolientes deste morbo y de todo género de enfermedades que en ningún otro de todos los ospitales de toda la Europa’ (Díaz de Isla, *Tractado* 1539, fol. 2v).

43 Díaz de Isla, *Tractado* 1539, fol. 2r.

44 ‘Es conclusión que el auctor ha quarenta años que cura e platica esta enfermedad y los treynta años cursó los laxativos en compañía de grandes físicos, teniendo lo más de dicho tiempo cargo de gentes en ospitales’ (Díaz de Isla, *Tractado* 1539, fol. 37r); ‘... ni han visto veynte mil dolientes passar por la segunda especie assí como el autor los vio y le passaron por las manos’ (ibid., fol. 4v); ‘... un unguiento ... con el qual yo he curado más de veynte mil personas y que se han sanado más de otras veynte mil, las quales han curado maestros a quien yo he dado mi experiencia’ (ibid., fol. 42r). On the frequent hyperbolic tone of Díaz de Isla, the observations of Costa Santos, *O tratamiento das boubas*, 27, look to me particularly pertinent.

45 ‘E como yo fuesse uno de los cirujanos salariados dél por más de diez años, con el gran concurso de enfermos que a él concurrían, alcancé por pura experiencia los remedios de la enfermedad serpentina venida de la Ysla Española, assí para preservación de sanos de aquella dolencia como para remedio de los inficionados’ (Díaz de Isla, *Tractado* 1539, fol. 2r).

(*proveedor*) and royal great chaplain, Gonçalo de Miranda, and himself 'many times' went 'to look for sufferers from this *morbo serpentino* at the doors of churches and monasteries in order to bring them to the hospital to be cured there'.<sup>46</sup>

The emphasis placed by Díaz de Isla on his own practical experience as a source of surgical knowledge is interesting, as shown by his repeated references to it in the preface of his *Tractado*. He reinforced this by referencing the authority of Avenzoar and, above all, Aristotle (through quotations from the latter's *Metaphysics*, *Ethics*, and *Politics*). He also justified the value of sharing his experience with friends and fellow countrymen (by citing Plato), and with his fellow men (in accordance with the Gospel).<sup>47</sup>

Yet Díaz de Isla appears to have had a great concern that his surgical practice was not seen as purely empirical but as rational. He stated that it was based on and guided by the same sources used by his contemporary medical practitioners, namely the medical, surgical and natural history knowledge of ancient and medieval authorities such as Pliny the Elder, Galen, Joannes Damascenus, Avicenna, Roger Frugard, Pietro d'Abano, Gentile da Foligno, Guy de Chauliac, Alonso Chirino, and Giovanni da Vigo. The only contemporary published account to that of Díaz de Isla was by the surgeon Giovanni da Vigo (c. 1450–1525). His treatise on surgical practice, first printed in Rome in 1514 and repeatedly published during the sixteenth and seventeenth centuries in Latin and different languages (French, Spanish, Italian, English, German), also included a specific section devoted to the French disease.<sup>48</sup>

46 Díaz de Isla, *Tractado* 1539, fol. 52v.

47 'Esperiencia tanto quanto es más comunicable tanto es más noble por tanto todo hombre en alguna sciencia o arte enseñado es obligado según sentencia del philosopho Platón de aprovechar con sus letras a su patria & a sus amigos como no para sí solo aya nascido. A lo mismo nos obliga según ley de charidad la doctrina evangélica a usar con nuestros próximos, ...' (Díaz de Isla, *Tractado* 1539, fol. 2v). See also Díaz de Isla, *Tractado* 1539, fol. 72v.

48 Giovanni da Vigo, *Practica in arte chirurgica copiosa* (Rome: Stephanus Guillireti & Hercules Bononiensis, 1514). Since Díaz de Isla quoted Da Vigo's study on the French disease at his two printed editions, but not at the earlier manuscript of his work, it is feasible that he read it through the first Spanish version of Da Vigo's surgical treatise: *Libro o práctica en cirugía* (Valencia, s.e., 1537).

Díaz de Isla blamed the great difficulty of understanding the French disease and of ‘finding’ a suitable treatment for every form of this condition as the reason why he had so delayed publishing his findings. He noted that their publication was for the ‘common benefit unquestionably derivable from it’ in terms of prevention and treatment of the French disease. In the *Tractado* he discussed its definition, origins, causes, modes of transmission, signs, and treatment. However, his main claim was that he would reveal ‘some secrets of this disease’, particularly the ‘discovery’ of its ‘three species’ that were ‘so far neither found nor known by any doctor or master of this art.’<sup>49</sup> He described the clinical symptoms of the different ‘three species’ and offered specific treatments for each one of them. To him, like so many health practitioners at the time, the new scourge was ‘an epidemic and contagious disease belonging to the genre of leprosy’ (*una enfermedad epidimial y contagiosa de género de lepra*) – a common identity that was initially assigned to the French disease.<sup>50</sup> He defined it in Galenic terms as ‘a boiling of the humours which causes a bad complexion in the bodily members, and consequently, a weakening of the natural virtues’ and various clinical signs – ‘*bubas, botores*, pains, apostemes, ulcers and fevers appearing in the body’.<sup>51</sup>

49 ‘Y como cada día vemos la esperiencia madre de todas las cosas descubrir secretos en los casos que se pratican en alguna sciencia o arte, plugó a la divina providencia que yo alcançasse algunos secretos en esta enfermedad, en especial tener tres especies hasta oy por ninguno de los doctores ni maestros deste arte halladas ni conocidas; lo qual como principal fructo de mi trabajo quise comunicar por el cierto y común provecho que dello puede resultar, assí a los sanos para que se guarden de caer en tal enfermedad, como a los dolientes para que con seguridad y buena esperança se curen e ayan perfectissima sanación; y poniendo en efecto mi propósito acordé de hazer este breve tractado, en el qual porne de dónde vino este mal serpentino, e dónde fue aparecido y su difinición, y cuántas especies tiene y cuánto tiempo dura, y de cómo es contagioso y cómo se apega, y de los efectos del mercurio, y por qué es medicina más provechosa y principal para curar este morbo y de su curación’ (Díaz de Isla, *Tractado* 1539, fol. 2v).

50 Arrizabalaga, Henderson and French, *The Great Pox*, *passim*.

51 ‘... una ebullición causada en los humores, de la qual se prossigue mala complissión en los miembros, y por consiguiente debilitación en las virtudes naturales, aviente muchas diferencias, donde resultan tres especies, de do proceden las bubas y botores

He refused to believe that the disease could be caused by the ‘movements of the heavens, signs and planets’ as some doctors had claimed, but he warned that it was a ‘universal’ disease that could strike individuals of every ‘condition’ (*calidad*) and ‘state’ (*estado*), but progressed more rapidly in those men who were ‘delicate because of the nobility of their blood and condition’ so that ‘many of them die or fall ill close to death because either their disease is not known, they are not adequately treated, or delay their treatment.’<sup>52</sup> Díaz de Isla suggested that it was a ‘very contagious’ disease that spread mostly through sex but also through other routes, as shown by the fact that it also affected ‘some religious persons, maidens, children and very honest people of whom neither contagion nor dishonest behaviour can be presumed.’<sup>53</sup>

According to Díaz de Isla, the condition began with the appearance of contagious *bubas* or *botores*, but without any pain, itching or production of fluids, nor transformation into ulcers. He claimed that these *bubas* or *botores* could last for one year, and then they disappeared in ninety eight per cent of the patients, as if they had never been ill.<sup>54</sup> Once the first ‘species’ had been solved, the patients could remain healthy for up to twenty years, when they could be stricken by the second ‘species’. This was not deemed contagious, but consisted of ‘pains, apostemes and ulcers’, and never cured spontaneously. However, he claimed that a ‘perfect cure’ could be achieved by means of a regulated treatment, which he described in detail. Patients were judged to have passed from suffering the second ‘species’ to the fateful third one when they were afflicted by a continuous fever that consumed their bodily members and muscles.<sup>55</sup>

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y dolores y apostemas e úlceras e fiebres en el cuerpo aparecientes’ (Díaz de Isla, *Tractado* 1539, fol. 3v).

52 Díaz de Isla, *Tractado* 1539, fol. 2v.

53 Díaz de Isla, *Tractado* 1539, fol. 5v.

54 ‘... sanas de pura necesidad sin cura alguna como si ningún mal por ellos oviessi pasado ...’ (Díaz de Isla, *Tractado* 1539, fol. 4r).

55 Díaz de Isla, *Tractado* 1539, fols. 4r–v.

The fact that by the time Díaz de Isla published his theory there were many descriptions of the French disease, and that most of them also referred to its different clinical stages separated by asymptomatic periods, does not detract from historical significance of his work. It is likely that because of his lack of university training that he could not access medical literature written in Latin. Furthermore, irrespective of his intellectual debt to Giovanni da Vigo and other potential sources, Díaz de Isla managed to link the practical and systematic clinical picture of the French disease with a Galenic methodology to develop a treatment regime that he gradually refined over the course of his long career.

The innovation made by Díaz de Isla was to refine existing treatment regimes.<sup>56</sup> For treating the first 'species', he prescribed a health regime, and a number of compound medicines, above all mineral and mercury-based, which he applied onto the lesions of the skin and mucous membranes. He treated the second 'species' with a carefully guided purgative regime with mercury and guaiacum (which he also called *palo indio*, *palo casto* and *guayacán*), using either or both depending on the patient's complexion, outside of which he claimed that none had he seen to be truly cured, but all had died.<sup>57</sup> Mercury was to be administered in moderation, by means of friction on different parts of the patient's body. Its application was subjected to very strict rules so that treatment would never continue for more than eighteen days, in order to avoid the major risks derived from this remedy's toxicity. He also advised against (on the basis of his own experience) mercury being taken orally, a practice allegedly common among Arab, Persian and Indian physicians.<sup>58</sup> Equally, he advised moderation in the administration of guaiacum

56 'Pero la retificación destas curas se ha ignorado hasta oy, la qual retificación se halla-ra escripta en esta mi pequeña obra, y por se aver ignorado ha sido causa de morir un millón de gentes con más lo que no se podría numerar, por la qual causa acordé empremillá para remedio de parte de lo presente y provenir' (Díaz de Isla, *Tractado* 1539, 2r).

57 '... ninguno he visto que aya rescebido verdadera curación, sino que todos los que se han apartado de la cura les ha costado la vida y les costará a quien otro camino tomare ...' (Díaz de Isla, *Tractado* 1539, fol. 27v).

58 Díaz de Isla, *Tractado* 1539, fol. 50v.

through boiling and syrups. He advised that that this remedy was more effective among the Indians of the Isla Española because they were more 'delicate, feminine and with a weak complexion' (*delicados e femeninos e de poca complissión*), than people in Europe, where among 'women, because of their weaker complexion, [guaiaicum] is more efficient than among men'.<sup>59</sup> Finally, he maintained that the third 'species' had no treatment at all, and led invariably to death. He thus advised patients with the second 'species' to begin its treatment with mercury and/or guaiaicum as soon as possible in order to avoid not only death but also spending the rest of their lives 'suffering great torments' (*padesciendo grandes tormentos*).<sup>60</sup>

A last feature of Díaz de Isla's book – the pharmacopoeia – not only emphasises his independent and critical thought, but it also recalls the division of his life and career between Lisbon and Seville – the capitals of the two Iberian empires. In the second edition of his *Tractado* (1542), he referred to two medicinal remedies, namely China root (*palo de la China*) and sarsaparilla (*çarça parilla de la Nueva España*); and claimed that these two purgatives were equally as effective as guaiaicum against the French disease, provided that the general guidelines (*reglas generales*) were followed. The disparate geographical origins of these two plants reflect the enhancement of European renaissance pharmacopoeia through the overseas expansion of the Portuguese and Spanish empires. The China root had been brought into Europe from the Oriental [East] Indies by Portuguese overseas traders, and Andreas Vesalius published (four years after Díaz de Isla had mentioned it), a lengthy epistle on its alleged medicinal properties.<sup>61</sup> In contrast, sarsaparilla had been brought from the West Indies as alternative to the China root, and its therapeutic use was popularised in Europe by Nicolás Monardes from 1565 onwards.<sup>62</sup>

59 '... las mugeres, como son de más flaca complissión, imprime en ellas mejor cura que en los hombres ...' (Díaz de Isla, *Tractado* 1539, fols. 39v–40r).

60 Díaz de Isla, *Tractado* 1539, fol. 27v.

61 Andreas Vesalius, *Epistola, rationem modumque propinandi radices Chynae decocti ... pertractans* (Basel: Johannes Oporinus, 1546).

62 Díaz de Isla, *Tractado* 1542, fol. 62v. On sarsaparilla and its introduction in the European materia medica, see José Pardo Tomás and María Luz López Terrada, *Las*

## Conclusion

Díaz de Isla's discussion of the outbreak of the French disease in Seville in the late fifteenth century when he was a young resident surgeon at the local Hospital of San Salvador shows that it caused general confusion among university physicians in Castile (as in the rest of Europe). It also demonstrated that the Catholic Monarchs perceived this new disease as a serious challenge for public health, that deserved their intervention to order medical authorities and doctors to search for a suitable treatment. This not only illustrates that there were different ranks and roles of medical practitioners, which caused tensions in the hospitals, but it also reveals how this new disease with no regular treatment offered opportunities for those medical practitioners who were usually subordinate to university-trained physicians and apprentice-trained practitioners.<sup>63</sup> He suggested that the Seville epidemic had been resolved by the city council employing a lower-status practitioner – an experimenter – to take charge of the French disease patients at the hospital. When he arrived at Lisbon's Real Hospital he had noted that physicians' visits to the *casa das boubas* were inefficient. Some of their treatments were damaging – ones which he had previously followed but now proscribed.<sup>64</sup>

It is clear from his book not only that Díaz de Isla aimed to emphasise his achievements in finding a new, 'rectified' cure for the French disease, but also that he was determined to defend within hospitals an exclusive professional territory, between learned physicians and uneducated practitioners, for rational surgeons like himself whose expertise resulted from a combination of an extensive surgical experience and medical knowledge about the new disease. Díaz de Isla's *Tractado contra el mal serpentino* may be read as a vindication, at times remarkably opinionated, of the dignity

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*primeras noticias sobre plantas americanas en las relaciones de viajes y crónicas de Indias (1493–1553)* (Valencia: IEDHC, 1993), 217–219.

63 Díaz de Isla, *Tractado* 1539, fol. 36v–37r; 1542, fol. 50r–v.

64 Díaz de Isla, *Tractado* 1539, fol. 36v.

of rational surgery and the reliability of the surgical art in the face of the hegemonic role of university medicine in the health marketplace and, more specifically, within hospitals.<sup>65</sup> He was well aware of the professional limitations of surgeons – whom he generically referred to as ‘masters’ (*maestros*) – compared with university physicians, whose pre-eminence he recognised.<sup>66</sup> Yet, Díaz de Isla’s pride and independent spirit allowed him to assert his own professional status by criticising physicians’ insufficient experience in treating the French disease in the same way that he felt justified in criticising the lack of theoretical background of many surgeons.<sup>67</sup>

Last but not least, Díaz de Isla’s faith in the value of experience, his optimistic sense of progress, and innovative spirit led him not only to pioneer the use of remedies from the New Worlds such as China root and sarsaparilla, but also convinced him that ‘other medicines will continue to be discovered from now to the day of the Final Judgement’ which would be also effective against the French disease, provided that they were used according to the canons of learned medicine and surgery.<sup>68</sup>

65 On the differences of training and place between physicians and surgeons in sixteenth-century Castile, see María Luz López Terrada, ‘Médicos, cirujanos, boticarios y albéitaras’, in *Historia de la ciencia y la técnica en la Corona de Castilla*, vol. III, ed. José María López Piñero (Valladolid: Junta de Castilla y León, 2002), 161–185; Michele L. Clouse, *Medicine, government and public health in Philip II’s Spain. Shared interests, competing authorities* (Farnham: SU, England – Burlington VT, USA: Ashgate, 2011), 75–110.

66 ‘... las otras causas son las que los doctores escriben ...’ (Díaz de Isla, *Tractado* 1539, fol. 24r; ‘... para lo demás sean llamados los señores físicos ...’ (Díaz de Isla, *Tractado* 1539, fol. 25r).

67 In addition to his explicit criticisms to the ignorance of physicians in both Seville and Lisbon in the face of the French disease, he dared to observe as essential that any physician taking care of patients of this condition be ‘practical, expert, and experienced in the art’ (Díaz de Isla, *Tractado* 1539, fol. 26r). For criticisms to the insufficient theoretical background of many surgeons, see, e.g., Díaz de Isla, *Tractado* 1539, fol. 26r (‘... because many masters ignore these things [knowledge about patients’ complexions and life regimes], they do not heal their patients ...’).

68 Díaz de Isla, *Tractado* 1542, fol. 62v.



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LAURINDA ABREU

## Training Health Professionals at the Hospital de Todos os Santos (Lisbon) 1500–1800

There was general agreement in Portugal at the end of the eighteenth century that the quality of the medical care provided by university-trained practitioners, as well that provided by those who were apprentice-trained, was problematic. For several different reasons, people were usually first treated by the apprentice-trained surgeons. The physicians complained that they were only called for help when injury caused by the surgeons was so serious that it was no longer possible to save the patient. In Portugal, as everywhere in the early modern period, the healthcare field was dominated by a multiplicity of types of practitioner whose training was totally practical: learning by doing, practicing with a *master*, who had usually also been trained through an apprenticeship. Some of those practitioners were officially recognized by the Principal-physician, who was the main medical authority of the time. The apprentice-trained practitioners included the surgeons and the bleeders trained in the School of Surgery which was established at the beginning of the sixteenth century in the Hospital de Todos os Santos in Lisbon – the main Portuguese hospital. Were these health professionals who trained in the School of Surgery better than all the others? How was the training inside the hospital organized and what was the impact on the patients' well-being? What did the term School of Surgery really mean at that time? These are some questions that will be discussed in this essay. First, however, it is necessary to go beyond the hospital and contextualize the medical practitioners' training within the broader early modern period perspective.

## Organizing the health care field, creating personal and corporative powers

The first relevant information on the regulation of medical practice in Portugal is found in the royal diploma of 25 October 1448 in which the monarch forbade the exercise of the ‘arts of physics and surgery’ by those who had not been previously examined by the accredited royal physicians and surgeons: the Principal-physician (*físico-mor*) and the Principal-surgeon (*cirurgião-mor*).<sup>1</sup> Using this document in 1515, king D. Manuel I (1495–1521) created the Regiment of the Principal-physician.<sup>2</sup> In 1521 the regiment was reformed, extending the authority of the Principal-physician over the Lisbon apothecaries and the pharmacies, and annulling the autonomy established their own 1497 statutes (*Regimento dos Boticários de Lisboa*).<sup>3</sup> The Principal-physician also had authority over all the physicians, national and foreign, who had not been trained in Lisbon University (the only university existing in Portugal at the time). Following what was happening in other countries, such as France, the foreign-trained physicians were submitted to a specific exam before their training was recognized. The official documents referred to them as ‘not literate’ or ‘idiots’, which helped to reinforce the supremacy of the Portuguese university qualifications.

The Principal-physician Regiment was intended to regulate the ‘healing arts’ field, bridging the gap between the official medicine and the traditional apprentice-training, yet at the same time the boundaries of each

- 1 *Systema, ou Collecção dos Regimentos Reas: contém os Regimentos pertencentes à Administração da Fazenda Real*, ed. por Joze Roberto Monteiro de Campo Coelho e Soisa (Lisboa: Oficina de Francisco Borges de Sousa, 1783), t. VI, 345–346.
- 2 Manuela Mendonça em ‘A reforma da saúde no reinado de D. Manuel’, *Actas do III Congresso Histórico de Guimarães, D. Manuel e a sua época*, vol. II – *Igreja e assistência* (Guimarães: Câmara Municipal de Guimarães, 2004), 333–348.
- 3 Iria Gonçalves, ‘Físicos e cirurgiões quatrocentistas. As cartas de exame’, *Imagens do mundo medieval* (Lisboa: Livros Horizonte, 1988), 9–52. Contrary to what happened in France where the apothecaries were put under the university tutelage since the 13th century.

role were reinforced by the central power. In order to get a work license, the apprentice had to submit themselves to an examination, consisting of a theoretical and a practical assessment. However, there were ways to by-pass this requirement. The practical assessment could be replaced by a written statement from the candidates' local municipal authority confirming that they possessed at least two years experience with an approved surgeon. Moreover, the Principal-physician could also delegate his examining powers to local deputies. The document also permitted these apprentice-trained practitioners to work as physicians in places where there weren't any academically-trained practitioners. In other words, although there were several regulations, the apprentice-trained practitioner licensing system was open to potential corruption. The market in healing licenses created by the Principal-physician Regiment – because each license had to be paid for –, and the multiplicity of actors involved in the process, also increased the opportunities for exploiting the system. The Principal-surgeons, who only had a Regiment from the end of the sixteenth century but who theoretically had similar functions to the Principal-physicians (several of them overlapping), remained as a more obscure character in terms of their power and capacities to intervene in the field. The fact that the Principal-surgeon position was also often held by the Principal-physician confirms the superiority of the latter in terms of authority. Despite this, the 1521 regiment determined that the physicians were only allowed to practice surgery if 'examined and authorized by the Principal-surgeon'.<sup>4</sup>

The royal investment in providing health care was an attempt to respond to a political need, at a time when the early modern state was emerging, as well as responding to the increasing consumer demands of society for greater health resources and professionals who were able to diagnose and use appropriate therapies.<sup>5</sup> It also expresses the growing concerns with public health. Throughout Europe political authorities were pressing

4 *Systema, ou Collecção dos Regimentos Reas: contém os Regimentos pertencentes à Administração da Fazenda Real, cit.*, t. VI, 338–343.

5 For a European framework, see, among many others, Mary Lindemann, *Medicina y sociedad en la Europa Moderna. 1500–1800* (Madrid: Siglo XXI de España Editores, 2001).

for greater investment in the academic training of doctors, regulation of the apprentice-trained practitioners and inspection of the composition of medicines and the conditions of their sale. There were national demands for regulating bodies: Spain and Italy created the Protomedicato. Portugal, like France,<sup>6</sup> established the post of Principal-physician, as discussed above.<sup>7</sup> The 1521 Regiment, which placed the apothecaries as well as foreign-trained physicians under the Principal-physician's authority, gave him national powers. It also effectively made him a direct competitor with the university's Faculty of Medicine.

The king was indifferent to the criticism of the people's representatives in the Courts of 1535, who accused the Principal-physician of selling the health professionals licenses, as he was more interested in his economic profits than in the population's health.<sup>8</sup> He continued to reinforce the powers of both, the Principal-physician and university, making it clear that they were dealing with separate spheres.<sup>9</sup> At the same time, the crown also invested in the reorganization of the university's medical faculty, following the spirit of the wider European reforms of teaching and practice. For the university, which had been recently been transferred to Coimbra, the path defined by the king was one of excellence and innovation. For example, it adopted Vesalius' anatomical theories of *De manufactures humani corporis* published in 1543, that advocated a closer tie between medicine and surgery,

6 Alexandre Lunel, *La Maison médicale du roi, XVIe–XVIIIe siècles. Le pouvoir royal et les professions de santé* (Seysssel, Champ Vallon, 2008).

7 Its study, that is being developed in the framework of the research project *Decisão política, necessidades colectivas e afirmação profissional: o Hospital de Todos os Santos em perspectiva*, PTDC/HIS-HIS/113416/2009, will reveal an important part of the health professions in Portugal.

8 *Capitulos de cortes e leys que se sobre alguu[n]s delles fezeram* (Lixboa, per Germã Galharde, 3 Março 1539).

9 Confirming, for instance, on 4 November 1545, that the doctors trained by the university were out of the Principal-physician control, as he requested. António de Almeida, *Collecção da Maior Parte dos Estatutos, Leis, Alvarás, Decretos, e Ordens Relativas a Medicina e Cirurgia para servirem como documentos á historia da sciencia de curar em Portugal*, published in *Jornal de Coimbra*, red. José Feliciano de Castilho et al. (Coimbra, s.n., vol. 2, nº 10, Outubro de 1812), 266.

and encouraged doctors to perform autopsies. From November 1545 the university received clear directives to that aim and in October 1546 the king ordered the authorities to facilitate the provision of dead bodies for the university professors to dissect.<sup>10</sup> The new university statutes which were adopted in 1559 made the study of anatomy compulsory in the medical faculty, and also transformed one of the little city hospitals into a version of a university hospital where the professors could provide practical training. In 1556 Afonso Rodrigues de Guevara, a well-known Spanish doctor, who had recently introduced anatomy studies in Spain, was invited by the king D. John III to teach anatomy at the University of Coimbra. He took responsibility for the establishment of a surgery class there in 1557, and contributed greatly to the modernization and development of the university. Several other foreign doctors, as well as some Portuguese ones, were also invited to teach, which contributed to the success of the medical faculty.

However, the reform of the university also had the paradoxical effect of reinforcing the Principal-physician's power. This was because from 1545 the medical course at Coimbra University became one of the longest in Europe (eight years, preceded by a degree in Arts).<sup>11</sup> The king refused to change his directive, despite the opposition of the Faculty, who feared that students would go abroad looking for shorter courses, and who recognized the potential for growth in apprentice-trained surgeons who could complete their training in three years training at the Hospital de Todos os Santos in Lisbon.<sup>12</sup> The crown, however, could not see a conflict between the roles, and judged that the university did not train sufficient doctors to meet the needs of the society. The university, having lost this battle, did not

10 Mário Brandão, *Documentos de D. João III*, vol. III (Coimbra: Universidade de Coimbra, 1939), 71–72.

11 Theophilo Braga, *História da Universidade de Coimbra nas suas relações com a instrução pública portuguesa. 1555 a 1700*, vol. 2 (Lisboa: Typographia da Academia Real das Sciencias, 1895), 791–792.

12 For the number and diversity of the empirical health professional, see Mário Roque, 'Físicos, cirurgiões, boticários, parteiras e barbeiros que na sua maior parte viveram em Lisboa nos séculos XVI e XVII', *Anais da Academia Portuguesa de História* 29 (1984), 121–136.

seek to highlight its superior scientific training, but instead attacked the Principal-physician, who they held responsible for the decreasing university student numbers. To sum up, the situation of the early sixteenth century established the battles that the Principal-physician and the university would fight during the whole early modern period. Until the nineteenth century both struggled for the domination of the field, with very serious repercussions for the development of training and practice of medicine and, most probably, also for the people's health.

One specific example clearly illuminates the tension. At the beginning of the seventeenth century, the crown proposed the creation of a medical college for the development of the medical profession.<sup>13</sup> However, the university's medical faculty refused it, preferring instead to use the money available to raise the salaries of its professors to compensate them for their lower incomes resulting from the reduced number of students. After that incident the medical faculty became isolated, refusing to accept the new scientific discoveries, and increasingly stressing the divisions between their intellectual teaching and the manual work performed by the surgeons. The fact that the university was dominated by the Jesuits at that time also contributed to this isolation. The biggest contradiction, however, at least until the end of the seventeenth century, was that it was doctors trained at Coimbra university who held the position of Principal-physician and who were in charge of the of the hospital responsible for the School of Surgery. This reinforced the idea that what was at stake was the position they occupied and its associated privileges.

On the other hand, the Principal-physician, who had never accepted the loss of power over the Portuguese university-trained doctors, used his position to 'produce' health professionals who would broaden his authority and financial resources. The exam fees generated a good income for him,

13 For the impact of the medical colleges on the medical teaching and practices, a subject that the university reformer seemed know very well, cf. Jonathan I. Israel, 'Dutch influence on urban planning, health care and poor relief. The North Sea and Baltic regions of Europe, 1567–1720', in *Health Care and Poor Relief in Protestant Europe. 1500–1700*, Ole Peter Grell and Andrew Cunningham (eds) (London and New York: Routledge, 1997), 66–83.



and the exam procedure was not really transparent. This gave the university reason to accuse him of selling diplomas in surgery, apothecary, and those other professions that comprised the eclectic world of early modern health care providers.<sup>14</sup> It created a parallel and very competitive market with the physicians, as Pelling and Webster have discussed.<sup>15</sup> Long legal battles between the university and the Principal-physician took place during this period, mainly because the Principal-physician allowed some surgeons to occupy professional positions that in principle could only be occupied by Coimbra University-trained physicians.<sup>16</sup>

It was within this very dynamic framework that the crown created a prototype national system for the distribution of poor relief and health care resources. First, by the end of the sixteenth century more than 200 royal confraternities of Misericórdia had been created (the first in Lisbon in 1498) and all were run by the same set of rules, according to the same principles and identical social objectives. These especially favoured the general care of the poor, and, in particular, the imprisoned poor and the sick. After 1564 the Misericórdias were also transformed into administrators of the majority of the civil hospitals. Second, from 1568 onwards, 'a medical net' was also operated under the crown's direction. It was staffed by academically-trained doctors and, from 1604, by apothecaries (thirty three medical students and twenty two apothecaries per year) whose diplomas were funded by grants which came from the rates imposed on seventy four municipalities, with the objective to provide free medical support for the benefit of the poor. These municipalities then benefitted as they were the first allocated with the university-trained practitioners and apothecaries. Their salaries were mainly paid by a specific tax on local economic transactions (*sisá*), a crown income the king allowed to be used for the health professionals' payment.

14 For the Italian situation, cf. David Gentilcore, "Charlatans, Mountebanks and Other Similar People": The Regulation and Role of Itinerant Practitioners in Early Modern Italy', in *Social History* 20/3 (1995), 297–314.

15 Margaret Pelling and Charles Webster, 'Medical Practitioners', in Charles Webster (ed.), *Health, Medicine and Mortality in the Sixteenth Century* (London and New York: Cambridge University Press, 1979).

16 Fernando da Silva Correia, *A assistência médica em Portugal durante o século XVI*, sep. *Jornal do Médico*, nºs 15, 16, 17. Ano IX (1943), 21.

Some municipalities tried to profit further from this initiative by asking for the appointment of surgeons, so as to get the complete traditional *package* of official health providers: one physician, one apothecary and one surgeon.<sup>17</sup> Several of these surgeons, as well as the bleeders, were trained at the Hospital de Todos os Santos in Lisbon, and it is to that institution that we now turn.

## Inside the Hospital de Todos os Santos, Lisbon

The Hospital de Todos os Santos, which was already functioning in 1504 (the date of its first regiment) was planned according to the model of the Santa Maria Nuova Hospital in Florence, a very common model at the time, as described by John Henderson.<sup>18</sup> The Lisbon hospital was the most visible evidence – indeed a monumental one – of the hospital reforms that Portugal, as in several other countries, had been implementing since the late medieval period. The new hospital incorporated the functions of several smaller hospitals and assistance institutions, as well as acquiring their incomes and social and religious obligations. It was designed as a composite space, divided into different areas, for the cure of patients, the care of foundlings, and the support of poor women. It was a *medical* hospital, in the sense that Colin Jones defined, even if the majority of its health professionals, as was common at the time, had no academic qualifications.<sup>19</sup> However,

17 Cf. Laurinda Abreu, 'Assistance et Santé publique dans la construction de l'État Moderne: l'expérience portugaise', *RHMC* (forthcoming). On another scale and under other principles, but with some contact points, see Robert Jutte, 'Health care provision and poor relief in early modern Hanseatic towns. Hamburg, Bremen and Lübeck', in Ole Peter Grell, Andrew Cunningham (eds), *Health Care and Poor Relief in Protestant Europe, 1500–1700* (London: Routledge, 1997), 108–128.

18 Cf. John Henderson, *Piety and Charity in Late Medieval Florence* (Chicago-London: Chicago University Press, 1994).

19 Cf. Colin Jones; Michael Sonenshcer, 'The Social Functions of the Hospital in Eighteenth-Century France: The Case of the Hôtel – Dieu of Nîmes', in *French Historical Studies* 13/2 (1983), 172–174.

several tasks were already professionalized, an externally examined by the Principal-physician. The medical tasks were done by a physician, two surgeons, two surgeon-apprentices, four 'major' nurses, seven 'small' nurses, an apothecary and two assistants, and a barber-bleeder, among many others. The 1504 regiment also imposed a theoretical training for the surgeon-apprentices, that was delivered by one of the hospital surgeons, who was required read a daily lesson, probably from the fourteenth century book by the French physician, Guy de Chauliac: *Chirurgia Magna Guidonis*.<sup>20</sup> The physicians and the surgeons were responsible for all the medical decisions concerning the patients, both the inmates and the outpatients who daily presented themselves at the hospital door, asking for free medical support.

There is information on the School of Surgery from the 1530s and from 1556 the physician Duarte Lopes taught an anatomy class there, with 'the obligation to make the necessary dissections of the deceased in hospital or in prison,' thereby expanding the theoretical surgery training that was required in the 1504 document.<sup>21</sup> The use of the bodies of criminals by 'science' was therefore already foreseen. The new development of surgical training in the hospital was codified by a regal order of 26 July 1559. This stated that the surgery course should last three years and incorporate practical training on the 'dead bodies,' theoretical lessons and daily practice by accompanying the masters. At the end of the training, the apprentices should sit an exam to ensure their professional competences and capacities to work alone. Exams were also mandatory for the bleeders trained at the hospital but there is little information on this.<sup>22</sup>

20 *Chirurgia magna Guidonis de Gauliaco olim celeberrimi medici nunc demum suae primae integritati restituta à Laurentio Iouberto ... quae autem Ioubertus in hoc opere recognoscendo, & illustrando praestiterit, post epistolam ad lectores videre licet*. Published 1585 by In off. Q. Philip Tinghi, Flor. apud Simphorianum Beraud et Stephanum Michaëlem in Lugduni.

21 Alfredo Luiz Lopes, *O Hospital de Todos os Santos hoje denominado de S. José: contribuições para a história das ciencias medicas em Portugal* (Lisboa: Imp. Nacional, 1890), 14.

22 António de Almeida, *Collecção da Maior Parte dos Estatutos, Leis, Alvarás, Decretos, e Ordens Relativas a Medicina e Cirurgia para servirem como documentos á historia da sciencia de curar em Portugal*, 265.

The chronological coincidence of these reforms with the ones that were being implemented at Coimbra University demonstrates that the crown also wanted to adopt the wider European medical modernization at the national main hospital in Lisbon. Part of the improvement in the Lisbon hospital teaching may have been of the responsibility of Afonso Rodrigues de Guevara, the doctor who had created the surgery class at Coimbra University in 1557, and who had then moved to Lisbon in 1561.<sup>23</sup> To reward his university work and general medical competency, the king appointed Guevara as his personal doctor and in 1565, as the main physician for the Hospital de Todos os Santos. In the same year, João Dias, one of the king's surgeons, was also appointed as the hospital's main surgeon. Furthermore, the royal decree of 7 July 1561 introduced a national inspection of physicians, obliging them to present the appropriate licenses and imprisoning offenders. This shows the increasing control by the crown, at least in theory.<sup>24</sup> It concerned both university and apprentice-trained practitioners and provoked protests on both sides: the university complaining against the apprentice-trained practitioners because they had no theoretical knowledge, the Principal-physician and the Lisbon hospital accusing Coimbra University of a total absence of surgery practice in their doctors' training.<sup>25</sup>

In 1564 the transfer of the hospital administration to the royal confraternity, the Lisbon Misericórdia, gave a new significance to the connections of the medical professionals to the political power circles. It facilitated the expansion of a network of personal relationships that sought privileges, honours and economic gains. The king granted the position of chief physician at the Hospital de Todos os Santos to one of his doctors, even though the doctor did not work at there. But, on the other hand, this proximity to the crown paved the way for an increase of the hospital's power. Since

23 Sebastião Costa Santos, *O início da Escola de Cirurgia do Hospital Real de Todos os Santos: 1504–1565* (Lisboa: Faculdade de Medicina, 1925). Also Mário Carmona, *O Hospital de Todos os Santos da cidade de Lisboa* (Lisboa, 1954), 265.

24 *Alvará sobre os físicos* (Lisboa: em casa de Ioannes Blauio, 1561), 3.

25 *Collecção da Maior Parte dos Estatutos, Leis, Alvarás, Decretos, e Ordens Relativas a Medicina e Cirurgia ... em Portugal ...*, 266–267.

the mid-sixteenth century, it had been trying to strengthen its position as an autonomous centre of authority, beyond the Principal Physician's and Coimbra University's control.

The School of Surgery was not a classic school in the common sense of the word and may have not had the importance that the traditional historiography attributes to the term. What the hospital had was a training programme of 'practical medicine', with a certain level of organization. This concluded with a final exam, which gave its students a diploma that they had to present to the Principal-physician or to the Principal-surgeon. The importance of the School of Surgery was, nevertheless, considerable in terms of the 'health professions', not only due to the great number of surgeons and bleeders who were trained there (and they had higher social reputation than the ones trained elsewhere) but also because some of the most important professional books on surgery were written by the hospital main surgeons who also acted as heads of the school. From the end of the seventeenth century, this dual role (author plus leadership position) reinforced the hospital surgeons' social authority, and it was recognized by the king when he invited them to serve in the court as royal surgeons. It is not known exactly when the hospital started to recruit its own surgeons as professors but probably before the eighteenth century. From this point onwards the conflicts among the hospital surgeons, the medical faculty and the Principal-physician became more serious. The surgeons' defense was based on their deep knowledge of the body's manipulation and their extensive daily experience dealing with the sick – both beyond medical faculty teaching. In this particular aspect, the Principal-physician couldn't agree more.

What was the training at the hospital really like? Is it possible to evaluate its impact on the care of the patients? A research project on this topic began in 2011 and it will take some years to produce results. However, judging by the hospital's administrative records, excellence in patient care was not the main characteristic of the School of Surgery. For instance, several documents from the seventeenth century mention the serious 'accidents that have been observed inside the hospital', mainly due to the bleeder and

surgeons apprentices, working in the hospital without any supervision.<sup>26</sup> An internal order made on 14 July 1606 forbade the bleeders to bleed without a license signed by the hospital administrator (*enfermeiro-mor*).<sup>27</sup> Several years later, the Rules of the Infirmaries (*Regimento das Enfermarias*), from 1620, more or less repeated the words of the 1606 document, suggesting that the cause of disorder in the hospital was that the main physicians and surgeons were not abiding by their professional duties.<sup>28</sup> Other documents, like the Rules of the Barbers (*Regimento do Barbeiro*), also from 1620, help to clarify the practices of the bleeders. As they were often absent from the hospital, the bleeders transferred their own professional responsibilities to the apprentices and also to barber-surgeons-bleeders, who had no suitable training. The hospital's administration attempted to put some order in the existing chaos, and to improve the bad reputation of the hospital bleeders, by authorizing a maximum of six apprentices per bleeder, and imposing several restrictions on their 'medical' performance during the training period.<sup>29</sup>

These decisions, which were taken each time in response to incidents, tried to control the bad effects of the excessive experimental freedom of the apprentices, but were ineffective. In fact they often exacerbated the problems. For example in 1694 the Rules of the Apprentices (*Regimento dos Praticantes*) forbade the bleeder's apprentices to bleed. But as between forty and fifty daily bleedings were necessary in the hospital, bleeders from outside were allowed to enter the hospital, using their own (inappropriate) instruments, which resulted in a 'great loss and damage for the poor sick, many of them losing their lives', as recorded in the administration archives.<sup>30</sup> To try to control this situation, the number of permitted apprentices per bleeder was increased from six to forty. As there were similar problems with the surgeons, the three hospital surgeons were allowed to have ninety

26 Sebastião Costa Santos, *Sobre barbeiros e sangradores do Hospital de Lisboa* (Porto: Enciclopédia Portuguesa, 1921), 27–29.

27 Arquivo Nacional Torre do Tombo (ANTT), *Hospital de São José*, liv. 941, fl. 77.

28 ANTT, *Hospital de São José*, liv. 941, fl. 101v.

29 Sebastião Costa Santos, *A escola de cirurgia do hospital Real de Todos os Santos*, 54–56.

30 Sebastião Costa Santos, *A escola de cirurgia do hospital Real de Todos os Santos*, 60.

apprentices between them. For both bleeders and surgeon apprentices a five year apprenticeship was introduced, preceded by an exam to establish the candidates' competencies in reading and writing.<sup>31</sup> A similar resolution is to be found in the Regiment of the Principal-surgeon from 25 October 1605.<sup>32</sup> However, in response to these reforms the critics argued that 'more apprentices more necessities to practice (...) with very serious consequences for the patients'.<sup>33</sup> It is not difficult to picture the effects of these 170 apprentices of bleeders and surgeons, moving around the hospital.

What impact did such changes in the school of surgery's teaching programme have? In the last quarter of the eighteenth century, Manuel Bezerra, a well-known surgeon, felt he required a university diploma in medicine to be socially recognized.<sup>34</sup> He characterized the background of the majority of his colleagues and their professional competences saying that 'they leave the school able to read and write poorly, learn to bleed without knowledge or method; disorderly study Ferreira's book (the Hospital de Todos os Santos' main surgeon at the end of the seventeenth century); spend three years in a hospital and are examined as surgeons. This doesn't make them good surgeons. For this, they should know Latin, Natural History and Economy of the Human Body'. Bezerra defended a training based on a mixture of academic and practical training, as happened in several European countries since the seventeenth century, but it was difficult to convince the authorities that dominated the field to change the way they worked. The university reform, ordered by the crown in 1772, seemed to have had much more limited results than the politicians expected. At the hospital, during the same period several instructions were issued demanding that the surgeon apprentices should be able to read and write – considered

31 Cf. *Sobre barbeiros e sangradores do Hospital de Lisboa*, 17–20 (Regimento do Barbeiro); 40–42 (Regimento dos Praticantes).

32 Biblioteca da Ajuda, 51-VIII-7, n.º 447, *Regimento de que há-de usar o cirurgião-mor*, 25 de Outubro 1605.

33 Cf. *Sobre barbeiros e sangradores do Hospital de Lisboa*, 17–20.

34 Manuel Bezerra was surgeon for more than twenty years, when he got the physician diploma. After that, his critics on the faculty were even greater but several doors on the public administration were opened to him.

the minimum competencies to understand what they were doing. This also confirms that the 1694 Regiment had been a total failure as well as the Principal-surgeon Regiment from 1605. The knowledge of Latin, natural history and human physiology, as mentioned by Bezerra, was a luxury that the majority of the Surgery School students couldn't afford. On the other hand, even if the 1504 hospital regiment had stipulated daily theoretical teaching, the surgeons' training seems to have mainly been purely practical.

A further important tension in hospital life was the result of the permanent atmosphere of conflict between the various authorities, either due to different scientific and professional reasons or due to competition for privileges and public recognition. The most high-profile internal problems occurred in the 1730s, when the didactic disagreements between a Catalan surgeon and an Italian surgeon were so violent that the king ordered the end of the anatomy teaching and did not allow it for more than two decades.

It was only when the State assumed control of the Hospital de Todos os Santos after the 1755 earthquake that some serious efforts were made to deeply reform the School of Surgery. A document from 1759, written by the state-nominated hospital administrator D. Jorge Francisco Machado Mendonça, gives a picture of the hospital's routines.<sup>35</sup> It describes the healing practices and behaviours of the actors involved: a total absence of control over the surgeons and bleeder apprentices; lack of appropriate instruments for medical procedures; disorder in the distribution of the medicines for the sick, a general atmosphere of corruption, affecting all the sectors. The reorganization of the hospital, both in administrative and medical terms, then started with the imprisonment of some professionals and was based on a strong and comprehensive regulation. The anatomy practice and teaching was re-established and regulated, under the direction of a French surgeon, Pedro Dufau. The 1759 document noted that 'the art of anatomy is very necessary for the performance of good doctors, surgeons and bleeders, giving the people great benefits if they have experts in the faculties.'<sup>36</sup> Access to the hospital's dead bodies was also restored.

35 Published in 1761: cf. Jorge Francisco Machado de Mendonça, *Pelo breve memorial expõe Jorge Francisco Machado de Mendonça ao Ill mo e Exc mo Senhor Conde de Oeiras* (Lisboa: na officina Miguel Manescal da Costa, 1761), 52–53.

36 ANTT, *Hospital de São José*, liv. 1106, fls 62v–3 and. 64v–6.



The anatomy classes, which were compulsory for the hospital professionals and were free for the external students, also represented a general interest in public health.

From July to October 1758 several orders regulated very precisely the environment and routines operating inside the hospital. The first one was focused on the patient's wellbeing: a list of procedures was given to the doctors and surgeons identifying their obligations towards the patients. There was also an instruction that no patient should wait more than one hour to be examined after their arrival at the hospital. In September a system of medical boards composed of four doctors for the analysis of the most complex medical cases was imposed and controlled by the hospital administrator. The meal timetables and the distribution of medicines were also stipulated, as well as the access to the kitchen and to the apothecary. On 17 October a general order clarified the professional relationships among the nurses, putting an end to long-established customs and as well as to the attached benefits. The hospital administrator stated that 'all, in the same way, must totally abide by your superiors'. It was therefore not medical authority that was emerging in the hospital but an administrative one that was being reinforced in the context of the Absolutist State.

One of its biggest investments was specifically in the School of Surgery. Having received new rules in August 1758, it was subject to continuous interventions during the following years. The first rules were mainly administrative issued through a general regiment which indicated the competences that the apprentices must have acquired before practicing on the patients, and making their teachers responsible for them and for the errors they caused. Before the students presented themselves for the final exam, their hospital 'master' had now to write a complete report on the candidates' competencies, indicating the number of years of learning at the hospital and their performance during the training.<sup>37</sup> The document was submit-

37 This report was actually implemented, at least in the following years as shown by this example: 'Manuel Leitão do Valle, bleeder master in the Hospital de Todos os Santos certify that Joaquim da Silva de Freitas, son of João de Freitas da Silva and Maria Inês, from and baptized in the parish of São Cristóvão, was my student from 15 September of 1758 and since then he has performed this duties, also bloodletting, pouring cups dried leeches, showing a sufficient capacity, the reason why it seems to

ted to the hospital administrator, who had the final word on the decision to let the student sit the exam, and in nominating one of the hospital surgeons as examiner. The results had to be communicated to the hospital administrator in a 'sealed envelope'.<sup>38</sup>

On 30 May 1760, this same administrator produced a new document concerning the school of Surgery entitled 'Chapters that should be read to the surgery, anatomy and bleeder practitioners'. It developed further the organization of administrative practices in the school, continuing the August 1758 document. However, a new pressure was put on the apprentices now: they must address their admission request to the hospital administrator. If authorized, the student then had to make a formal registration, with a comprehensive personal identification, including details of their parents, and supplying formal proof of their reading and writing competences. At that stage they were informed about the class rules, the respect they should demonstrate for their professors, and the dress code in classes and in the hospital yards. After this, they had to pay a small sum for their certification of the registration. Only after all this was completed did the hospital administrator appoint him a 'master', totally forbidding the student from making their own choices.<sup>39</sup> In terms of teaching probably the most relevant change occurred at the end of 1764 when a new 'Class of surgeries and bandages' (*Aula de Operações e Ligaduras*) was created.<sup>40</sup> For this the hospital bought a specific 'statue, which represents the human figure, to be used for teaching the practitioners all kinds of bandages necessities for any sort of surgery, as the success of the cure also depended on the way the bandages are applied'.<sup>41</sup>

The state's interest in the professional training of surgeons, anatomists and bleeders can also be demonstrated by a specific privilege conceded to the apprentices in May 1776 which exempted them from the military

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me he is ready to be admitted to the exam, what I swear on the Gospels. Lisbon, 24 April 1760'. ANTT, *Hospital de São José*, liv. 1106, fls. 70–71.

38 ANTT, *Hospital de São José*, liv. 1104, fls. 36v–7.

39 ANTT, *Hospital de São José*, liv. 1104, fls. 54–55.

40 ANTT, *Hospital de São José*, liv. 1104, fls. 104–04v.

41 ANTT, *Hospital de São José*, liv. 944, fls. 104–105.

service. This provides a wonderful insight into the general unpopularity of military service: as soon as this exemption was announced the hospital was overwhelmed with a crowd of men wishing to learn the healing arts but, after registering, they never appeared in the classes. This outcome forced the crown to limit the number of the apprentices to 100, and imposed on them a rigid administrative control of their presence and daily class timetable, requiring compulsory written justifications for absences as well as a monthly report from the 'masters' on the students' attendance and progress.<sup>42</sup> The year before, in 1775, the hospital administrator had dismantled a private business in the hospital conducted by the bleeders, that charged \$6000 réis to each apprentice admitted as well as an unidentified amount for their 'first sting', that is to say, the first bleeding.<sup>43</sup> Both these examples demonstrate that no matter how big the political intervention, the hospital was a difficult organism to control, and that it was often able to escape from the power of the authorities. The circumstances of other Portuguese hospitals – even if smaller than Hospital de Todos os Santos – were not so different. One case from Setúbal's Hospital do Espírito Santo (the second or the third biggest hospital at the time) can illustrate it very well. In 1792 the hospital bleeder, Joaquim Jorge, was retired due to his advanced age that made him 'feel shaky and unable to do the first bleeding to the patients', and he was replaced by a young 'capable and skillful man'. Nevertheless, as a reward of his professional life, they 'granted' Jorge the opportunity to perform 'by his own hand the second bleeding'. Regretting his retirement, he forced the hospital administrators to dismiss the young apprentice recruited by the new bleeder (his nephew) and took his place.<sup>44</sup> And so, although officially retired on health grounds, Jorge was authorized to perform the second bleedings and to help the new bleeder in the first ones!

42 ANTT, *Hospital de São José*, cx. 274, mc. 2, n° 79.

43 ANTT, *Hospital de São José*, liv. 944, fl. 10v.

44 Cf. Laurinda Abreu, *Memórias do Corpo e da Alma. A Misericórdia de Setúbal na Modernidade* (Viseu: Palimage, 1999), 156–159.

## Old problems new powers

The key issues of the 1770s as in the middle of the sixteenth century were, as already mentioned, the intense conflict between the various powers that had authority over the 'health professionals' and also the political interests involved. Thus the report produced by the crown administrator in 1759 needs to be seen as a political document and its measures have to be analyzed within the political framework: the government felt the need to legitimize its takeover of the hospital in order to deeply restructure it. Yet a central question is why, even in the 1780s the narratives from the hospital critics were so similar to those of 1758, despite all the reforms, especially of the surgery classes?<sup>45</sup> From the 1750s there was extensive competition between physicians and surgeons. While the physicians were trying to keep their social power and to improve their political intervention, the surgeons were fighting in order to be recognized as a professional group. For nearly twenty years, the surgeons had experienced a little advantage and benefited from the State's wish to provide better medical care for society. They succeeded in reinforcing themselves as a professional group and created their own scientific associations (the first one appeared in 1748, in Oporto, but it not until the last decades of the eighteenth century that they were really developed). They tried to eliminate the stigma that the profession was still suffering, which associated the surgeons with manual work or, in the doctors' words, considered it as 'a branch of the mechanical arts'.<sup>46</sup> However, it is important to stress that the surgeons also benefited from the dispute between the politician Diogo Inácio de Pina Manique (who was also the General Superintendent of Police and in charge of the medicalization process) and the Faculty of Medicine of Coimbra University. Between 1780 and 1805 the hospital's teaching was under a new regime,

45 ANTT, *Hospital de São José*, liv. 944, fl. 11.

46 Cf. Brás Luís de Abreu, *Portugal Medico ou Monarchia medico-lusitana: historica, practica, symbolica, ethica, e politica. Fundada e comprehendida no dilatado ambito de dous mundos creados Macrocosmo, e Microcosmo repartida e demarcada em tres amplissimos reynos: animal, vegetal e mineral* (Coimbra: Oficina de Joam Antunes, 1726), 257.

and some of the surgeons trained there were sent to the United Kingdom and Denmark in order to get the most modern medical knowledge. The position of the Principal-physician disappeared and a new organization was created (the Protomedicato) which had authority over all healthcare professionals. However, with the death of Pina Manique in 1805 and the transfer of the Court to Brazil following the Napoleonic Invasions of 1807, the whole reform process was halted. From Brazil, the Principal-physician was recuperated his authority, the medical faculty continued to be closed to the external world and the Hospital de Todos os Santos carried on producing a reasonable number of surgeons and bleeders but not under very rigid control.

This essay has demonstrated that within the hospital, as in the external world, the private interests of those involved were more important than any wider public health policy. From the sixteenth century, when the health professions started to be organized and defined, the different authorities worked in order to increase their benefits and power, struggling against each other, accusing one another of incompetence, bad training, a danger in terms of the people's health. They were more preoccupied in transforming their positions into centres of private or corporative power than in investing in the development of their professions. But more information is needed to form an evidence based conclusion. It is desirable to know more about the people who occupied these positions, and about their professional networks and objectives.<sup>47</sup> This would enable us to understand why the Portuguese royal physicians, who always moved in political circles, and who were so close to the Hospital de Todos os Santos (the biggest national hospital), were not able to establish a 'centre of medical excellence', as their French counterparts had achieved, in which the king's physicians became symbols of modernity and of medical, surgical and pharmaceutical developments.<sup>48</sup>

47 This research has been initiated by Francis Dutra, 'The practice of medicine in Early Modern Portugal. The role and social status of the Físico-mor and the Surgiaio-mor', in Carleton Sprague Smith and Israel J. Katz (eds), *Libraries, history, diplomacy and the performing arts. Essays in honor of Carleton Sprague Smith* (New York: Pendragon Press, 1991), 135–169.

48 Cf. Alexandre Lunel, *La Maison médicale du roi, XVIe–XVIIIe siècles*, 53–65.



ELISABETH BELMAS

## Patient Care at the Hôtel Royal des Invalides, Paris, 1670–1791

The Paris hospital Hôtel Royal des Invalides, for the ‘old soldiers’ and those maimed in wars is one of the most famous foundations of the reign of Louis XIV [1643–1715], one of the few that he was proud of to the end of his life. While satisfying his glory, the king did charitable work and asserted his power in two areas that still partly escaped the French monarchy: assistance and health. Founded in the hamlet of Gros Caillou in the plain of Grenelle, still a rural area in the seventeenth century but becoming rapidly urbanized in the eighteenth, the first phase of the Hôtel Royal des Invalides was built in just three years from 1670, and took its first disabled soldiers in October 1674. It was finally completed in 1691, shortly before the death of Louvois, the Secretary of State for War, who had watched the progress of the work and gave status to the institution by becoming the first deputy director.<sup>1</sup>

Before then, the fate of the soldiers too old or disabled for service was generally left to private charity. They were sometimes accommodated in hospitals such as those in Dover, Southampton and Hull in England in the sixteenth century, sometimes in convents, occasionally with the help of the state, as in France from the reign of Louis XI, or as in Sweden at the St Bridget Convent of Vadstena created by Gustavus Adolphus.<sup>2</sup> None of these solutions had proved satisfactory and the monasteries frequently complained of disturbances caused by the presence of the former soldiers.

- 1 René Baillargeat, *Les Invalides, Trois siècles d'histoire* (Paris: Musée de l'Armée, 1974), 142–146.
- 2 Franck Tallent, *War in context. War and Society in early-modern Europe, 1495–1715* (London/New York: Routledge, 1992), 139–140.

In addition, from the second half of the seventeenth century, the French royal army became a permanent and professionalized force. It was therefore necessary to consider how to preserve the health of men and to offer them less gloomy prospects by providing a retreat. In this context, the creation of the Hôtel Royal des Invalides was a fruitful innovation that inspired the founding of nearby institutions in England, Piedmont and Russia.<sup>3</sup>

In addition to providing the facilities of a nursing home and a barracks, the Hôtel Royal des Invalides also housed within its walls a real hospital, whose internal organization served as a model for other military hospitals in the kingdom. The *infirmérie* (the word employed originally) or *infirmeries* (the term most commonly used in the eighteenth century) – fitted out in the south-eastern corner of the Hôtel Royal des Invalides – was a separate entity, entirely dedicated to the care of the wounded and the sick. It had a permanent medical staff whose task was not only to care for the sick and wounded patients, but also to look after the health of a growing contingent of retired soldiers. In this unique place, therapeutic procedures involving doctors, surgeons and dispensers were developed with the aim of providing the best treatment for the pathologies and traumas suffered by soldiers. In many respects – layout of the premises, medical care, the cooperative behaviour required of the patients – the infirmary of the Hôtel Royal des Invalides, in spite of its inadequacies, served as a hospital laboratory.

## Medical facilities

Liberal Bruant, a young architect who in 1669 prepared the plans for the beggars' hospital of La Salpêtrière in Paris, designed the immense and magnificent building of the Hôtel Royal des Invalides, specifically adapting it to the various functions it should perform and particularly to treat men suffering with military-related conditions. The layout of the infirmary is

3 Anne Muratori-Philip, *L'Hôtel des Invalides* (Bruxelles: Complexe, 1992), 35, 49.



well known thanks to the series of plates printed in the numerous books beginning with the *Description generale de l'Hostel royal des Invalides* published by Le Jeune de Boulencourt in 1683, that have described the hospital and traced its history.<sup>4</sup> The infirmary was large – the façade overlooking Paris was 64 *toises* [124.74m] long, while the south side had a length of 48 *toises* [93.55m] – and was arranged around six courtyards. It occupied two floors – the ground floor and the floor above – and combined technical areas such as the kitchens, a food storeroom, a *tisanerie* (kitchen where herbal teas were prepared), a laundry, a washing place, a linen room, furniture storeroom and clothing storeroom, drying room, and an ironing and sewing room, together with care units such as a dispensary, an operating room, a laboratory and wards. These were laid out in a functional way and linked by a network of corridors, passages and staircases.<sup>5</sup>

The sick and the injured were split up among six rooms on the ground floor and five rooms on the first floor according to the nature and seriousness of their ailment or infirmity, and also according to their rank. On the ground floor, four large perpendicular rooms formed a Latin cross so that men confined to bed could follow the daily mass celebrated at the altar positioned at their intersection. They included the Notre-Dame room, which until 1778 was chiefly reserved for officers, after which they were assigned to an extension built on the south side.<sup>6</sup> To the south was the Saint-Joseph room for infirm elderly men, and to the east the huge Saint-Côme room.<sup>7</sup> A small room fitted with ‘bains’ [baths] was where patients with venereal disease were treated.<sup>8</sup> On the first floor, five rooms – one very large, the

4 Le Jeune de Boulencourt, *Description generale de l'Hostel royal des Invalides* (Paris: chez l'auteur, dans l'hostel royal des Invalides, 1683); Jean Joseph Granet, *Histoire de l'hôtel royal des Invalides [...] enrichie d'estampes [...] dessinées et gravées par le sieur Cochin* (Paris: G. Desprez, 1736); Gabriel-Louis Pérau, *Description historique de l'hôtel royal des Invalides, avec les plans, coupes, élévations géométrales de cet édifice [...] dessinées et gravées par le Sr Cochin* (Paris: G. Desprez, 1756).

5 Le Jeune de Boulencourt, *Description generale de l'Hostel royal des Invalides*, 21.

6 Robert Burnand, *L'Hôtel royal des Invalides 1670–1789* (Paris/Nancy: Berger-Levrault, 1913), 145, ‘Décision du 31 mars 1778’.

7 Le Jeune de Boulencourt, *Description generale de l'Hostel royal des Invalides*, 21.

8 Granet, *Histoire de l'hôtel royal des Invalides*, 35.

others smaller – accommodated ‘soldats atteints de maladies contagieuses et particulières’ [soldiers suffering from contagious and specific diseases], such as the Saint-Louis room for patients suffering from scurvy and the Ange Gardien room assigned to cancer patients.<sup>9</sup> The complex had 550 beds in 1683, more than the Hôpital de la Marine de Brest and the Hôpital des Galères de Marseille.<sup>10</sup> The rooms were arranged in such a way as to make care easier while offering patients a certain material comfort. There was only one patient per bed and standard bedding consisted of a straw mattress, a bolster, pillows, sheets and blankets, as well as a valance made of yellow serge in winter and white fustian in summer.<sup>11</sup> Carefully thought out passages ensured that the basic principles of hygiene were adhered to. In each room, ‘d’espace en espace entre deux lits’ [in the space between each bed], was a cubbyhole closed off by a door in which there was a seat with a hole in it and a basin; at the back of these spaces ran a narrow corridor running the length of the rooms, making it easier to clean the lavatories. Each bedridden patient could easily get to these toilets, which were almost private, ‘sans qu’on le voie et qu’on sente rien de dedans les salles [...] on peut même vider les bassins sans être vu et sans incommoder personne’ [without him being seen and without any odours in the rooms [...] one can even empty the pans without being seen and without inconveniencing anyone].<sup>12</sup> In addition, the most able-bodied could use communal toilets situated in the middle of the service corridors. The rooms were kept at a temperature of 18° Réaumur by means of stoves ‘à la mode d’Allemagne’ [in the German style] set into the walls and whose conduits were connected to the chimneys.<sup>13</sup> They were stocked with wood and were lit from

9 Le Jeune de Boulencourt, *Description generale de l’Hostel royal des Invalides*, 21.

10 Jean Guillermand (ed.), *Histoire de la médecine aux armées*, vol. 1 (Paris: Charles Lavauzelle, 1982), 384–385.

11 Danièle Voldman, *Les Hôpitaux militaires dans l’espace sanitaire français, 1708–1789* (third-year thesis, Université de Paris VIII-Vincennes: Saint Denis), 27.

12 Le Jeune de Boulencourt, *Description generale de l’Hostel royal des Invalides*, 21.

13 Conceived in 1731 by the French physicist René-Antoine Ferchault de Réaumur (1683–1757), the Réaumur temperature scale was defined from the apparent expansion of alcohol. Réaumur calibrated a reference interval between the freezing point

behind, from the service corridor. At the end of the rooms were cells or ‘cages’ [cages] where the insane and the weak of mind were confined for as long as there was hope of bringing them to their senses.<sup>14</sup> In 1747 they were moved to the infirmary’s eastern façade. Deemed very unhealthy because of their dampness, the cells were demolished in 1790.<sup>15</sup> During the eighteenth century several improvements were made to the wards. Originally lit by lamps, they were equipped with globes suspended from the ceiling. In 1776 an electric machine was installed.<sup>16</sup> In 1785 an ‘appareil appelé ventilateur’ [device known as a fan] was added.<sup>17</sup>

The architectural approach adopted for the Hôtel Royal des Invalides reveals clearly the early application of functional criteria, which determined the building’s construction and distinguished it from other military and civil hospitals of the period. In the late seventeenth and early eighteenth centuries, any building, with the aid of small modifications, could serve as a hospital. Indeed, reflection on how to build and organize a sanitary space with particular requirements in terms of form and structure had evolved only gradually.<sup>18</sup> The edict of January 1708 that created the eighteenth-century system of military hospitals saw the hospital as a place where a doctor and a surgeon worked, that is to say as a place where patients could be treated; the function of providing medical treatment was more important at the time than the building.<sup>19</sup> In the edict of April 1717, the military hospital was identified for the first time as a material, functional complex with a specific location.<sup>20</sup> The need to organize this space in keeping with

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of water (value: zéro) and its boiling point (value: 80). The degree Réaumur has the same as the zero degree Celsius.

14 Le Jeune de Boulencourt, *Description generale de l’Hostel royal des Invalides*, 21.

15 Burnand, *L’Hôtel royal des Invalides 1670–1789*, 139.

16 This was an electrostatic machine used to electrically stimulate different muscles to get them to work again. The technique was invented by a physician from Geneva in 1748.

17 Burnand, *L’Hôtel royal des Invalides 1670–1789*, 145; ‘Décision du 12 août 1775’ and ‘Décision du 21 mai 1785’, in *Registre séances du conseil d’administration*, IV.

18 Voldman, *Les Hôpitaux militaires dans l’espace sanitaire français, 1708–1789*, 27.

19 Bibl. Nat. de France, Imp., F 23619 (7), *Actes royaux*, ‘Edit de janvier 1708’.

20 Bibl. Nat. de France, Imp., F 4720 (95), *Actes royaux*, ‘Ordonnance du 20 avril 1717’.

sanitary imperatives became apparent, but it was not until the 1770s and 1780s that greater thought was given to the practicalities of this kind of place, accompanied by ideas about how to achieve this.<sup>21</sup> It is very likely that this reflection had been inspired by the facilities introduced in the ‘infirmaries’ of the Hôtel Royal des Invalides. The hygienic and comfortable conditions imposed by the ordinances and regulations in the infirmaries of the Hôtel Royal des Invalides, which served as a model for French military hospitals of the eighteenth century far exceeded the sanitary requirements then in force in general and charitable hospitals in France. Similarly, the need to heal the wounds caused by military exercises and combat, explained the importance of the surgical service, specially developed at the Hôtel Royal des Invalides as in all military hospitals, which differed radically from hospitals of charity which served the general poor, old and sick.

### Medical care at the infirmary

From 1676 ‘le detail de l’oeconomie et conduite qui s’observe dans les infirmeries pour les maladies blesses’ [the detail of economy and conduct which is applied in the infirmaries to the sick injured] was set.<sup>22</sup> The system of care established early on at the Hôtel Royal des Invalides, and improved by subsequent legislation, was based on the trio of doctor, surgeon and dispenser working together: a system that Othmar Keel considers to be characteristic of the ‘advent of the modern clinic.’<sup>23</sup> The ‘triad of medical officers’ was not new – it already existed in field hospitals set up during sieges, such as the ‘maison des blessez’ [home for the wounded] at Longpré,

21 Voldman, *Les Hôpitaux militaires dans l’espace sanitaire français, 1708–1789*, 97 et sq.

22 Service Historique de la Défense, series 1 Xy 10, bundle 1, box 8, ‘Description generale de l’Hotel Royal des Invalides et de l’etablissement des sœurs de la Charité, entrée le 16 fevrier de l’année 1676 pour le service des malades desdites infirmeries’, n.p.

23 Othmar Keel, *L’avènement de la clinique moderne en Europe 1750–1815* (Montréal: Presses universitaires de l’université de Montréal, 2001), 94–6.

near Amiens, in September 1602. However, at the Hôtel des Invalides it was institutionalized, after which it became a feature of the kingdom's military hospitals during the eighteenth century.<sup>24</sup>

In 1674, an experienced head doctor, 'ayant passé une partie de ses premières études aux armées du Roy' [having done part of his early studies with the king's armies],<sup>25</sup> and who was appointed by royal warrant after being presented by the director and general administrator, was put in charge of hygiene at the infirmary.<sup>26</sup> The team also included a surgeon 'gagnant maîtrise' [who had been promoted to the rank of *maître*], appointed in the same way, chosen 'entre les plus capables expérimentés et qui ont travaillé soit dans les hôpitaux de l'armée du Roy soit dans ceux de Paris et autres villes' [from the most capable and experienced and who had worked either in the hospitals of the king's army or those of Paris and other towns].<sup>27</sup> His task became increasingly onerous because of the increasing number of patients, so a post of surgeon-major in chief was created in 1707.<sup>28</sup> From this point on and until 1811, the sick and the wounded in the infirmary were cared for by two surgeons. The last member of the triad, the dispenser, fulfilled the same criteria of professional ability and experience.<sup>29</sup> In the early eighteenth century the doctor, surgeon and dispenser were civilians who worked for the army. In 1707 the surgeon was given the rank of major, as was the dispenser in 1721, which strengthened their authority

24 Guillermand, ed., *Histoire de la médecine aux armées*, 351.

25 Service Historique de la Défense, series 1 Xy 10, bundle 1, box 8, 'Description generale de l'Hotel Royal des Invalides et de l'établissement des sœurs de la Charité, entrée le 16 febvrier de l'année 1676 pour le service des malades desdites infirmeries', n.p.

26 Gustave Léon Niox, *L'Hôtel des Invalides* (Paris: C. Delagrave, n.d.), 26, 'Edit d'établissement de l'Hostel des Invalides, avril 1674'.

27 Service Historique de la Défense, series 1 Xy 10, bundle 1, box 8, 'Description generale de l'Hotel Royal des Invalides et de l'établissement des sœurs de la Charité [...]'.

28 Bibl. Nat. de France, Imp., F 21 801, *Recueil des édits [...] concernant l'Hôtel royal des Invalides*, 156–157, 'Ordonnance du Roi, portant établissement de la charge de chirurgien-major à l'Hôtel Royal des Invalides, du 12 août 1717'.

29 Service Historique de la Défense, series 1 Xy 10, bundle 1, box 8, 'Description generale de l'Hotel Royal des Invalides et de l'établissement des sœurs de la Charité [...]'.

both among the patients and within the army hierarchy.<sup>30</sup> This paved the way for the creation of a military health corps, which was given a uniform in the middle of the eighteenth century. This medical staff was assisted for therapy and administration by two other categories of personnel. Right from the beginning, the surgeon had been aided by several assistants or *garçons* chosen from among capable invalids ‘pour l’aider et lui porter les onguents’ [to help him and bring him unguents].<sup>31</sup> In 1712 there were six of them at the Hôtel des Invalides. Over time they turned into salaried *garçons-chirurgiens appointés* [surgeon’s assistants], and these were in turn assisted by six supernumeraries in 1727.<sup>32</sup>

From 1676 the administration of the infirmary and the management of the dispensary were overseen by the Filles de la Charité: the ‘grey nuns’ of the Faubourg Saint-Lazare, ‘dont l’institution et l’employ est d’assister de leurs soins les pauvres malades dans les paroisses de Paris et autres endroits ou elles sont établies[...]; desquelles Sa Majesté voulut qu’il fut choisies trente sœurs pour rendre les mesmes services aux malades et blessés qui sont dans les infirmeries de l’Hôtel royal des Invalides’ [whose institution and occupation is to assist the poor sick by caring for them in the parishes of Paris and other places where they were established[...]; from whom His Majesty wanted thirty sisters to be chosen in order to give the same services to the sick and wounded in the infirmary of the Hôtel Royal des Invalides].<sup>33</sup> The mission of the religious congregation of the Filles de la Charité, founded in 1642 by Vincent de Paul and Louise de

30 Bibl. Nat. de France, Imp., F 21 801, *Recueil des édits [...] concernant l’Hôtel royal des Invalides*, 263, ‘Brevet en faveur du sieur Hiérome Bardon, de la charge d’apothicaire-major de l’Hôtel Royal des Invalides du 1er mars 1720’.

31 Service Historique de la Défense, series 1 Xy 10, bundle 1, box 8, ‘Description generale de l’Hotel Royal des Invalides et de l’etablissement des sœurs de la Charité [...]’.

32 Bibl. Nat. de France, Imp., F 21 801, *Recueil des édits [...] concernant l’Hôtel royal des Invalides*, 207, ‘Règlement sur ce qui doit être observé par les Médecin, Chirurgien et Apothicaire de l’Hôtel Royal des Invalides et par les garçons ou fraters des. Chirurgiens, du 18 mars 1712’, art. VI and 294–295, ‘Règlement concernant les garçons chirurgiens de l’Hôtel Royal des Invalides, du 11 août 1727’.

33 Service Historique de la Défense, series 1 Xy 10, bundle 1, box 8, ‘Description generale de l’Hotel Royal des Invalides et de l’etablissement des sœurs de la Charité [...]’.

Marillac, extended assistance to poor sick, children found, convicts and insane persons as well as instruction of young pious country girls. Soon, the congregation moved into different hospitals of the kingdom where they worked wonders. It was for this reason that by the contract of 7 March 1676, the Secretary of State for War, as director general of the Hôtel Royal des Invalides, decided to appoint first twelve, then thirty, Filles de la Charité.<sup>34</sup>

As in all the hospitals in which they worked, the nuns carried out domestic tasks – cooking, heating and upkeep of the premises, laundry, serving the sick – providing ‘toutes sortes d’offices sans se dégoûter de la mauvaise humeur ou des maladies de ceux qui souffrent [...] on ne peut décrire le nombre des emplois que ces bonnes filles exercent dans les infirmeries’ [all sorts of duties without being putting off by the bad mood or the diseases of those who are suffering [...] it is not possible to describe the many jobs that these nuns performed in the infirmary]. They dealt with the accounts, received the patients on the orders of the doctor, assigning them a place and a bed. They watched over the patients day and night, gave them soup before the morning visit by the doctor and the major, served their meals at noon and at 6.30 p.m. They were also in charge of the dispensary, where they helped the dispenser prepare the prescribed remedies for both the sick patients and residents of the Hôtel who were unwell, and administered the remedies in the morning and evening. They ensured meticulous hygiene on the premises: the rooms were swept twice a day, the linen – around 5,000 items, more than 150 bundles of compresses and bandages – were washed each week. The clothing storerooms were regularly cleaned and aired, the furniture polished, and the beds made every day at 5.00 a.m. Their merits were so widely recognized that during the Revolution, former soldiers sent a petition to the administrators of the Hôtel National des Militaires Invalides praising the virtues of the ‘citoyennes attachées aux infirmeries de cet établissement’ [female citizens attached to this establishment’s infirmary] to ask that those who so wished be allowed to keep their post.

34 See Mathieu Bréjon de Lavergnée, *Histoire des filles de la Charité, XVIIe–XVIIIe siècle: la rue pour cloître* (Paris: Fayard, 2011).

The regulations of the Hôtel Royal des Invalides required the three medical staff to live at the infirmary. Furthermore, the surgeon and the dispenser had to be on duty in the infirmary ‘afin de pouvoir secourir et visiter tous les malades et blessés avec un soin particulier à quelque heure que la nécessité le demande’ [in order to assist and visit all the sick and wounded with specific treatments whenever necessary].<sup>35</sup> All three collaborated closely within the infirmary. In the morning, the doctor, accompanied by the dispenser, visited the patients hospitalized in the infirmary. He examined them while the dispenser noted down any medicines, purges or bloodletting that he prescribed. After the visit, the dispenser took the register to the dispensary, where the sisters supplied him with the drugs required to prepare the medicines, which would then be administered at times specified by the doctor. The dispenser here acted as a fully-fledged practitioner, whose role complemented that of the doctor and the surgeon.<sup>36</sup> However, the latter bore the bulk of the responsibilities at the infirmary. He visited every room twice a day – at 5.00 a.m. and around 3.00 p.m. – to dress wounds and to purge or bleed patients. The assistants, who accompanied him with unguents and other remedies, also helped him with various activities, including bloodletting.

Between eight and nine in the morning, the surgeon went off to deal with those who had light wounds – convalescents in the infirmary and soldiers in the Hôtel – who were waiting in a separate room known as the ‘appareil’, a veritable wound-care room equipped with medicine chests and dressings. He was also responsible for ‘les endroits particuliers attendant l’infirmerie’ [specific places adjoining the infirmary] such as the cells, whose occupants – the insane and the punished, who continued to be incarcerated there up until 1766 – ‘pour voir s’ils n’ont pas besoin de son secours’ [to see if they needed his help].<sup>37</sup> He visited patients suffering from venereal disease ‘ou de quelque mal honteux’ [or some shameful disease], assigned

35 Service Historique de la Défense, series 1 Xy 10, bundle 1, layette 8, ‘Description generale de l’Hotel Royal des Invalides et de l’établissement des sœurs de la Charité [...]’.

36 Keel, *L’avènement de la clinique moderne en Europe 1750–1815*, 95.

37 Burnand, *L’Hôtel royal des Invalides 1670–1789*, 140; ‘Lettre de Choiseul au conseil. Compiègne, 20 septembre 1766’, *Reg. Séances du conseil d’adm. III*.



to the *Chambre des Bains*. He had to deal with emergencies ‘en dehors des heures de pansement soit le jour soit la nuit’ [outside the times for wound dressing either during the day or at night], and attend to patients as soon as he was notified. For this purpose he kept in his bedroom ‘un cabinet garni des outils et instruments nécessaires à l’art de la chirurgie’ [a cabinet stocked with the tools and instruments required for the art of surgery]. For officers and soldiers with light wounds or amputations, he provided crutches and wooden legs, and he supplied bandages and slings to ‘ceux qui sont affligés de descentes dont le nombre est grand’ [the many who suffer from hernias].<sup>38</sup>

However, the instructions issued in 1676 governing the organization of the daily hospital routine and the assignment of tasks in the infirmary were not always adhered to. The regulations of 1712 condemned the absenteeism of the doctor and the surgeons, who were accused of leaving the Hôtel Royal in the morning and not returning until the evening ‘sous prétexte d’aller vacquer à leurs affaires particulières dans Paris’ [on the pretext of going about their personal business in Paris], leaving the sick and wounded without care or dressings.<sup>39</sup> Reminded of their professional obligations, in particular the two daily visits, they were subjected to additional constraints. They were only allowed out three times a week, for a maximum of six hours between the morning and the evening visits, and on days determined by the director. The two surgeons on duty were forbidden to leave the Hôtel Royal at the same time; three of the six assistants were obliged to remain on the premises all the time, one of them sleeping in the wound-dressing room. The six supernumeraries, who assisted the six surgeon’s assistants, had similar obligations. Under the supervision of the surgeon’s assistants they took turns in being on call for a week and took part in the nursing

38 Service Historique de la Défense, series 1 Xy 10, bundle 1, box 8, ‘Description generale de l’Hotel Royal des Invalides et de l’etablissement des sœurs de la Charité [...]’.

39 Bibl. Nat. de France, Imp., F 21 801, *Recueil des édits [...] concernant l’Hôtel Royal des Invalides*, 206–208, ‘Règlement sur ce qui doit être observé par les Médecin, Chirurgien et Apothicaire de l’Hôtel Royal des Invalides et par les garçons ou fraters des. Chirurgiens, du 18 mars 1712’, art. I to VIII.

alongside the surgeon's assistants. Half of them were allowed to leave the Hôtel des Invalides at a time.<sup>40</sup>

Thus the 'medical officers', setting aside the traditional rivalries of their professional bodies, worked in synergy at the Hôtel Royal des Invalides. This cooperation, in keeping with the king's wishes, may have contributed to the improvement in the care given to the sick and wounded. At any rate, it undoubtedly ensured that good sanitary conditions could be maintained in an overcrowded place in the late seventeenth century. Indeed, during the period when it housed 5,000 men, the Hôtel Royal did not experience a single serious epidemic.<sup>41</sup> In *L'avènement de la médecine clinique moderne en Europe*, Othmar Keel proposes a revisionist theory about the emergence of hospital medicine. He assigns a key role to health services of the armed forces that developed in France, Prussia, Austria and England in the mid-eighteenth century.<sup>42</sup> The timeline he establishes, however, must be slightly qualified in the case of the Kingdom of France. The appearance and structure of military hospitals, the organization of health services of the armed forces happened earlier than elsewhere in Europe. The model military hospital was set before the end of the seventeenth century at the Hôtel Royal des Invalides. It was copied throughout the military hospitals network that grew rapidly in the first half of the eighteenth century, and it worked quite effectively until 1750.

40 Bibl. Nat. de France, Imp., F 21 801, *Recueil des édits [...] concernant l'Hôtel Royal des Invalides*, 294–295, 'Règlement concernant les garçons chirurgiens de l'Hôtel Royal des Invalides, du 11 août 1727', art. III, IV, V.

41 Burnand, *L'Hôtel royal des Invalides 1670–1789*, 140.

42 Keel, *L'avènement de la médecine clinique moderne en Europe, 1750–1815*, 92–105.

## Living conditions in the infirmary at the Hôtel Royal des Invalides

It was the mother superior of the Filles de la Charité who authorized the admission of patients to the infirmary on the advice of the doctor and surgeons, with the approval of the major at the Hôtel. She was not allowed to admit a foreign patient to the Hôtel without a specific order from the War Minister. To begin with, only the servants who had served in the establishment for ten years were entitled to receive medical treatment until they had made a full recovery; the others were only admitted for minor ailments ‘dont la cure pourra être faite en huit ou dix jours’ [which can be cured in eight to ten days]. If the disease persisted, they were transferred to the Hôtel-Dieu or ‘ailleurs, dans un lieu indiqué par le malade’ [elsewhere, to a place chosen by the patient].<sup>43</sup>

From 1776 the infirmary at the Hôtel Royal opened its doors to other types of patient. All the patients who had been discharged following the reform of the institution in 1776 and who continued to live nearby were re-admitted if required.<sup>44</sup> In 1781 serving soldiers in barracks in Paris were admitted providing they made a daily payment of 16 *sols*, as were soldiers from the provinces who had been sent to get recruits in the capital.<sup>45</sup> In 1786 the civilian servants of employees at the Hôtel were admitted in return for 20 *sols* per day.<sup>46</sup> Finally, in 1788 the same right was accorded to sick troops camped near the Hôtel, on the Champ de Mars, in exchange for 15 *sols* per day for the soldiers and 2 *livres* 14 *sols* 6 *deniers* for the officers.<sup>47</sup>

43 Bibl. Nat. de France, Imp., F 21 801, *Recueil des édits [...] concernant l'Hôtel Royal des Invalides*, 81, ‘Décision du 18 mars 1679’.

44 Burnand, *L'Hôtel royal des Invalides 1670–1789*, 146, ‘Décision du 16 novembre 1776’, *Reg. Séances du conseil*, IV.

45 Burnand, *L'Hôtel royal des Invalides 1670–1789*, 146, ‘Décision du 21 novembre 1781’, *Reg. Séances du conseil*, IV.

46 Burnand, *L'Hôtel royal des Invalides 1670–1789*, 146, ‘Décision du 1er janvier 1786’.

47 Burnand, *L'Hôtel royal des Invalides 1670–1789*, 146, ‘Lettre du ministre de la Guerre, du 2 août 1788’.

The mother superior kept a registry of admissions and discharges and from 1766 she was assisted in this task by a *commis aux entrées à l'infirmerie*. The latter recorded the bill of health of patients who had been admitted, noted their name, the nature of their disease and the date of entry, which made it possible later on to extract from them statements of payments by day and by month, for the purposes of managing the accounts.

Inside the infirmary, the patients had to obey a number of rules intended both to guarantee hygiene and safety on the premises and to ensure their compliance. On their arrival, the men took off their uniforms and put on a 'grande robe de chambre bleue et une paire de pantoufles' [a large blue dressing gown and a pair of slippers]; they received a trousseau made up of twelve items of linen – two sheets, an overshirt, an undershirt, underpants, a pair of leggings, two handkerchiefs, a nightcap, a towel, a pillow slip and a 'drap à mestre sur le lit' [sheet to put on the bed] – which the sisters replaced completely every week or partially if something got dirty.<sup>48</sup> They were also given a service of eight items consisting of two pots, a cup, a bowl, a plate, a saucer, a spoon and a chamber pot. However, getting old soldiers who were used to the harsh life of the camps to observe strict medical discipline was not easy. The able-bodied residents at the Hôtel frequently gained entry to the infirmary on the pretext of visiting their bedridden friends. They smoked with them and brought or sold them food. On several occasions it was necessary to re-establish order in the infirmary. The ruling of 3 January 1710 forbade the sick from smoking, and hence from procuring 'tabac en corde, pipes, poudre à tirer et [...] toutes autres choses capables de mettre le feu et qui servent à fumer' [twist tobacco, pipes, gunpowder and [...] anything else capable of causing fire and which is used to smoke].<sup>49</sup> Under penalty of sanctions, they were not allowed to receive or consume drugs and medicines from outside, or meat, liqueurs and any foodstuff other than what was prepared in the infirmary's kitchen. A first infringement of

48 Service Historique de la Défense, series 1 Xy 10, bundle 1, box 8, 'Description generale de l'Hotel Royal des Invalides et de l'etablissement des sœurs de la Charité [...].'

49 Bibl. Nat. de France, Imp., F 21 801, *Recueil des édits [...] concernant l'Hôtel Royal des Invalides*, 190, 'Règlement pour les Infirmeries de l'Hôtel Royal des Invalides du 3 janvier 1710', art. II.

the rules was punished by eight days in prison; the second time a harsher punishment was imposed. Those who supplied prohibited provisions were forbidden from ever entering the infirmary again, while forbidden items were confiscated and kept by the doormen. It was similarly forbidden for the servants and the infirmary's employees to introduce banned food and to take 'ce que l'on sert aux malades de boire ou de manger avec eux' [what the patients are served with or to drink and eat with them].<sup>50</sup>

These stringent arrangements, which were followed for a time, were relaxed over the years, resulting in a series of abuses of various kinds. Apart from venereal diseases, scurvy and cancers which were carefully isolated, soldiers with common ailments – they were or were not contagious-, were treated in the same wards despite the instruction made in the infirmaries' bylaws. Convalescents received a normal ration of bread and wine that they were often eager to sell in whole or in part. Some patients, although restored, simulated discomfort to stay in the infirmary.<sup>51</sup> In November 1766, a new ruling recommended a stricter admissions policy and a requirement that patients leave as soon as they were cured. The need for separation between patients with different illnesses was rigorously imposed. The portions of wine and bread distributed to patients – which had given rise to numerous abuses – were reduced in keeping with the instructions recorded on the medical visit sheets. As for outside visits, which were regarded as a source of disorder, these were only permitted once a week and for a maximum of two hours.<sup>52</sup> Thus, this specific socio-professional background made the doctor-patient relationship 'highly disciplined', and subjected the patient to a 'quasi-military obedience'.<sup>53</sup> For reasons of safety, hygiene and/or therapy, and in the interests of improving their chances of getting better, this range of measures led to ever stricter supervision of patients, who were already accustomed to a certain discipline through their profession. In so

50 Bibl. Nat. de France, Imp., F 21 801, *Recueil des édits [...] concernant l'Hôtel Royal des Invalides*, 189–1, 'Règlement pour les Infirmeries de l'Hôtel Royal des Invalides du 3 janvier 1710', art. I to V.

51 Burnand, *L'Hôtel royal des Invalides 1670–1789*, 142.

52 Burnand, *L'Hôtel royal des Invalides 1670–1789*, 143; 'Règlement pour les Infirmeries de l'Hôtel Royal des Invalides du 18 novembre 1766'.

53 Keel, *L'avènement de la médecine clinique moderne en Europe, 1750–1815*, 93.

doing, it also helped render the sick more docile and thus more inclined than civilians to let themselves be examined, thereby making them more useful for medical observation and experimentation.

## Conclusion

As well as being part of a long hospital and military tradition, the Hôtel Royal des Invalides was also an innovative institution that was part barracks and part retirement home, the first that ever existed in France. It also housed one of the first hospitals in the kingdom to provide medical care. The infirmary, created in order to care for the sick and wounded members of a foundation dedicated to elderly and/or disabled men, had hygienic principles that were unusual for its time, and was dedicated to providing its patients with continuous medical care. The practices of both the carers and the sick sometimes deviated from the ideal operations prescribed in the regulations, but the infirmary's architecture and its organization undoubtedly served as a model for French rulers when they undertook, during the eighteenth century, to create a network of hospitals for their armed forces. It was also the first institution where the injury-related and/or age disability was supported systematically, illustrating the critical role played since the sixteenth century by military medicine and surgery in the construction of medical knowledge and care practices in France. Moreover, the infirmary of the Hôtel Royal offered unprecedented opportunities for clinical observation and knowledge transfer as it served as a place of experimentation almost from its inception and before quickly becoming a place of education or clinical practice, medical and surgical, a requirement extended to all military and naval hospitals of the kingdom by the settlement of 1718.<sup>54</sup>

54 Bibl. Nat. de France, Imp., F 5002 (918), *Actes royaux*, 'Règlement que le Roy veut estre observé à l'avenir dans les hôpitaux de ses troupes du 20 décembre 1718', art. XXI, 4.

So in many ways, the foundation of the Hôtel Royal marked the beginning of a public health policy that the successors of the 'Roi Soleil' had at heart to continue. But beyond the medical and social aspects, the creation of the Hôtel Royal des Invalides reflected the advancement of the Royal State into two areas long reserved for the Church: charity and hospital. The 1670s and 1730s, which saw the creation and expansion of the Hôtel Royal des Invalides, were indeed decisive in the process of secularization of thought. At its height, the Hôtel Royal des Invalides was the embodiment of these developments. Requested by the monarchy, despite the initial reluctance of the Church, it initiated a long movement of secular medical assistance in all its forms.





ANNE LØKKE

## Conspicuous Consumption: The Royal Lying-in Hospital in Copenhagen in the late Eighteenth Century

The honourable royal counsellor, Count Knuth, wrote in April 1802 to the Royal Lying-in Hospital in Copenhagen, to ask if the hospital would receive his married daughter, the Countess Stolberg, to give birth in the Lady Chambers at the hospital. The response was positive on these conditions: that visitors should only stay during daytime and pay for their own refreshments and that the baptism should take place at the hospital. The countess gave birth in July duly followed by baptism with the most distinguished godparents.<sup>1</sup>

For historians knowing the bad reputation the nineteenth century European lying-in hospitals had earned for themselves, it is surprising to meet a married countess giving birth here.<sup>2</sup> In the late eighteenth century however, the Royal Lying-in Hospital in Copenhagen had an excellent reputation. Trainee obstetricians from all over Europe came to see for themselves one of the successful lying-in hospitals in Europe and Countess Stolberg was not the only married woman of high rank who was eager to give birth there, attended by the royal birth attendants, even if the main purpose of the hospital was to provide a discreet birthplace free of charge to desperate unwed women, who could otherwise be tempted to infanticide.<sup>3</sup>

- 1 Emmerik Ingerslev, *Den Kgl. Fødsels- og Plejestiftelse, 1800–1849; et Bidrag til Fødselshjælpens Historie i Danmark i dette Tidsrum* (København: J. Frimodts Forlag, 1915), 11.
- 2 Irvine Loudon, *The tragedy of childbed fever* (Oxford; New York: Oxford University Press, 2000), 60.
- 3 Emmerik Ingerslev, *Matthias Saxtorph og hans Samtid* (København: J. Frimodts Forlag, 1913), 129; Ingerslev, *Den Kgl. Fødsels- og Plejestiftelse*, 25.

The focus of this paper is this incongruence. What did the hospital do, that attracted highly respectable married women from the highest circles of society to give birth at an institution where unwed women, stigmatized by their illegitimate pregnancy, gave birth in the adjoining rooms? How was the distribution between the different types of birthing women? How was the figuration of the different individuals at the hospital according to the space, the care, the birth attendance and the everyday life in general that made this inhomogeneous patient population possible under one roof? When did this practise cease? What could be the purpose from the hospital direction's point of view to have the married, well off mothers at the hospital? And how was the level and trend in maternal mortality at the Royal Lying-in Hospital?

The study is organized so the core is an examination of the Royal Lying-in Hospital in the year 1797 with a micro study on patients admitted to the hospital from 1 April. This is based on the patient registers. The patient registers of the Royal Lying-in Hospital are very well preserved so it is possible to get information of nearly every patient, who have given birth there since 1775, even if the majority are anonymous, hidden behind a serial number.<sup>4</sup> The correspondence is preserved too. Excerpts were published in two volumes in the early twentieth century by the Danish obstetrician Emmerik Ingerslev (1844–1916).<sup>5</sup> The use of the concept of figuration follows Norbert Elias' definition: a dynamic social network of mutual interdependent individuals, here used at a micro level.<sup>6</sup>

4 The archives are at the Danish National Archive (*Rigsarkivet*). In the references abbreviated to RA Patient registers 1797.

5 Ingerslev, *Den Kgl. Fødsels- og Plejestiftelse*; Ingerslev, *Matthias Saxtorph og hans Samtid*.

6 Norbert Elias et al., *The civilizing process: sociogenetic and psychogenetic investigations* (Oxford: Blackwell Publishers, 2000).

## Background: The Royal Lying-in Hospital

To prevent clandestine birth and infanticide a free maternity house was established in Copenhagen in 1750. Here a midwife attended to unwed women giving birth without charge and in confidence. This service was much in demand and soon the house proved too small. A larger maternity ward was included at the brand new prestigious Royal Hospital in 1759 (*Det Kongelige Frederiks Hospital*) – the first hospital in Denmark exclusively dedicated to treatment of curable patients. The Hospital was a royal philanthropic institution with 200 beds meant to provide the best of care for the working poor to keep them free of the poor relief system and get them back to work again as soon as possible.<sup>7</sup> Again the number of poor unwed women wanting to give birth here soon exceeded the facilities. In 1787 the Queen Dowager Juliane Marie (1729–1796) granted larger buildings and capital to extend the maternity unit on its own under the name The Royal Lying-in Hospital (*Den Kongelige Fødselsstiftelse*). A school for midwives was added as well as training for medical students and junior doctors after the pattern of many of the other maternities, which mushroomed up in eighteenth century Europe.<sup>8</sup> The Royal Lying-in Hospital was connected with the University of Copenhagen as the chief accoucheur [obstetrician] also held the role of professor in obstetrics.<sup>9</sup> The chief accoucheur and the chief midwife attended to births in the royal family. These however, took place at the royal residence.<sup>10</sup>

7 Anne Løkke, *Patienternes Rigshospital 1757–2007* (København: Gad, 2007), 8–11.

8 Anne Løkke, 'The "antiseptic" transformation of Danish midwives, 1860–1920', in Hilary Marland and Anne Marie Rafferty (eds), *Midwives, Society and Childbirth. Debates and Controversies in the Modern Period* (Studies in the Social History of Medicine; London/New York: Routledge, 1997), 102–133; De Brouwere, 'The Comparative Study of Maternal Mortality over Time: The Role of the Professionalisation of Childbirth', *Social History of Medicine*, 20/3 (2007), 541–562, 545–546.

9 Asger Snebjørn Stadfeldt, *Kjøbenhavns Fødselsstiftelse som Humanitets- og Undervisnings-Anstalt 1787–1878 med en Indledning om Fødselshjelpens Udvikling i Danmark* (København: J.H. Schultz, 1887), 19.

10 Ingerslev, *Matthias Saxtorph og hans Samtid*, 141–142.

A foundling ward was also attached to the lying-in hospital, where unwed mothers, who had given birth at the hospital, could leave the infant to be found a foster home. The mothers could then return to domestic service or to their place higher in society without the need to provide for the child and without the stigma of unwed motherhood.<sup>11</sup> The quantitative significance of the Royal Lying-in Hospital was quite impressive. When established in the new spacious buildings in 1787 the number of births increased, giving a yearly average 1788–1800 of 858 births (table 8.1 and 8.2) approximately a third of the total number of births in the city of Copenhagen.<sup>12</sup> This also represented 30 per cent of total patient numbers at the Royal Hospital.<sup>13</sup>

## The mothers

On 1 April 1797 six infants were born at the Lying-in Hospital, of whom five were by unwed mothers, who gave birth in anonymity. They did not even supply their names for the registers, so their anonymity lasts to this day. These mothers returned healthy from the Lying-in Hospital – without their infants. A girl was still-born; four healthy boys were transferred to the foundling ward, where they soon died. The sixth baby was luckier. He was born to Frederikke Sebbelov, the daughter of a clergyman and wife of a chief officer on a Chinaman sailing for the Danish East Asian Company. Mr Benjamin Sebbelov had written to the Lying-in Hospital in February to book for his wife. He paid 6 Rigsdaler per week for two weeks of residence

11 Ingerslev, *Den Kgl. Fødsels- og Plejestiftelse*, 25–30.

12 Anne Løkke, *Døden i barndommen. Spædbarnsdødelighed og moderniseringsprocesser i Danmark 1800 til 1920* (København: Gyldendal 1998), 478.

13 Anne Løkke, *Patienternes Rigshospital 1757–2007* (København: Gad, 2007), 42.

and services.<sup>14</sup> That was equivalent to six weeks' wages for a skilled brick layer.<sup>15</sup> The boy was baptized Jørgen. He grew up and died at sixty years of age as a well-off pensioner.<sup>16</sup>

Married mothers in comfortable economic conditions like Mrs Sebbelow and the above mentioned Countess Stolberg were never many at the maternity, but they were a regular presence. In the years 1788–1794 paying married mothers made up for 0.4 per cent of the total, increasing to three per cent in 1795–1800 (table 8.1). The absolute number of paying married women was rising until it reached the peak of 51 in 1811.<sup>17</sup> The ten beds provided free of charge that were intended for the married poor were even less in demand than the beds intended for paying married (table 8.1 and 8.2). Thus, the huge majority of mothers still were the unwed and poor that institution had been founded to cater for: 70 per cent in the years 1788–1794, 60 per cent 1795–1800. The unwed, but able to pay 3 Rigsdaler or more per week, counted for approximately a third of women (table 8.1).

Table 8.1 Women giving birth at the Royal Lying-in Hospital in Copenhagen 1788–1800.  
Note: Ingerslev, *Matthias Saxtorph og hans Samtid*, 135 (my calculations).

Year	Birthing women				
	Total	Of these			
		Paying		For free	
		Unwed	Married	Unwed	Married
1788	704	138	1	565	0
1789	769	147	2	619	1
1790	882	200	4	678	0

14 RA Patient registers 1797, RA Child registers 1797.

15 Poul Thestrup, *Mark og skilling, kroner og øre: pengeenheder, priser og lønninger i Danmark i 350 år (1640–1989)* (København: Rigsarkivet: G E C Gad, 1991), 33.

16 Torkil Baumgarten, *Stamtavle over Familien Sebbelow* (Aarhus: Torkil Baumgartens Forlag, 1911).

17 *Efterretninger om Fødsels- og pleie-stiftelsen* (København, 1825), 158–159.

1791	839	296	3	540	0
1792	849	296	2	550	1
1793	875	328	5	542	0
1794	843	272	8	561	2
1795	865	304	28	524	9
1796	813	276	31	502	4
1797	874	334	22	504	14
1798	907	305	14	565	23
1799	934	329	26	561	18
1800	995	350	38	568	39
Total	11149	3575	184	7279	111
Yearly average number					
1788–1794	823	239.6	3.6	579.3	0.6
1795–1800	898	316.3	26.5	537.3	17.8
Distribution per 100 women giving birth in the period					
1788–1794	100	29.1	0.4	70.4	0.1
1795–1800	100	35.2	3.0	59.8	2.0

## Luxury chambers to attract the higher classes

The buildings granted by the queen dowager in 1787 were built by a major general a few years earlier as residence for himself. It was a well-appointed house with parquet flooring, expensive tapestries, stucco decorated ceilings and gilded molding of the walls. All this luxury was preserved wherever possible during its transformation into a maternity hospital and new extensions were added in a more modest side building.<sup>18</sup>

18 Ingerslev, *Matthias Saxtorph og hans Samtid*, 118–119.

When organizing the space and daily life in the new buildings, it was intended to attract a new, paying clientele to create an income for the hospital. The ordinance issued for the Lying-in Hospital shows a total of fifty beds: thirty for patients lying free of charge, of which up to ten could be used by poor married women. Twenty beds were set up for paying married and unmarried women. Four classes of payment were planned with twin and triple rooms for the smallest fee and luxurious Lady Chambers with private maid as the most expensive. The good rooms were intended to also receive married women of all classes from outside Copenhagen in need of the Royal birth attendees. These women were to be charged the cheapest fee, but were expected to donate to the poor-box of the hospital according to ability.<sup>19</sup>

The patient registers for 1797 show seven different fees (table 8.2). However, it seems that 6, 8 and 9 Rigsdaler was the same class of payment that gave access to the same services, but the fee differentiated according to the mothers' home address and the cause for hospitalization.

Table 8.2 Number of women giving birth at the Royal Lying-in Hospital in 1797 distributed after marital status and payment per week.  
Note: RA Patient registers 1797 (my calculations).

	Absolute numbers							
Payment	free	3 rd.	6 rd.	8 rd.	9 rd.	12 rd.	15 rd.	Total
Unwed	485	313	34	1	1	1	0	835
Married	17	1	7	7	1	3	3	39
Total	502	314	41	8	2	4	3	874
	Per 100 unwed + married women giving birth (n=874)							
Payment	free	3 rd.	6 rd.	8 rd.	9 rd.	12 rd.	15 rd.	Total
Unwed	55.5	35.8	3.9	0.1	0.1	0.1	0.0	95.5
Married	1.9	0.1	0.8	0.8	0.1	0.3	0.3	4.5
Total	57.4	35.9	4.7	0.9	0.2	0.5	0.3	100.0

19 Ingerslev, *Den Kgl. Fødsels- og Plejestiftelse*, 9.

The year 1797 shows as expected an overwhelming majority of unwed women: 95,5 percent. Most of these were lying free of charge, but a large minority of 313 (35,8 per cent of the total) was unwed women paying 3 Rigsdaler per week for chamber and service (table 8.2). A small minority (37 women = 4.2 per cent) of the unmarried paid more than 3 Rigsdaler. One of these was able to pay double the amount paid by Mrs Sebbelow. These were probably wealthy unmarried women or the mistresses of wealthy men who, it seems, also used the hospital in case of an illegitimate pregnancy. Among the married women three paid 15 Rigsdaler per week. For them the normal two weeks stay would be 30 Rigsdaler or nearly four months of wages for a skilled brick layer.<sup>20</sup> Of the five unmarried women giving birth on 1 April only two lay free of charge: three paid 3 Rigsdaler – one and a half weeks pay for the skilled brick layer. Why did so many of the birthing women choose to pay 3 Rigsdaler if they could give birth at the hospital for free? That will be discussed below.

## Payment, privileges and services

The payment classes referred to a system of privileges and services, which I have analysed in table 8.3.

The pricing system distributed the space within the hospital, the food, the domestic staff and the birth attendees, so the higher paying women were distinguished from the non-paying and lowest-paying. Inside the hospital, however, a missing marriage certificate did not condemn anyone to a humbler service. On the contrary: purely payment determined the privileges and services, except that only the unwed got the possibilities of anonymity and leaving their infant at the hospital.

20 Thestrup, *Mark og skilling, kroner og ører*, 33.



Table 8.3 Payment, privileges and services at the Royal Lying-in Hospital 1797.

Notes: \* This column refers only to unmarried lying free of charge. The married lying free had other conditions, which I have not yet been able to unravel in detail. The other columns are for a woman paying this charge independent of married status.

\*\* ‘Medical students’ here means trainee doctors as well. Source: RA Patient registers 1797; Ingerslev 1913 s. 9; Ingerslev, 1915, s 7, 9, 10, 109–111.

	Payment per week (1 Rigsdaler (rd) = 96 Skilling (sk.))				
Service	Free *	3 rd.	6 rd. /8 rd./9 rd.	12 rd.	15 rd.
Lodging	general ward	double/ triple room	single room		Lady Chambers
Food served for the value of (per day)	16 sk.	27 sk.	38 sk.		60 sk.
Domestic staff	Separate, shared among all free	Separate – seem to be shared in the paying classes, but not between them			Private maid provided
Birth attendance	Youngest midwife pupils	Oldest midwife pupils	The chief midwife		
Education object	Medical students **	midwife pupils	No		
Price for leaving the infant to the foundling ward	Free		20 rd.		

The Lady Chambers were equipped like a luxury hotel with tasteful furniture, silverware and private maid. The meals were of gourmet quality and the worth of one day’s food in the Lady Chambers was equivalent to two days of skilled male work. For 6 Rigsdaler and higher the birth was attended by the chief midwife herself, who also attended the births in the royal family. So Mr Sebbelow chose for his wife the cheapest possible solution to get the best birth attendance in a single room.

The 6 Rigsdaler and higher payments also included the privilege not to be used as subject for medical education. The 'price' that women lying free of charge had to pay was to make their bodies available to both new midwife pupils and medical students preparing to be doctors and surgeons. The students trained by examining the birth canal of the birthing women many times during a birth, one intern after another with the only purpose of learning, with no benefit to the woman giving birth. On the contrary, the many unskilled fingers must have been quite painful and, as I will discuss later, dangerous too. The midwife pupils were trained by attending the births, so the women lying free got the least skilled attendance of all, as they were served by the youngest midwife pupils. In addition to that the women lying free received the cheapest food and were accommodated in a big general ward in the least attractive part of the buildings.

So the benefits for women paying 3 Rigsdaler were: not to have to endure the examinations by the interns, having the more skilled birth attendance by the oldest and most experienced midwife pupils, a more private room with only two or three beds and slightly better food. These seemingly small benefits however, could prove to be the difference between life and death.

## Background: lying-in hospitals, puerperal fever and maternal mortality

It is well known that in the nineteenth century the Lying-In Hospitals was the most dangerous places to give birth. The story of Ignaz Semmelweis' (1818–1865) success in reducing the excessive maternal mortality at the Lying-in Hospital in Vienna by hand washing is iconic in the mythology of the emergence of modern medicine. Semmelweis is often presented as the martyr of modern medicine, who first of all understood the contagious nature of puerperal fever, but died young and bitter, because his discovery

was rejected by the medical establishment.<sup>21</sup> This perpetuates a myth that before modern antiseptic procedures were introduced in birth attendance in the 1870s, the risk of death in childbed was tremendous and only modern western medicine was able to keep this danger at bay. Loudon however, has shown that the history of the development, perception and prevention of puerperal fever is much more complicated, but no less spectacular than the Semmelweis myth. First, two other obstetricians Alexander Gordon (1752–1799) in Aberdeen and Oliver Wendell Holmes (1809–1894) in Boston, Massachusetts had understood the contagious nature of puerperal fever and how to prevent it. They published their results earlier than Semmelweis, in 1795 and 1843 respectively.<sup>22</sup> Semmelweis saw the first results of his hand washing experiment in 1847, but did not publish his famous treaty until 1860–1861, before then only spreading his results by letters and personal contacts. In Denmark his method was mentioned (but not accepted) in the leading medical journal in 1850.<sup>23</sup>

Second, the maternal mortality at the Vienna Lying-In Hospital did not reach catastrophically high levels until after 1823, when a new chief obstetrician followed the medical fashion of the time and introduced teaching of the medical students on post-mortem material as routine. That made the medical students vectors who brought the contagion from the corpses of those who had died of puerperal fever direct to the birth canals of healthy women during labour. During the reign of the former chief obstetrician (1784–1822) the average maternal mortality rate had

- 21 For example Vogt, 'Dødeligheden under Barselperioden før og nu', *Ugeskrift for Læger*, 4.rk/22 (1890), 296–303. A famous novel based on and contributing to the myth is Morton Thompson, *The cry and the covenant* (Garden City, N.Y.: Doubleday, 1949). It was translated to many languages among them Morton Thompson and Edmund Th Kauer, *Der Schrei der Muetter: ein Semmelweis-Roman* (Wien: Ullstein, 1950); Morton Thompson, *Kvindeligens hænder* (København: Schönberg, 1956).
- 22 Ingerslev, *Matthias Saxtorph og hans Samtid*, 373–375; Irvine Loudon, *Death in childbirth: an international study of maternal care and maternal mortality, 1800–1950* (Oxford: Oxford; New York: Clarendon Press; Oxford University Press, 1992), 49–70; Loudon, *The tragedy of childbed fever*, 24–34, 53–57, 88–110.
- 23 Editorial, 'Om Cadaversmitte som Aarsag til Barselsfeber', *Ugeskrift for Læger*, 2.rk./7 (1850), 345–354.

been 1.25 per hundred births. When the mortality peaked in the period 1839–1847 it was 9.84 per hundred births on the ward, where the medical students were taught.<sup>24</sup>

This was not an isolated case among European lying-in hospitals. Loudon has found the same pattern of a relative low maternal mortality in the late eighteenth and early nineteenth centuries compared to a higher rate in the middle of the nineteenth century at the London Lying-in Hospital.<sup>25</sup> As I will show below, this was the case too at the Royal Lying-in Hospital in Copenhagen. Other mortality patterns were also apparent in European lying-in hospitals: The Paris Maternité had high maternal mortality levels both in the eighteenth and nineteenth centuries and at the Dublin Lying-in Hospital and the Western Lying-In Hospital in London the maternal mortality levels maintained a low level even in the 1840s, when the normal state of affairs at many other Lying-in Hospitals were ravaging epidemics of puerperal fever resulting in high mortality rates.<sup>26</sup>

While the causes of the epidemics of puerperal fever in the nineteenth century have been much studied both at the time and later by historians of medicine, there has been little focus on the lower maternal mortality rates that some Lying-in Hospitals were able to maintain in the late eighteenth and early nineteenth centuries. Thus very little is known about the methods used by these hospitals before the antiseptic method of Lister was transferred to obstetrics in the 1870s.

## Maternal mortality at the Royal Lying-in Hospital

The maternal mortality at the Copenhagen Lying-In Hospital was indeed lower in the 1790s and early 1800s compared to the 1820s, 1830s and 1840s (figure 8.1). The lower line shows the deaths that happened at the Lying-In

24 Loudon, *The tragedy of childbed fever*, 99.

25 Loudon, *The tragedy of childbed fever*, 58–74; Loudon, *Death in childbirth*, 428–444; De Brouwere, 'The Comparative Study of Maternal Mortality over Time', 541–562.

26 Loudon, *The tragedy of childbed fever*, 58–74; Loudon, *Death in childbirth*, 428–444.

Hospital. The upper line includes also the deaths of women who had been transferred to other hospitals when they fell ill after giving birth at the Lying-in Hospital. The Royal Lying-in Hospital was closed between 1844 and 1849 as a reaction to the recurrent epidemics of puerperal fever, but the maternal mortality was soon excessive again after it reopened.<sup>27</sup>

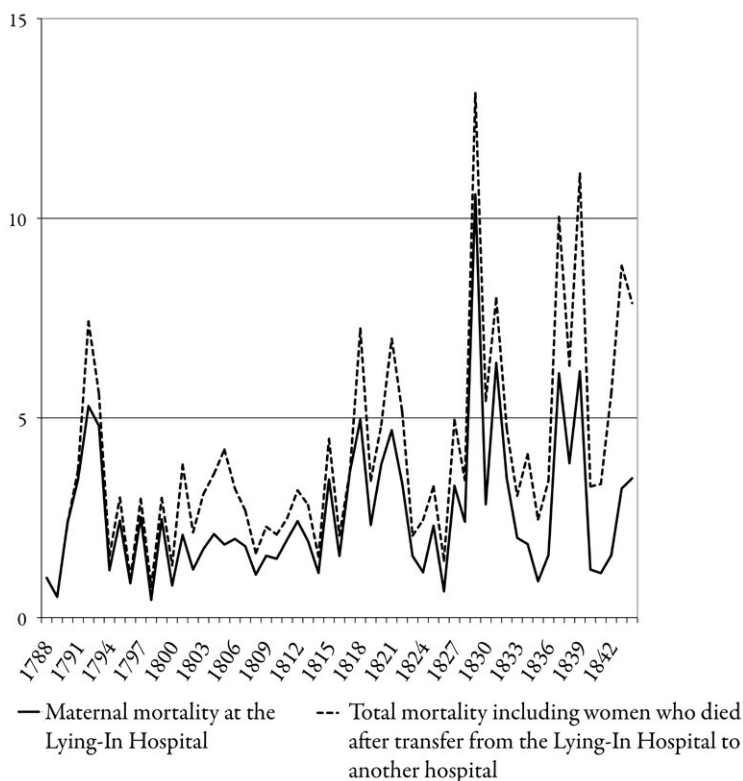


Figure 8.1 Maternal mortality of all causes at The Lying-In Hospital Copenhagen 1788–1844 per 100 women giving birth.

Notes: adapted from Carl Johan Kayser, *Den Kongelige Fødsels stiftelse i Kjøbenhavn og den der herskende ondartede Barselseber* (København: C.A. Reitzel 1845).

27 Løkke, *Patienternes Rigshospital 1757–2007*, 43–44; Ingerslev, *Den Kgl. Fødsels- og Plejestiftelse*, 365.

While it was still a new institution, the Royal Lying-in Hospital had faced a very severe epidemic of puerperal fever in 1765–1766, with the highest rates of maternal mortality ever recorded.<sup>28</sup> It was met by a policy of purchasing entirely new beds and bedclothes. The old ones were donated to the nearby general poor law hospital (*Almindeligt Hospital*) and the entire domestic staff was fired and new hands hired.<sup>29</sup>

Later in the eighteenth century the chief accoucheur was Professor Matthias Saxtorph (born 1740; chief accoucheur from 1771 until his death in 1800). He pursued a heavy-handed regime to get the puerperal fever out of the hospital whenever it appeared. As soon as a case was detected the patient was moved from the maternal ward to the medical ward at the Royal Hospital.<sup>30</sup> He clearly thought that puerperal fever was contagious, but he made no scientific reflections on this subject in his extensive writings. We know however, that he himself made an observation that puerperal fever was not equally distributed among the pay classes.<sup>31</sup>

In 1781, after ten years as chief accoucheur, that he had never seen cases of puerperal fever in the paying clientele. He explained that it was due to the fewer numbers of patients in each chamber and less demand for paying beds, than for the free lying beds. In the general ward he observed, that too many patients lay too close to each other and the interval between one patient being discharged and the next arriving was too short. That made it impossible to clean and air the ward properly between patients. Saxtorph used that as an argument for a new and larger maternity hospital.<sup>32</sup>

A closer look at the numbers shows however, that also at the new maternity hospital there was a difference in mortality between the free lying and the paying patients. It clearly was well worth the money to find the necessary 3 Rigsdaler to escape being a member of the class lying free of charge (table 8.4 and 8.5).

28 Ingerslev, *Matthias Saxtorph og hans Samtid*, 38.

29 Ingerslev, *Matthias Saxtorph og hans Samtid*, 39–41.

30 Ingerslev, *Matthias Saxtorph og hans Samtid*, 39, 136.

31 Ingerslev, *Matthias Saxtorph og hans Samtid*, 92, 136.

32 Ingerslev, *Matthias Saxtorph og hans Samtid*, 92, 136.

Table 8.4 Maternal mortality (all causes) 1797.

Notes: Counted from RA Patient registers 1797. The ( ) indicate a low degree of accuracy of the percentage because of the small population at risk.

Payment	Births	Deaths per 100 births
Free	502	3.4
3 rd.	314	1.3
> 3 rd.	58	(1.7)

Table 8.5 Maternal mortality (all causes) 1804–1812.

Note: Reports from the hospital to the king for the years 1804–1812. Here cited from Ingerslev, *Den Kgl. Fødsels- og Plejestiftelse*, 109–110.

Payment	Births	Deaths %
Free	5445	2.2
3 rd.	3640	1.3
> 3 rd.	1342	1.5

The mortality was substantially lower among the paying clientele than among the women lying free of charge. The results are agreeing about this for the year 1797 and the cumulated years 1804–1812, which are known because the reports to the king from the hospital were especially comprehensive for these years.

The Danish obstetrician and medical historian Ingerslev mentioned earlier was himself one of the pioneers in implementing antiseptic procedures in midwifery and obstetric in Denmark in 1870 and was naturally especially interested in the history of puerperal fever.<sup>33</sup> In 1913 he suggested

33 Ingerslev knew in 1913 not only about Semmelweis, but also about Gordon and Holmes: Ingerslev, *Matthias Saxtorph og hans Samtid*, 373–375. Antiseptics in obstetrics was introduced earlier in Denmark than most other places, prompted by a dissertation about puerperal fever by the Danish physician G.G. Stage and the lucky timing of a change in professors in 1869. See Anne Løkke, 'The "antiseptic" transformation of Danish midwives, 1860–1920', in Hilary Marland and Anne Marie Rafferty (eds),

that the mortality differentials between the paying and non-paying patients in the late eighteenth century was caused by the medical students – just as was the case for Semmelweis in Vienna.<sup>34</sup> This explanation still holds today. The medical students had their unwashed fingers in the birth canals of many women, thereby being effective vectors for spreading infection even if they had not recently been engaged in post mortem examinations. Ingerslev however, did not reflect on what had prevented the infection from spreading *inside* the Lying-in Hospital. In Vienna there were two totally separate wards with only medical students in one. In Copenhagen there was only one ward.

## Zones of quarantine along the social differentials

In the following section I will argue that at the Copenhagen Royal Lying-in Hospital in the late eighteenth century the figuration of patients in relation to space, privileges and services impeded the spread of infection from the women laying free to those paying. It seems that Saxtorph beginning with his observation that puerperal fever did not attack the paying clientele in the 1770s, developed a figuration of the patients in such a way as to create zones of quarantine inside the maternity using existing social differentials among the women. The system of payment, privileges and services he set up for the new maternity hospital was planned like a long-term scientific experiment, isolating the three main groups of women (the lying free of charge, the paying 3 Rigsdaler group and the paying more than 3 Rigsdaler) while distributing different variables in the form of liabilities, privileges and personnel without overlaps between them.

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*Midwives, Society and Childbirth. Debates and Controversies in the Modern Period* (Studies in the Social History of Medicine; London/New York: Routledge, 1997), 102–133.

34 Ingerslev, *Den Kgl. Fødsels- og Plejestiftelse*, 109.



The most important decision was preventing the medical students from having contact with all the birthing women. But the effect of the medical students cannot be separated from the effects of accommodating ten or more free-lying women in the same room. These two factors both increased the risk of spreading puerperal fever and the combination must have had a synergetic effect. Puerperal fever is very infectious, so if one woman in confinement got it, it could spread to the others in the general ward through the utensils and the domestic staff too. In addition was the impact of birth attendance by the new midwife pupils (table 8.3). They were less likely to have acquired the skills to achieve a normal birth. These were the most important part of the skills that Saxtorph taught through his 1776 and 1790 handbooks for midwives<sup>35</sup> that were also used by midwife pupils.<sup>36</sup> The rationale was that if the midwife stayed by the woman during the whole birth, she could help the woman move about, help her to relax and in the right moment prevent the perineum from bursting. A birth staying normal has no need for dangerous interventions, so the risk of wounds and infections caused by unclean hands and instruments is reduced. This was very essential before the development of a bacteriological understanding of infection, aseptic techniques and antibiotics.<sup>37</sup>

The paying clientele were shielded from infection by the free lying by the almost total separation of everything from one class of payment to the other: no medical students, separate birth attendees, separate rooms,

- 35 Matthias Saxtorph, *Kort Udtog af Jordemoder Videnskaben* (København: Bogrykker Lauritz Simmelkier, 1776); Matthias Saxtorph, *Nyeste Udtog af Fødsels-Videnskaben til Brug for Jordemødrene, med kobber* (København: F C Pelts Boghandel paa Børsen, 1790).
- 36 Anne Løkke, 'Did midwives matter? 1787–1845', in Hilde Sandvik, Kari Telste, and Gunnar Thorvaldsen (eds), *Pathways of the Past* (Oslo: University of Oslo Press, 2002), 59–72.
- 37 Løkke, 'The "antiseptic" transformation of Danish midwives, 1860–1920'. A study of the neonatal mortality at the Royal Laying-in Hospital at the late eighteenth century have not yet been done. Such a study would be very helpful to determine in further detail the quality of the birth attendance taught by Saxtorph. At the time the neonatal mortality was overshadowed by a huge infant mortality after the infants were transferred to the foundling ward.

separate domestic staff, separate utensils. The lowest maternal mortality rates were experienced by the women paying 3 Rigsdaler. The privileges and services they were offered seem to have been quite basic, but effective in keeping the mortality rates low. They were attended during birth by a totally separate staff of the older and more skilled midwife pupils, and they lay in twin or triple chambers with their separate utensils and separate domestic staff.

The slightly higher mortality rates among the women paying more than 3 Rigsdaler may be random in 1797 because of the few women in this group, but the population of 1804–1812 (table 8.5) is large enough to suggest a systematic variable. It could be that this group included more women who expected complicated births and this was the very cause for them to seek the hospital in the first place. It could also be that Saxtorph himself and the chief midwife, who were the only staff allowed to move between all the hospital zones, were vehicles of infection because they attended the most complicated births among women lying free of charge and all women in the higher paying group. But this question is beyond the scope of this chapter.

## The Royal Lying-in Hospital in the years following Matthias Saxtorph's death

The whole set up crumbled bit by bit when Matthias Saxtorph died in 1800 and his son Sylvester Saxtorph (1772–1840) was made his successor. In the first years Sylvester continued the regime and routines he had learned from his father, but he did not have Matthias' scientific approach. Matthias had a great scientific authorship in Latin, German and Danish. Sylvester did not write anything himself, but edited and republished his father's handbooks for midwives. After a few years Sylvester's correspondence shows that he found the presence of the married ladies, with their requests for special duvets and luxurious delicacies, a nuisance. He did not see why these ladies should be worth the bother and tried his best to refuse admission

when they applied. Around 1814 he abolished the lady chambers.<sup>38</sup> From then on the patient journals began to be kept less carefully and he ceased to welcome medical students and young doctors from abroad, who in his father's time had been numerous.<sup>39</sup>

Around the same time epidemics of puerperal fever increased and the maternal mortality reached levels not seen in his father's era (figure 8.1). The epidemics brought an end to both the good reputation of the hospital and to the last of the upper-class married women choosing to give birth there. In the mid nineteenth century the clientele type had totally shifted. There was only one rate of fee for paying patients and very few who were able to pay – unmarried as well as married – wanted to be admitted.<sup>40</sup> The Royal Lying-in Hospital was now a place for the unwed poor only.

## Conclusions – conspicuous consumption as branding and as barrier of puerperal fever

From Professor Matthias Saxtorph's perspective there seem to have been at least three reasons for attracting a paying clientele, including a small number of very privileged married women, to give birth at the Royal Lying-in Hospital. First, to create revenue that could help to ensure that the standards of the maternity hospital would not deteriorate when the Royal benefactor queen dowager Juliane Marie had died. Second, to brand the Lying-in Hospital as the institution in which the most modern, skilled, safe and, in Mary Douglas' use of the concept, 'pure' birth attendance was performed.<sup>41</sup> By furnishing the Lady Chambers to accommodate the most

38 Ingerslev, *Den Kgl. Fødsels- og Plejestiftelse*, 10.

39 Julius Petersen, 'Johan Sylvester Saxtorph', in C.F. Bricka (ed.), *Dansk biografisk Lexikon* (14; København: Gyldendal, 1900), 626–628.

40 Løkke, *Patienternes Rigshospital 1757–2007*, 74.

41 Mary Douglas, *Purity and danger: an analysis of the concepts of pollution and taboo* (London: Routledge and Kegan Paul, 1966).

fastidious tastes it announced that this was the case too in the birth attendance. A thankful lady leaving the maternity well and alive after a difficult birth with a healthy baby in her arms was an effective way to win friends for the Lying-in hospital among the great of society.

The two first causes were linked to the third: the wish of Professor Matthias Saxtorph to create a Lying-in Hospital and a birth attendance second to none of the other maternity hospitals. This was a goal he reached with a surprising high degree of success. The birth attendance at the lying-In Hospital in his time showed much better results measured by the ability to preserve the health and life of the birthing women, than in the mid-nineteenth century (figure 8.1) and the level of maternal mortality was comparable with other low mortality lying-in Hospitals. This was achieved by obstetric care of a high quality, by avoiding interventions in normal births and by a low incidence of puerperal fever.

What Mrs Sebbelow, Countess Stolberg and the other privileged married women sought at the Lying-in Hospital seems to have been the combination of the thrill of a new, modern mode of giving birth, the cachet of being served by the royal birth attendees (the professor himself and the chief midwife), combined with the convenience of having sumptuously furnished bespoke chambers for delivery and lying in childbed. The publicity given to the very high fee charged for the Lady Chambers only added to the enjoyment of conspicuous consumption.

A precondition for the attraction of this hospital for wealthy married women was of course that they did not associate it with danger. In Copenhagen the epidemics of puerperal fever in the nineteenth century cleared the lying-in hospitals of the paying elite. The remaining clientele were the poor and the unwed, who had absolutely no other choices than to give birth at a place known for a huge excess mortality.

In this essay however, I have argued, that it was also the other way round. That the very presence of the wealthy married women in an institution primarily caring for unwed poor prompted a careful figuration along the lines of social differentials, which were also effective at curbing outbreak epidemics of puerperal fever and thereby keeping maternal mortality rates low. To take care of the diverse clientele the social inequalities were underlined in a conspicuous and direct symbolic demonstration of differentiated

care, food and accommodation. The key principle was that nothing and nobody transgressed the borders of the paying classes. Only the professor himself and the chief midwife were allowed to move everywhere. These zones of quarantine inside the hospital allowed the co-existence of the greatest social inequalities under one roof. But they also made barriers for the spreading of puerperal fever, which helped to attract wealthy women to use the institution.

The existence of a few lying-in hospitals – the Copenhagen one among them – that were able to keep puerperal fever at bay in the late eighteenth century, points to a more complicated development in the history of obstetrics than the linear progress suggested by the well-known Semmelweis myth. The knowledge however was, in the Copenhagen case, a set of practices built into the figuration of the hospital. It was not formalized as scientific knowledge through a written policy or code of practice which might have made it more resistant to new fashions in medicine and new administrative decisions in the nineteenth century. The very strategies that had kept puerperal fever low were lost to later generations of doctors, leaving them unable to combat the puerperal fever until the development of antiseptic knowledge and techniques.

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JOHN CHIRCOP

## Management and Therapeutic Regimes in Two Lunatic Asylums in Corfu and Malta, 1837–1870

Through the looking glass of two forgotten lunatic asylums, set in the British colonial sites of Corfu – in the Protectorate of the Ionian Islands – and Malta, this study seeks to explore aspects of the daily life of the insane patients in confinement.<sup>1</sup> It does so from research of contemporary material and archival records and by engaging with the theoretical debates and insights drawn from the literature on the lunatic asylums in nineteenth-century Europe and in the wider British Empire.<sup>2</sup> Even from its preliminary stage, the research immediately propelled our theoretical engagement towards the more recent post-Foucaultian revisionist histories that have taken a sharply critical stance against the ‘general confinement’ thesis which ascribes to the lunatic asylums the sole function of state instruments of social control managed, from top to bottom, with little if

- 1 The Ionian Islands and Malta, together with Gibraltar, came under British domain: the first islands as a Protectorate from 1814 until 1864 when they were ceded to Greece and the second as a colony until 1964.
- 2 L.D. Smith, *Cure, Comfort and Safe Custody: Public Lunatic Asylums in Early Nineteenth Century England* (Leicester: Leicester University Press, 1999); Roy Porter, *A Social History of Madness. Stories of the Insane* (London: Weidenfeld & Nicolson, 1989); Jonathan Sadowsky, *Imperial Bedlam: Institutions of Madness in Colonial Southwest Nigeria* (Berkeley: University of California Press, 1999); see also Catherine Coleborne, ‘Making “Mad” Populations in settled Colonies: The Work of Law and Medicine in the Creation of the Colonial Asylum’, in D. Kirkby and C. Coleborne, eds, *Law, History, Colonialism: The Reach of Empire* (Manchester: Manchester University Press, 2001).

any interference from outside.<sup>3</sup> This wide theoretical approach does not however preclude us from using notions such as that of state regulatory intervention through bio-politics, found in Foucault's epistemologically ground-breaking texts which lend a hand in explaining the power complexities lying behind – and forming the *intentions* of – the Colonial State's decision in the first instance to set up lunatic asylums in these two British domains during 1837–1838.<sup>4</sup> But then again, empirical evidence presents us with a much more complex picture of a densely convoluted existence of the insane confined in these public 'madhouses', providing us with nuanced insights on otherwise 'hidden' areas of their daily life – from the most essential nutritional and caring regimes to the means by which management and therapies were implemented.

One of the main points made in this study is that it was through continuous bargaining, flexible management and informal social arrangements between relatives, staff and physicians that these asylums were kept running on a daily basis. It was through such flexible practices that a prearranged daily regime could be implemented, and thus provide a sense of 'normality' and of time passing. This depended on a regulated time-table, marked by therapies – occupational activities, leisure time and medical visits – and meals. As this study seeks to illustrate, it was through these collective activities, and mainly through punctual meals, that the insane inmates were socially disciplined and took on an institutional identity. Being aware that we are here dealing with the realms of a confined existence of some of the poorest, most vulnerable, and socially ostracised ill, we hone a method of

- 3 See the papers in B. Forsythe and J. Melling, eds, *Insanity, Institutions and Society. New Research in the Social History of Madness, 1800–1914* (London: Routledge, 1999); For the 'confinement thesis': Michel Foucault, *Madness and Civilization. A History of Insanity in the Age of Reason* (London: Routledge, 1999). For instance Andrew Scull depicts the madhouses as 'engines of control': A. Scull, *The Most Solitary of Afflictions: Madness and Society in Britain, 1700–1900* (New Haven Conn.: Yale University Press, 1993).
- 4 Michel Foucault, *The Will of Knowledge. The History of Sexuality: 1* (London: Penguin Books, 1998), 139–141.



analysis which is flexible enough to absorb the fluidity and contradictory features of the daily realities experienced in these charitable establishments.

The idea of ‘permeable borders,’ actually extracted from these establishments’ daily practice of unimpeded social inflows from the surrounding social environment, is employed as a cornerstone of the analytical framework adopted.<sup>5</sup> Actually the minimal restrictions kept on the entry and the visiting times affected the daily routine of these two asylums, leading to the ubiquitous presence of the relatives and friends of the patients, who actually helped to keep superintendents, physicians and staff under scrutiny, thus deterring serious acts of cruelty and abuse. This evidence also informs our theoretical dialogue with current cutting-edge research and historiographical debates on other vital issues which are dealt with in each section of this work. To be sure, both these lunatic asylums are recognised as sites of multiple interests in which numerous agents – those of the charity authorities, the superintendents, physicians, the staff, and more visibly still, of the families of the confined – are in relentless negotiation. This directs our analytical focus to the complex of interests and desires, reckoning and emotional dynamics shaping these deprived families’ decisions for committal of their mentally tormented ones, and more enduringly their ensuing omnipresence within these institutions.

While it becomes immediately evident from colonial state documents that these two lunatic asylums were intended to operate as other instruments of social regulation – in this case for the insane who came to be considered as the most disturbing bodies from the so called ‘dangerous poor’ – this study delves deeper still to investigate the extents to which these state power projections were implemented or otherwise in the everyday running of these confinement institutions.<sup>6</sup>

- 5 The collection of papers in Graham Mooney and Jonathan Reinartz, eds, *Permeable Walls: Historical Perspectives on Hospital and Asylum Visiting* (Amsterdam: Radopi, 2009), provides an excellent contribution to our understanding of the experiences of, and the impact left by, visitors – relatives, friends and public officials – in different institutions and geographical settings from the eighteenth to the twentieth century.
- 6 The colonial state records examined for this study include the correspondence between the Colonial Office (London) and the respective administrations of the

## Carving asylum spaces for the confinement of the insane poor

On taking over the state structures of power in 1814–1815 in the Ionian Protectorate and Malta, the colonial authorities made it one of their primary concerns to centralise and bring further under the state's influence the numerous public charities and hospitals left by the previous regimes.<sup>7</sup> In Malta, those judged as *'non compos mentis'* – inclusive of epileptics, 'idiots' and 'maniacs' – were gathered indiscriminately with other disordered bodies, with whom they came to be classified as 'invalids', in a central public poorhouse known as *ospizio*.<sup>8</sup> In this dumping ground for the intolerable poor, those deemed 'lunatic maniacs' or certified as suffering from such conditions as *delirium tremens* were locked, chained to the walls, and when agitated beaten to calm down.<sup>9</sup> Others of a quieter disposition – the 'melancholic' – who were not so difficult to handle were normally left to mingle with the other inmates. But all of the 'mad' were treated equal to the female prisoners also incarcerated there when it came to their daily diet: both for instance were denied wine – another act which further blurred their institutional identity with that of convicts.<sup>10</sup> More emphatically in the

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Protectorate of the Ionian Islands in Corfu and that in Malta, which are deposited in the British National Archives at Kew, London, as well as in the state archives of these two archipelagos. Other official records used here include internal government correspondence as well as orders, regulations and government gazette supplements, related to public health and medical issues (in this case the lunatic asylum), published in both these domains.

- 7 Caruana et al./Maitland, Valletta, 22 Jan. 1816 in 'Letters to Permanent Committee', National Archives, Rabat, Malta [hereafter NAR.M], 11–12.
- 8 As part of 'the inefficient population' (*Malta Blue Books 1861* [hereafter *MBB.*], 3, 7).
- 9 A.V. Laferla, *British Malta* (Malta: Aquilina & Co., 1977), vol.2, 73; see also A. Cremona, *L'Ospizju tal-Furjana u l-Erwieħ ta Wied Għammieq* (Malta: DOI, 1959), 17; T. Chetcuti, 'Descrizione del Pubblico Manicomio di Malta', *Il Filologo Maltese*, 22 July 1841.
- 10 R. Montgomery Martin, *History of the British Possessions in the Mediterranean comprising Gibraltar, Malta, Gozo and the Ionian Islands* (London: Whittaker & Co., 1837), 246.

Ionian islands, those regarded as lunatics were locked in the local prison of each island with an assortment of convicts condemned for a range of other law breaking acts.<sup>11</sup>

The earliest textual distinction which has been found of those identified as insane from the rest of the other prisoners in the Ionian prisons is noted in the colonial Blue Books of statistics for the year 1827–1828, where they are listed as a separate entry under the heading: ‘*insane prisoners in confinement*’.<sup>12</sup> Significantly, it was also at this same time that the Anglo-Ionian state authorities were coming to refer to the insane in emotionally loaded terms such as ‘unhappy’, ‘suffering’ and ‘unfortunate’ beings – this being suggestive of the gradually shifting attitudes towards the insane and their treatment.<sup>13</sup> This came at a time of profound changes in the attitudes on insanity and on its treatment in Britain and continental Europe, mostly brought about by the revolutionary work of Philippe Pinel who pioneered moral therapy, followed by others such as John Connolly, Samuel Tuke and William A.F. Browne.<sup>14</sup>

Meanwhile, evidence indicates that jailers themselves had come to treat the quiet insane and the ‘idiots’ slightly differently from the undisciplined and aggressive ‘maniacs’ – a telling apart which they practised day in day out and which facilitated the handling of the more troublesome amidst the condemned prisoners. Being calm and receptive, the ‘quiet’ insane were treated less severely, even when having to be punished for breaking regulations. As British principal medical officer of the Mediterranean stations

11 *United States of the Ionian Islands Blue Books* [hereafter *IIBB.*], 1828–1837. In the mid-1830s the Corfu prison held eight insane in confinement, the Cephalonia jails held nine and seven others were locked in Zante prisons.

12 ‘Returns of Goals’, *IIBB.*, 1828, 1830.

13 Lord High Commissioner ‘Circular no. 319’, Colonial Office [hereafter *CO*] 136/1137, The National Archives of Britain, Kew, London [hereafter *TNA.*]; Nugent/Senate, Corfu, 23 Nov. 1833, *CO.* 136/1092, *TNA* Also *IIBB.*, 1840.

14 On the radical changes in medical thinking on ‘madness’ and the treatment of the insane in asylums with new therapies see Porter, *A Social History of Madness*, 18–19; Andrew Scull, ‘Introduction’, *The Asylum as Utopia. W.A.F. Browne and the Mid-Nineteenth Century Consolidation of Psychiatry* (London-New York: Tavistock-Routledge, 1991), vii–lxxvii.

Dr John Hennen (1779–1828) noted, the latter were only confined to ‘their own cells when it is absolutely required’ – quite differently from the ‘criminal lunatics’ and the rest of the convicts whose punishment included physical restraint and thrashing.<sup>15</sup> This slender variation in treatment did not however include any preferential diet or provisions, which remained the same as that of the convicts.<sup>16</sup>

Accompanying the above-mentioned change in the general perception of insanity and views on its suggested treatment during the 1830s and 1840s came reforms in legislation which differentiated between offences committed by an insane person and others of a criminal nature, intended to define the borders between ‘insanity’ and ‘normality’.<sup>17</sup> These changes echoed the contemporary debates on British legislation on insanity and its treatment, which were then to be articulated in the British Lunatics Acts of 1845 that enforced the establishment of country lunatic asylums.<sup>18</sup> Contextually, these alterations occurred at a time when economic crises led to rising poverty which brought about a constant inflow of unemployed poor in the colonial strategic port centres in Corfu and Malta – both of which lacked the infrastructure to create stable employment and to sup-

15 John Hennen, *Sketches of Medical Topography of the Mediterranean. Comprising an account of Gibraltar, The Ionian Islands and Malta* (London: Thomas & Green Underwood, 1830), 482; *Gazzetta degli Stati Uniti delle Isole Jonie* [hereafter *IIGG.*] 3/15 December 1827.

16 *IIBB.*, 1836.

17 *Civil Laws of Malta, 1841*, art. 138, 38.

18 The works of Philippe Pinel – followed by that of Samuel Tuke and John Connolly – who abrogated physical restraint and adopted moral therapy in purpose-built asylums as the most rational treatment of the insane, directly influenced British lunacy legislation. See Elaine Murphy, ‘The Administration of Insanity in England 1800–1870’, in Roy Porter and David Wright, eds, *The Confinement of the Insane. International Perspectives, 1800–1965* (Cambridge: Cambridge University Press, 2011), 334–349; Sarah Rutherford, *The Victorian Asylum* (Oxford: Shire Publications, 2011), 15–17; Scull, ‘Introduction’, *The Asylum as Utopia*, xxxv, lxviii). Actually, the works of Pinel and Esquirol directly influenced Dr Tommaso Chetcuti (1797–1863), the first superintendent of the Malta lunatic asylum, as his adoption of the ‘moral therapy’ approach illustrates: T. Chetcuti, ‘Descrizione del pubblico manicomio di Malta’, 17 June and 22 July 1841.

port growing populations. This led to a growing number of destitute bodies that became brusquely noticeable in the colonial spaces and residential quarters, making native elites, British residents and colonial functionaries increasingly anxious. The sheer spectacle of such an assortment of disordered, noisy, confused and unclean bodies in their immediate sight was both offensive and threatening, stirring up feelings of revulsion in these privileged groups.

Endeavouring to take control of the situation, deflate nervousness and mitigate any social panic, the colonial state launched a power strategy of intensive policing and control of the poor from moving about unrestricted – taking this as another step forward in the colonial reordering and ‘civilising process’ of these Mediterranean societies.<sup>19</sup> This process was expressed through a colonial civilising discourse which constructed the image of these Ionians and Maltese as ‘childlike’ in their behaviour, aspirations, and state of mental development.<sup>20</sup> For their own ‘good’ these subjects therefore required the civilising, paternal governance of British colonial rule.<sup>21</sup> This is what was really meant by the Lord High Commissioner Sir Howard Douglas’ letter to the Secretary of State of the colonies Lord Glenelg in July 1835, when presenting his plans to ‘bring civilisation’ to the majority of Ionian subjects through public sanitisation, ‘moral cleanliness’ and social discipline.<sup>22</sup>

Driven by these objectives the Anglo-Ionian state embarked on a series of police and sanitary reforms intended to sanitise the public spaces of Corfu Town and assure public order.<sup>23</sup> A newly reorganised Ionian police

19 See *IIGG.*, 15 June 1833.

20 The Ionians and Maltese were indeed represented by numerous British authors as ‘children’ or child-like – noisy, dirty, undisciplined and difficult to control, idle, lazy, tricky and playful. For R. Montgomery Martin, the Ionians were ‘fond of amusements, or a state of listless idleness’: Montgomery, *History of the British Possessions*, 324; see also Hennen, *Sketches of the Medical Topography*, 371, 408.

21 John Chircop ‘From the Pulse of Social Routine to the Subversion of Normality; bell-ringing in the Ionian Islands and Malta’, *Journal of Mediterranean Studies*, 19/1 (2010), 1–27.

22 Douglas/Glenelg, 6 June 1835, CO. 136/75, TNA.

23 Glenelg/Douglas, 4 August 1838, CO. 136/80, TNA; *IIGG.*, 12 Feb. 1838.

was backed by the promulgation of a series of regulations, orders and decrees during the period 1840–1847; this empowered constables to clear off and arrest vagrants, beggars and the socially disturbing poor who were idling or moving in the main public gathering spaces of the cities and principal towns.<sup>24</sup> A similar strategy was operated in the Maltese Islands, starting with the social cleansing of the main public spaces from the purportedly disturbing bodies of the indigent. In 1837, Governor Bouverie, following what his colleague in the Ionian Protectorate had done two years earlier, wrote to Lord Glenelg for authorisation to open institutions for the ‘cleaning’ of the main social spaces and thoroughfares within and leading to the city from the disordered ‘beggar’ class.<sup>25</sup>

These strategies of societal regulation expressed – and were indeed legitimised by – the state’s recognition of the insane as a separate cohort of the disturbing poor that were better off being confined and provided with curative assistance in lunatic asylums than imprisoned. For this end two buildings were identified in Corfu and Malta – in the San Rocque fortress and an old (*Franconi*) mansion respectively, both hastily repaired and re-converted ‘to be able to hold as many insane as possible.’<sup>26</sup> Declared to be ‘intended as a general institution for the custody and care of Lunatics of these states’, the Corfu lunatic asylum was officially declared open in July 1838 so that ‘these unhappy people shall not be permitted to remain in jails’ and be ‘provided with the best treatment.’<sup>27</sup> An Ionian state steamboat was scheduled to pick up those certified insane from all the islands and transfer them to the Corfu asylum.<sup>28</sup> Yet, significantly, even at this early stage of

24 ‘No. XIV – Act of Parliament for the Prevention of Vagrancy and Vicious Mendicity’, *IIGG*, 13 June 1840. See also Thomas Gallant, *Experiencing Dominion. Culture, Identity, and Power in the British Mediterranean* (Notre Dame, Indiana: University of Notre Dame Press, 2001), 74–75; Seaton/Earl Grey, Corfu, 18 April 1846, CO. 136/124, TNA.

25 Bouverie/ Glenelg, Malta, 22 March 1837, in ‘Despatches to Secretary of State, April 1837–October 1837’, NAR.M.

26 *IIGG.*, 14 July 1838; ‘Supply – Ordinances – House of Commons’, 8 March 1844, *Hansard*, vol. 73, c. 774–781.

27 ‘Circular no. 319’, 9 July 1838, CO. 136/1137, TNA; *IIGG.*, 5 March 1839.

28 ‘Circular no. 319, Corfu, 9 July 1835’ in CO.136/1137, NAR.M; cf also *IIGG.*, 14 July 1838.

institutionalization of the mentally ill in these domains, the state looped in the families in the decision of confinement, presenting them with the choice of either consenting to the committal of their insane or else taking full responsibility to ‘prevent them from going at large.’<sup>29</sup> Through confinement or family guarantees, the colonial state was set to ensure public quiet, social order and the reproduction of a general sense of normality in these island domains.

The establishment of both the Corfu and the Malta lunatic asylums from rough and ready buildings located on the outskirts of their colonial centres was certainly meant to distance and exclude the ‘lunatic fringe’ of the poor from the city parameters, with insanity being viewed as the dark side of civilisation at the time.<sup>30</sup> Both asylums were located at the crossroads where an atmosphere of fluid movement of humans, animals and products prior to their possible filtering and channelling through the city gates – which functioned as social ‘osmosis’, as Paul Virilio described it – prevailed.<sup>31</sup> In terms of the social landscape, these ‘mad houses’ were embedded in the most depressed suburban districts: one in the Manducchio area where other public charities stood, and another in a very similar poverty-ridden Maltese landscape.<sup>32</sup> As will be argued further on, these immediate neighbourhoods would have an indelible impact on the daily routine of these institutions.<sup>33</sup> Added to these family committals, others were interned by orders of the Court and by the police. These included a wide range of cases, from those committing acts which presumably crossed the boundaries of decency and acceptable behaviour to the more extreme cases of violence such as those

29 ‘Circular no. 319’.

30 *IIGG.*, 26 Feb 1842; Scull, ‘Introduction’, *The Asylum as Utopia*, xxi–xxii.

31 Paul Virilio, *Speed & Politics. An Essay on Dromology* (New York: Columbia University Press, 1986), 18.

32 John Murray, *Handbook for Travellers in Greece describing the Ionian Islands, the Kingdom of Greece, The Islands of the Aegean, with Albania, Thessaly and Macedonia* (London: John Murray, 1854), 78.

33 Paul Cassar, *Medical History of Malta* (London: Wellcome Historical Medical Library, 1964).

signed by 'homicidal mania'.<sup>34</sup> The police in both these British domains were legally empowered to send to the asylum anyone they judged injurious or whom they considered was transgressing social norms simply by 'notifying the name to the director [of the asylum]', as in Corfu. In short, both these asylums functioned as institutions to confine persons judged of unstable mind and brought in through different channels, although their keep always required the permission of their families.

### Family omnipresence: negotiating duration, release and daily care within the asylum

In contrast to other relatives from remote villages and islands who had to cross the sea for a visit, those who resided on the main islands of Corfu and Malta, and more so those living near the asylums, found a convenient option for keeping and caring for their insane. The extra-mural location and socially depressed neighbourhoods – purposely chosen by the state authorities to distance and contain the 'mentally disturbed' away from the main colonial strategic centres – actually made the asylums more approachable and accessible for their families who were accustomed to such a social environment. Coupled with this, the fact that they knew that they could visit their confined insane relative without problems must have helped them to decide in favour of committal. In fact very few restrictions were exercised on the circulation of bodies and objects in and out of the asylum.<sup>35</sup> Such laxity at the gates was indeed symptomatic of the permeable

34 See the case of Grazia Mercieca on the Island of Gozo, 12 June 1878, 'Medical files – Gozo 1878', NAR.M.; also the case of 17-year-old Giuseppe Agius who was to be detained 'in strict confinement' in Pulis/Chetcuti, Valletta, 4 August 1859, in 'Misc. Letters issued from the Comptroller's Office. 7 January 1859 – June 1867', NAR.M.

35 To the point that for a time, the main gate of the Malta asylum was unattended. See Cassar, *Medical History of Malta*, 363.



borders existing between these asylums and their neighbourhoods, which in turn affected the ways in which families perceived these institutions and the daily routine within them.

For the families, confinement would mitigate more serious problems and keep their confused relatives out of harm's way. Hence they came to view the asylum as a much better option than probable incarceration. At the same time, committal also meant certifying one as mentally ill and undergoing treatment under a physician's care. As John Pickstone argues, this helped the families to 'medicalise' their domestic problems and legitimise this kind of 'incarceration'<sup>36</sup> while, one can add, refuting insinuations of evil possession of their suffering relation, with which insanity was still putatively associated with in the village communities.<sup>37</sup> Moreover, for the household going through hard times, the confinement of its afflicted member would also suppose a period of relief, not only psychologically but also economically and socially.

Life circumstances were not only decisive to determine the timing of committal, but also the duration of confinement. Households experiencing times of adversity would not be enthusiastic to receive back their next of kin who was not certified as 'cured' and not able to contribute to the household economy. In such instances they would employ delaying tactics – attempting to prolong one's stay in the asylum, knowing well that his/her comeback would stretch domestic resources to the limits.

On the other hand, one finds cases of spouses and close relatives repeatedly requesting – even pestering the physician day in day out – for the release of a relation as soon as possible, even before their being declared 'cured' or even 'relieved'. This mainly happened when the patient was the

36 John Pickstone, 'Medicine, society and the state', in Roy Porter, ed., *The Cambridge History of Medicine* (Cambridge: Cambridge University Press, 2006), 277.

37 Cf. for instance Hennen, *Sketches of Medical Topography*, 413, J. Davy, *Notes and observations on the Ionian Islands and Malta with some remarks on Constantinople* (London: Smith Eder, 1842), vol. 2, 165. For the Greek Peloponnese see W.G. Clarke, *Peloponnesus: Notes of Study and Travel* (London, 1858) text reproduced in John L. Tomkinson, *Travellers' Greece. Memories of the Enchanted Land* (Athens: Anagnosis, 2002).

sole breadwinner, in the case of married females who had dependents 'to look after', and more so with mothers having left an infant at home.<sup>38</sup> It was usually on these occasions that relatives requested the 'immediate discharge' of the patient, even if this went against the recommendation of the physician.<sup>39</sup> As in these asylums the physicians were unable to hold a patient without the consent of the family – unless confined by Court orders when deemed harmful to the public – upon insistence by the closest of kin, they were obliged to give their dismissal.<sup>40</sup> On these occasions, 'discharge' normally followed signing of a police guarantee binding relatives 'to take the patient home and be responsible for his actions' and, as in Corfu, 'giving due security that he should not injure anyone.'<sup>41</sup> On one such occasion, Franc Buttigieg from the town of Cospicua in Malta repeatedly petitioned for the discharge of his wife Katerina from the lunatic asylum, where she was kept as a 'lunatic having a tendency to injure herself'.<sup>42</sup> Finding the resident physician very reluctant to order her release, on the grounds that the patient 'is still noisy and dangerous to herself', her husband continued to press for her 'dismissal'. Eventually, the physician had no other option but to 'discharge' Katerina upon the husband's signing of the police guarantee of responsibility.<sup>43</sup>

A formal application and consent form, signed by a close relative and supported by a doctor's medical certificate, were required in both the Ionian

38 See for instance the case of Grazia Mercieca already referred to above: Mercieca/Montreale, Gozo, 12 June 1878.

39 Paul Cassar, *The Institutional Treatment of the Insane in Malta* (Malta: Govt. Printing Press, 1949), 69.

40 Amy V. Blue, 'The Rise of Greek Professional Ethnopsychiatry', in D. Atwood and D. Gaines, eds, *Ethnopsychiatry. The Cultural Construction of Professional and Folk Psychiatry* (New York: State University New York Press), 330–331; 'General Regulations', *IIGG.*, 1 Dec. 1860.

41 Blue, 'The Rise of Greek Ethnopsychiatry', 330, and for the Maltese islands see Cassar, *The Institutional Treatment*, 69.

42 See Comptroller Charity Institutions, no. 15, 17 Oct. 1862, 'Register of Reference Book', 187, NAR.M.

43 Comptroller of Charity Institutions, 187.

Islands and in Malta for the committal of a person.<sup>44</sup> Upon acceptance, the nearest of kin or guardian was asked to sign a separate ‘declaration of pauperism,’ which absolved the individual and family from paying the asylum fees, as the insane was admitted gratis.<sup>45</sup> On the other hand, if the information received showed that the inmate could afford to pay at least a fraction of the fees, the next of kin was to guarantee payment – although here again the fee charged was negotiable.<sup>46</sup> In reality, if they could not get the whole sum waived, those who were able to pay employed a variety of tactics to pay as low a fee as possible after assuring the actual committal of their insane. Quite a number of them lingered on to settle outstanding amounts – long after their mentally ill relatives had been admitted in the asylum – with the Charity authorities occasionally calling for outstanding payments to be settled, as happened in Corfu in 1852, when the government pressed for and obtained the ‘exactions of arrears due by the families of certain patients in the Lunatic asylum.’<sup>47</sup> This negotiation formed an important part of the dynamics which shaped the routine and care of individual patients in these institutions as will be discussed below.

Consenting to and even themselves requesting the committal of their insane did not however mean abandoning them. On the contrary, families were usually very much present in the life of their mentally ill throughout the period spent in the asylum. Relatives certainly became ubiquitous in the establishment, involving themselves in the care of their mentally sick relations and in the daily routine created in these asylums. This is of course a far cry from the conventional historical view of these asylums as rigid,

44 ‘General Regulation on the Lunatic Asylum in Corfu,’ Chap. 1, art 1 and art. 2, in *IIGG.*, 1 Dec. 1860; P. Cassar, ‘Origins of the Medical Duties of the Malta Police,’ *Il Pulizija*, 4/6.

45 ‘Regulations,’ *IIGG.*, 1 Dec. 1860; Blue, ‘The Rise of Greek Professional Ethnopsychiatry,’ 231.

46 ‘Instructions for the Guidance of the Officers and the Servants of the “Franconi” Lunatic Asylum – 1858,’ in GMR 262, NAR.M; cf. Also Davy, *Notes and Observations*, vol.2, 118.

47 Ward/Duke of Newcastle – Corfu, 25 Aug. 1852, in *British Parliamentary Papers and Accounts, 1852–53 LXII* (361), ‘Reports Exhibiting the Past and Present of Her Majesty’s Colonial Possessions.’

socially isolated confinement institutions operated on strict 'psychiatric' regimes, where all decisions were taken at the top; and conversely tallies with current archival-based research which emphasises the role played by social actors, friends and relatives in asylums around Europe making evident the key role played by the latter in the daily care and treatment of the insane.<sup>48</sup>

The already mentioned shifting perceptions of and attitudes towards insanity as a disturbing mental illness constitute another reason which made it easier for the families to be seen visiting their relations with less shame. Relatives, especially those who resided near these asylums, became regular if not daily visitors, helping out in taking care of their own relatives by following their therapies and providing social support and emotional sustenance. Many brought their relatives the flavour of 'home cooking' while spending time chatting, taking them for strolls in the gardens and the courtyards, and thus keeping them occupied and calm.<sup>49</sup> All this in turn assisted the daily management of these establishments and indeed made relatives indispensable. This to the extent that during critical times, when needing to relieve pressure from extreme overcrowding at least in the Malta asylum, the superintendent asked families to take their insane home for a period of time and on payment of a sum of money.<sup>50</sup> This request itself demonstrates the reliance of the asylum authorities on the patients' relatives who were expected to comply with this official demand. Nonetheless, as already argued, families who urgently required their mentally ill back at home did everything in their power to gain their release, even contesting the physician's views. However, on this occasion, when the demand came from the superintendent, nearly no relatives came forward to shoulder

48 See for instance Patricia E. Prestwich, 'Family Strategies and medical power: "voluntary" committal in a Parisian asylum, 1876–1914', in R. Porter and D. Wright, eds, *The Confinement of the Insane. International Perspectives 1800–1965* (Cambridge: Cambridge University Press, 2011), 79–100, for family involvement in the Paris asylums. See A. Suzuki, 'Framing Psychiatric Subjectivity: Doctor, Patient and Record-keeping in Bethlem in the Nineteenth Century', in B. Forsythe and J. Melling, eds, *Insanity, Institutions and Society*.

49 'Minutes of Special Board from 7 Oct. 1850–Jan. 1900', NAR.M.

50 'Minutes of Special Board'.

the responsibility (contrary to what happened with the elderly) to take their mentally sick home, as the cash offered does not seem to have been enticing enough.<sup>51</sup>

One thing which clearly emerges from these cases is the families' reckoning over potential advantages and the risks involved in decisions concerning their insane. In the last case, the money offered was not considered sufficient to balance the responsibility of taking back their insane when requested by the asylum authorities. This kind of calculation ties up with the capabilities of the families to negotiate with the physician-superintendent and members of staff, whom they perceived as holders and distributors of resources and services within the asylum. As parents, wife or husband or as children of the confined, they would make it a point to strike amicable relations with various members of the personnel – from the gate keepers to the wardens and the cook – whom they tended to knit into a web of other contacts based on loyalties, obligations and exchanges, intended to secure the best possible care and treatment for their confined relation. In the Malta asylum, for instance, items brought by visitors were to be handed to the gate keeper or a specified warden who was to pass these on to the indicated patient – a procedure which must have made the maintenance of friendly relations with the wardens a priority.<sup>52</sup> Gifts of every sort, including pecuniary ones, by visitors to members of staff were habitual. Actually this practice reached such proportions that the charity authorities amended regulations to prohibit staff from receiving 'any prerequisite either in money or value from patients or from the friends of patients.'<sup>53</sup> Nonetheless, in reality superintendents and all seem to have turned a blind eye to these practices, knowing quite well that, in the unsuitable conditions in which they operated, flexible bargaining and informal arrangements kept both these asylums going from one day to the next.

51 John Chircop, 'Negotiating Provisions, Social Assistance and Health treatment: The Elderly Poor in the Ionian Islands and Malta, 1800–1860', in Martin Dinges, ed., *Health and Health Care between Self-Help, Intermediary Organizations and Formal Poor relief (1500–2005)* (Lisboa: Edicoes Colibri, 2007), 72–73.

52 'Instructions for the Guidance Officers and Servants – 1858', 43.

53 'Instructions', 43.

Moreover, with their all-pervading presence, relatives could keep a sharp eye on the treatment of their confined relations and other patients by the staff and the physician in both these asylums. On a daily affair, this must have helped to hinder grave acts of cruelty or abandonment, which were later to come to light in the asylums of other British colonies.<sup>54</sup> This of course does not mean that acts of neglect did not take place here, but only that the omnipresence of kith and kin and friends of friends in these institutions was a force to be reckoned with. The bodies of the mentally ill were purportedly kept under a regime of surveillance, management and therapy intended to render them subjects of 'scientific investigation' – as Foucault has it – by the asylum alienist and keepers.<sup>55</sup> Both the latter in turn came under the meticulous scrutiny – or negotiable counter-surveillance – and sensitivity of the relatives, particularly with regard to the care of their own relations.

### Alienist visions and bleak realities: daily routine, moral therapy and management

Both the Corfu and Malta asylums were set up by the state to operate as curative-confinement institutions for those disturbing poor who were judged as 'mentally deranged'. In effect, the regulations of the Corfu asylum made explicit that this was 'a place of exclusion for those unfortunate that disturb peaceful society' – a key objective which was aimed to shape the superintendent and physician's tasks in their day to day management and therapeutic responsibilities.<sup>56</sup> Both the physician and superintendent –

54 'Colonial Hospital and Lunatic asylums' in 'Secretary of State – Circulars: 1863–1863', NAR.M.

55 Foucault, *Madness and Civilization. A History*, passim.

56 'Regolamenti per l'Asilo di Mentecatti', *IIGG.*, 14 July 1838; See also *IIGG.*, 12 June 1859.

with these roles being either attributed to one person as in Corfu or held separately as in the Malta asylum – were salaried public servants, directly employed by the colonial state and answerable to their senior civil servants, these being the directors and comptrollers of the public charitable establishments.<sup>57</sup> According to regulations they were to perform tasks intended to ‘directing the Moral and Medical treatment of the patients’ under their care.<sup>58</sup> Nonetheless, acting as paternal guides and confessors in their daily regimes of visits, they came to interpret the needs and desires of their patients, assuming the role of mediators as much as that of agents in the ongoing negotiations between the latter and their families, the asylum staff and the State.

Holding the learned theoretical view that the insane were to be treated as sick patients needing proper hospitalisation, superintends and physicians endeavoured to ‘keep the patients as calm as possible’ in order to cure them with ‘kindness and indulgence.’<sup>59</sup> Hence they normally employed a mixed therapeutic regime which combined hydrotherapy – including tepid baths (*habeat balneum calidum*) or sea-bathing, with the cooling of the head as a ‘means of relieving cerebral irritation’ – with physical exercises, and long strolls.<sup>60</sup> These were usually supplemented by conventional medical practices such as blood-letting depletions, lancing and the sparing use of pharmaceuticals, mainly potassium bromide, hydrate and opium as sedative, in tenor with the practice in other British and European asylums, where these were used with rising scepticism as to their curative effect.<sup>61</sup>

These therapeutic strategies, including occupational work activities which were considered vital for ‘moral reform’, were intended to transform the patients from invalid, disruptive bodies into well-functioning subjects able to behave ‘properly’ – in accordance with their social station and gender

57 And indeed listed in the official lists of ‘Ionian Functionaries at Corfu’. *IIBB.*, 1864.

58 *IIGG.*, 14 July 1838.

59 Blue, ‘The Rise of Greek Ethnopsychiatry’, 330–334; Cassar, *Institutional Treatment*, 19–20.

60 T. Chetcuti, ‘Sulle Manie’, *Il Filologo Maltese*, 10 Feb. 1841 and 30 Mar. 1841.

61 Blue, ‘The Rise of Greek Ethnopsychiatry’, 333; Rutherford, *The Victorian Asylum*, 32–33; Scull, *The Asylum as Utopia*, xli–xlii.

– and with a sense of decorum, and who were thus capable of leading a ‘normal’ existence in wider society when cured.<sup>62</sup> To be sure, occupational crafts in these two madhouses were structured on a gender-based division of labour which echoed that prevailing in wider society: cotton spinning, sewing and knitting for the females, and manual activities such as rush work, gardening, and cultivating vegetables and fruits in gardens and courtyards assigned to men. These same internal open spaces were also intended for other therapeutic activities: airing courts were utilised for walking, exercising and meeting visitors as well as for organising entertainment.<sup>63</sup> For sure, gardens and courtyards were available for the quiet, non-agitated sort of patients who – like the melancholic patient portrayed by the pioneer American alienist Pliny Earl during his visit to the Malta asylum – could be left to occupy their time in tranquil fantasising:

The first of these was a man in the court of orange trees. He talked with superlative volubility as long as we could listen, the principal burthen of his conversation being a desire to get out of the Asylum for the purpose of taking a wife.<sup>64</sup>

Occupational and leisure activities were integrated in the structured daily schedule which was itself intended to produce a combined feeling of security and calm, and thus generate a sense of ‘normality’ through a patterned, ordered existence. In this vein, asylum regulations stressed the keeping of strict routine, obliging all patients and members of staff to ‘observe the most scrupulous regularity’.<sup>65</sup> Precise timing was kept with a bell, the tolls of which structured the daily regime of the patients: sounding the wake-up call, the doctor’s visit, breakfast, dinner and occupational time.<sup>66</sup> All of

62 [W.A.F. Browne, *What Asylums were, are and ought to be* (Edinburgh, 1837)] in A. Scull, *The Asylum as Utopia*, passim; *IIGG.*, 14 July 1838.

63 Blue, ‘The Rise of Greek Ethnopsychiatry’, 333; Cassar, *Institutional treatment*, 20.

64 Pliny Earl, *A Visit to Thirteen Asylums for the Insane in Europe, to which are added A brief Notice of Similar Institutions in Transatlantic Countries and in the United States* (Philadelphia: J. Dobson, 1841), 57.

65 *IIGG.*, 14 July 1838.

66 Chetcuti, ‘Descrizione del Public Manicomio’, 17 June 1841, 46.



this provided a securely prearranged day and a sense of time passing.<sup>67</sup> In the Corfu asylum, patients were woken up at 6.00 in the morning during the spring-summer period (from 1 April to 30 September) and at 7.30 a.m. during all other months. Breakfast was served at 8.00 a.m. (and 8.30 a.m. during winter) while lunch was provided at one o'clock and dinner at 7.00 pm.<sup>68</sup> Meals marked the principal divisions of the day – regulated, punctual servings of food were considered fundamental by contemporary alienist theories to keep patients satisfied and to assist their moral education.<sup>69</sup> Besides, meals also helped to shape an institutionalised identity and to discipline patients.

Constructing social 'normality' was associated with and actually relied on following a time-tabled regime. This was most clearly observed with those agitated patients who broke the rules and went against the daily routine and consequently excluded from the asylum 'time dimension' of 'ordinariness'. Locked in isolation, and having their body movement restrained, they were put under the strict surveillance of a warden who was also responsible for their general care, feeding and cleaning.<sup>70</sup> Calming down and re-entering the patterned, regulated, institutional social time frame of the asylum would signify the patient's re-acceptance of the structure of daily life. This supposedly meant strictly following a regulated daily schedule – being present at each and every meal, for occupational activities, therapies and doctor's visits – and thus accepting the rules and routine of this institution.

According to regulations the sense of ordered 'normality', and hence of institutional identity, was to be kept without the use of any physical restraint, in tone with the more 'enlightened' medical thinking and practice

67 *IIGG.*, 14 July 1838. Similarly to the regular tolling of the church bells which patterned the day and the seasons in the villages and towns, see Chircop, 'From the Pulse of Social Routine to the Subversion of Normality', 3–27.

68 *IIGG.*, 14 July 1838.

69 [Browne] *What Asylums were, are and ought to be*, in Scull, *The Asylum as Utopia*, 170.

70 See Pulis/Chetcuti, 7 Jan. 1859, in 'Miscellaneous Letters issued from Comptroller's Office: January 1859 – June 1867', NAR.M.

in Europe following Pinel's repudiation of physical force to treat the insane. The use of chains, beating and whipping of the insane had been banned from both these asylums from the start.<sup>71</sup> Restraining devices such as the waistband, straitjacket and handcuffs were only to be employed in 'extreme cases' on aggressive patients and after other means – usually the use of cold 'sudden showers' – had failed to calm them down.<sup>72</sup>

With things as they were, the structured social regulatory setup of these charity institutions was becoming increasingly disabled, but was also contested by the learned physicians with an interest in sustaining their own professional status – as alienists – in the medical hierarchy. The physician viewed the insane as 'sick patients' needing specialised care, while the state charity authorities saw them as disturbing, though unfortunate, 'invalids' having to be removed from circulation by being confined into another charity establishment. The ensuing duel between these different constructed identities of the confined insane can be gleaned from the voluminous correspondence which passed between the state authorities – represented here by the charity comptroller – and the resident physician in the Malta asylum, and which dealt with the daily nutritional regime. Taking daily food and drink as a foremost 'signifier, classifier and identity builder' – and in fact as a key factor in the construction of what scholars have termed 'secondary institutional-based identity' – helps us understand better the diverse constructions of identity of the insane through vital aspects of daily routine.<sup>73</sup>

Going back in time to 1837–1838 and upon their transfer to the newly opened lunatic asylums in Corfu and Malta, the mentally insane continued to be provided with a diet equal to that of prisoners, and continued to go without breakfast until the physician won his case to provide them

71 *IIGG*, 14 July 1838; 'Instructions for the Officers and Servants – 1858', 9–11.

72 Blue, 'The Rise of Greek Ethnopsychiatry', 232; Chetcuti, 'Descrizione del Pubblico Manicomio di Malta', 46–50.

73 E.M. Lipiansky as referred to in Peter Scholliers 'Meals, Foods, Narratives, and Sentiments of Belonging in Past and Present' in P. Scholliers, ed., *Food, Drink and Identity. Cooking, Eating and Drinking in Europe since the Middle Ages* (Oxford and New York: Berg, 2001), 7.

with morning bread and coffee as much as with cleaner clothes.<sup>74</sup> Still, the nutritional regime in the Malta asylum – in a similar way to that in the Corfu *manicomio* – remained insufficient and of bad quality. This happened to the extent that one director of charities would recount later on in his career – in 1886 – that on his earlier visits there, he used to be disgusted with the bad quality of the food and the uncivilised manner in which it was served:

... the soup I tasted was so bad that a second spoon would have made me sick. The appearance of the cook and kitchen utensils were enough to convince you that the food was only fit to be thrown to animals. The dirt on the cook and on the kitchen utensils was inconceivably disgusting. No tables were prepared [...] each patient was given a ration in a dirty tin dish and allowed to go and stow himself in some corner and endeavour to swallow it.<sup>75</sup>

The resident physician at the Malta asylum filed one complaint after another on the insufficiency and the bad quality of the food served. In his replies, the comptroller stressed that the asylum inmates were not entitled to the same ‘medical diet’ given to ‘sick patients’ as they fell in the category of ‘invalid paupers’. At the same time, the few paying – ‘non-pauper’ – insane were served better food and drink which was moreover upgraded to include milk, cheese and oil in addition to extras of beef/mutton/fowls/fresh eggs, biscuits and wine in June 1850. This diet was similar to that served to sick patients in the civil hospitals.<sup>76</sup> Such inequity in the nutritional regime made it evident that ultimately, for the public charity authorities the so-called ‘pauper insane’ – who constituted the great majority of the inmates – were reckoned at the lowest institutional social and medical scale possible.

74 ‘Return of the actual number of patients treated in the hospitals, the number of inmates in the Ospizio and lunatic asylum on 2 March 1835, showing the diet and expense of each person, as the number of persons relieved at the Public Dispensary – 27 June 1838’, Libr. Ms. 124, National Library, Valletta Malta. See also Montgomery Martin, *History of the British Possessions*, 246. Chetcuti, ‘Descrizione del Pubblico Manicomio’, 53. Pliny Earl, *A Visit to Thirteen Asylums for the Insane*, 52.

75 Ferdinand V. Inglott, *The Madhouse in Villa Franconi, Floriana, Malta* (Malta: Govt. Press, 1886), 7–10.

76 Cassar, ‘Treatment of the Insane’, 17.

The nutritional regime and daily treatment in general of the insane as disturbed ‘invalids’ had a direct effect on their state of health. Insufficient nourishment led to vitamin deficiency which triggered illnesses including scurvy, dermatosis, oedemas of the legs, emaciation as well as very frequent cases of what seemed to have been pellagra.<sup>77</sup> Compounded with congestion and worsening unhygienic conditions, malnutrition intensified the already negative epidemiological setting for outbreaks of contagious diseases, as happened earlier with cholera, making all those concerned with the asylum anxious.<sup>78</sup> It was this growing sense of apprehension that impelled the State authorities in Malta to grant an increase of two ounces of bread per diem to each inmate in January 1852.<sup>79</sup> And it took the cholera panic of 1854–1855 to induce the authorities to finally grant the so-called ‘medical diet’ – which included ‘the meats’ given in the civil hospitals – to the mentally sick in confinement.<sup>80</sup>

Improvement in the quality of food made a substantial difference to the daily life of the patients. Besides strengthening their body’s immunity against disease, tastier and more nutritious food made life in confinement a little more bearable. This was noticed from the enhanced flavour of the daily serving of the proverbial ‘tasteless broth’. Being a staple in the daily nutritional regime of the asylum, broth started to be made from fresh morning carcasses, with additional chunks of beef – a welcome change from the previously utilised ingredients which included leftovers, ‘cows’ feet and heads [which left] an unpleasant odour and taste’. At least it was observed that the patients were then more ready to digest the foodstuff

77 T. Chetcuti, *Notizie Storiche e Patologiche cliniche sul Cholera* (Malta: Tipografia L. Tonna, 1838), 95.

78 Chetcuti, *Notizie Storiche*, 93–95.

79 See correspondence of Inspector of Charitable Institutions Office/ Lushington, 22 Jan, 1852, Valletta, in ‘Secretary to Govt in Inspector’s Letters to CS of Govt. 1850–1857’, NAR.M.

80 ‘authority to the comptroller to carrying out resolution of board respecting the addition of the actual diet of inmates – 18 Jan.1855’ [annotation entry], foglio 6 in ‘Register of Reference To Comptroller 1853–1856’, NAR.M.; *IIGG.*, 12 June 1856 for Corfu.

served.<sup>81</sup> It is to be remarked that the upgrading of the diet for the insane coincided with their official recognition as ‘sick patients’ by the charity authorities, although there is no documentary evidence which suggests that these two events were directly linked.

Besides complaints on the nutritional regime, the spatial layout and conditions found in both the Corfu and Malta asylums contrasted unfavourably with the ‘psychiatric’ ideals which the physicians and superintendents drew from contemporary medical literature and from their knowledge on British and European asylums.<sup>82</sup> The hard reality was that both these makeshift madhouses were plagued by problems – these included dilapidated buildings, restricted spaces and the continuous exposure of patients to the chaotic noise and smells emanating from their adjacent surroundings. In actual fact, sections of the Malta asylum were so open to view that patients were exposed to the gaze of passersby and were frequently teased, mocked and ridiculed.<sup>83</sup> All this sharply contrasted with the ‘pastoral isolation’, the tranquillity and airy rural environment suggested in contemporary medical theories and with the guidelines published in 1856 by the British Commissioners in Lunacy on the ideal locations suitable for the asylums.<sup>84</sup>

Structural deficiencies – mainly the unsuitable architectural layout – started to be criticised just after the opening of the asylums, and continued to be so.<sup>85</sup> In 1845, for instance, the Ionian Senate was advised not to invest in the repairs of the asylum in the old San Rocco barracks as they were ‘not worth the expense [and instead a] new building should be constructed for the accommodation of the misfortunate patients of these islands [...]

81 As in Cassar, ‘Treatment of the Insane’, 17.

82 Blue, ‘The Rise of Greek Ethnopsychiatry’, 330, 332.

83 Cassar, *Medical History of Malta*, 365–366.

84 Their publication was entitled *Suggestions and Instructions in Reference to Sites: Construction and Arrangement of Buildings: Plans of Lunatic Asylums* (1856); see Rutherford, *The Victorian Asylum*, 18.

85 Davy, *Notes and Observations on the Ionian Islands and Malta*, vol.1, 109, 118; ‘Discorso di Sua Eccellenza il Lord Commissario – 7 Marzo 1837 – Alla Nobilissima Assemblée Legislattiva’, *IIGG.*, 7 March 1837.

in a proper site on higher ground.<sup>86</sup> This occurred while both makeshift asylums struggled through one long crisis after another. Exasperated by dismal conditions – lack of resources, understaffing and rising numbers of patients, the physicians and superintendents struggled to implement moral management and therapies. However, frequently becoming overwhelmed by these problems, they abandoned some of the more beneficial therapies known, including recreational and leisure activities – such as music, drama and dancing – even though these were considered optimal therapies for the relief of stress and mental pressures, and in the long term to help restore mental health.<sup>87</sup> More disappointingly, during the 1850s, physicians had to resort to methods of personal restraint and sedatives in order to tranquillise and put agitated patients to sleep without further ado.<sup>88</sup>

Besides this extreme overcrowding, which characterised the late 1850s, intensified pressure was put on the already bad sanitary facilities in both institutions. Taking the Corfu asylum, excessive numbers exasperated problems so much that a commission declared the institution ‘appalling’, filthy, and so understaffed that patients were not being taken care of, with groups of them having to be transferred to the main prisons.<sup>89</sup> Likewise in the Malta asylum, overcrowding led to the already ill-ventilated rooms to become congested and impossible to keep clean. Urinals overflowed and the sewage drains emitted an unbearable stench, putting inmates and personnel at high risk of contracting disease. Patients were placed in corners under staircases, and ‘maniacs’ locked in water closets and in the mortuary, as admissions were stopped intermittently.<sup>90</sup> Certainly by 1859, the situation in this *manicomio* degraded to such an extent that even the comptroller of charities became alarmed, taking it upon himself to report to the governor:

86 Seaton to Pres. Ionian Senate, Corfu, 29 July 1845, no. 19, EMAPXOS: file 91 in State Archive, Corfu, Greece.

87 Pliny Earl, *A Visit to Thirteen Asylums for the Insane*, 57.

88 F.V. Inglott, ‘To Officers of Lunatic Asylum’, 25 May 1860, in ‘Charitable Institutions Order Book 1859–1860’ NAR.M.

89 *IIGG.*, 12 June 1859; ‘Commissione Straordinaria Centrale Sanitaria – Corfu’, 6 Jan. 1856; *IIGG.*, 12 Jan. 1856.

90 Inglott, *The Madhouse*, 3–5.

Sir, I have to represent to you, for the information of His Excellency the Governor, that the present Lunatic Asylum is, besides its numerous irremediable defects [... in a bad] state of things [and] forms a sad contrast with what is strongly recommended by eminent physicians and the new Law of Lunacy, viz: that Hospitals for mental disorders should be as much as possible assimilated to 'ordinary abodes of domestic ease and refinement [and that] everything surrounding the unhappy sufferers from mental derangement should be all pleasing and cheerful'.<sup>91</sup>

About two years earlier a sanitary commission, appointed by the Lord High Commissioner to look in the affairs of the Corfu lunatic asylum, had similarly concluded that:

The condition of these 'unfortunate persons' confined in the establishment is most lamentable. The Lunatics are crowded together, without any attempt at classification. No attention whatsoever appears to be bestowed on their moral cure, and very little indeed on their physical comfort, well-being, or recreation. The building is too small, and in an unhealthy position, the males are not sufficiently separated from the female patients [...]; while the interior officers are ignorant and careless. In a word, this institution is not an Hospital, but simply a Prison, and a very barbarous Prison.<sup>92</sup>

As reflected in the two quotes carried above, by the late 1850s the charity authorities in the Ionian Protectorate and Malta were coming to accept that the insane should be treated as ill patients needing specialised moral treatment.

This official compliance to the 'psychiatric' notion of insanity and its treatment was in 1859 impelled by the Colonial Office. During this year, the Secretary of State for the colonies kicked-started an empire-wide inquiry of all the colonial asylums and hospitals, triggered by the bad publicity ensuing from a 'scandal' involving inhumane and cruel treatment of the insane in the Jamaica lunatic asylum.<sup>93</sup> The conclusive report endorsed the notion of insanity as a mental condition entailing moral therapy in purpose-built asylums, as was recommended by foremost alienists in America, Britain

91 Inglott, 'To Officers of Lunatic Asylum'.

92 See Letter 'Bowen, Secretary to the Lord High Commissioner To Secretary to the Senate – Corfu', of the 14 Nov. 1857, published in *IIGG.*, 21 Nov. 1857.

93 'Colonial Hospitals and Lunatic Asylums', 1.

and Europe.<sup>94</sup> It was at this juncture that the colonial authorities came to adhere to the 'psychiatric' insights on, and definition of, the insane as 'obstreperous children', a representation which was not difficult to accept due to the already discussed deeply-rooted British colonial civilising missionary discourse which portrayed these Mediterranean subjects as infantile in every respect – socially, mentally and morally 'backwards', and behaving irresponsibly.<sup>95</sup>

For a colonial mindset shaped in this infantalist representation of their subject populations, accepting the definition of their insane as 'obstreperous children' needing specialised treatment came relatively effortless. But this also immediately directed attention to the need of designing and constructing new purpose-built asylums.<sup>96</sup> Certainly, projects to build such an asylum in Corfu were never realised due to the cession of the islands from the British Empire to Greece in 1864.<sup>97</sup> In Malta, on the other hand, a state-of-the-art lunatic asylum – planned on the panopticon model – was opened in 1861.<sup>98</sup> Isolated, with clearly defined borders, restricted access and visiting hours, and managed on modern 'psychiatric' theories and

94 'Colonial Hospitals', 1–3. See for instance the work of W.A.F. Browne, *What asylums were, are, and ought to be: Being the substance of Five Lectures delivered before the Managers of the Montrose Royal Lunatic Asylum* (Edinburgh: Adam and Charles Black, 1837) republished and edited with an introduction by Scull, *The Asylum As Utopia*, as well as the work of the pioneer American alienist Pliny Earle, *A Visit to Thirteen Asylums for the insane in Europe* (Philadelphia: J. Dobson, 1841).

95 see Foucault, *Madness and Civilization*, 252; Chircop 'From the Pulse of Social Routine'.

96 'Report of the Commission', *IIGG.*, 12 June 1859.

97 Blue, 'The Rise of Greek Ethnopsychiatry', 331–332.

98 The new lunatic asylum in Malta was planned on the 'panopticon model' – with symmetrical wings as straight corridor wards radiating from circular entries which functioned as panoptic 'rotundas' from where direct surveillance of all the mentally ill was exercised ('Copy of letter from Dr Ciaja, Superintendent of Lunatic Asylum, 19 Jan. 1867', in 'Reference Book no. 4 – Lunatic Asylum', NAR.M.). The 'panopticon model' was intended, as Foucault puts it 'to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power' – through continuous clinical surveillance (Michel Foucault, *Discipline and Punish. The Birth of the Prison* (Middlesex: Penguin Books, 1991), 201.



practices emphasising surveillance and a strict daily regime of the patients – described as ‘a perfect model of the non restraint system’ – this asylum was declared open for the disturbing poor who, it was claimed, were ‘ill grown children who we must educate.’<sup>99</sup>

## Conclusion

Daily life in these two colonial makeshift asylums – particularly as experienced by the insane patients – was to a large extent shaped by the ‘permeable borders’ of these institutions with their social surroundings. Being located out of the city gates, at a distance from the fortified colonial epicentres, these asylums were embedded within deprived neighbourhoods, the social atmosphere of which seeped into the interstices of these institutions. This study has illustrated the extent of the effects left by this continuous social permeability on the ‘psychiatric’ management and treatment regimes and on the daily social life of the patients.

Whilst confirming that the adjusting of two old buildings – a military barracks and a mansion – into madhouses formed part of the colonial state’s wider strategy of social control and exclusion of these most confused of the ‘dangerous poor’, research work has brought to light much more complex realities. Most visibly, these sites became convenient places for the deprived families to confine their insane out of harm’s way and for possible cure. Confinement was usually done as a last resort and formed part of their own strategies of care and provisioning as well as for mitigating worse outcomes.

Directly related to their social porosity, these lunatic asylums, improvised as they were, necessarily practised an ‘open gate’ policy. They exercised little restriction on the entry-exit of bodies and products – most particularly when it came to relatives and friends of the inmates – in order to keep these asylums operating. This made these sites more accessible and hence more

99 ‘Copy of Letter from D. Ciaja’; Inglott, ‘To Officers of Lunatic Asylum’.

acceptable to the poor families of the insane. All this shaped much of the daily affairs in these edifices – a conclusion which essentially tallies with revisionist historians who dismiss lunatic asylums as solely state control apparatuses.<sup>100</sup> To be sure, one other feature which clearly emerges is that both these asylums became sites of negotiation and contention involving multiple actors: the charity authorities, the superintendents and physicians, keepers and most certainly the families of the inmates. As discussed in this paper, relatives of the confined proved themselves protagonists, acting with some reckoning and a good measure of social agency in the daily affairs of these institutions. To be sure, the keeping in confinement of a person judged insane required his/her close relative's consent on most occasions. As illustrated through case studies, this provided relations with a strong initial leverage to bargain the duration of confinement and the timing of dismissal according to their own life and household circumstances at the time.

The presence and involvement of the families – both directly in the personal care of their suffering insane and in the daily affairs of these asylums – comes out unambiguously in this paper. Families were a force to be reckoned with by the charity authorities, the physician, superintendent and the members of staff – all of whom actually came under the meticulous scrutiny of one relative or another, especially when it came to the treatment of their own confined relation. In this way, relatives were not infrequently able to overturn the pre-schemed power structure of the asylum, through which the bodies of their mentally ill were intended to be systematically regulated and kept under the 'medical-gaze' as part of their 'psychiatric' treatment. This of course was one other means by which members of the household acted as safeguards for their relation in confinement.

One other perhaps wider conclusion which can be gathered is the recognition that management and therapeutic regimes – including the patients' provisions, nutritional diet and medication – came to be moulded by multiple, overlapping, frequently contradictory forces and interests.

100 Melling and Forsythe, *Insanity, Institutions and Society*; Porter and Wright, *The Confinement of the Insane*; Smith, *Cure, Comfort and Safe Custody*.

Certainly it has been shown that these varying concerns were mirrored in the conflicting identity constructs of the confined insane – that of the state charity directors casting them as ‘invalid paupers’ and, in contrast, the physicians’ ‘psychiatric’ definition of the insane as ‘sick patients’ needing specialised hospitalisation. In other words, this study has made evident that while the view of the insane as ‘invalids’ predominated and structured the governing regulative time frame of the daily routines in these asylums, this came to be increasingly broken and contested by many, including the families concerned. Such contestations resulted in adaptable strategies and negotiated modifications which, although frequently slight, affected the daily existence of these most vulnerable of the destitute ill.



## Myth, Marketing and Medicine: Life in British Children's Hospitals 1850–1914

After the foundation of the first British children's hospital at Great Ormond Street in London in 1852, similar institutions appeared across the country.<sup>1</sup> Each mirrored the first: small, quasi-domestic charitable establishments that were as dedicated to inculcating middle-class values in their working class patients as to healing them.<sup>2</sup> As the century progressed, families were gradually excluded, and a daily routine developed to suit the medical staff and those whose donations supported the charities.

- 1 British provision for sick poor children lagged behind Europe. The first such hospital opened in Paris in 1802 (L'Hôpital des Enfants Malades), followed by similar institutions in Vienna (1837), Moscow (1842), Prague (1842), Berlin (1843), St Petersburg (1843), Turin (1843), Copenhagen (1845) and Constantinople (1847). M.J. van Lieburg, *The History of the Sophia Children's Hospital* (Rotterdam: Erasmus Publishing, 2004); Elizabeth R. Lomax, *Small and Special: the development of hospitals for children in Victorian Britain* (London: *Medical History* Supplement 16, Wellcome Institute for the History of Medicine, 1996). In the United States, (ignoring an institution in Boston which survived only three years from 1845), the first hospital for children opened in Philadelphia in 1855. Clement A Smith, *The Children's Hospital of Boston: 'Built better than they know'* (Boston: Little, Brown & Co., 1983).
- 2 One of the central tenets of *all* voluntary hospitals in the Victorian era was to bring middle-class mores to their poor and morally deficient working class patients. See, for instance, Jonathan Reinartz, 'Investigating the "deserving" poor: charity and the voluntary hospitals in nineteenth-century Birmingham' in Anne Borsay and Peter Shapely, eds, *Medicine, Charity and Mutual Aid: the consumption of health and welfare in Britain, c. 1550–1950* (Aldershot: Ashgate, 2007), 111–134; or Keir Waddington, *Charity and the London Hospitals, 1850–1898* (Woodbridge: Royal Historical Society: Boydell Press, 2000).

Most such institutions were entirely dependent on public subscriptions: sentimental copy on the hospitals and their patients frequently appeared in the press, depicting them as a civilising influence in an increasingly industrialised and threatening world. An image of London's Evelina Hospital, reproduced in *The Graphic* in 1882, is typical; it is highly sentimentalised and shows a young boy (all long flowing golden locks) being visited by a woman, who could be the boy's mother but is more likely a hospital supporter, and her daughter.<sup>3</sup> The 'cot' is dressed in rich fabrics, with flowers strewn around, toys scattered to its four corners. The articles were designed to entice middle-class supporters to donate funds, to recreate – in the image of the wards – familiar impressions of middle-class family homes, their occupants as street urchins reimagined as angelic babes. Hospitals published lists of rules designed to ensure that the patients and their friends and family were introduced to (and adhered to) middle-class mores. How accurate were these images? Using the recently created patient databases of three Victorian and Edwardian hospitals (Great Ormond Street, the Evelina and the Royal Hospital for Sick Children in Glasgow) tensions between the rhetoric and the reality have been revealed. Hospital routines, teased out from the records, illustrate how far from the rules the actual experience of hospital life had strayed by 1914, and how the interactions between patients, their families, doctors, nurses and supporters shaped daily life on the wards.<sup>4</sup>

3 Coloured print after a painting by C.J. Staniland, reproduced in *The Graphic*, December 1882. The image can be viewed at: [http://www.hharp.org/static/images/evelina\\_visiting.jpg](http://www.hharp.org/static/images/evelina_visiting.jpg).

4 The Historic Hospital Admission Registers Project (HHARP), on which much of this chapter is based, is the result of a partnership between Kingston University's Centre for the Historical Record and hospital archives in London and Glasgow. It has created databases of admission registers to four children's hospitals: Great Ormond Street Hospital, the Evelina (now part of Guy's and St Thomas' NHS Trust), the Royal Hospital for Sick Children, Glasgow and the Alexandra Hospital for Children with Hip Disease. This chapter concentrates on the first three hospitals; the last, being of a very different nature, has been excluded. Records cover the period 1852 to 1914.

## The hospitals

The Hospital for Sick Children at Great Ormond Street [GOSH], is the oldest children's hospital in Britain. Founded in 1852 by Dr Charles West, its original stated objectives were: the medical and surgical treatment of poor children; the attainment and diffusion of knowledge regarding the diseases of children; the training of nurses for sick children; and the education of all classes in the management of sick children.<sup>5</sup> It opened with just ten beds, but by 1914 the hospital could house up to 240 inpatients and treated over 3,000 inpatients annually. Its outpatient department saw 21,000 patients in 1914 during 81,500 visits. This activity relied entirely on charitable donations, and great effort went into raising funds from all sections of society – from the large donations of the rich to the pennies left by patients' families in the waiting room collecting boxes. Queen Victoria and her family regularly made donations of clothes and toys to the hospital, while its most famous early supporter (the Queen excepting) was probably Charles Dickens.<sup>6</sup>

The Evelina Hospital was founded in 1869 by Baron Ferdinand de Rothschild, in memory of his wife, who had died in childbirth. Its objectives mirrored those of GOSH: to treat poor children, to improve knowledge of

- 5 Minutes of the Provisional Committee of the Hospital for Sick Children, GOS/1/2/1. These aims were common to European children's hospitals. Franz Hügel, an Austrian doctor and contact of Charles West, gives similar objectives in his exhaustive 1848 survey of European children's hospitals. To this list he added training mothers in childcare and the removal of children from living conditions likely to be the, 'cause of great destruction' to their health. A review (in English) of Hügel's work can be found in: Charles West's 'Tracts on Childhood Diseases' vol XIV, Charles West Library, Great Ormond Street Archive. The original work (Franz S. Hügel, *Beschreibung sämtlicher Kinderheilanstalten in Europa: nebst einer Anleitung zur zweckmässigen Organisation von Kinder-Krankeninstituten und Kinderspitälern, mit Beiträgen zur Geschichte und Reform sämtlicher Spitäler im Allgemeinen* (Wien: Kaulfuss Witwe, Prandel & Comp., 1848)) can be viewed at: <http://pds.lib.harvard.edu/pds/view/5507788>).
- 6 Jules Kosky and Raymond J. Lunnon, 'The Olden Days', *Great Ormond Street and the Story of Medicine* (London: Granta Editions, 1991).

childhood diseases, and to train nurses to care for sick children.<sup>7</sup> Unlike most voluntary hospitals, for its first twenty years, the Evelina was funded almost entirely by the Baron. Its purpose-built accommodation also differed from other children's hospitals, which were usually housed in converted domestic accommodation. The Evelina was light and airy. Its 'handsome' wards included a quarantine room for 'doubtful cases', an outpatients wing and an isolation ward for whooping cough patients – claimed to be unique in London.<sup>8</sup> According to Dr Tilbury Fox (editor of *The Lancet*), 'No expense has been spared to make this a model hospital.'<sup>9</sup> The Evelina continued as a private charity until 1892, when its management came more into line with other public voluntary hospitals. Although planned for 100 beds, the hospital remained comparatively small: in 1900 there was only enough money to keep sixty-six beds open. Instead, energies were focussed on the Outpatients Department, which by 1904 recorded over 73,000 individual visits annually.<sup>10</sup>

The third hospital is the Royal Hospital for Sick Children at Glasgow. Glasgow was one of the last major cities in Europe to acquire a children's hospital. At its formal opening in 1882, it was remarked that there were children's hospitals everywhere, 'even in Constantinople and such places of false philosophy.'<sup>11</sup> Objections from the city's Royal Infirmary had resulted in long delays in implementing a plan first mooted in 1861. GOSH had also faced opposition initially, from no less than Florence Nightingale, who wrote: 'The causes of enormous child mortality are perfectly well known, [...] in one word defective household hygiene. The remedies are equally well known; and among them is certainly not the establishment of a child's hospital.'<sup>12</sup>

7 H.E. Priestley, *The Evelina: the story of a London children's hospital, 1869–1969* (London: Board of Governors of Guy's Hospital, 1969).

8 Priestley, *The Evelina*.

9 'The Evelina Hospital for Sick Children', *The Lancet*, 19 June 1869, 861.

10 Priestly, *The Evelina*.

11 Edna Robertson, *The Yorkhill Story* (Glasgow: The Board Of Management for Yorkhill and Associated Hospitals, 1972), 26.

12 Florence Nightingale, *Notes on Nursing: what it is and what it is not* (London: Gerald Duckworth & Co., 1859/1952), 17.



In Glasgow, the Royal feared direct competition for charitable donations. As Keir Waddington has shown, by the 1890s, even London's hospitals were in financial crisis due to rising costs.<sup>13</sup> When a new infirmary was planned in Glasgow's West End, under the University's auspices, it was planned to place the children's hospital there. However, agreement could not be reached over governance; plans for the University site were finally abandoned and a residential property in Garnethill, north-west of the city centre, was acquired.<sup>14</sup> The hospital finally opened on 20 December 1882 and received its first patient on 8 January 1883. Its one surgical and two medical wards provided fifty-eight beds for children aged two to twelve and the top floor boasted a gas-lit operating theatre. Children were examined prior to admission in a reception room, were cleaned in the bathroom and dressed in ward uniform provided by ladies from a local church.<sup>15</sup>

Potential patients soon outnumbered beds. In its first year the Glasgow hospital treated 260 children, but by 1886 nearly 500 inpatients were seen annually.<sup>16</sup> Although it continued to grow, progress was slow and, by 1900, its seventy-four cots were inadequate to meet the demands from a city of over two million inhabitants. Compared with great cities such as New York (which had three children's hospitals and 750 beds), or even Edinburgh and Aberdeen (both of which had more beds than Glasgow despite having much smaller populations), Glasgow's provision for its sick poor children was woefully inadequate.<sup>17</sup>

As at the Evelina, this pressure redirected focus onto outpatient facilities. In 1888, a charity fair raised £4,000 for a new outpatient department (known as the Dispensary). It treated over 4,000 cases (during 16,000 visits) in its first full year, and by 1914 nearly 44,000 individual attendances were recorded.<sup>18</sup>

13 Waddington, *Charity and the London Hospitals*.

14 Robertson, *The Yorkhill Story*.

15 Robertson, *The Yorkhill Story*.

16 *Hospital for Sick Children Glasgow, Annual Reports*.

17 Robertson, *The Yorkhill Story*.

18 Robertson, *The Yorkhill Story*, 57; private correspondence with the hospital's archivist, 7 June 2010.

However, the shortage of inpatient beds could not be ignored and finally, after further wrangling, a new hospital was opened in 1914 at Yorkhill in west Glasgow, where it remains to this day.<sup>19</sup>

## Marketing the hospitals

Good press and publicity were essential for the survival of children's hospitals, which became adept at public relations and tugging at the heart- and purse-strings of the philanthropically-inclined. Janus-like, the hospitals had to present contrasting faces to families and supporters: of caring competence to the former, so they would surrender the children into their care; while the latter heard tales of family wickedness and neglect, with the hospital combating the feckless parenting of the poor. Their rules demanded good behaviour from the patients, and limited visiting hours for their families (although not for the wealthy supporters, who were able to come and go almost at will). The General Hospital and Dispensary for Children in Manchester claimed its role was:

[...] [to counteract] the thousand named and nameless evils which attend bad feeding and bad nursing, or the neglect and vices of the parents; and which either nip in the bud the precious lives of these 'little ones', or cause them to grow up sickly and diseased men and women – their lives too often a burden to themselves and others!<sup>20</sup>

GOSH had begun soliciting public support and funds two years before it opened, and made extraordinary efforts to establish the hospital as part of

- 19 Controversially, it is under threat of removal once again (due to financial reasons), to the site of Glasgow's Southern General Infirmary. NHS Great Glasgow and Clyde 'New Children's Hospital' [http://www.nhsggc.org.uk/content/default.asp?page=home\\_New Childrens Hospital](http://www.nhsggc.org.uk/content/default.asp?page=home_New%20Childrens%20Hospital). Accessed 27 March 2012.
- 20 *Thirty-Third Annual Report of the General Hospital and Dispensary* (Manchester, 1862), 62, quoted in Lomax, *Small and Special*, 33.

the charitable landscape of London.<sup>21</sup> It produced leaflets and pamphlets featuring vignettes of its little patients, welcoming the sort of soft journalism that fed the appetite of the Christian evangelical press. The daily press, too, covered special events or just the daily round at the children's hospitals, in an attempt to publicise their work:

Look around the cheerfully-painted, bright clean wards, well lighted and well warmed – look at the little beds, each with its snowy linen and pretty coverlet. Observe the little moveable table on every bed on which the child can arrange its toys. [...] and try to imagine out of what scenes of poverty and squalor, misery and vice, the inmates of the Evelina Hospital have been taken.<sup>22</sup>

Such accounts provided potential donors with a positive view of the hospital and the work it carried out, which reached beyond the 'bodies of the patients', as this anecdote implies:

A little child of about four years of age, who had previously been in the hospital ... [who] had through want of nourishment to be readmitted, was saying the Lord's Prayer to one of the nurses, when he interrupted himself with the words, 'Do you know, my mother didn't know that. I taught it her.'<sup>23</sup>

Children from poverty-stricken families, supposedly amoral or unchristian, were to be tended to, physically and spiritually, equipping them to take the message of moralistic reform back to their families. Such stories were designed to convince supporters that the hospitals' work not only alleviated the child suffering, but benefited society as a whole.

The Ladies Committees, composed of the wives of subscribers and their relatives, were relentless fundraisers. Bazaars, musical concerts, door-to-door canvassing and endowed cots were all familiar to supporters of any voluntary hospital.<sup>24</sup> Subscribers received privileges in return for their

21 Minute Book of the Provisional Committee for Founding the Children's Hospital, GOS/1/2/1. The committee, comprising leading medical men and financiers, met first on 30 January 1850, and had printed 1500 awareness-raising leaflets within the week.

22 'Christmas at the Evelina Hospital', *The Morning Post*, 30 December 1875, 6.

23 'Christmas at the Evelina', 6.

24 Robertson, *The Yorkhill Story*.

support, particularly the authority to distribute letters of recommendation (or lines, as they were known in Glasgow) to deserving patients of their acquaintance, who were supposed to take precedence, sometimes over medical need. These letters were unpopular with doctors, one Glasgow physician describing them as ‘the direct cause of many deaths.’<sup>25</sup> In practice, patients were recommended by a medical practitioner and a suitable subscriber was found after the fact.

Initially, the Evelina was an exception. Its closed management committee was unattractive to potential supporters, forcing it to rely heavily on Rothschild’s benevolence. Nevertheless it also pursued the fundraising strategies described above, albeit with limited success.<sup>26</sup>

## Rhetoric vs reality

Most patients at all three hospitals were from families too poor to pay for medical treatment; if medical treatment was required, then dispensaries and hospitals were the only option.<sup>27</sup> Patients were often brought to outpatient departments first and admitted on the advice of the duty house surgeon or physician, although admission to hospital was probably not the goal of most parents. Charles West himself remarked on the initial suspicion of his hospital among parents, and of the protracted negotiations with them

25 Robertson, *The Yorkhill Story*, 49.

26 Priestly, *The Evelina*. Similar arrangements can be found elsewhere. In Rotterdam, the Sophia Children’s Hospital, which opened in 1863, undertook similar fundraising activities. Private donations, donations of goods and a variety of cultural activities were organised by its energetic Ladies Committee. Unlike UK hospitals, however, it also raised money from the patients themselves who were charged a fee of 40 cents a day, except in the case of extreme hardship. Lieburg *Sophia Children’s Hospital*, 42.

27 Research into the patients’ families suggests that while those at the Glasgow and Evelina hospitals appeared to conform to this stereotype of voluntary hospital patients, there is a suspicion that many Great Ormond Street patients came from better-off families.

that preceded admission. During its first month, only seven children were admitted to GOSH, and even outpatients recorded only a paltry twenty-four consultations. As West commented, 'The Hospital had its character to make among the poor'.<sup>28</sup> This initial reluctance was quickly overcome, and admissions rose consistently, so that by 1900, it admitted over 1,600 inpatients and saw 20,000 outpatients a year (see Figure 1). Similar patterns for admissions (although on a smaller scale) were seen at the Evelina and the Hospital for Sick Children at Glasgow.

There was an expectation that, despite their poverty, the children would be brought to the hospital in a clean and tidy condition. Surviving photographs of GOSH parents and children indicate that mothers and children presented in their best clothes (or the best that family and neighbours could supply) for their hospital visits.<sup>29</sup> This would imply that parents had weighed the cost of hospital treatment to the family against the benefits to the child. They decided – by and large – that it was worth acceding to the many rules and regulations of the institutions.

The hospitals had similar rules governing admission, which focussed on the age of prospective patients and the type and nature of the presenting condition. The three hospitals consistently banned under-twos, with an upper age limit of between ten and twelve.<sup>30</sup> All hospitals prohibited cases of infectious fevers, and often banned chronic or incurable conditions.<sup>31</sup>

28 *First Annual Report of the Hospital for Sick Children at Great Ormond Street* (1853), quoted in Tanner, 'Choice and the Children's Hospital', 139.

29 There are some good illustrations of this in the HHARP gallery of images for Great Ormond Street. [http://www.hharp.org/static/images/astorop2\\_lrg.jpg](http://www.hharp.org/static/images/astorop2_lrg.jpg). Accessed on 5 April 2012.

30 Similar rules are found for children's hospitals in continental Europe and the United States. Patrick Josset, *Hopital d'enfants Armand Trossseau* (Paris: Assistance Publique-Hospitiaux de Paris, 1999); Lieburg, *Sophia Children's Hospital*; Mary L. Rogers, 'Children's Hospitals in America' in Janet Golden, ed., *Infant Asylums and Children's Hospitals: medical dilemmas and developments 1850–1920* (New York: Garland Publishing, 1989), 211–217.

31 Again, similar rules prohibiting the admission of chronic cases, and in to a lesser extent, infectious fevers, can be found in hospitals in continental Europe. Lieburg, *Sophia Children's Hospital*; Hügel, *Beschreibung sämtlicher Kinderbeilanstalten in Europa*; Rogers, 'Children's Hospitals in America'.

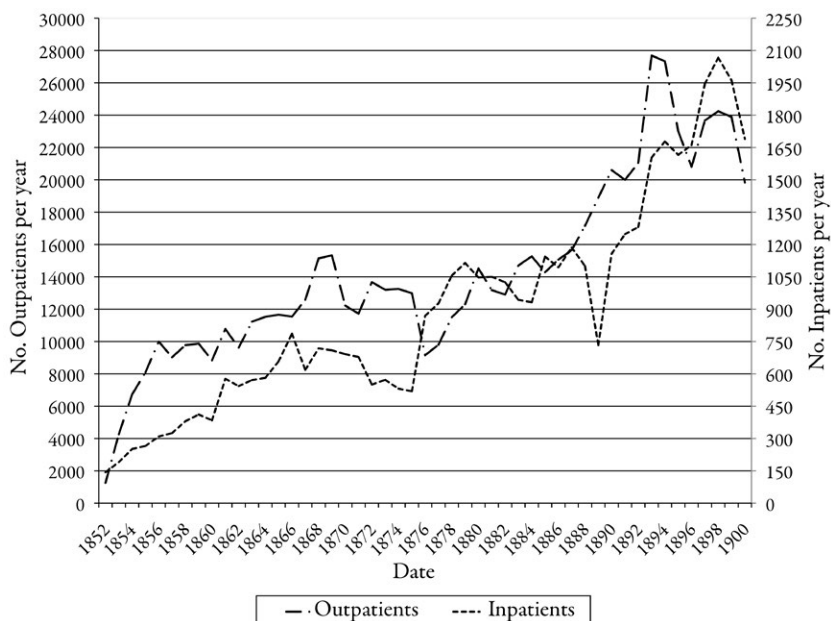


Figure 10.1 Inpatients and Outpatients at GOSH, 1852–1900.  
 Source: HHARP Database for the Hospital for Sick Children  
 at Great Ormond Street.<sup>32</sup>

In practice, these rules were not easy to enforce. Although the Glasgow hospital appeared to apply the infectious fever rule stringently, the other two recorded significant numbers of such cases. In Glasgow, the presence of the Belvedere and Ruchill fever hospitals, already well-established before 1882, probably accounted for the very low levels of infectious fever cases there. At GOSH, before 1875, patients who developed an infectious fever were either discharged home, or were looked after in a room at the top of the house by a separate nursing staff.<sup>33</sup> In 1875, a small purpose-built fever block was opened for infectious cases contracted at the hospital. Fever cases

32 The spike in outpatient visits in 1893–1894 was caused by the opening of six new wards and a concomitant growth in staff, which resulted in the numbers treated (both as in and outpatients) rising by almost a third.

33 Plans in the early 1870s for a separate hospital for children with infectious fevers were made redundant by the advent of the Metropolitan Asylums Board fever hospitals.

at the Evelina also declined after the MAB fever hospitals opened, but still averaged around ten per cent of annual admissions (see Figure 2), as the Evelina had a dedicated ward for whooping cough patients.

GOSH’s complex rules for managing its isolation wards indicate that their systems for handling fevers were well developed. Strict rules governed the movement of nurses employed in the fever wards, visitors were discouraged from entering the isolation facility; and medical staff, who had to move between the two, were requested to wait at least two hours, if possible in the fresh air, before re-entering the main hospital.<sup>34</sup>

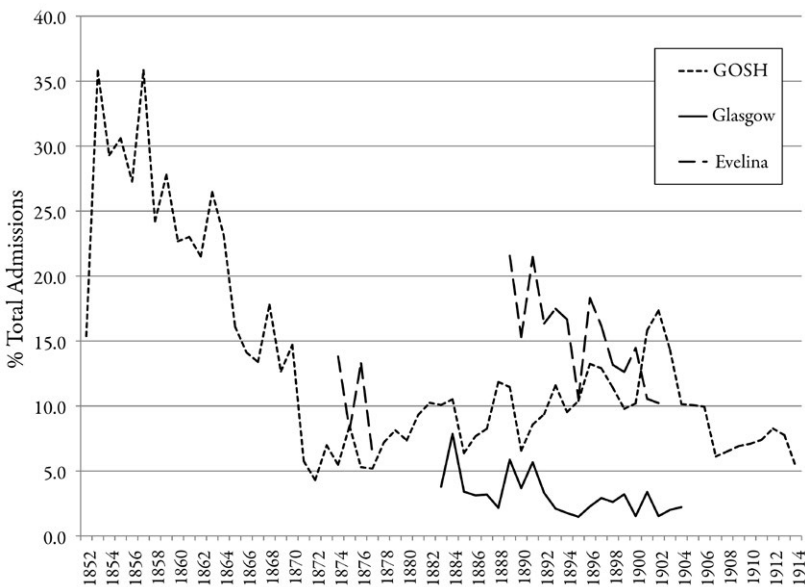


Figure 10.2 Admissions for Infectious Fevers at Great Ormond Street Hospital, London, the Evelina Hospital, London and the Royal Hospital for Sick Children at Glasgow, 1852–1914.

Source: HHARP Databases<sup>35</sup>

34 Great Ormond Street Hospital Medical Committee, 13 March 1878, GOS/1/6/8. ‘Rules for the North Block, 1895’, Nursing Box File, GOS/5/2/49.  
 35 Data for GOSH runs continuously from 1852 to 1914, for Glasgow runs without break from 1883 to 1904, while Evelina records run from 1873 to 1903, with a break between 1878 and 1888.

While the rule on infectious fevers was occasionally broken, that against under-tuos was repeatedly flaunted. In 1889, in a last ditch attempt to stop the practice, the Evelina Management Committee issued a *dictat* that infants 'should be refused, save under very exceptional circumstances'.<sup>36</sup> Two years later, after numbers continued to grow, the rule was rescinded. By 1900, babies and toddlers accounted for 35 per cent of all admissions.<sup>37</sup> Similar attempts by the Management Committees at GOSH and Glasgow proved equally ineffective. At Glasgow, the Committee made repeated, unsuccessful pleas to medical officers to restrict access to infants, stressing the significant problems their presence created for the nursing staff.<sup>38</sup>

The rule against under-tuos may seem harsh but was based on practical considerations. As the Committee at Glasgow pointed out, such young children were time-consuming. They were helpless and required constant attention, being unable to articulate their needs. This put great pressure on the nursing staff, detracting from the care of older children. On a more pragmatic level, such children were the most vulnerable and therefore more likely to die.<sup>39</sup> Too many deaths in the annual reports reflected badly on the hospital, with potentially negative effects on fundraising, and yet doctors were reluctant to turn away infants 'absolutely too ill to leave the outpatient rooms'.<sup>40</sup> At Glasgow, Dr Kennedy Dalziel, visiting surgeon to the hospital, wrote,

I feel very strongly that it is a great mistake to limit the number of babies. Indeed it seems to me that the *raison d'être* for the existence of the Hospital is to treat such patients who are not and cannot be admitted to a general hospital. I quite appreciate that there is a difficulty in regard to the nursing staff, but surely that cannot be an insuperable difficulty.<sup>41</sup>

36 Priestly, *The Evelina*.

37 HHARP Evelina database.

38 Robertson, *The Yorkhill Story*.

39 Nearly a third of patients under two at GOSH died in the hospital, compared to only 8 per cent of those over two. HHARP GOSH database.

40 Medical Report for the Evelina Hospital, 1890, quoted in Priestly, *The Evelina*.

41 Letter from Dr T. Kennedy Dalziel, 16 June 1904, reproduced in the Hospital for Sick Children, Glasgow, Minute Book 4, 12 July 1904.



Between 1861 and 1882, GOSH kept a separate register of admissions for patients under two. The register makes sobering reading, illustrating the level of disease burden endured by some of these very young children. It reveals why doctors could not turn away such poorly babies, and the desperation of their parents. In one page, from 1880, is found five-month old Stephen Cooper, admitted ‘collapsed and dying from acute gastroenteritis’; ten-month old Emma Masters, admitted for an operation to drain a lumbar abscess; and ten-day old Florence Wilmer, suffering from dyspnoea caused by a congenital tracheal cyst. Florence died after three days in hospital, Stephen survived for only ‘one or two hours’ after he was admitted, but Emma Masters survived, vindicating the decision to admit her.<sup>42</sup> By the turn of the century, as Figure 3 illustrates, admissions of under-twos hovered around 30 per cent of all cases at all three children’s hospitals.

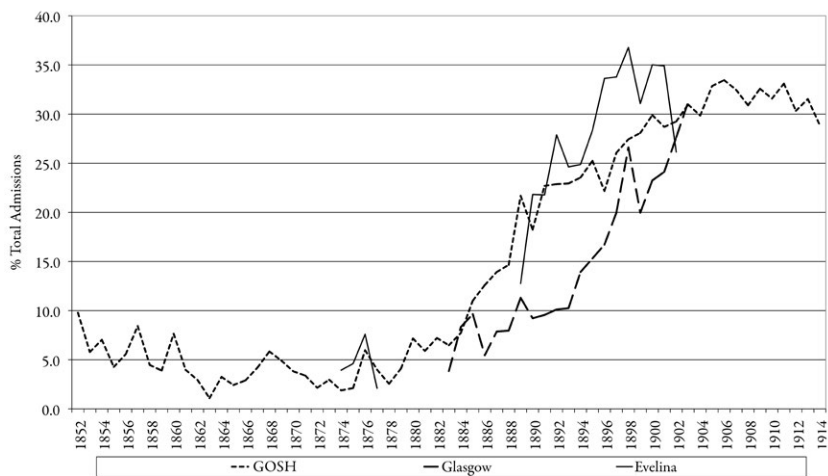


Figure 10.3 Admissions of under-twos at the Great Ormond Street Hospital, London, the Evelina Hospital, London and the Royal Hospital for Sick Children at Glasgow, 1852–1914.

Source: HHARP databases

42 HHARP GOSH database, Stephen Cooper UID18011; Emma Masters UID15335; Florence Wilmer/Willimer UID18035. Register of Admissions of Patients (under 2 years of age), 1861–1882, GOS/9/1/8.

In theory, all three hospitals banned children suffering from chronic diseases, fearing that, by accepting such cases, they would become ‘asylums for sickly children’, rather than places of cure.<sup>43</sup> Such patients endangered the statistics on the numbers cured (or saved) and stories of transformation from disease-riddled street urchin to disease-free angel. In an age of intense sentimentalisation of children, these cases did not appeal to the sympathies of the hospitals’ all-important supporters.<sup>44</sup> Children who required long-term care, amounting to little more than good hygiene and nutrition, would occupy beds urgently needed by the acutely and critically ill: in modern parlance, they were the ‘bed-blockers’ of nineteenth-century children’s hospitals. At GOSH, as the *Annual Report* for 1869 notes, patients presenting with rickets, hip disease or tubercular disease of the spine were refused admission, ‘because they are quite incurable, or because they require nothing but rest ... good diet and fresh air for months or years ...’<sup>45</sup> However, despite the rules and the claims in the *Annual Reports* many such children were admitted: GOSH had allowed over 4,000 such cases onto its wards during the period of this study. At the Evelina, over 8 per cent of all admissions were for these supposedly incurable conditions and they were given sophisticated treatment; of 400-plus cases of hip disease admitted there, 44 per cent had operations and over 40 per cent underwent extension of the affected joint, or were fitted with splints. Operations, usually carried out under chloroform, included scraping and excising infected joints, opening and aspirating abscesses, and amputation.<sup>46</sup> Pharmaceutical intervention in these patients is largely absent: occasionally a child was given cod liver oil, while eight patients suffering from tubercular disease of various joints

43 *Sixteenth Annual Report of the Hospital for Sick Children at Great Ormond Street* (1869).

44 Andrea Tanner, ‘The Sentimental Hard-Sell: establishing the idea of the children’s hospital in Victorian London’, *Melange de L’Ecole Francais de Rome, Italie et Mediterranee* 116/2 (2004), 883–98; Waddington, *Charity and the London Hospitals*.

45 *Sixteenth Annual Report of the Hospital for Sick Children at Great Ormond Street* (1869).

46 HHARP Evelina database. This analysis is based on the treatment details for 326 cases of hip disease in the Evelina Registers.

were treated with tuberculin.<sup>47</sup> The results from these treatments suggest it was worth trying: over 90 per cent of the patients were discharged either cured or improved, while only 6 per cent died.<sup>48</sup>

The presence of such children on the wards, and the concomitant pressure on beds, led in part to the establishment of chronic care facilities by two of the hospitals. GOSH opened a combined chronic care/convalescent facility at Highgate (Cromwell House) in 1869, and over a quarter of patients sent there were suffering from diseases of the joints.<sup>49</sup> The Glasgow hospital opened its country branch at Drumchapel in 1903. It was specifically *not* for convalescence, but for patients with chronic conditions (mainly tubercular joints) who required active medical intervention. Children were sent there before or after surgery, relieving pressure on beds at the main hospital and, at the same time, offering access to country air in contrast to the polluted Glasgow atmosphere.<sup>50</sup> The Evelina survived without its own convalescent home until 1931; instead, it relied on agreements and contracts with a network of homes spread around England.<sup>51</sup>

The convalescent homes played a vital role in providing children with a safe environment in which to garner their strength before being returned to the very conditions which were often at the root of their problems.<sup>52</sup> Once

47 Most of these patients were admitted in spring 1897. HHARP Evelina Database. The therapeutic use of tuberculin was promoted by Robert Koch in 1890. Its initial promise waned as it proved very difficult to administer and was associated with unpleasant side effects. Dr J.W. Washbourn, 'Discussion on Serum Therapeutics', *British Medical Journal* 17 August (1895), 410.

48 HHARP Evelina Database. These reported outcomes have to be viewed with an element of scepticism, particularly as the cases have not been followed up to discover what happened after the child had been discharged.

49 HHARP GOSH database. This group represented 14 per cent of patients in the main hospital, indicating they were sent in disproportionate numbers to Highgate.

50 Robertson, *The Yorkhill Story*.

51 Priestly, *The Evelina Story*.

52 Hügel summarises these conditions quite graphically: careless or absent mothers, poor hygiene, bad diet, lack of adequate heating or ventilation and danger of infection in overcrowded accommodation. Hügel, *Beschreibung sämtlicher Kinderheilstätten in Europa*.

discharged home, the children were once again at risk of contamination. Very early, the Glasgow hospital realised the benefit of maintaining contact and established the post of almoner. One of her tasks was to make home visits to discharged patients, 'giving such advice to parents as may be required ... She thus obtains the confidence of parents, and is of much service to them.'<sup>53</sup> GOSH had no official policy of keeping in touch, but evidence suggests that unofficial contact was maintained between the hospitals and patients long after discharge.<sup>54</sup>

## Diseases of patients

The disease profile at these three children's hospitals reflects the conditions which caused early deaths of their parents.<sup>55</sup> The most significant diseases in all three were those resulting from malnourishment, overcrowding and poverty as represented by admissions for tubercular and respiratory disease.<sup>56</sup> Diseased joints, probably mostly tubercular although not diagnosed as such, were one of the single most important causes of admission at all the hospitals,

53 She was presumably also able to continue the process of infiltration of middle-class mores into the homes of the poor. *Hospital for Sick Children Glasgow, Annual Report, 1885*.

54 Personal papers of Great Ormond Street Hospital doctors and nurses, GOS/11/18. A letter from the Lady Superintendent (Isabella Babb) to *Aunt Judy's Magazine* describes the visit she made to one of her ex-patients and the pitiful conditions she found the child living in. 'Aunt Judy's Cot', *Aunt Judy's Magazine* 1 June (1868), 25. *Aunt Judy's Magazine* was produced by Margaret Gatty, a well known Victorian children's author and great supporter of GOSH.

55 Tubercular and respiratory diseases and diseases of the circulatory system were responsible for over 50 per cent of adult deaths in the age band 35 to 45. 'England and Wales – Summary of Causes of Death, 1902', *Registrar-General's 65th Annual Report, England & Wales, 1902* (London: HSMO, 1904), 136–151.

56 Great Ormond Street Management Committee Minutes, 1 April 1874, GOS/1/2/3.

while respiratory problems were particularly prominent at the Evelina and Glasgow.<sup>57</sup> Diagnosed tubercular diseases were also prevalent at all three.

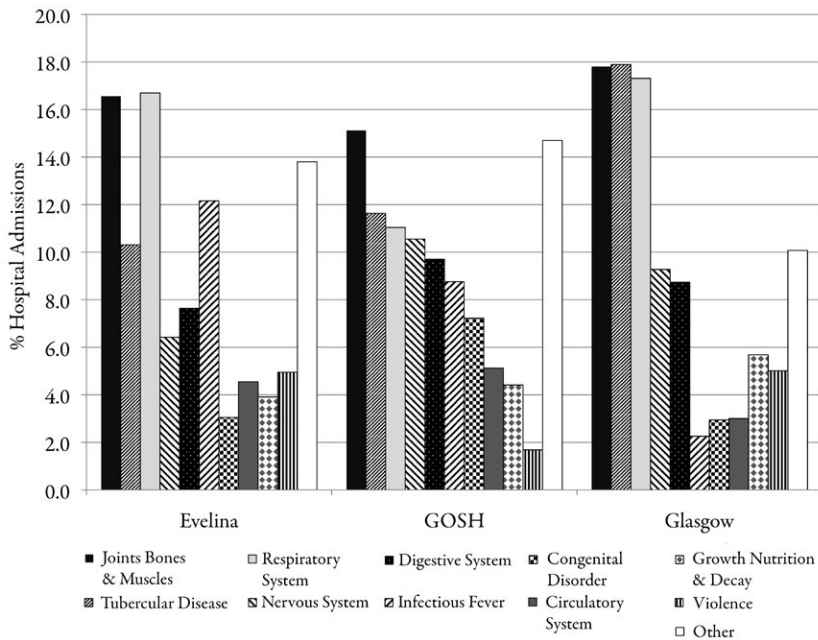


Figure 10.4 Admissions by Class of Disease at the Great Ormond Street Hospital, London, the Evelina Hospital, London and the Royal Hospital for Sick Children at Glasgow, 1852–1914.

Source: HHARP Databases

Of the other admissions, nervous system complaints were dominated by that curious nineteenth-century phenomenon, chorea (or St Vitus’ Dance). Rarely encountered in modern times, chorea was characterised by

57 There may be several explanations for why tubercular infections of the joints were not described as such. Anne Hardy postulates that fear of the disease (or of the shame associated with it) was so great in the late nineteenth century that doctors would collude with their patients in concealing the diagnosis. Anne Hardy, *The Epidemic Streets: infectious diseases and the rise of preventive medicine 1856–1900* (Oxford: Clarendon Press, 1993), 229–230.

‘involuntary contractions of ... muscle groups ... Young girls and boys of a highly nervous temperament develop[ed] it most frequently.’<sup>58</sup> Its causes were obscure to nineteenth century doctors, but its occurrence was often associated with attacks of rheumatic fever.<sup>59</sup>

Admissions classified under ‘Growth, Nutrition and Decay’ reflected most directly the poor conditions in which the children lived, being dominated by diagnoses such as debility, marasmus<sup>60</sup> and rickets. At the Evelina and Glasgow hospitals another group of admissions stands out – those resulting from violence or accident.<sup>61</sup> These included fractures, poisoning, falling from heights, burns and scalds. Such accidents reflected the dangerous environment in which many of these children lived, in overcrowded streets and near the most noxious and perilous industries. Some would have occurred in the work place, others as a result of childhood curiosity and the disregard for safety or security on behalf of industrial managers.

## Rules and regulations

As in all Victorian institutions, hospital life was controlled by a myriad of rules and regulations, which applied to nursing and medical staff as well as patients and their families. For patients, failure to conform was punished

58 Isabel Hampton Robb, *Nursing: its principles and practice for hospital and private use* (Cleveland: E.C. Koeckert, 1910), 475.

59 Today it is known to be caused by the same infective agent, Group A beta-hemolytic *Streptococcus*.

60 Marasmus is a severe form of malnutrition, associated with starvation or inability to absorb nutrients from food. Margaret Hitch (ed.), *Balliere's Nurses' Complete Medical Dictionary* 9th edition (London: Balliere, Tindall and Cox, 1941).

61 The HHARP Disease Classification System, was based on definitions used in the Registrar General's Annual Reports on Mortality: the class ‘Violence’ includes accidental injury in addition to deliberate violence to a person.

by withdrawal of treatment. A sample of the rules for outpatients from GOSH gives some flavour of the expectations of the hospital:

- 1st. You are to attend as punctually as possible, and to remember that NO PATIENTS ARE ADMITTED AFTER 10 O'CLOCK.
- 2nd. You are to keep this letter clean, and under cover, and to bring with you clean Bottles, with Corks, and Cups, for your Medicine.
- 3rd. If you stay away for 10 days, you will be discharged.
- 4th. You are to conform in all respects to the Rules laid down for your conduct, and failing to do so, you will be at once discharged.<sup>62</sup>

Inpatient rules were similar, and also included a requirement to bring a hair brush, two combs and decent clothing.<sup>63</sup> Washing was either undertaken by the family, or charged at sixpence a week. Visiting hours were restricted to two hours a week (on a Thursday and Sunday at GOSH), but visitors were denied access to the wards if there was infectious fever in their home. The rule forbidding visitors to bring in 'fruit, cake or sweetmeats for patients' was taken very seriously, and those found in breach risked their patient being discharged immediately.<sup>64</sup> Instead, they were encouraged to bring eggs. Nurses were the enforcers of the rules and had the power to refuse entry if they suspected violations.

The restriction on visiting hours was particularly harsh. Patients might not see any familiar faces for weeks on end. For one Derby mother, it all became too much. Her child, Sarah, had been at GOSH for nearly a year when she pleaded for her daughter to be sent home, 'on account of the great distance' and the consequent grief. It is doubtful that the child had seen her mother more than a few times in the whole period.<sup>65</sup> There are

62 Great Ormond Street 'Rules for Patients', nd c. 1860s, GOS/8/1.

63 Rules for Inpatients, nd ?1882, GOSH Committee of Management Papers 1882–1885, GOS/1/2/42.

64 Rules for Inpatients, nd ?1882, GOS/1/2/42.

65 HHARP GOSH database, Sarah Coulson UID3916. By the middle of the nineteenth century, restriction of visiting hours on the grounds of hygiene and order seems to

several pictures of Sarah in the GOSH archive, in which she is watched over by a kindly-faced young nurse. During her long stay, this nurse may well have become Sarah's surrogate mother; there appears to be a bond between them, betrayed in Sarah's sideways glance towards the nurse as the picture is taken.<sup>66</sup>

This restriction on visiting was not unique to British hospitals; in the 1870s and 1880s, the Boston Children's Hospital limited parental visits while simultaneously encouraging, 'the kind and cultivated' to call upon the patients, at their leisure.<sup>67</sup> This was echoed in a *Pall Mall Gazette* article, which encouraged visitors to the Evelina, at any time, to see the 'bright and cheerful wards and the little maidens with their big blue eyes.'<sup>68</sup>

## The daily round

Children were frequently kept for hours in overcrowded reception rooms before admission; required to undress in front of strangers and compete for an inadequate number of dressing gowns, which added to the trauma

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have superseded the attitude of eighteenth-century Edinburgh Infirmary physician, William Blizard: 'Shall a parent be denied the satisfaction of seeing a child, more dear on account of its misfortune, and shall not the child receive parental comfort?', quoted in Guenter B. Risse, *Hospital Life in Enlightenment Scotland* (Cambridge: Cambridge University Press, 1986), 24.

66 One of this series of photographs can be viewed on the HHARP website: [http://www.hharp.org/static/images/sarah-coulson-g\\_lrg.jpg](http://www.hharp.org/static/images/sarah-coulson-g_lrg.jpg).

67 Janet Golden, ed., 'Introduction', *Infant Asylums and Children's Hospitals: medical dilemmas and developments 1850-1920* (New York & London: Garland Publishing Inc., 1989).

68 *Pall Mall Gazette*, 24 July 1890. This apparent willingness to welcome curious visitors at 'any time' is cruelly opposed to the restrictions placed on the children's friends and family; and is illustrative of the institutions' attempts at social engineering.



of imminent parting from family.<sup>69</sup> GOSH Management occasionally admonished the medical staff, as this memo to one of the doctors illustrates:

The patients should not only be well attended to, but should seem to be so attended; and it is better that some time both of the Medical Officer and of the patient should be wasted, than that the feeling of those in attendance upon the patients should constantly be wounded by what to them seems (even though unreasonably) carelessness or haste.<sup>70</sup>

It is perhaps not surprising that outpatients departments with up to three hundred children daily, attended by anxious parents (and siblings who could not be left at home), would become a *mêlée*. At GOSH, long queues, stretching out onto the street, led to frustration. Controlling this crowd often fell to the outpatient nurses, who were not above accepting bribes to lift a patient up the queue.<sup>71</sup> Anxious parents frequently complained of their treatment by staff.<sup>72</sup> In her study of family life, Linda Pollock concluded that an acute state of parental anxiety accompanied a child's illness, as

... [N]early all the parents ... nursed their offspring themselves and were reluctant to leave children who were ill, even for short visits. Thus, they regarded the nursing of sick children as their responsibility.<sup>73</sup>

If this interpretation is correct, the distress to parents occasioned by delegating the duty of nursing a sick child to a strange institution – no matter how well-intentioned – must have been acute. Parents were also interviewed by a clerk, charged with screening those who could afford to pay

69 Ellen Ross has made a powerful argument for the importance of the working class mother in the lives of her children, as provider of material and emotional comfort: *Love and Toil: Motherhood in Outcast London, 1870–1918* (New York: Oxford University Press, 1993).

70 Great Ormond Street Management Committee Minutes, 26 Oct 1876, GOS/1/2/15.

71 Great Ormond Street Board of Management Committee Minutes, 12 & 25 April 1870, GOS/1/5/1.

72 'Complaints and Scandals' file, GOS/8/163.

73 Linda A Pollock, *Forgotten Children: parent-child relationships from 1500 to 1900* (Cambridge: Cambridge University Press, 1983), 131–133.

for treatment.<sup>74</sup> The interrogation was so exacting, that many mothers left before the doctor saw their child.<sup>75</sup>

Once admitted, the daily routines at each hospital were remarkably similar. The day was punctuated by regular meal times, interspersed by doctors' visits, applications of medicines and frequent observations. Nurses were ever present, forbidden to leave the ward unattended for even a few minutes. GOSH's rules stipulated that children should be woken, breakfasted, washed and dressed by 9 a.m. The morning meant treatment and observation; and the ward was tidied and made ready for first doctors' rounds. Temperatures were taken by 10 a.m. and medicines, poultices and fomentations applied. Dinner was served by 12 noon and cleared away by 2 p.m. Afternoons at GOSH was set aside for play. Paradoxically, before this could happen, the ward and the children were made tidy before the nurses brought out toys and books.<sup>76</sup> The wards were well supplied with playthings (donated by supporters and friends of the hospital), as one observer reported:

Emma has every day had some of the toys or books or pictures sent by the kind young friends who have worked for 'the cot'. Near to her bed, in the middle of the ward, stands a large rocking horse, which she would have liked to ride upon, as many

74 Children's voluntary hospitals targeted the 'deserving poor', and were definitely not for patients whose families could afford to pay for medicines themselves. Such patients were weeded out by this interrogation process. See Reinartz, 'Investigating the 'deserving' poor'. GOSH's almoners' reports indicate that around half of all patients who presented at outpatients were turned away after failing the means test, by having a weekly income above the established maximum. GOS/8/200 Typescript history of the Hospital Almoner's Department to 1936 by Janet Salmon, updated to 1955 by Margaret Mayfield.

75 'Complaints and Scandals' file, GOS/8/163 (1881-1893).

76 Entertaining the children was one of the key duties of a nurse. At GOSH, nurses found wanting in ability or willingness to entertain the patients were in danger of losing their jobs. The rules for nurses stated: 'mere inability to make children happy will of itself be regarded as a sufficient cause for not retaining a nurse'. Great Ormond Street Rules for Nurses, 1881, GOS/5/1/3 part 2.

others do that are able. A nice musical box in that ward also affords great pleasure to all the patients.<sup>77</sup>

After two hours, toys were cleared away and tea was served; by 5 p.m. beds were made and children were dressed for sleep. Evening temperatures were taken, and medicines administered, before the day shift of nurses left at 6 p.m.<sup>78</sup> On one weekday afternoon and Sunday afternoons this routine was disturbed by the arrival of patients' visitors. Visits lasted one hour, and at GOSH the nurses sometimes attempted to alleviate the pain of separation by serving extra treacle or sugar on the bread at teatime.<sup>79</sup>

The image created, especially in *Aunt Judy's Magazine*, is of a cosy middle-class parlour and is clearly not entirely accurate, but the number of gifts of toys, books and clothes recorded in the minute books confirms that the children were well provided for in this respect. Nurses became surrogate mothers and fellow patients the greatly-missed siblings.

Less predictable was the other group of visitors to the wards – the hospital supporters, who often arrived in groups to view the good work. While the visits were important, they must also have been a great inconvenience. A collection of cartoons, produced by a GOSH nurse in the 1890s, records her views on these 'visitations' by the great and the good (see Figure 5). The cartoon is annotated caustically, 'We greatly enjoy waiting on the distinguished visitors of Adrian Hope' [the hospital secretary]. A second drawing shows a lady, lifting her skirts as if to avoid dirtying them as she walks down a corridor in the hospital. The nurse at her side is given a thought balloon, 'and found the novelty of directing them delightful'.<sup>80</sup>

77 *Aunt Judy's Magazine* (1 August 1868), 255. Aunt Judy (Margaret Gatty) encouraged her young readers to contribute to the establishment of the Aunt Judy Cot which Emma occupied.

78 Great Ormond Street Ward Rules, 1881, GOS/5/1/3 part 2.

79 Clipping from *The Daily Telegraph*, 11 July 1872 in 'Notices of the Press', 1857–1879, GOS/13/1.

80 Personal papers of Great Ormond Street Hospital doctors and nurses, GOS/11/18/9.



Figure 10.5 Visitors to the Hospital for Sick Children at Great Ormond Street.  
Source: Cartoon album created by Ada G Bois, a nurse at GOSH from 1899–1902.<sup>81</sup>

Regardless of their inconvenience, though, it was considered worth the disruption if – by visiting – they could be persuaded to donate to the charity.

## Conclusion

The children's hospitals offered free treatment to the sick children of poor families on condition that they submitted to the rules and regulations of the institution. From the beginning, each hospital set out the ideal patient

81 Personal papers of Great Ormond Street Hospital doctors and nurses, GOS/11/18/9.

population, defined by age and type of condition. These rules, which might seem callous to the modern observer, served primarily to satisfy the institutions' supporters. Chronic cases of illness were to be rejected on the grounds that the institutions were not asylums for sick children, such as workhouse infirmaries; it was vital not be too closely compared to institutions which cared for 'undeserving' elements of Victorian society. The hospitals also supposedly rejected babies and toddlers for good practical reasons, connected to the difficulties in nursing the very young; and it cannot be denied that babies and toddlers died in higher numbers in hospital, such statistics being unlikely to encourage a results-driven charitable economy.

However, the admission registers for these three hospitals indicate that both rules were observed more in breach than in observance, particularly that relating to young children. Confronted with the babies' immediate medical needs, doctors were reluctant to turn them away, and they were accepted onto the wards in increasing numbers. Indeed, by the early 1920s, they represented over 60 per cent of all admissions at the Glasgow hospital.<sup>82</sup> Even the chronic cases, tainted by association with images of incurability and undeserving poverty, found their way in large numbers onto the wards. With their longer than average stays, they presented the opportunity to reverse the effects of their home environment:

There are children in the hospital who are expiating the sins of their fathers; there are children who have been brought to the hospital, starved – and in nine cases out of ten ... owing to the national curse, drink.<sup>83</sup>

If such children could be encouraged, by their stay on a ward, to return home to evangelise this new way of life, then half of the hospital's work had been done.

To be admitted though, the child had first to be presented by its parents, and it might be argued that the needs of the patients, as understood by his or her family, determined which children were treated by the hospitals. In the early days, they had to persuade parents of the benefits of

82 *Royal Hospital for Sick Children Glasgow, Annual Report, 1921.*

83 'Christmas at the Evelina', 6.

hospitalisation, against the contemporary logic that children should be cared for by their mothers. Once the charities were well-established, families generally accepted what was on offer, while acknowledging the evangelical nature of the service and the ‘policing’ (to use Donzelot’s phrase) of them by the hospital management, staff and supporters.<sup>84</sup> The acceptance of medical treatment was not done blindly, or in an unsophisticated manner. If what was on offer was deemed harmful to the individual child, or the family as a whole, this acceptance was discontinued, as evidenced by the small but significant number of patients withdrawn from hospitals against the advice of their doctors.<sup>85</sup> In the words of one commentator,

Every attempt to discipline family conduct – or, in the Victorian vernacular, to ‘fortify family character’ – required some sort of negotiation over the frontier between public and private needs [...] Parents [...] were often shrewd judges of the ‘help’ on offer.<sup>86</sup>

The fact that the Glasgow Hospital had official mechanisms for following the progress of children once discharged supports its role as a civilising influence on the patients (and also their families), though it might also be reflective of a mutual affection between adults and children, in an environment where the patients’ families were largely excluded.

While on the wards, patients were subject to rules designed to reinforce the middle-class mores of the institutions. The day was rigidly structured, but included time for play and patients were encouraged to form bonds with their nurses, who acted as surrogate mothers, while their parents were all but excluded. Images of the wards reproduced in newspapers and

84 Jacques Donzelot, *The Policing of Families* (Baltimore: Johns Hopkins Press, 1997).

85 Records indicate an average of between 1 and 2 per cent of patients being removed against advice at each of the hospitals, although this figure hides the extremes: in some years as many as 5 or 6 percent of patients were removed, whilst in others none were. At GOSH it is noticeable that the likelihood of a child being removed in this way was declining as the hospital became more established, from an average of 3 per cent per annum in its first decade to 0.5 per cent per annum in the first decade of the twentieth century. HHARP Databases.

86 George K. Behlmer, *Friends of the Family, the English Home and Its Guardians, 1850–1940* (Stanford: Stanford University Press, 1998), 24.

journals and in the hospitals' own literature evoked the middle-class parlour, reflecting their supporters' own home environment. Not everyone agreed that this was the best approach, either for fundraising or for the children themselves; one journalist opined, 'Some wards are more like drawing rooms than sick rooms ... more suitable to a royal nursery than to one for sick children of the poor [...] [with] patients decked out in the cast-off clothes of the nobility'. At the Evelina, he continued, 'all these abuses have been avoided'.<sup>87</sup> Despite this voice of dissent, the children's hospitals continued on the whole to counterpose heartbreaking stories against the solidity of a middle class backdrop.

All three hospitals claimed that they offered the best treatment to not only cure the physical ailments of their patients, but to tackle the perceived failings of the lifestyles of the urban poor. They were small institutions, and, arguably, without economic or legal clout, could make only a slight difference to the lives of the patients' families. However, the statistics imply that they cured or relieved the vast majority of patients, their doctors published their medical research findings, and their nursing techniques spread across the globe. Perhaps that is enough to claim success. This analysis, through the use of HHARP's admissions databases and the hospital archives offer a glimpse into the daily life of the hospitals in the decades before the Great War, and an opportunity to begin to consider whether their aims were – or even could be – realised.

87 'The Evelina Hospital for Sick Children', *The Morning Post*, 16 December 1875.





STEPHEN C. KENNY

## Slavery, Southern Medicine and the American Slave Hospital Regime, 1830–1860

*'Negroes ... it is well known, are negligent of themselves, especially when ... treatment has to be long continued. They are imprudent in Diet, and often careless; exposing themselves unless properly restrained. They are derelict in taking medicine, and unless judiciously managed, are guilty of many imprudences and irregularities, calculated to render the most skillful treatment of the Physician entirely nugatory ...'*

— HENRY F. AND ROBERT CAMPBELL,  
*Regulations of the Jackson Street Hospital and Surgical Infirmary  
for Negroes* (Augusta, GA: Jeremiah Morris, Printer, 1859).

Henry and Robert Campbell, physicians and sibling business partners in antebellum (pre-Civil War) Augusta, Georgia, advanced their own special solution to health care in the slave South when they circulated a pamphlet that promoted the Jackson Street Hospital and Surgical Infirmary for Negroes. The Campbells presented slaves as careless of basic dietary needs and general well-being. Their appeal flattered the embedded fantasies of white slaveholder paternalism and respectability with its claim that even white southern doctors often failed to cure such helpless, child-like patients. Relief for planters and physicians from the 'annoyance' and 'disgrace' brought on by 'chronic and surgical diseases' among slaves came in the guise of the Jackson Street Infirmary, a 'well ordered establishment' far removed from the burdens of private practice.<sup>1</sup>

1 Henry F. and Robert Campbell, *Regulations of the Jackson Street Hospital and Surgical Infirmary for Negroes* (Augusta, GA: Jeremiah Morris, Printer, 1859), 4.

The Campbells established the Jackson Street Infirmary in 1849, and competed against several smaller Augusta facilities that treated slaves. This new hospital offered slaveholders and slave traders in the city and the cotton country that surrounded it a sort of rehabilitative program for otherwise 'useless' slaves. Moreover, the infirmary kept a tight grip on patients categorized by southern medicine as peculiar in their difficulty to treat, and always negligent of their own health. The Jackson Street Infirmary stood not only as a striking architectural symbol of how professional medicine flourished when partnered with slavery, but also as a base of operations that furthered the career ambitions of the two physicians who built it. Slave hospitals engendered busy medical spaces shaped by the interests of slaveholders and slave traders, but when integrated into a medical college environment, as was the case in Augusta, such facilities fell prey to professional agendas. By focusing on the slave hospital's past – in particular in antebellum Augusta, Georgia – this chapter recovers and evaluates interactions between slave owners, physicians, and slaves. Daily life in slave hospitals no doubt reproduced the antebellum South's fundamentally unequal social relations. The design and planning of these medical and research facilities only furthered the goals of slave owners, traders, and physicians. Inside the slave infirmary, where closely controlled environments and specially targeted medical interventions served business and professional agendas, slavery's pattern of domination and exploitation rose to especially dangerous levels.

In his groundbreaking monograph, *The Care of Strangers: The Rise of America's Hospital System* (1987), Charles Rosenberg argued that medicine is ineluctably embedded in life's social and cultural fabric. So it follows that the hospital is 'peculiarly characteristic' of society, and reproduces 'values and social relationships of the wider world'. Daily life in a hospital constitutes 'a microcosm of more general social realities' that reflect the outside world's 'general social relationships'.<sup>2</sup> Rosenberg focused on hospitals in major Northern U.S. cities – Philadelphia, New York, and Boston – but

2 Charles Rosenberg, *The Care of Strangers: The Rise of America's Hospital System* (New York: Basic Books, 1987), 3, 4, 11, 40.

hospitals further south also embodied and reflected the key features of their social and cultural environments. Southern hospitals incorporated much of the business of slavery, and reproduced the racial attitudes and behaviours that sustained and shaped the whole ecology of bondage.

Guenter Riise, in his *Mending Bodies, Saving Souls* (1999), echoed Rosenberg, and emphasized that the generic hospital is an abstraction; he argued instead there are only particular hospitals – products of specific historical circumstances and local conditions. This recognition also presents the methodological challenge of how to reconstruct and analyze the history of individual hospitals and the selection of representative examples. In his grand overview of the hospital's history, Riise identified key moments and significant patterns. He suggested six basic elements that might provide a core 'Framework' – mission, patronage, organization, staff, patients and ritualized caring activities.<sup>3</sup> This essay builds on the foundation provided by Rosenberg and Riise's insights. Here, the world of the 'negro hospital' in Augusta is displayed as an institution shaped by and linked inextricably to slavery's needs and rhythms. But within the broader context of the economy and society of southern slavery, a consideration of how slave hospitals and their focus on racialized medicine integrated medical careers, ideas and practices – especially as core components of the domestic slave trade – provide important frameworks for understanding both the emergence of slave infirmaries in Augusta and an examination of work and life inside these facilities.<sup>4</sup>

Between 1845 and 1860, the Deep South's first medical periodical, the *Southern Medical and Surgical Journal (SMSJ)*, published over a 120 case narratives that featured nearly 200 slave patients. Many of these essays

- 3 Guenter B. Riise, *Mending Bodies, Saving Souls: A History of Hospitals* (Cary, NC: OUP, 1999), 25. David Rosner warned that Riise's ambitious scope sometimes leads to him employ present-centered analytical frameworks that may not be historically accurate, and to imply continuities across time and space that may not hold true. David Rosner, rev. 'Mending Bodies, Saving Souls', *Isis* 94/2 (2003), 336–337. This essay seeks to avoid anachronism by paying close attention to historical context.
- 4 'A key aspect of the hospital's history is the precise integration of medical careers, ideas and practice patterns into the growing institution.' Rosenberg, *Care of Strangers*, 9.

reported on operations undertaken, treatments administered, and care delivered in Augusta's various slave infirmaries.<sup>5</sup> The white men who contributed these case narratives resided and practiced mainly in Georgia – a majority of them in Augusta – but physician-authors also reported from Alabama, Mississippi, and South Carolina. A high percentage of these essayists came from the professional elite, those educated at prestigious medical schools, often in possession of postgraduate experience, and well-connected to celebrated surgeons and physicians. These leading medical figures often had prominent roles in state and national organizations, and enjoyed hospital privileges and positions on medical college faculties. The essayists, however, included many physicians who worked in remote rural locations, and who wished to remain connected to urban medical centers and to former or future mentors and colleagues. In order to examine the professional agendas enacted on a daily basis in Augusta's slave infirmaries, this essay focuses on the published cases of Henry and Robert Campbell, Robert C. Carroll, Louis Dugas, and Paul Fitzsimmons Eve. Between them, these five physicians submitted forty case reports to the *SMSJ* that featured nearly eighty slave patients. These Augusta case narratives form an essential primary source for this study.

This chapter will argue that the lives and wellbeing of enslaved patients were almost completely subordinated to the interests of doctors and their business and medical careers, as well as to medical students, and slave owners and slave traders. In order to explore the exceptionally vulnerable position of slave patients this chapter will first develop the context of slave hospitals and of racialized southern medicine. It will then pay particular attention to the 'care' and exploitation of the enslaved bodies that found their way into the Campbells' and their close colleagues' Augusta hospitals.

- 5 First published in 1836 and edited by Drs Milton Antony and Joseph Eve, the *Southern Medical and Surgical Journal* was the 'house journal' of the Medical College of Georgia. Except for a six-year break between 1839 and 1845 (following Antony's sudden-death in Augusta's 1839 yellow-fever outbreak), the journal appeared monthly until October 1861 and the outbreak of the Civil War. Myrl Ebert, 'The Rise and Development of the American Medical Periodical, 1797–1850', *Bulletin of the Medical Library Association*, 40 (1952), 259, 267.

## Slave hospitals: an historical overview

Hospitals that specialized in the care of slave patients date back to the earliest years of black presence in the New World and, as the institution and economies of slavery grew and changed over time, served a number of functions, including a variety of white interests. Different types of hospital provided for slave patients at different stages and situations in their bondage. With an ocean voyage that lasted several months and prolonged confinement below decks, the transatlantic slave trade subjected Africans to extreme physical and psychological hardship, and slave ships acted as breeding grounds for infectious diseases. Hospitals in North American coastal markets therefore provided essential facilities in which depressed, exhausted, famished, befouled and infected slaves could be cleansed, rehabilitated and readied for sale. Colonists in Savannah, Georgia's main slave-trading entrepôt, built a large quarantine station, or lazaretto, at the north end of Tybee Island in 1768 to prevent the spread of disease and permit the preparation of slaves for sale. Diseased slaves remained at the facility until a physician determined their fitness for sale. The corpses of slaves who died during the Middle Passage ended up in unmarked graves on the west end of the island.<sup>6</sup>

The official closure of the transatlantic slave trade to North America in 1808 and the expansion of a vigorous inter- and intra-state trade in human beings acted as another key stimulus to the development of slave hospitals by medical professionals. Doctors also recognized that large slave holdings and a wealthy planter class presented opportunities to establish

6 'To prevent the spread of disease in Savannah, city officials in 1767 authorized the construction of a nine-story quarantine facility ...' Karen Bell, 'Atlantic Slave Trade to Savannah', *The New Georgia Encyclopedia*, <http://www.georgiaencyclopedia.org/nge/Article.jsp?id=h-686&chl=y> [accessed 05/12/2012]. On the Middle Passage experience and the Transatlantic Slave Trade as multi-stage process of commodifying enslaved people, see Stephanie E. Smallwood, *Saltwater Slavery: A Middle Passage from Africa to American Diaspora* (Cambridge, Mass: Harvard University Press, 2007).

slave hospital facilities and build lucrative practices. Savannah slaveholder, physician, medical educator and politician, Dr Richard D. Arnold expressed these very sentiments to a Northern colleague when he explained how he chose the location for his practice. The scope for making money was crucial. Arnold argued that southern physicians benefitted from a system where 'the *Employer*' paid the bill: 'This is the true reason why Physicians get into practice more readily at the South than at the North ... *here* he stands some chance of making his bread while he has teeth to chew it.'<sup>7</sup> As Arnold's letter illustrated, southern slavery's varied use of black bodies – in agriculture, industry, and as financial capital – created a demand for doctors who specialized in slave health care. Southern medicine generally gave opportunities, but proprietorship of a slave hospital gave physicians very special leverage in that market.

Newspapers provide evidence of dozens of college, private, and commercial slave infirmaries that operated across the American South by the 1840s and early 1850s. In addition to plantation hospitals, the main types of slave infirmary seen in the historic newspaper records might be broadly categorized as: medical school hospitals, small private infirmaries (owned and operated by an individual or a group of physicians), and also more overtly commercial slave hospitals in major slave-trading centers, such as New Orleans's Touro Infirmary and the Mississippi State Hospital for Negroes in Natchez. Savannah's Georgia Infirmary, chartered in 1832, presents one further type of slave hospital – specifically for abandoned, chronically sick and elderly slaves – that speaks to chattel slavery's callous nature much more than it does to motives of benevolent paternalism. As Jonathan Bradley has noted, 'Mistreatment and poor living and working conditions often left slaves in prematurely bad health, and many were cast out by their owners when they were no longer able to work.'<sup>8</sup> With the exception of

7 Dr Richard Arnold to Dr Heber Chase, Philadelphia (October 13, 1836), in Richard H. Shryock, ed., *Letters of Richard D. Arnold, M.D. 1808–1876* (AMS Press: New York, 1970).

8 'By such an institution, well organized, and conducted as contemplated by the testator, an asylum will be afforded for afflicted, and aged Africans, who have become thus situated from divisions of large Estates, from Marriages and inter-marriages,

facilities such as the Georgia Infirmary, all other slave hospitals played a key role in restoring, insuring, and enhancing the value of chattel property. At the same time, these hospitals provided medical students and established physicians with opportunities to advance their own professional careers and ambitions by way of clinical experience and surgical experiment.<sup>9</sup>

## Plantation slavery's hospitals in Georgia

When introducing his compilation of antebellum essays on ideal plantation management – essays collected from southern agricultural journals – James Breeden noted that ‘No topic occupied more space than ... health care’ in this particular sub-genre of pro-slavery writings.<sup>10</sup> Southern slave-owner essayists layered their observations on plantation management with a thick paternalistic gloss that claimed good health of a chattel workforce as the solemn duty of every responsible and humane master. Many authors, however, acknowledged openly that economic self-interest, more than anything else, motivated planters in regard to the preservation of slave health. Georgia planter-physician, John R. Turner, betrayed the pecuniary mind-set that framed owners’ vision of slave health in his discussion of ‘Plantation

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and from removal of owners from the state, and the influence of the Laws in addition to which, masters not residing on their Plantations, as is very common may on payment of fair compensation, find those comforts, and when necessary that medical attendance, for their diseases or superannuated, not to be obtained upon their own Premises.’ Georgia Infirmary Records, Georgia Historical Society, 3. See also, Jonathan Bradley, ‘Georgia Infirmary’, BlackPast.org, <http://www.blackpast.org/?q=aah/georgia-infirmary-1832> [accessed 10/10/2012].

- 9 For further discussion of the different types of slave hospital, see Stephen C. Kenny, ‘“A Dictate of Both Interest and Mercy”? Slave Hospitals in the Antebellum South’, *Journal of the History of Medicine and Allied Sciences* 65/1 (2010), 1–47.
- 10 ‘Health and Health Care’ in James O. Breeden, ed., *Advice Among Masters: The Ideal in Slave Management in the Old South* (Greenwood Press: Westport, Connecticut, 1980), 163.

Hygiene' for the *Southern Cultivator*: 'any means ... devised to render it [slave property] most valuable ... would enable us to realize the greatest profit on the capital invested [and] we think ought to deserve our serious consideration'.<sup>11</sup> This meant the investigation of the causes of dangerous maladies and chronic illnesses in the slave population, but also the study of the conditions that influenced 'their procreative relationship'. For as Turner reminded his slave-owning readership, 'raising a family of young negroes on a plantation is an important item of interest on our capital'.<sup>12</sup> This in part explains why many large planters risked heavy investment in the construction of a slave hospital.

Despite large capital outlays, however, the quality of care left some observers unmoved. In her *Journal of a Residence on a Georgian Plantation in 1838-1839*, Francis Kemble described conditions inside Butler Island's plantation infirmary as a 'sad spectacle' in which 'filth, disorder, and misery abounded'.<sup>13</sup> Many large-scale slaveholders in the 'particularly unhealthy region' of South Carolina and Georgia's low-country included space for a hospital building when they mapped out their plantations. Some of these hospitals provided care and shelter for hundreds of slaves, with a few constructed on a grand scale. Great Depression-era Historic American Buildings Survey photographs of Thomas Butler King's Retreat plantation, on the southern-tip of Georgia's St Simons Island, depict the ruins of a building 'once two-and-a-half stories tall ... [with] ten rooms, at least one of them heated by an internal fireplace'.<sup>14</sup> A well-constructed two-storey infirmary on neighbouring Butler Island included 'four-large sized rooms'. Yet Kemble described it as a cold, damp, dilapidated structure that offered little if any comfort to patients. Kemble claimed that the hospital's 'deplor-

11 John R. Turner, M.D. 'Plantation Hygiene', *Southern Cultivator*, 15 (May and June 1857) in Breeden, *Advice Among Masters*, 194.

12 Breeden, *Advice Among Masters*, 195.

13 Frances Anne Kemble, *Journal of a Residence on a Georgian Plantation in 1838-1839* [edited with an introduction by John A. Scott] (Athens, Georgia: University of Georgia Press, 1984), 70, 71.

14 John Michael Vlach, *Back of the Big House: The Architecture of Plantation Slavery* (Chapel Hill: University of North Carolina Press, 1993), 144, 145, 151.



able' state destroyed the pro-slavery image of southern agriculture as a 'humane' enterprise. The condition of slave patients, far from 'well cared for and comfortable', hardly registered with the Butler estate's former manager, a man unconcerned by the hospital's squalid conditions. Kemble argued that the manager's views of slaves as 'tools, to be mended only if they can be made available again; if not, to be flung by as useless, without further expense of money, time, or trouble', served as much more representative of white southern attitudes.<sup>15</sup>

After emancipation, historians pointed to the issue of slave health and welfare as one fundamental measure of the system's overall character. Dominated by notions of paternalism for much of the twentieth century, slavery's leading historians argued that slaveholders were 'solicitous' of their chattel labourers medical needs, and often spent large sums on doctors.<sup>16</sup> Savannah Public Health Officer and medical historian, Victor Hugo Bassett, argued for the veracity of the pro-slavery essayists' vision of the slave management ideal. In 'Plantation Medicine' (1940), Bassett argued slaves 'received good medical care', especially on large plantations. Bassett claimed that planters maintained slave health through a well-appointed 'sick house', a facility he saw as common on 'larger plantations ... sometimes with separate wards for men and women, and separate provision for lying-in women'. Bassett offered his paternalistic interpretation of slave health care with a dose of medically inflected racism. He described the Sea Island slave population as 'less intelligent and less well trained' than slaves on upland cotton plantation, 'removed only one or two generations from savagery', and generally 'backward and superstitious'.<sup>17</sup>

Rich in ledgers, plans, inventories, and diaries, elite white planter archives have provided scholars of slavery and medicine with a rough guide

15 Kemble, *Journal*, 70, 72.

16 See, for example, Ulrich B. Phillips, *American Negro Slavery* (Baton Rouge: Louisiana State University Press, 1918), especially 261–290; and Eugene D. Genovese, 'The Medical and Insurance Costs of Slaveholding in the Cotton Belt', *The Journal of Southern History* XLV/3 (1960), 141–155.

17 Victor Bassett, 'Plantation Medicine', *Journal of the Medical Association of Georgia*, Vol. 29 (1940), 114.

to the architecture and daily operation of plantation hospitals. Plantation hospital records are mostly Spartan lists of births and deaths, punctuated by brief notes of physician visits, and contain few detailed categories of data. It is very rare to find in these documents sustained descriptions of slave patients, their illnesses or records of treatment. A historiographical focus on large planters, that demonstrated the principle of humanity through the investment of elaborate arrangements for slave welfare, persisted well into the 1980s and beyond. While she acknowledged appallingly high infant and child slave mortality rates on southern plantations, Julia Floyd Smith's *Slavery and Rice Culture in Low Country Georgia, 1750–1860* (1985) argued that in general, 'the plantation slaves in coastal Georgia were adequately fed, clothed and housed, and received as good medical care as the times permitted'.<sup>18</sup> Smith, influenced by Bassett's scholarship, drew attention to Sea Island cotton plantations with 'substantial hospitals ... where slaves who were ill could be cared for and where pregnant mothers could deliver their offspring'.<sup>19</sup> The recurring pattern in Smith's descriptions of large plantation hospitals – proximity to the owner's house and the special ward provision for women in childbirth – echoed pro-slavery advice literature's emphasis on the need for close monitoring of sick chattel and the opportunity to realize an additional profit through a managed reproduction of the slave work force. Yet, while historians described plantation hospital care as favourable, very few slaves held any recollection at all of the hospitals themselves, or anything that suggested even adequate care.

18 Julia Floyd Smith, *Slavery and Rice Culture in Low Country Georgia, 1750–1860* (University of Tennessee Press, Knoxville, 1985), 140.

19 *Ibid.*, 133.

## Racialized medicine under American slavery

So-called ‘Negro’ – or racialized – medicine boomed in the antebellum South. As orthodox medicine aligned its core interests and built capacity around the economy of slavery, southern physicians saw in the slave population an invaluable resource for the expansion of professional education and research activities. Numerous essays on the subject of slave health and welfare appeared in southern agricultural journals but even greater numbers were published in medical journals.<sup>20</sup> Medical faculty lectured on alleged racial differences in anatomy halls and hospitals, and medical students wrote MD theses on the subject. A specialist journal – the *Georgia Blister* – was developed, and slave hospitals of various types opened across the region.<sup>21</sup>

In support of slavery’s racial hierarchy, leading medical figures in the South, such as Josiah Clark Nott (of New Orleans and Mobile), Samuel Adolphus Cartwright (of Natchez and New Orleans), and Paul Fitzsimmons Eve (of Augusta and later Nashville), built on the existing knowledge of colonial racial science and promoted the notion of fundamental medical differences between blacks and whites. In the sprawling *Types of Mankind* (1854), Nott argued not only that there were profound differences between the ‘races’ – variations in physical, moral and intellectual capacity – but that they also constituted separate creations and permanently fixed types. Nott’s pseudo-science buttressed white support for slavery and denied the

20 A typical essay on the subject of slave health that appeared in the *SMSJ* is A.P. Merrill, ‘An Essay on some of the Distinctive Peculiarities of the Negro Race’, *SMSJ*, Vol. XII, No. I, II, and III (Jan, Feb, and March, 1856), 21–36, 80–90, and 147–156.

21 *The Georgia Blister and Critic: A Monthly Journal, Devoted to the Development of Southern Medical Literature and the Exposition of the Diseases and Physical Peculiarities of the Negro Race*, was a short-lived periodical (1854–1855) edited by Henry A. Ramsay who graduated from MCG in 1852. Ramsay’s published essay *The Necrological Appearances of Southern Typhoid Fever in the Negro* (Thomson, Georgia, 1852) is deeply racist and clearly indicates that southern white physicians saw and manufactured racial differences in their anatomical and clinical training and also in daily practice.

growing abolitionist call for black freedom and equality.<sup>22</sup> Cartwright found evidence of black inferiority and distinctiveness at all levels of the human frame. Black people, he thought, possessed smaller brains, along with less efficient pulmonary and vascular systems. He identified diseases allegedly unique to black subjects, including *cachexia Africana* or dirt-eating and *struma-Africana* or Negro consumption. He invented disorders such as *drapetomania* (the ‘disease’ causing Negroes to run-away) and *dysaesthesia Aethiopica* (a supposed hereditary disease peculiar to black people, making black slaves ‘insensible to pain’).<sup>23</sup>

At the Medical College of Georgia (MCG), in his address to the incoming class of 1837–1838, Dean of the Faculty Paul Eve emphasized the various advantages of studying medicine in the South, chief among them the intimate knowledge of black diseases, the ‘peculiar habits’ of slaves and the ‘proper treatment’ of their ‘particular affections.’<sup>24</sup> Medical and scientific claims of black difference and inferiority were warmly welcomed by slaveholders and rapidly woven into the mainstream fabric of the South’s defense of its house of bondage. Georgia legal scholar Thomas R.R. Cobb, for example, produced the influential *An Inquiry into the Law of Negro Slavery* (1858). In it he combined Nott’s work, with that of comparative anatomists such as Cuvier, Morton, and Soemmering, using all of this as evidence for slavery’s justification and for the argument that black bodies were supposedly ideally adapted to servitude.<sup>25</sup>

Racialized thought and practices shaped and distorted medical education, research and healing encounters throughout the slave South. This racialized approach also reproduced and deepened the social inequalities embodied in the region’s system of bondage. An important case in point is the study of anatomy under slavery, a study which included dissection and the circulation and storage of human remains in private collections

22 J.C. Nott and Geo. R. Gliddon, *Types of Mankind* (Philadelphia, 1854).

23 Samuel A. Cartwright, ‘The Diseases and Physical Peculiarities of the Negro Race’, *New Orleans Medical and Surgical Journal* 8/2 (1851): 187–199.

24 Paul F. Eve, *Address Delivered at the Medical College of Georgia, on opening the course of lectures, 17th October, 1837* (Augusta, 1838).

25 Thomas R.R. Cobb, *An Inquiry into the Law of Negro Slavery in the United States of America* (Philadelphia and Savannah: T & J.W. Johnson & Co., 1858), 3–53.

and college medical museums for the purpose of research and education. Medical colleges in major southern cities and slave-trading centers – such as Augusta, Atlanta, and Savannah – guaranteed prospective medical students unrivalled anatomical opportunities as a unique selling point in their recruitment circulars. They did so only because cadavers obtained for dissection and display came from deceased slaves and thus posed little chance for stirring up any public outcry.<sup>26</sup>

At MCG, the Faculty stressed that it had organized ‘the most reliable arrangements for an ample supply’ of anatomical material and in 1852 it purchased a special slave, Grandison Harris, an experienced resurrectionist and dissection-room porter.<sup>27</sup> That same year, Harris became responsible for supplying Henry and Robert Campbell, MCG’s Demonstrator and Assistant Demonstrator of anatomy, with cadavers for dissection, with many likely to have been stolen from the city’s black cemetery – Cedar Grove (see Map) – located just a few blocks from the college. Similar measures became commonplace across the region and remained active well into the twentieth century, with black janitors (as well as black cadavers) a strikingly recurrent presence in the visual record of the profoundly racialized world of southern anatomy.<sup>28</sup>

In addition to their desire for anatomical instruction, medical students sought clinical instruction and bedside experience with living patients.

- 26 Stephen C. Kenny, ‘The Development of Medical Museums in the Antebellum American South: Slave Bodies in Networks of Anatomical Exchange’, *Bulletin of the History of Medicine*, Vol. 87, No. 1 (Spring, 2013), 32–62.
- 27 *Twenty-Fifth Annual Announcement of the Medical College of Georgia* (Augusta, 1856), 9; Sharpe, Tanya Telfair, ‘Grandison Harris: The Medical College of Georgia’s Resurrection Man’, in Robert L. Blakely and Judith M. Harrington, eds, *Bones in the Basement: Postmortem Racism in Nineteenth-Century Medical Training* (Washington D.C.: Smithsonian Institution Press, 1997), 206–224.
- 28 John Harley Warner and James M. Edmondson’s collection of late nineteenth and early twentieth century dissection photos contain numerous scenes featuring black janitors. See their *Dissection: Photographs of a Rite of Passage in American Medicine, 1880–1930* (New York: Blast Books, 2009), 14 (University of Maryland School of Medicine, Baltimore, 1882); 20 (Atlanta Medical College, 1991); 63 (Medical College of Virginia, Richmond, 1898–1899); 65 (School unknown, 1885); 66, 67 (University of North Carolina Medical Department, Raleigh, ca. 1890); 69 (Medical College of Virginia, Richmond, 1899–1900).

Many southern medical colleges provided this when they brokered arrangements with poor houses, and marine and charity hospitals. At MCG, students and Faculty had free access to the City Hospital (see Map), with clinical lectures delivered in the hospital wards twice weekly. Students found additional clinical experience in the observation of surgical procedures undertaken at the Jackson Street Hospital, while for those who sought a practical knowledge of obstetrics the college promised 'ample opportunities among our colored population.'<sup>29</sup> Many colleges also built their own infirmaries and advertised their services to slave-owners. Slave bodies formed the bulk of the anatomical specimens utilized by southern medical educators, while slave patients serviced the clinical needs of students as well as the professional ambitions of more experienced researchers.

### The slave hospital regime in Augusta

After several years of private practice and teaching anatomy at MCG, Henry and Robert Campbell built the Jackson Street Hospital. Henry graduated from MCG at the age of eighteen in 1842 and soon received the appointment as the college's Assistant Demonstrator in Anatomy. In subsequent years, he accumulated professional capital through college positions, including co-proprietorship of Jackson Street, co-editorship of the *Southern Medical and Surgical Journal* (from 1857 with his brother), and key roles in local and state medical organizations. In 1885 he served as president of the American Medical Association.<sup>30</sup> Throughout his career, Henry associated himself with a variety of specialized fields of medicine in their formative stages: including surgery, orthopedics, obstetrics and

29 *Twenty-Seventh Annual Announcement of the Medical College of Georgia* (Augusta, 1858), 12.

30 Richard F. Stone, *Biography of Eminent American Physicians and Surgeons* (Indianapolis: C.E. Hollenbeck, printer, 1898): pp. 73–74 and Phinizy Spalding, *The History of the Medical College of Georgia* (Athens: University of Georgia Press, 1987), 25.

gynecology, as well as public health and preventive medicine in his later years.<sup>31</sup> Henry's articles in the *SMSJ* indicate that he populated his private medical practice with slaves, and that many of the accidents and illnesses that he encountered among slave patients offered rare and interesting cases later developed for publication. As in the case of the prominent antebellum southern gynecologist, James Marion Sims, many of Henry's formative medical experiences came from clinical encounters with female slave patients, including those he treated in the Jackson Street Hospital.<sup>32</sup>

The life of slave hospitals such as those in Augusta is not easy to trace from the limited institutional records that are extant. In rare cases, substantial documentary fragments survive for these institutions, perhaps the most striking instance being the Touro Infirmary and Hotel Dieu of New Orleans where we have detailed patient admission records.<sup>33</sup> For the Campbell's hospital no such patient books exist. Still, however, it is possible to piece together revealing insights into the life of Jackson Street's grim institution. Initial information comes from the images and brief text of the advertisement that the Campbell brothers placed in Georgia and upcountry South Carolina newspapers, and this is supplemented by the short institutional outlines found in the annual circulars of the Medical College of Georgia and in entries in the Augusta city directory. In addition we can gain valuable information from a promotional leaflet that outlined the Infirmary's rules and regulations. We also have in the May 1860 issue of the *Southern Medical Journal and Review* the first of a planned series of reports on surgical cases undertaken at the hospital published by resident physician Robert C. Carroll.<sup>34</sup> Significantly, however, the links between

31 Cecilia C. Mettler and Fred A. Mettler, 'Henry Fraser Campbell', *Annals of Medical History*, Third Series 1/5 (1939), 406, 412.

32 Henry Campbell was a founder member of the American Gynecological Society in 1876. On Sims's treatment of slave women, see Deborah K. McGregor, *From Midwives to Medicine: The Birth of American Gynecology* (New Brunswick: Rutgers University Press, 1998).

33 See Kenny, 'Dictate' especially 26–47.

34 *Regulations of Jackson Street Hospital*; *Augusta Daily Chronicle and Sentinel*, Weds 3 January 1855; *Atlanta Weekly Examiner*, 20 December 1855; Title page, *Directory for the City of Augusta and Business Advertiser* (R.A. Watkins: Augusta, GA, 1859);

the Campbell's hospital, the medical college, and the *SMSJ* were close, so that detailed evidence on operations undertaken at the hospital appears in various issues of the journal.

All across Georgia in the antebellum era, intensifying urbanization and industrialization meant that ever more enslaved people lived away from the world of the rural plantation. The state's rising towns and cities appeared ripe with promise and opportunities, even for slaves, but also served as fertile environments for the expression of white mastery, surveillance and regulation. Antebellum Augusta, a city that lay at the heart of a rapidly growing cotton plantation region and increasingly well-served by railroad and river transport networks, bustled with trade and industry.

By the late 1820s, more than a dozen steamboats with cargoes of hundreds of bales of cotton, traveled on scheduled routes between Augusta and Savannah. This river traffic grew rapidly as cotton production mushroomed and the plantation system took hold in central and southeastern Georgia. Railroads arrived in Augusta in 1833, when the 136 mile Charleston to Hamburg line originated. The Augusta Canal, constructed in 1845 and heavily dependent on slave and free black labour, provided water for the city and powered industrial expansion – with saw, gristmill, and textile factories that sprung up along the banks of the new waterway.<sup>35</sup> As a rapidly expanding urban industrial economy, Augusta's labour environment held countless risks and dangers. Workers – slave and free alike – found themselves especially vulnerable to injuries that arose from accidents in cotton gins and ironworks, on steamboats and the railroads, in warehouses, and on the levees. The hazards of work for blacks in southern cities, and the calamities that they often suffered, provided additional incentives for the development of slave hospitals, and also shaped the rhythms of those institutions.

The Campbell brothers located their hospital in the heart of the city's downtown area in close proximity to the Georgia Central, Savannah, and

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Robert C. Carroll, 'Jackson Street Hospital Reports,' *Southern Medical Journal and Review* XVI/5 (May, 1860), 332–337.

35 Edward J. Cashin, *The Story of Augusta* (Richmond County Board of Education, Augusta, Georgia, 1980), pp. 70–109; J. William Harris, *Plain Folk and Gentry in a Slave Society: White Liberty and Black Slavery in Augusta's Hinterland* (Middletown, Connecticut: Wesleyan University Press, 1985), 14.



South Carolina railroad depots, the riverfront landing and warehouse district, and also on the doorstep of MCG (see Map). This location offered easy access to the slave and medical student populations destined to use the facility, and was quite 'convenient for the reception of patients from a distance' – namely, slaves from plantation districts in both Georgia and South Carolina.<sup>36</sup>

The domestic slave trade shaped the lives of many of those admitted to the Jackson Street Hospital. Augusta ranked second only to Savannah as Georgia's leading slave-trading center. The lower market house, Augusta's slave mart, stood just a few blocks away from the Campbell's hospital where it provided them with a constant stream of revenue. Indeed, the city's antebellum newspapers cited slave sales as a weekly, if not an everyday, occurrence.<sup>37</sup> In a more general consideration of slavery in Augusta and Richmond County, Bellamy and Walker found that 'slave trading was good ... throughout the antebellum period', but that 'the 1850s were doubtlessly the golden age' for the city's slave dealers. They found evidence of a highly developed traffic in Augusta, where individual slave owners tried 'to reduce their surplus' stock, and frequent sheriff's sales, auctioneers and commission merchants carried on a 'lucrative business.' The selling of slaves was thus a key part of the Augusta economy, and many individuals declared their occupation as 'slave trader' in the 1860 federal census.<sup>38</sup>

36 Advertisement, *Atlanta Weekly Examiner*, 20 December 1855, 3.

37 'Will be sold on the first Tuesday in January next, if not previously disposed of, two likely young negro men, aged 17 and 20, sound and healthy. Titles indisputable. Apply to Howard and Dugas,' *Augusta Chronicle*, 1 January 1857; 'For Sale, A middle-aged negro man, experienced in work about a grocery store and carriage driving. Also a negro woman accustomed to cooking and waiting on females ... Apply to T.P. Stovall & Co.,' *Augusta Chronicle*, 1 January 1857; 'By Wm. H. Howard. G.A. Parker, Auctioneer. Tuesday, 5th January, at the Lower Market House, will be sold, within the usual hours of sale, three valuable Negroes ... All warranted sound and healthy. Titles indisputable. Terms day of sale,' *Augusta Chronicle*, 24 December 1857. See also Frederic Bancroft, *Slave Trading in the Old South* (Columbia, SC: University of South Carolina Press, 1996 [originally published: 1931]), 244–245.

38 Donnie D. Bellamy and Diane E. Walker, 'Slaveholding in Antebellum Augusta and Richmond County, Georgia,' *Phylon* 48/2 (1987), 172.



**Key:** 1. City Hospital; 2. Cedar Grove Cemetery; 3. Magnolia Cemetery; 4. Lower market house (Slave mart); 5. Medical College of Georgia; 6. Jackson Street Hospital; 7. Railroad station; 8. Canal

Source: Based on the Map of the City of Augusta, Georgia, 1927. Drawn by Martha Mauldin for the Augusta Chamber of Commerce.

Figure 11.1 Street Map of Augusta, Georgia, indicating locations of nineteenth century medical facilities.

As Sharla Fett has written about at length, slaveholders, slave traders and white medical professionals defined slave health in terms of physical, mental and character-based ‘soundness’ or ‘the capacity to labor, reproduce, obey, and submit.’<sup>39</sup> This model of health, shaped and influenced by both medical and market-driven ideas that framed and objectified black minds and bodies, ingrained itself into the practices of slave physicians. Indeed, white doctors were positioned themselves as key operatives in the process of the domestic slave market: they provided the criteria for a scientific evaluation of slave health; examined the bodies of those intended for sale, supplied professionally-endorsed warranties of soundness for slave traders, and provided expert medical testimony in the courtroom when slave sales fell into dispute. Physicians also enhanced and often restored the condition of enslaved people brought to market.

Juriah Harriss, who graduated from MCG in 1848 and then became prosector (specimen preparator) to Henry Campbell’s anatomy class in 1856, published a three-part article that outlined a clinical surgeon’s perspective on ‘What Constitutes Unsoundness in the Negro?’ in the *Savannah Journal of Medicine* in 1858 and 1859.<sup>40</sup> Before he left Augusta to become Professor of Physiology at the Savannah Medical College, Harriss published an article in the *SMSJ* where he recounted ‘Surgical Cases’ from his practice. Over half of these cases featured patients sent to Augusta by slaveholders from surrounding counties (Burke, Jefferson and Barnwell). These patients presented diseases that Harriss later included in a list of conditions that he felt constituted ‘unsoundness.’<sup>41</sup> Harriss’s training and practice in Augusta – with its profoundly racialized anatomical economy, its busy slave infirmaries, and its vigorous slave trading – helped to shape his outlook on the treatment of black patients. Moreover, it provided him

39 Sharla M. Fett, *Working Cures: Healing, Health, and Power on Southern Slave Plantations* (Chapel Hill: University of North Carolina Press, 2002), 20.

40 *Seventeenth Annual Announcement of the Medical College of Georgia* (Augusta, 1848), 12; *Twenty-Fifth Annual Announcement of the Medical College of Georgia* (Augusta, 1856), 2.; Juriah Harriss, ‘What Constitutes Unsoundness in the Negro?’ *Savannah Journal of Medicine* 1 September, 1858), 145–152; (January, 1859), 289–295; 2 (May, 1859), 10–16.

41 Juriah Harriss, ‘Surgical Cases’, *SMSJ* XI/7 (1855), 399–408.

with valuable clinical and surgical experience – the raw material for career-enhancing publications and faculty appointments. All of this then enabled him to advance his reputation and professional interests.

Augusta's lower market house, and neighbouring slave markets in the towns of Millen and Hamburg, acted as powerful magnets for both interstate and local traders, with many enslaved people transported forcibly back and forth to their new owners. This traffic in human beings demanded long and grueling journeys; a separation from loved ones, family, community and familiar places; confinement in slave jails, traders' pens and yards; malnutrition; and exposure to abuse, diseases and the elements. In these and countless other ways, the domestic slave trade devastated slave health and wellbeing. Slave commerce depended on the presentation of slaves as sound in mind and body. 'Negro hospitals', therefore, sprang up in nearby locations and in direct service of the trade.<sup>42</sup>

The reception and admission of patients evolved into important daily rituals at the Jackson Street Hospital. *Regulations* required that slaves sent by railroad or steamboat 'be received at the Depots and carefully conducted or conveyed to the Infirmary'.<sup>43</sup> A shorter journey, albeit observed with the same vigilance, awaited patients held in the city's slave pens or the yards of urban owners. The Campbell brothers assured slaveholders that, once admitted, their patients stood subject to the same rigid slave supervision characteristic throughout the South. In blunt language the Campbells informed prospective clients of their occasional necessity to assert authority for the preservation of order and 'good behavior on the

42 'A hospital devoted exclusively to slave care was organized just opposite the slave mart on St Catherine's Street in Natchez, Mississippi. It was a two-story brick house, sixty by twenty-four feet. It was under the direction of Dr A.H. Brenham and Dr E.M. Blackburn. According to their advertisement, Negro patients were charged one dollar per day for all services, including medical attention, board and lodging. Surgical operations were also carefully performed. As an added service, the notice stated: "Negro patients from a distance may be sent care of A.L. Wilson, Natchez Landing and they will be conveyed to the hospital free of charge". W.D. Postell, *The Health of Slaves on Southern Plantations* (Baton Rouge: LSU Press, 1951), 140. See also Kenny, 'Dictate', 46.

43 *Regulations of Jackson Street Hospital*, 7.

premises'. Prospective clients were bluntly informed that it was 'sometimes necessary to assert authority' to 'preserve order and good behavior on the premises'. Printed bylaws that regulated patient behavior became commonplace in the majority of antebellum American hospitals.<sup>44</sup> But the 'Control of Patients' in Jackson Street Infirmary's rules carried a menacing extra charge. If medical paternalism's swagger failed to keep patients in line, the Campbells, as slaveholders themselves, had the right to call upon other means of persuasion. Unruly slaves would be 'dealt with ... in every respect, as if they were their [the Campbells'] own'.<sup>45</sup>

The Infirmary allowed slaves to bring in everyday apparel after admittance, but in the interests of hygiene and convenience, slave owners learned that the proprietors preferred patients use the bedding and bed-clothing provided. The act of bathing in the Hospital's 'Hot, Cold, and Shower Baths ... convenient on each floor of the building', as well as the use of water closets, undoubtedly came as entirely new experiences to the vast majority of slaves and in marked contrast to the absence of sanitary provision on many plantations.<sup>46</sup> Kemble, for example, described the blankets provided to Butler Island infirmary's patients as 'tattered' and 'filthy', the clothing of one female patient as nothing but 'filthy rags', while others 'lay prostrate on the floor, without bed, mattress, or pillow' amid 'dirt, noise, and stench'.<sup>47</sup>

Jackson Street's *Regulations*, in addition to disciplinary strategies and concerns for hygiene, indicated treatment organized into different categories of cases – surgical, gynecological, obstetric and chronic diseases such as scrofula, dropsy and syphilis.<sup>48</sup> Conscious of reproduction's significance to the perpetuation of slavery and the 'vested interests of slaveholders in enslaved women's childbearing', the hospital provided a separate ward for the obstetric cases. As Marie Jenkins Schwartz has noted, pregnancy presented 'a dilemma for the slaveholder'. Childbirth had the potential to add to the workforce and to an owner's wealth, but pregnancy also required

44 Charles E. Rosenberg, 'And Heal the Sick: The Hospital and the Patient in Nineteenth Century America', *Journal of Social History* 10/4 (1977), 428–447.

45 *Regulations of Jackson Street Hospital*, 5.

46 *Regulations*: 4 and *Atlanta Weekly Examiner*, 20 December 1855.

47 Kemble, *Journal*, 70–75.

48 *Regulations*, 5, 6.

that slave women work shorter hours or be given 'a lightened work load' to make a healthy outcome more likely. Slaveholders walked a fine line as they tried to extract as much work as possible from pregnant women without causing any complications. They understood the risks and very much desired the rewards when 'they offered women medical attention for any complications that arose'.<sup>49</sup>

The case of Jenny, an enslaved female 'aged about thirty years', highlighted the crisis circumstances that compelled slaveholders to seek specialist help from southern physicians and safeguard their investment in human property. Some four months pregnant and 'in a condition of extreme depression' as a result of a strangulated abdominal hernia, Jenny was rushed to the Jackson Street infirmary at one o'clock in the morning from Barnwell District in South Carolina some forty miles away.<sup>50</sup> Work regimes that demanded long hours, heavy lifting and little time for rest and recovery, resulted in the frequent occurrence of herniae among slave laborers. The Campbells recognized the business opportunities presented by this common slave health complaint, and drew particular attention to the disease in the hospital's advertising. Hernias and vesico-vaginal fistulae often left slaves disabled, and thus '*worse than useless* to their owners', but the hospital's *Regulations* claimed such conditions were now 'permanently curable by Surgical treatment under favorable circumstances'.<sup>51</sup> Jenny underwent a successful operation at the Hospital under chloroform. After six weeks of recovery, Henry Campbell recalled that she returned to her master, Dr Furse, and delivered her child without any 'untoward incident'. The cost of a lengthy stay in the hospital, and a surgical operation, represented a considerable expense for a slaveholder, and confirmed to Furse the value of Jenny's reproductive capabilities.<sup>52</sup>

49 Marie Jenkins Schwartz, *Birth of a Slave: Motherhood and Medicine in the Antebellum South* (Cambridge, Mass: Harvard University Press, 2006), 1, 13, 140–141.

50 Henry F. Campbell, 'Operation for Strangulated Ventral Hernia during Pregnancy – Recovery', *SMSJ* XIII/1 (1857), 8–10.

51 *Regulations*, 6.

52 The Jackson Street Hospital's financial terms were \$10 per month for board, lodging and nursing, with medical attendance and surgical operations charged at the same

In May of 1860, Jackson Street's resident physician, Robert C. Carroll, published the first of what he intended as a series of clinical reports from the Hospital in the *SMSJ*, with reflections on 'Cases of Menstrual Derangement in Negro Women'. Carroll's general comments on the subject are almost identical to the vision of slave health circulated in the Hospital's *Regulations*. Slave women are described as careless of themselves, with a 'reckless disregard' of medical advice, preferring self-treatment or 'improper medication' administered by 'ignorant' (and in all likelihood black folk) healers. Such peculiar characteristics, combined with the 'exposure' to which they were 'liable', led slave women, or so Carroll argued, to be more susceptible than white female patients to 'prolonged cases of menstrual disease'. Carroll acknowledged that the subject of 'menstrual diseases among negroes' was of 'deep interest to the southern practitioner of medicine', with any perceived deviation in a slave woman's 'normal' reproductive function a huge incentive for slaveholders to request specialist medical intervention.<sup>53</sup> Slaveholders and physicians formed a strong alliance on the subject of reproductive health, for any improvement in slave women's fertility held the promise of increased profits and a future growth in business.<sup>54</sup>

Carroll's report recalled the case of Mary, a mixed-race woman 'aged about 24 years' and the 'property' of a Mr J.B. of Edgefield District in South Carolina, referred to the Jackson Street Hospital by a Dr Elbert Bland of Edgefield village. Bland supplied Carroll with a summary of Mary's reproductive health history, under intense white scrutiny since she began menstruation. Observations revealed that Mary had an irregular menstrual cycle and 'about 18 years of age' she had a child 'which only survived three days'. After that, Mary showed occasional 'hysterical symptoms', which later

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rate 'as in ordinary city practice. *Regulations*, p. 7 and *Atlanta Weekly Examiner*, 20 December 1855. Todd Savitt notes that for the 1830–1860 period, average annual expenditure on slave health care in the South was 'three or four dollars per year'. Savitt, *Medicine and Slavery: The Diseases and Health Care of Blacks in Antebellum Virginia* (Urbana and Chicago: University of Illinois Press, 1978), 196.

53 Robert C. Carroll, 'Jackson Street Hospital Reports: Cases of Menstrual Derangement in Negro Women', *Southern Medical and Surgical Journal* XVI/ 4 (1860), 332–337.

54 Schwartz, *Birthing a Slave*, 67–106.

became a daily occurrence and eventually incapacitated her from work 'of any consequence'. Admitted to the Hospital in an 'emaciated and anaemic' condition, Mary endured a detailed physical inspection, followed by a more invasive vaginal examination with the speculum, which revealed her womb to be swollen and 'of the most florid colour'. Orthodox physicians in this era typically reified understandings of women's health and framed woman 'as the product and prisoner of her reproductive system'. They believed the ovaries and uterus controlled women's bodies and behavior, and caused a range of 'female complaints' that included various forms of hysteria.<sup>55</sup> While her general health served as reason enough for concern, Mary's hysterical symptoms focused medical attention on her uterus. The prevailing racial beliefs and Mary's slave status shaped the specific treatment that she received.

The Campbells, who based their lack of confidence in a slave patient's account of her own condition on 'suspicion of deception', then 'directed' another woman to stay in the room as witness to any convulsions. On the morning after Mary's admission, Carroll arrived to observe one of her attacks. Though unconvinced he had witnessed a 'true convulsion', he still noted an appearance 'genuine of its kind' and diagnosed her illness as 'Hysterical Catalepsy'. Doctors concluded that Mary's convulsive fits, which included loss of sensation, 'stupor', and 'apparent unconsciousness and lethargy', stemmed from a form of hysteria distinct from anything commonly observed among white women.<sup>56</sup> This disease label legitimated Mary's sickness, and brought her treatment within the framework of clinical expertise offered at Jackson Street. As a racialized diagnosis, however, it drew on the well-established white medical stereotype of black patients' alleged insensibility to pain, and paved the way to intrusive gynecological practices and procedures.<sup>57</sup>

55 Carroll Smith-Rosenberg and Charles E. Rosenberg, 'The Female Animal: Medical and Biological Views of Woman and Her Role in Nineteenth Century America', *The Journal of American History* 60/2 (1973), 335.

56 Carroll, 'Jackson Street', 334.

57 Martin S. Pernick, *A Calculus of Suffering: Pain, Professionalism, and Anesthesia in Nineteenth-Century America* (New York: Columbia University Press, 1985), 154–157.



For several weeks, Mary's prescribed treatment included a diet of 'the most nourishing kind', tincture of iron, laudanum and even a 'hot mush poultice'. After Mary underwent another speculum assisted vaginal examination, which revealed a still intensely inflamed uterus, Henry Campbell applied solid nitrate of silver, with a pencil, to the neck of her womb – 'the offending *locale* of the disease'. Carroll noted that Mary 'experienced little or no pain.' Mary left the hospital two weeks later 'very greatly improved'. Nine months later, Mr J.B. visited Augusta and informed Carroll that, after a short period of convalescence 'about the house and yard', Mary 'requested' to return 'into the field with the other hands', working – 'and well' – without 'any of her old symptoms'.<sup>58</sup>

The treatments described in Mary's case – specular examination and the application of nitrate of silver – and alternative 'local remedies' mentioned by Carroll, such as 'cauterization' of the womb, took place in a setting where power relations between black patients and white physicians had grown absurdly asymmetrical. Slave patients, framed as 'interesting' clinical cases for medical students and researchers in racially segregated hospital facilities that catered to the needs of slaveholders, became useful bodies in the service of both medicine and slavery. Reports published by colleagues of the Campbells showcased how in the deeply racialized medical environment of Augusta, white physicians exercised remarkable freedom as they developed systematic programs of experimental surgeries that utilized slave patients.

In May 1851, Henry Rossignol, in an essay published in the *SMSJ*, reported on surgical operations undertaken in Louis Dugas' Augusta infirmary during the previous academic year.<sup>59</sup> Rossignol listed fifty six cases that he and his MCG student peers witnessed between 2 November 1850 and 28 February 1851. He cited lectures and surgical demonstrations that convened in clinical settings as a key feature of the southern medical college experience,

58 Carroll, 'Jackson Street', 336.

59 Rossignol left few traces in the historical record, but went on to co-edit the *SMSJ* with Dugas in 1851 and in the same periodical published 'Statistics of Mortality in Augusta, Georgia, during the years 1848, '49, '50, '51 and '52'. *SMSJ* 9/6 (1853), 343–348.

with several operations often scheduled during a typical teaching week for the benefit of the students and other medical observers (see Table 11.1). Each of the eight case histories discussed in detail by Rossignol featured slave patients sent to Dugas' surgical clinic by their owners in Augusta and surrounding counties.<sup>60</sup> In some cases, patients had borne chronic conditions for months before treatment, while a forty year old 'negro' man named 'Major' 'sustained a very serious burn of the entire left foot' which never healed during the whole sixteen years prior to amputation surgery in Dugas' infirmary.

Table 11.1 Henry Rossignol's list of surgical cases treated in Professor Leon Dugas' Infirmary – November 1850 to February 1851.

Notes: Entries in brackets indicate treatments made by Rossignol. The total number of cases were: 20 (Nov. 1850), 14 (Dec. 1850), 7 (Jan. 1851), 15 (Feb. 1851).

Source: Henry Rossignol, 'Surgical Cases – treated by Prof. Dugas', *Southern Medical Journal and Review*, Vol. 7, No. 5 (May, 1851): 271–279.

November 1850	December 1850	January 1851	February 1851
Nov. 2 Diffused abscess of the hand (opened)	Dec. 4 Fall – contusions	Jan. 3 Case (i) Burn of foot (amputation); Case (ii) Pin in oesophagus (removal)	Feb. 1 Pterygium (operation)
Nov. 3 Caries of tibia (excision)	Dec. 6 Nasal polypus (operation)	Jan. 6 Scalp-wound diffused erysipelas (incisions)	Feb. 6 Double club-foot (operation)
Nov. 6 Fracture of radius	Dec. 10 Otorrhea – deafness	Jan. 7 Case (i) Ulcer of Knee (amputation); Case (ii) Lypoma of scalp (excision); Case (iii) Fibrous tumor of mamma (operation)	Feb. 7 Case (i) Nasal Polypus (operation); Case (ii) Stricture (opened perineum)

60 Four of the eight slave patients underwent amputations and two had tumours removed. Henry Rossignol, 'Surgical Cases – treated by Prof. Dugas', *SMSJ* 7/5 (1851), 271–279.

November 1850	December 1850	January 1851	February 1851
Nov. 7 Lumbar abscess (opened)	Dec. 11 Burn of foot	Jan. 23 Nasal polypus (operation)	Feb. 8 Enlarged tonsils (operation)
Nov. 8 Crushed foot	Dec. 12 Urinary infiltration (stricture)		Feb. 10 Tumor of eye-lid (operation)
Nov. 12 Case (i) Abscess of neck (opened); Case (ii) Fistulous ulcers at elbow	Dec. 14 Severe concussion of brain		Feb. 12 Case (i) Urinary calculus (lithotripsy) Case (ii) Strabismus (operation)
Nov. 13 Case (i) Carcinoma of knee (amputation); Case (ii) Carcinoma of face; Case (iii) Inveterate incontinence of urine	Dec. 18 Burn of foot (amputation)		Feb. 13 Nasal polypus (operation, 2d time)
Nov. 14 Large abscess of face	Dec. 19 Cataract (couching)		Feb. 17 Enlarged tonsils (operation)
Nov. 15 Enlarged prostate	Dec. 20 Case (i) Cancer of tongue; Case (ii) Fracture of radius		Feb. 22 Enlarged tonsils (operation)
Nov. 16 Symblepharon (operation)	Dec. 24 White swelling of knee		Feb. 26 Bones lodged in the rectum
Nov. 17 Gunshot wound of face	Dec. 27 Extensive syphilitic ulcers of body		Feb. 27 Case (i) Nasal polypus (operation 3d time); Case (ii) Clubfoot (operation)

November 1850	December 1850	January 1851	February 1851
Nov. 18 Syphilitic ulcer of leg	Dec. 28 Inflammation of popliteal lymphatics		Feb. 28 Enlarged tonsils (operation)
Nov. 20 Cataract (couching)	Dec. 29 Acute ophthalmia		
Nov. 28 Sprained ankle			
Nov. 29 Case (i) Rigidity of muscles (section); Case (ii) Indolent tumor of arm)			
Nov. 30 Chronic ophthalmia			

Slave patients timetabled for treatment during the academic year presented MCG's faculty with ideal opportunities to showcase their surgical skills to the class. Paul Eve, who published extensively in the *SMSJ*, recounted several series of surgical interventions held in the presence of students.<sup>61</sup> Eve's practice, as with the Campbells at Jackson Street and Dugas' infirmary, depended on the use of slave patients as a clinical resource. In 'Remarks on the Statistics of Amputation', published in 1846, Eve compared rates of mortality after surgical amputation between his own Augusta practice with those recorded by hospital surgeons in Baltimore, Boston, Pennsylvania, Liverpool, Edinburgh, London, Paris and French military surgeons in Africa. Eve's goal was to champion American surgery and the success of his clinical enterprise in Augusta. With the exception

61 See Paul F. Eve, 'Report of the first day's Surgical Clinic of the present Session in the Medical College of Georgia', *SMSJ* 5/1 (1849), 29-31; 'Report of the Surgical Clinic in the Medical College of Georgia, during the Session of 1849-1850' *SMSJ* 6/5 (1850), 257-264.

of an amputation performed on a forty year old soldier encountered during Eve's service in the Russo-Polish War of 1831, all the cases of amputation reported were most likely performed on slave patients admitted to Eve's private surgical infirmary (see Table 11.2).<sup>62</sup>

Table 11.2 Paul Eve's statistics of amputation, 1846.

Notes: \* This was partial of the foot, including the metatarsal of the great toe.

Total number of cases: 14 successful amputations of the inferior extremities.

Wordings for causes and results are taken directly from Eve.

Source: Paul F. Eve, 'Remarks on the Statistics of Amputation', *Southern Medical and Surgical Journal*, Vol. II, No. 8 (August, 1846): 469.

### THE LEG

Number	Name	Age	Sex	Cause of the Operation	Result
1	Soldier	40	Male	Caries from ball through ankle-joint	Speedy recovery
2 & 3	Len	14	Male	Gangrene from frost-bite	Both legs at the same time – rode out on the eighth day
4	Moses	30	Male	Aneurism from injury	Speedy recovery
5	Simon	35	Male	Caries from injury	Well in three weeks
6	Daniel	27	Male	Necrosis of Tibia from a burn	Healed slowly, but entirely
7*	Ned	22	Male	Hypertrophy & necrosis of tibia	Healed in about three weeks

62 Paul F. Eve, 'Remarks on the Statistics of Amputation', *SMSJ* 2/8 (1846), 465–469; Eve's 'Surgical Infirmary' was advertised in the *Greenville Mountaineer*, Friday 31 October 1845.

## THE THIGH

1	Sukey	35	Female	Scrofulous ulceration of the leg	Well in five weeks, & lived for three years
2	Turknett's boy	15	Male	Gangrene of leg from injury	Well in a month
3	Jonakin's man	35	Male	Gangrene from injury	Well in four or five weeks
4	Bill	10	Male	Necrosis of Tibia	Well in three weeks
5	C.B.	21	Male	Gangrene from injury to knee-joint	Well in three weeks
6	William	28	Male	Gangrene from injury to knee-joint	Well in four weeks
7	Lewis	21	Male	Malignant ulcerations from an old cicatrix of a burn	Healed in three weeks. The disease subsequently attacked the glandular system, & destroyed the patient, the stump remaining sound for two months

The design and efficiency of Eve's surgical infirmary in Augusta, along with his calculated use of slave patients to meet the needs of students and researchers, betrayed his background in military medicine and postgraduate experience in London and Paris hospitals. In a report of the 'first day's Surgical Clinic' at MCG in January 1849, Eve gave details of four operations on slave patients performed before the class. The cases involved a twenty one year old slave female 'just arrived from the interior' of South Carolina and 'supposed to be' a few months pregnant; an infant of four months; Winney, a twenty year old slave 'girl', who had spent a year in Eve's infirmary; and a nineteen year old 'negro boy' and former patient of

Eve's surgical infirmary.<sup>63</sup> Surgical demonstrations designed to reach the widest audience brought together slave patients for operations in accord with the college and infirmary calendar. Published reports indicated that students, faculty and visiting colleagues packed the infirmary whenever MCG sessions commenced.<sup>64</sup>

Todd Savitt, in his pioneering *Medicine and Slavery*, explored the use of blacks in medical education and research, and provided evidence of how slave patients featured in medical and surgical experiments in slave hospitals. Savitt outlined important patterns in this usage that required further investigation. His solid base of research focused on Virginia, but left other scholars of the subject to explore the situation in the Deep South. Augusta's leading physicians, strongly influenced by the Paris Clinical School, post-graduate medical experiences in Europe, and medical training in Northern colleagues and hospitals, sought to organize and process slave-patient cases in their private and college infirmaries in a similar orderly and systematic manner. Rosenberg described this as an 'academic style of clinical activity oriented' more 'toward the accumulation of knowledge based on the treatment (and possibly autopsy) of numerous patients with similar ills' than it was toward the care of individual patients.<sup>65</sup> Case history narratives capture traces of this structured research activity. Furthermore, evidence for Augusta reveals that the city's slave infirmaries served as extremely busy sites of postmortem research.

Commitment to the Parisian Clinical School's way of knowing required southern physicians to organize their hospitals and reports in a systematic fashion, but also, importantly, and then to correlate the symptoms of disease with 'underlying lesions identifiable at autopsy'.<sup>66</sup> Henry Campbell, as the proprietor of a slave hospital and Demonstrator of Anatomy at MCG, acted as an enthusiastic advocate of the value of 'Autopsical Observations'. In his

63 Paul F. Eve, 'Report of the first day's Surgical Clinic', 29–31.

64 Paul F. Eve, 'Successful removal of portions of Bone (probably the pubis), with a large calculous mass from the bladder', *SMSJ* 2/10 (1846) 588; 'Dissection of a large encysted Haematocele from the Spermatic Cord', *SMSJ* 6/3 (1850), 142.

65 Rosenberg, *Care of Strangers*, 83.

66 Rosenberg, *Care of Strangers*, 82.

report of the autopsy of a seventy two year old 'negro woman,' Campbell noted that in the past physicians carried out post-mortems 'only with the greatest difficulty, from the abhorrent prejudices of the patient's friends'. But through 'prudent and judicious management,' he asserted that the medical profession had since brought 'the popular mind to a proper tolerance,' and communities now 'assented to' these examinations 'with readiness'. Campbell, apparently after a survey of his own domain, cited the dissecting room as an ideal setting for pathological study. Indeed, the MCG dissecting room, stocked primarily with slave cadavers – many of them supplied clandestinely – presented not only 'abundant facilities' for investigation, but also few obstacles imposed by Augusta's white community.<sup>67</sup>

Another important site, the slave hospital morgue, provided space for autopsical and pathological research for southern physicians, a routine activity in the clinical-anatomical practices of the Campbells, Dugas, and Eve. Case histories reported by these same physicians in the *SMSJ* indicate frequent microscopic pathological examinations of diseased tissue following surgery, and regular full post-mortem investigations. As noted by Blakely and Harrington in their study of postmortem racism in southern medical training, teaching hospitals and small private clinics 'were the sources of many dissection specimens' and for slave patients the prospect of a hospital death followed by postmortem dissection undoubtedly existed as a great source of anxiety.<sup>68</sup>

67 Henry F. Campbell, 'Autopsical Observations – Scirrhus Degeneration of the Pancreas with Rupture of the Stomach,' *SMSJ* 5/6 (1849), 336–342.

68 Blakely and Harrington, eds, *Bones*, 193.



## In search of slave patient voices

The published record of physicians working in Augusta's slave hospitals, especially within the context of a rapidly developing professional medical environment, suggests that the education of medical students, and the advancement of the skills and careers of their professors, always subordinated the needs and welfare of black patients. Valuable as workers and saleable commodities, slave patients admitted to Augusta's slave hospitals often presented extremely acute and chronic conditions. One great desire of southern slaveholders may have been high standards of health and adequate provision for the general well-being of their chattel, but this aspiration of mastery appeared empty in the face of slave medical histories and general rates of black mortality and morbidity in the South.<sup>69</sup> Campbell, Eve, and Rossignol's lists of surgical interventions offer snapshots of the types of afflictions slaves presented on admission to an infirmary – a dismal catalogue of accidents, illnesses, injuries, and serious diseases that resulted from years of neglect, and, often, abuse. An owner or trader's claim to life, labour, and offspring eroded the slave patient's ability for medical decision-making. A white doctor's unchecked power to interpret illnesses and dictate treatment in accord with the master's dictates further undermined slave patient autonomy and ability to negotiate health care.<sup>70</sup>

69 While there are endless regional and intra-regional variations and refinements, black death-rates were roughly double those of the South's white population in the nineteenth century. Infant and maternal mortality rates were shockingly high for slaves. Grueling labor, the woefully inadequate provision of food, clothing and shelter, as well as exposure to the hazards and hardships of an often deadly natural and social environment, all combined to exact a heavy toll on the region's enslaved people. See Richard H. Steckel, 'A Dreadful Childhood: The Excess Mortality of American Slaves', *Social Science History* 10/4 (1986), 427–465.

70 Sharla Fett and Todd Savitt have both highlighted the extent to which the system of slavery in the Old South complicated and distorted medical encounters. The typical 'dyad of patient and physician' became a 'three-way relationship between patient, physician, and slaveowner', an alliance under which slave patients could be 'rendered

A focus on the contexts, environment and routines of slave hospitals is valuable in revealing key characteristics of the antebellum slave experience, especially the health and welfare of slaves, the hazards of slave life and labour, relations between owners, physicians and the enslaved, and the racial attitudes expressed in the world of professional medicine. Slave hospitals in urban settings, such as Augusta, stood in stark contrast to those on southern plantations. College and private infirmaries in southern cities were shaped not only by racialized medicine, the domestic slave trade, and the needs of slaveholders, but also by the discourse and agendas of professional medicine. Working in series, offering access to medical apprentices, performing surgical demonstrations, and publishing cases brought enormous benefits to the southern physicians who operated slave hospitals. This is seen clearly in the career trajectories of the 'Augusta group' examined in this essay. The Campbells, Louis Dugas, Paul F. Eve, and Juriah Harriss, holders of prestigious college faculty positions and elected to prominent positions in local, regional and national medical organizations, served important roles in the Confederate medical service, and achieved national medical reputations.<sup>71</sup>

The clinical model, the manner of infirmary organization in southern urban medical centers – such as Augusta, Charleston and New Orleans – and the centrality of slave patients in their day-to-day functions, left a deep impression on southern medical students educated in these environments, and also on those who aspired towards clinical standards of practice and read about these methods in the region's medical periodicals. Many rural southern physicians, far removed from the axis of professional medicine, received their news and instructions by mail order, sometimes reported back to former professors and colleagues in published case reports, and attempted to implement professional clinical and surgical practices on slave patients in their own small-scale infirmary enterprises.<sup>72</sup> Thomas Hamilton,

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... "medically incompetent", their voices silenced, any notion of consent 'eviscerated'. Fett, *Working Cures*, 145.

71 Mettler, 'Campbell'; Stone, *Biography*, 73–74 and 159–161; Spalding, *History*, 20–90.

72 As Michael Sappol has noted, medical journals served as 'a vital node in a network that linked urban and rural physicians in an imagined community'. Sappol, 'The

a graduate of the University of Pennsylvania's School of Medicine and one of the original trustees of MCG, is a prime example of a rural southern physician who maintained a clinical consciousness, and used an enslaved subject – John Brown – in a series of trials to develop a remedy for sun-stroke and 'other experiments' that Brown refused to reveal to readers. One of the few slaves to provide a patient perspective on the treatment they received from a professionally trained white doctor, Brown's narrative revealed his palpable sense of dread and helplessness: 'I could not have helped myself. There was nothing for it but passive resignation, and I gave myself up in ignorance and much in fear'.<sup>73</sup> Subject to the double burden of objectification wrought by the discourses of chattel slavery and clinical medicine, Brown undoubtedly spoke for many black people whose voices never entered the historical record.

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Odd Case of Charles Knowlton: Anatomical Performance, Medical Narrative, and Identity in Antebellum America,' *Bulletin of the History of Medicine*, Vol. 83, No. 3 (Fall, 2009), 472–473.

73 John Brown, *Slave Life in Georgia: A Narrative of the Life, Sufferings, and Escape of John Brown, A Fugitive Slave* (Savannah: The Beehive Press, 1972), 41.



DAVID THEODORE

## ‘The Fattest Possible Nurse’: Architecture, Computers, and Post-war Nursing

One way to recount the early interactions between nurses and computers would be to describe how, by interfacing with computers, nurses became nodes in woman-machine systems. In 1962, for instance, the Massachusetts General Hospital in Boston began an experiment known as the Hospital Computer Project. In collaboration with the American Hospital Association, the National Institutes of Health, and computer consultants Bolt Beranek and Newman, the MGH began to test ways of using the computer to intervene in the hospital’s daily activities. Demonstration areas included an admission and discharge census system, a laboratory reporting system, and a medications ordering system.<sup>1</sup> The hospital did not acquire a computer to carry out the project. Instead, the central processing unit was installed ten miles away at Bolt Beranek and Newman’s headquarters in Cambridge, connected to the MGH by Teletype stations. Physicians, however, objected to using the Teletype keyboard and instead the work fell to the nursing corps.<sup>2</sup> It was the nurse who asked the questions and punched the cards. A cartoon from a book billed as ‘a primer for the prac-

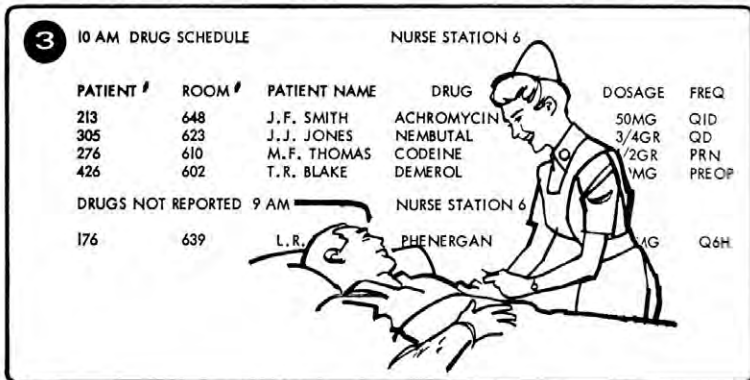
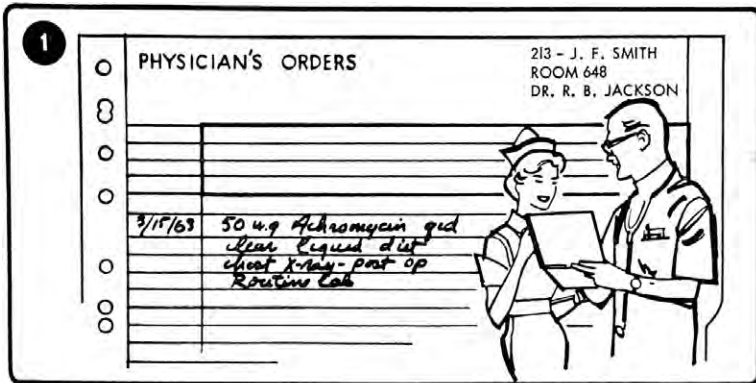
- 1 Massachusetts General Hospital Laboratory of Computer Science, *Hospital Computer Project: Memorandum Nine: Progress Report* (Boston, MA: The Hospital, 1966). Paul Castleman recounts Bolt Beranek and Newman’s participation in ‘Medical Application of Computers at BBN’, *IEEE Annals of the History of Computing* 28/1 (2006), 6–16.
- 2 The process of computation promulgated strict divisions of labour based on existing categories that saw typing as women’s and thus nurses’ work. On typing, office work, and women, see Margery W. Davies, *Woman’s Place Is at the Typewriter: Office Work and Office Workers, 1870–1930* (Philadelphia: Temple University Press, 1982), and Delphine Gardey, ‘Culture of Gender, and Culture of Technology: The Gendering of Things in France’s Office Spaces between 1890 and 1930’, in Helga Nowotny, ed., *Cultures of Technology and the Quest for Innovation* (New York: Berghahn Books, 2006), 73–94.

tising physician' illustrates how such a computerized medications ordering system works (figure 12.1).<sup>3</sup> While the doctor and the patient occupy only the edges, the nurse has a crucial function in getting the whole system to operate. The nurse herself is part of the computational flow, taking input from the doctor (shown on top), processing the order, and providing output to the patient (in bed on the bottom).<sup>4</sup>

Pioneering endeavours such as the MGH computer project launched in a spirit of optimism to a skeptical reception. Digital, stored-program, electronic computers were just starting their movement out of specialized military and academic installations.<sup>5</sup> At first, it was not readily apparent how or even why the computer's computational power could make an important difference to hospital life. Dr Gerry Feigan, for instance, mocked the notion that patient triage could be done better by programmed machine than by trained physician:

'History-taking will be painless,' he wrote. 'A group of preferential questions will be asked by tape and the answers punched on a card. Nothing will be left to chance, and by cybernetics, the card will be quickly deposited in a slot which will provide the three most probable historic diagnoses.'<sup>6</sup>

- 3 Sydney O. Krasnoff, *Computers in Medicine: A Primer for the Practising Physician* (Illinois: Charles C. Thomas, 1967), 104.
- 4 By far most nurses were women. A study of U.S. census data shows that in 1900, 9 per cent of those who identified themselves as professional nurses were men, but by 1930 that number had dropped to 2 per cent; in 1960 15,340 of 905,914 self-identified professional nurses were men (about 2 per cent); see Patricia D. Antonio and Jean C. Whelan, 'Counting Nurses; The Power of Historical Census Data,' *Journal of Clinical Nursing* 18/19 (2009), 2119. Computer programming originally emerged as 'feminized clerical labor'; that is, the original meaning of the word 'computer' was a woman who computes. Women were famously employed in ballistics calculations during WWII; see Jennifer S. Light, 'When Computers Were Women,' *Technology and Culture* 40/3 (1999), 455–483.
- 5 James Cortada, *The Computer in the United States: From Laboratory to Market, 1930–1960* (Armonk, NY: M.E. Sharpe, 1993); Thomas Haigh, 'Inventing Information Systems: The Systems Men and the Computer, 1950–1968,' *The Business History Review* 75/1 (2001), 15–61.
- 6 Gerry Feigan, M.D., in his column 'Triple Bromides' (*San Francisco Medical Society Bulletin*, June 1956), quoted in Lee B. Lusted, 'Computers in Medicine: A Personal Perspective,' *Journal of Chronic Diseases* 19 (1966), 365–372, 368.



12.1 Medication ordering system employed in Children's Hospital, Akron, Ohio, 1967. from Sydney O. Krasnoff, *Computers in Medicine: A Primer for the Practising Physician* (Illinois: Charles C. Thomas, 1967), 104.

Yet despite such disdain, computers *did* change the hospital. They did not, as Feigan feared, replace triage doctors. Instead the computer's lasting effect was to redefine nursing activities.

This paper is about the story of postwar hospital nursing, taking into account the arrival of the computer and cybernetic thinking. My project uses architectural sources to trace two interrelated notions, the effect of computers on hospital nursing, and, in turn, the effect of nursing on hospital design. It is not the retelling and interpretation of a particular story told by a particular nurse or group of nurses, but rather a search for the overarching narrative which makes sense of postwar hospital nursing activities. This mixed story of architecture, computers, and nursing takes place in the west in the long aftermath of World War II. Together state sponsorship and therapeutic optimism created a boom in hospital building.<sup>7</sup> New therapies and technologies fueled optimism about the efficacy of medical care. Governments sought ways to deliver hospital-based healthcare to entire populations, accessible to all social classes whether living in the countryside or the city, as a universal human right.<sup>8</sup> Administrators and architects responded by searching for ways to build more hospitals, and for how to make better hospitals.

I use the term 'postwar' frequently as a convenient breakpoint for my history rather than as an actual causal factor in changes to nursing practice. In addition, although the paper moves between the USA, Britain, Canada and a few continental examples, I am assuming rather than arguing that nursing history was relatively consistent across these diverse environments. As we will see, despite regional differences in health systems and funding models, both expertise about hospital planning and architectural ideals about nursing moved readily between these countries.<sup>9</sup> I should note

7 Rosemary Stevens, *In Sickness and in Wealth: American Hospitals in the Twentieth Century* (New York: Basic Books, 1989).

8 For an introductory international comparison of hospital systems, see Judith Healy and Martin McKee, 'The Evolution of Hospital Systems, in M. McKee and J. Healy, eds, *Hospitals in a Changing Europe* (Buckingham: Open University, 2002), 14–35.

9 For instance, Canadian hospital planner Gordon A. Friesen, whose ideas about nursing care are discussed below, consulted on postwar hospitals in the United States (e.g.



proleptically, too, that although I am concerned here with architecture, I focus on how architects proposed to organize buildings, not with how buildings look. I am not telling a story of hospital architecture, but rather using architecture to narrate some of the deep relationships between hospital nursing and hospital buildings not usually legible in the textual sources. These relationships focus beyond the encounter of nurses and other subjects, their sociological entanglements, to engage the way nursing is invested in a larger whole, an architecture that braids environment and activity together.

Postwar innovations in hospital design reified a paradox for nurses, created partly because nurses and nursing activity influenced the entire hospital, partly because nurses were part of how computers entered hospital life, and partly because the organization of the hospital itself became informed by cybernetic theory. As the cartoon shows, nurses could be the primary feature of a hospital system, and yet, precisely because their role was conceived as central, they remained subordinate to doctors and patients, who conceptually stood outside that system. My preliminary story of the computer-nurse interface, however accurate, thus masks and is subsumed by another relationship, broader than that between the individual nurse and a machine: the story of how nurses became part of the bigger machine, the *machine à guérir* ('curing machine'): the postwar hospital.<sup>10</sup> Thus the dilemma that historian Susan Reverby identified in prewar nursing, the sense that nurses were ordered – that is, both organized and commanded – to care in an institution that devalues care, perversely became

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the influential Mineworkers Hospitals 1952–1954), Canada (Scarborough Centenary Hospital, 1967), and Germany (University of Cologne Medical Centre, 1973). For a brief introduction to his ideas and career, see Anne Besharah, 'On the Side of Angels: CNJ Talks to Gordon Friesen', *Canadian Nurse* 76 (1980), 45.

- 10 The 'curing machine' is a phrase coined by Jacques-René Tenon in 1778, used as a title by Michel Foucault for a book investigating architecture's role in the origins of the modern hospital, Michel Foucault, Blandine Barret Kriegel, Anne Thalamy, François Beguin, and Bruno Fortier, *Les machines à guérir: aux origines de l'hôpital moderne* (Bruxelles: P. Margada, 1979); see also the discussion of how the 'curing machine' reconceived hospital life as a 'laboratory' in Sven-Olov Wallenstein, *Biopolitics and the Emergence of Modern Architecture* (New York: Princeton Architectural Press, 2009), 30–36.

the basis of hospital design.<sup>11</sup> The nurse's dilemma within the institution was normalized, reinforced, symbolized, and stabilized by their centrality to architectural ideals.

## Hospital buildings

The oft-told tale about hospital nursing after World War II goes like this:<sup>12</sup> Nurses struggled for identity both as professionals and union members, for their working lives were complicated by gender expectations and hierarchical institutional structures. Initially there was a great shortage of nurses in the hospitals due to the low wages they received and the lack of authority they wielded.<sup>13</sup> Hospitals even began to employ less-skilled nurse assistants at minimum wage as part of nursing teams. Nursing unions were slow to develop (they were not permitted in US non-profit organizations); simultaneously, the ideal of nurses as caregivers grew, especially as more skilled, specialized workers became crucial to the advancement

11 Susan Reverby, *Ordered to Care: The Dilemma of American Nursing, 1850–1945* (Cambridge: Cambridge University Press, 1987).

12 Brian Abel-Smith, *A History of the Nursing Profession* (London: Heinemann, 1960); Julie Fairman and Joan E. Lynaugh, *Critical Care Nursing: A History* (Philadelphia: University of Philadelphia Press, 1998); Kathryn M. McPherson, *Beside Matters: The Transformation of Canadian Nursing, 1900–1990* (Toronto: Oxford University Press, 1998); Barbara Melosh, *The Physician's Hand: Work and Culture in American Nursing* (Philadelphia: Temple University Press, 1984); Rosemary White, *The Effect of the National Health Service upon the Nursing Profession, 1948–61* (Oxford: Oxford University Press, 1988).

13 For a discussion concerning the historiography surrounding the 'nursing shortage' concept, see Cynthia Connolly, 'Beyond Social History: New Approaches to Understanding the State of and the State in Nursing History', *Nursing History Review* 12 (2004), 15.

of technology-centred hospital medicine.<sup>14</sup> In order to improve nursing conditions, nursing organizations advocated university-based training and education, management training,<sup>15</sup> and debated even the symbolic and functional appropriateness of distinctive uniforms.<sup>16</sup> By the end of the Vietnam War two trends were firmly established: hospital nurses were both professionals with a primary vocation to bedside care and wage labourers whose workspace needed careful protection within the hospital bureaucracy.

Missing in this fable about hospital nursing is one important feature: the hospital *qua* hospital, as a building, an object, a cultural artifact. If we include hospital architecture, the story goes more like this: Architecture and nursing were inextricably linked in the postwar hospital. Schemes to improve one were predicated on schemes to improve the other. Reformers hoped that the arrival of the computer and cybernetic thinking would improve both. Research carried out by hospital designers crucially involved nursing work as a key factor in ameliorating hospital design. It was not that nurses needed better, more efficient working conditions, although that was how changes were rationalized, but rather that the planning and organization of postwar hospitals were deeply influenced by a computerized, cybernetic view of nursing work. The primary plot follows the development of hospital architecture research at the Nuffield Provincial Hospitals Trust in Britain, a charitable institution founded in 1939 by Lord Nuffield (William Richard Morris, the founder of Morris Motors), with a broad mandate to advance social wellbeing through research.<sup>17</sup> Lord Nuffield wanted the NPHT (since 1998 known as the Nuffield Trust)

14 David Harvey outlines some links between architecture and unionization in the postwar western economies in *The Condition of Postmodernity* (Cambridge, MA: Basil Blackwell, 1989), 133–137.

15 Lucille A. Joel, *The Nursing Experience: Trends, Challenges, and Transitions*, 5th ed. (New York: McGraw-Hill, 2006), 52–72.

16 Deborah M. Judd, Kathleen Sitzman, and Megan Davis, *A History of American Nursing: Trends and Eras* (Sudbury, MA: Jones and Bartlett, 2010), 99–100, 157–159.

17 See Gordon McLachlan, *A History of the Nuffield Provincial Hospitals Trust, 1940–1990* (London: NPHT, 1992). One early project was a survey of hospital services; see Susan Francis, Rosemary Glanville, Ann Noble, and Peter Scher, *50 Years of Ideas in Health Care Buildings* (London: NPHT, 1999), v.

to instigate the regional coordination of hospital and healthcare services in the provinces, as a counterbalance to the King Edward VII Hospital Fund for London (renamed the King's Fund in 2009), which since 1897 had supported the London Hospitals.<sup>18</sup> As we will see, NPHT researchers saw regulating nurses' activities as one of the keys to progressive, innovative hospital design. Regulation here refers to more than the policing of explicit moral rules familiar from the story of the rise of the trained hospital nurse.<sup>19</sup> Rather for these influential researchers, the ideal hospital would instantiate an environmental system based on the control, predictability, and optimization of nurses' movements.<sup>20</sup>

The NPHT architectural research only makes sense if it is understood that nursing posed a peculiar problem in the postwar institution, the problem of domesticity.<sup>21</sup> The hospitals designed and developed beginning around 1950 sought to end the tradition of the hospital as a place where both staff and patients slept. This desideratum was clearly expressed in administrative statistics, as hospitals measured their overall quality based on their ability to reduce the number of days inpatients stayed overnight.<sup>22</sup>

18 Sally Sheard and Liam J. Donaldson, *The Nation's Doctor: The Role of the Chief Medical Officer 1855–1998* (Abingdon: Radcliffe, 2006), 121–123.

19 Local histories of training schools are rich with oral testimony recalling attempts to negotiate hospital rules and regulations. See for instance Lynda DeForest, *Proud Heritage: A History of the Royal Victoria Hospital Training School for Nurses, 1894–1972* (Montreal: s.n., 1994).

20 For an analysis of the NPHT's activities in the context of postwar British and American hospital architecture, see Jonathan Hughes, 'The "Matchbox on a Muffin": The Design of Hospitals in the Early NHS Medical History', *Medical History* 44 (2000), 30–33.

21 The architectural investigations were published in book form as *Studies in the Function and Design of Hospitals: The Report of an Investigation Sponsored by the Nuffield Provincial Hospitals Trust and the University of Bristol* (London: Oxford University Press, 1955).

22 This controversial measure, usually called length of stay, was promoted in the nineteenth century by Florence Nightingale and William Farr, who sought to understand the relation between patients' length of stay and the hospital mortality rate; see Jan P. Vandenbroucke and Christina M.J.E. Vandenbroucke-Grauls, 'A Note on the History of the Calculation of Hospital Statistics', *American Journal of Epidemiology* 127/4 (1988), 699–702. In the nineteenth-century, planners also evaluated hospitals

Yet there was no corresponding method to reduce the number of days nurses stayed in the hospital: this was their home. This unavoidable feature of hospital organization is rarely given its due as a prime factor in the story. Architects had to contend with nurses' working patterns *and* their living patterns.

## Nursing and ward design

The advent of nursing schools and the professionalization of nursing have long been acknowledged as crucial factors in the kind of hospital architecture that developed after the French Revolution, and especially in the influential so-called pavilion plan hospitals.<sup>23</sup> Nurses were crucial to ward design, and in turn ward design was crucial to the pavilion plan.<sup>24</sup> The famous Nightingale ward, containing roughly thirty patient beds in a long, narrow, well-ventilated room, was widely used in Europe and North

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by the volume of space accorded each patient. The NPHT investigators (*Studies in the Function and Design of Hospitals*, 12–13) quoted the section in Nightingale's influential *Notes on Hospitals* concerning 'what amount of cubic space should be given to each patient' (3rd ed., 1863, 65). The focus on cubic volume corresponded to her miasmatic disease theory and the need to ventilate tainted air. The NPHT team, who were interested in the allotment of space the nurse had available to care for the patient, focused instead on the floor area per patient and the space between beds.

- 23 Anmarie Adams, *Medicine by Design: The Architect and the Modern Hospital, 1893–1943* (Minneapolis: University of Minnesota Press, 2008); David C. Sloane, 'Scientific Paragon to Hospital Mall: The Evolving Design of the Hospital, 1885–1994', *JAE* 48 (1994), 82–98; Allan M. Brandt and David C. Sloane, 'Of Beds and Benches: Building the Modern American Hospital', in P. Galison and E. Thompson, eds, *The Architecture of Science* (Cambridge, MA: MIT Press, 2000), 281–308; John D. Thompson and Grace Goldin, *The Hospital: A Social and Architectural History* (New Haven: Yale University Press, 1975).
- 24 Charles Rosenberg, *The Care of Strangers: The Rise of America's Hospital System* (New York: Basic Books, 1987), 8–9.

America until World War.<sup>25</sup> It in turn was the basic module of the pavilion plan hospital. The ward encouraged a repetitive, modular layout of pavilions connected only by corridors or tunnels. Pavilion plan hospitals were meant to encourage the dispersion of disease-inducing miasmas, but the type remained popular even after the advent of aseptic surgery and other practices based on the germ theory.<sup>26</sup> These open wards allowed a small nursing team to supervise and care for large numbers of patients.

Around 1900, amidst a burst of building activity, design changed quickly. Cities everywhere built new, scientific hospitals with modern architectural planning.<sup>27</sup> Hospitals had begun to offer paying patients private rooms for a fee, rooms that should be laid out in nursing units quite different from the open Nightingale wards. Planners began to argue that existing facilities could not sustain a new need for patient privacy. The famous Rigs ward, designed for the 1910 Rigs Hospital in Copenhagen, inaugurated a compromise of eight-bed wards separated by screens, re-orienting the beds parallel to the windows. While the Rigs system offered patients more privacy, it made work more difficult for nurses – a balance that subsequent designers would work hard to optimize.<sup>28</sup>

Hospital organization depended on nurses in a further way, little acknowledged in the existing literature. For nurses, like patients, were housed in the hospital. Architects needed to fashion relationships between nurses' domestic space – the nurses' home – and patients' domestic space

25 See the sustained discussion of British examples in Jeremy Taylor, *The Architect and the Pavilion Hospital: Dialogue and Design Creativity in England, 1850–1914* (London: Leicester University Press, 1997).

26 On bacteriology, see Michael Worboys, *Spreading Germs: Disease Theories and Medical Practice in Britain, 1865–1900* (Cambridge: Cambridge University Press, 2000); on how germ theory spread beyond the confines of the laboratory, see Nancy Tomes, *The Gospel of Germs: Men, Women, and the Microbe in American Life* (Cambridge, MA: Harvard University Press, 1998).

27 Charles Rosenberg writes that there were 178 American hospitals in 1873, and 4,359 in 1909; see *The Care of Strangers*, 5.

28 I'm following here the contemporaneous (but still unchallenged) explanation given in the Nuffield Provincial Hospitals Trust ward studies discussed below; *Studies in the Functions and Design of Hospitals*, 2–4.

– the ward. In early hospitals, accommodation for nurses consisted as part of hospital superintendence; nurses could be housed in the bulk of the administration buildings. By the twentieth century, the nurses' home emerged as a distinct pavilion.<sup>29</sup> Ideally the home should appear visually separate but in fact be physically connected directly to the main hospital – an effect usually achieved by tunnels and bridges.<sup>30</sup>

After 1945, hospital designers were obsessed with obsolescence. Hospital builders viewed lingering modes of architectural planning as a menace. In 1962 British reformers estimated that almost half of Britain's existing hospitals were more than seventy years old.<sup>31</sup> They decried both the old pavilion-plan hospital stock, and the way old pavilion-plan ideas continued to be used in new buildings. It was this latter condition that caused the most consternation, since it threatened to retard progress even as ideas about hospital planning advanced. Heart surgeon D.G. Melrose, in considering the form of the operating theatre, quoted the Secretary of State for Scotland who said in 1962: 'It is most important that these new hospitals should not be modelled on past experience, buildings which are no more than modern reproductions of nineteenth century hospitals which are already out of date.'<sup>32</sup>

29 On the architecture of the nurses' home, see Annmarie Adams, 'Rooms of Their Own: The Nurses' Residences at Montreal's Royal Victoria Hospital', *Material Culture Review* 40 (1994), 29–41.

30 See Adams, 'Rooms of Their Own.' For instance at Montreal's Royal Victoria Hospital, nurses were first housed in 1893 on the fifth floor of the central administration building. The hospital built a nurses' residence in 1907 (expanded in 1927 and 1933). But the nurses were again hidden in the bulk of the top floors of the Maternity Pavilion, which opened in 1926 as a self-contained block hospital. At nearby Hôpital Notre-Dame, a two-level bridge connected the nurses' residence of 1930 to the main hospital, while at the 1924 Ottawa Civic Hospital, the hospital and residence were joined by a tunnel.

31 Enoch Powell, Minister of Health, *A Hospital Plan for England and Wales* (London: HMSO, 1962, Cmnd 1604).

32 D.G. Melrose, 'Doctors Can't Design but Their Knowledge Is Crucial to Hospital Planning', *Design* 207 (1966), 64.

In other words, new buildings seemed to smuggle in old ideas with them. One of the worst offenders was the nurses' home, which continued the earlier tradition of separate but connected pavilions, long after the advent of the germ theory and concerns about patient privacy had diminished the persuasiveness of its original motivations. The pavilion organization remained, although no longer a feature of ward life, but rather characteristic of nurses' domesticity. At Montreal's up-to-date Ste-Justine Children's Hospital, for instance, which opened in 1956, the nurses' pavilion affected the entire plan. The main building included clinical and laboratory spaces on the bottom floors, and patient wards on top.<sup>33</sup> The 'bridge' connecting the nurses' pavilion to the main building was now big enough to include rooms. Separate but connected, the Nightingale pavilion ideal lived on, even as the Nightingale ward disappeared.<sup>34</sup>

## Automation, operational research, cybernetics

In order to calibrate the links between domestic and professional life, that is, to find ways to make compatible work patterns and living patterns, postwar planners turned to a bevy of inter-related domains that came of age with the digital computer, including operations research, automation, scientific management, Taylorism, medical research, and cybernetics.<sup>35</sup>

33 The development of the plans is explained and illustrated in 'Hôpital Ste-Justine', *Architecture-Bâtiment-Construction* 8/1 (1953), 21, 28–32, 34.

34 How many beds to include in a ward was inflected by the new insurance programs, the elitism of private paying patients, and a growing justification for single-bed rooms on the basis of hospital administration efficiency and infectious disease control. See, for instance, John D. Thompson and R.J. Pelletier, 'Privacy vs. Efficiency in the Inpatient Unit', *Hospitals, J.A.H.A.* 36 (16 August 1962), 53–57.

35 Taylorism denotes the influential management theory pioneered by Frederick Winslow Taylor in the late nineteenth century that looked to optimize economic efficiency by analyzing the processes of labour in the workplace; see Frederick



All were concerned with systems and the systematic organization of processes.<sup>36</sup> Cybernetics, for instance, linked communication and feedback control of both organic and machine systems, and eventually of social systems as well. Cyberneticians argued that both computers and the brain would turn out to be (vastly similar) cybernetic systems.<sup>37</sup> Operations research, which came out of wartime planning and focused on methods of quantifying decision-making procedures, was applied to problems ranging from staffing, to purchasing, to hospital planning and design.<sup>38</sup> In March 1966, the cover of the journal *Design* manifested the widespread belief that

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Winslow Taylor, *The Principles of Scientific Management* (New York: Harper & Brothers, 1911). On research in postwar architecture, see Richard Llewelyn-Davies, 'On the Frontier of Knowledge', *Architects' Journal* 121 (14 April 1955), 508; Richard Llewelyn-Davies, 'The Case for Research in Modern Architecture', *Royal Architectural Institute of Canada Journal* 33 (October 1956), 400–402. For discussions on the research mixture of cybernetics, computers, architecture, and medicine, see Sean Blair Keller, 'Systems Aesthetics: Architectural Theory at the University of Cambridge, 1960–75' (PhD dissertation, Harvard University, 2005).

- 36 For the history of software and hardware for computer-aided design, see Yehuda E. Kalay, *Architecture's New Media: Principles, Theories, and Methods of Computer-Aided Design* (Cambridge: MIT Press, 2004), 63–81; Antoine Picon, *Digital Culture in Architecture: An Introduction for the Design Professions* (Basel: Birkhauser, 2010); and Robert Bruegman, 'The Pencil and the Electronic Sketchboard: Architectural Representation and the Computer', in Eve Blau and Edward Kaufman, eds, *Architecture and Its Image: Four Centuries of Representation* (Montreal and Cambridge, Massachusetts: Canadian Centre for Architecture and MIT Press, 1989).
- 37 The computer's possible role in hospital life was explained in terms of any and all of these ideas, because the computer served as a key metaphor for understanding cybernetic systems. See Paul N. Edwards, *The Closed World: Computers and the Politics of Discourse in Cold War America* (Cambridge, MA: MIT Press, 1996), 1–2.
- 38 On the role of operations research in postwar architecture, including its relationship to hospital research, see Alise Upitis, 'Nature Normative: The Design Methods Movement, 1944–1967', PhD dissertation, MIT, 2008. See also the pioneering work done by NPHT statistician Norman T.J. Bailey, 'Operational Research in Hospital Planning and Design', *OR* 8/3 (1957), 149–157, and the Special Conference Issue on the Systems Approach to Hospitals, *Operational Research Quarterly* 22 (July 1971), 39–55. In North America, John D. Thompson was a leading exponent of using operations research to 'improve' hospital design; see Thompson and Goldin, *The Hospital*.

operations research was *required* to make a better hospital. It showed a red cross on a white background marked with the headline, ‘Operation design: hospitals for today and tomorrow’. The keyword was ‘operation’ – a play on surgical operations and operations research.

Automation appeared early on in American hospitals. It came to the fore in Britain when a Canadian named Gordon Friesen promoted automated systems in a well-publicized series of hospitals built in the 1950s for the United Mine Workers of America in the USA.<sup>39</sup> His idealized diagram of service provision, published in the British journal *Architectural Review* by John Weeks in 1961, illustrated his injunctions to supply goods at the point of use, and to separate soiled items (which he coloured red) from clean items. He claimed that this automated system would make the hospital more efficient, and, more importantly, more effective. Efficiency was perhaps measurable. Effectiveness was more elusive. Friesen warned that the automated hospital risked turning people into machine-processed objects: ‘The success of automation lies in proper organization, trained personnel and functional design’, he wrote. ‘The design “team” must insure that the services, but not the patient, are on the assembly line.’<sup>40</sup>

In his conception, as in the computerized medication systems discussed earlier, the nurses are a focal part of the services. Their work, as service work, can be automated. This separation of nurses and patients into automatons and human beings is embedded in his conceptual system, and implemented in the physical hospital. However, his warning that patients should not be part of the automation system went unheeded. Quite the opposite: to those interested in hospital progress it seemed important to include even surgeons in optimized systems. Inside the March 1966 issue of

39 Friesen addressed a meeting of the King Edward’s Hospital Fund for London in 1961; see, ‘Hospitals of the Future’, *British Medical Journal* 1/5241 (17 June 1961), 1757. John Weeks wrote several articles assessing the Mine Workers hospitals, including John Weeks, ‘Developments in the USA’, *Hospital and Health Management* 22 (November 1958), 365–370, and John Weeks, ‘Developments in the United States of America’, *RIBA Journal* (January 1959), 83–87.

40 Gordon Friesen, ‘Automation in Hospital Design’, *Architectural Design* (January 1961), 9; emphasis in the original.

*Design*, clinical physiologist Denis Melrose, who is best known for helping develop the heart-lung machine, published a drawing for an experimental operating theatre at Hammersmith Hospital in London.<sup>41</sup> Nurses are not shown in the diagram, but the movement of patients (represented by a line of solid dots) and doctors (represented by white dots) are made equivalent with the movement of cleaned or soiled instruments and linens (shown in dashed lines). It remained, however, the automation of nurses' work that structured the overall organization of hospital life.<sup>42</sup>

## Nuffield Provincial Hospitals Trust

The influential research that brought automation, cybernetic ideas, and procedures from operations research into the hospital took place under the aegis of the Nuffield Provincial Hospitals Trust. The NPHT formally set up an Investigation into the Functions and Design of Hospitals in 1949.<sup>43</sup> Two British architects spearheaded the investigation. Richard Llewelyn-Davies (1912–1981) was named director in 1950, and John Weeks (1921–2005) joined as architect soon after.<sup>44</sup> At the NPHT, they led an interdiscipli-

41 D.G. Melrose, 'Doctors Can't Design but their Knowledge is Crucial to Hospital Planning', *Design* 207 (March 266), 65.

42 For a discussion of the impact of operations research on physicians, see David Armstrong, 'Space and Time in British General Practice', in M. Lock and D.R. Gordon, eds, *Biomedicine Examined* (New York: Pergamon, 1985), 207–225.

43 For a history of the investigation and subsequent NPHT architectural initiatives, see Francis, Glanville, Noble, and Scher, *50 Years of Ideas*. (London: Nuffield Trust, 1999).

44 In 1959 Llewelyn-Davies and Weeks formed an architectural office responsible for master plans of health science campuses around the world, including four in Canada (Ottawa, Kingston, Saskatoon, and St John's). In critic and historian Reyner Banham's estimation, Llewelyn-Davies was the 'eminence grise of the scientific and systematic approach to both architectural design and construction methods,' while Weeks was the architectural partner who put ideas into practice; see his oft-cited

nary team that ‘included a historian, a sociologist, a statistician, a doctor, [and] scientists.’<sup>45</sup>

The team spent considerable energy collecting data on nurses using time-motion studies:

We traced the pattern of movement of a nurse about the ward, by winding thread on pins stuck into a plan. From this we could see how design might minimize her walking – a nurse, we discovered, walks 2 1/2 miles a day, just moving to and fro within the ward. We also made a film of nursing, to see how much space was needed for particular jobs, using a caste [*sic*] of the fattest possible nurses, to be on the safe side.<sup>46</sup>

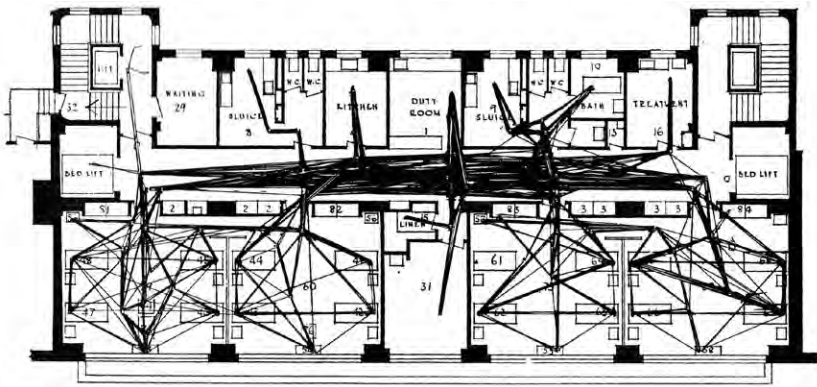


Figure 12.2 Movement of a student nurse during one tour of duty in the National Hospital, Queen Square, 1955. From Nuffield Provincial Hospitals Trust, *Studies in the Functions and Design of Hospitals* (London: Oxford University Press, 1955), 9.

Courtesy the Nuffield Trust.

article, Reyner Banham, ‘A Clip-on Architecture’, *Design Quarterly* 63 (1965), 5. On Weeks’ influential ideas, see J. Weeks, ‘Indeterminate Architecture’, *Transactions of the Bartlett Society* 2 (1963–1964), 83–106; J. Weeks, ‘Planning for Growth and Change’, *Architects’ Journal* (7 July 1960), 20–22; J. Weeks, ‘Multi-Strategy Buildings’, *Architectural Design* (October 1969), 536–540; J. Weeks, *Design Strategy for Health Science Facilities* (Chicago: Health Sciences Research, 1970).

45 Llewelyn-Davies, ‘Case for Research’, 401.

46 Llewelyn-Davies, ‘On the Frontier of Knowledge’, 508.

The phrase 'fattest possible nurses' strikes my ears as significant. It resonates with cultural assumptions that persist today in setting up hospital architecture research. And it brings into play the idea that nurses, unlike surgical supplies and soiled linens, do not come in standardized units, complicating the quest both for efficiency and for automation of nurses' work. Finally, it points to the problem of reciprocal influence: workspace and worker, nurse and nursing unit, are mutually constituted, and have somehow to be studied simultaneously.

What exactly does the string diagram accomplish? The NPHT investigation was meant to end the pavilion plan, and instigate a new optimal architecture, based on nursing, and made up of interrelated systems. The architectural goal was to achieve compactness without overcrowding. Yet the usefulness of this exercise did not go undisputed. The team's statistician, Norman T.J. Bailey, opined that following nurses around could not definitively determine architectural plans, but might only help evaluate them. He remarked:

[T]hough it may be difficult to calculate in advance the best plans that could be devised, estimates of probable traffic provide a useful critique of any actual proposal ... Even if most [new] hospitals in fact avoid serious [traffic] difficulties, a new experimental design might easily overlook some unforeseen complication.<sup>47</sup>

Nurse traffic studies could create measures to evaluate existing facilities and check proposals for new facilities.

This was not the first time (nor would it be the last) time and motion studies were brought into the hospital. The practice has its roots in the panoply of assembly-line procedures associated with Fordist production of goods for mass consumption, specifically, the well known industrial engineering consultancies developed by Frederick Winslow Taylor and the husband-and-wife team of Frank and Lillian Gilbreth.<sup>48</sup> Scientific manage-

47 Norman T.J. Bailey, 'Statistics in Hospital Planning', *Journal of the Royal Statistical Society, Series C (Applied Statistics)* 5/3 (1956), 153.

48 Frank B. Gilbreth, *Motion Study: A Method for Increasing the Efficiency of the Workman* (New York: D. Van Nostrand, 1911). The literature on scientific management is vast. Two key works are Daniel Nelson, *Frederick Taylor and the Rise of Scientific*

ment sought to make procedures more efficient, allowing an organization to increase output without adding labour costs. These influential gurus took on nursing as a test case where the effectiveness of their ideas could be both implemented and tested.<sup>49</sup> Yet two factors mitigated Taylorist influence. First, although the history of automation, interchangeable parts, and the assembly line show first the ascendancy of a certain form of production that involved the industrialization of workers, contemporary historians argue that the supposedly measurable results of scientific management depended more on the effective rhetoric than actual organizational improvement.<sup>50</sup> Scholarship has also expanded that canonical account to show other options that marched sometimes in parallel, sometimes in opposition to Taylorist ideas.<sup>51</sup> Second, the NPHT researchers disbelieved one of scientific management's aims, namely the 'scientific selection of the workmen', the identification of those who were willing *and able* to carry out new methods.<sup>52</sup> Frank Thurston Kent, in his introduction to Frank Gilbreth's 1910 book on motion studies, wrote of a scheme to improve mailing procedures in his own office that 'output under the new conditions was about four times that obtained when the girls were allowed to do the work their own way.'<sup>53</sup> The

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*Management* (Madison: University of Wisconsin Press, 1980) and Robert Kanigel, *The One Best Way: Frederick Winslow Taylor and the Enigma of Efficiency* (New York: Viking, 1997).

- 49 For instance, see the research carried out by W. Gilman Thompson at Cornell University, cited in a footnote by the Nuffield researchers, in *Studies in the Functions and Design of Hospitals*, 3.
- 50 E.g. see Jill Lepore, 'Not so Fast', *New Yorker* 85/32 (12 Oct. 2009), 114–122, and Matthew Stewart's controversial pop history of anti-Taylorist management theory, 'The Management Myth', *Atlantic Magazine* 297/5 (2006), 80–89.
- 51 Ken Alder, *Engineering the Revolution: Arms & Enlightenment in France, 1763–1815* (Chicago: University of Chicago Press, 1997).
- 52 This is one of the four 'underlying' principles in Taylor's notion of scientific management. Sharon H. Strom notes that as with computers in hospital, technology was key to earlier business applications of Taylorist principles: 'Without new office work systems the application of scientific management to the workplace would have been impossible', *Beyond the Typewriter: Gender, Class, and the Origins of Modern American Office work, 1900–1930* (Champaign: University of Illinois Press, 1992), 3.
- 53 Robert Thurston Kent, 'Introduction', *Gilbreth Motion Study*, xiv.

Nuffield researchers believed they had *inverted* this kind of paternalism. The NPHT wanted to study the 'fattest possible nurse', not the fastest or most efficient or most capable nurse.

The research team realized that nurses, unlike soiled linens in the operating theatre, do not come in standardized shapes and sizes.<sup>54</sup> This change of attitude marked a break from the ways managers applied scientific management to nursing before the Second World War. The change, driven by the rise of cybernetic thinking, was to deal with statistical possibilities as a whole set of outcomes, rather than to concentrate on generating one standardized form. Before the war, time-and-motion studies foretold the industrialization of nurses' work. Nurses had responded to this call to efficient work with a counter rhetoric of the art of caring.<sup>55</sup> Nurses are not alone in suggesting that a crucial aspect of any medical intervention is care. Apologies for the lost art of caregiving parallel the rise of biomedicine.<sup>56</sup> In the particular case of nursing, the promotion of 'care' paradoxically confirmed the applicability of scientific management. Nurses contrasted management's attempts to optimize their routines by promoting the notion that *some* nursing practices could not be measured quantitatively, and therefore the search for increased output constituted a misunderstanding of the value of *some* (crucial) nursing skills. The critiques left intact,

54 Elsewhere Llewelyn-Davies writes that they used the 'plumpest nurses the hospital could supply', R. Llewelyn-Davies, 'Research in Function and Design', *Hospitals* 29 (March 1955), 100.

55 On the interwar intersection of scientific management and nursing, see Cynthia Toman, "'Trained Brains Are Better than Trained Muscles": Scientific Management and Canadian Nurses 1910–1939', *Nursing History Review* 11 (2003), 89–108; see also Reverby, *Ordered to Care*.

56 See Paul Starr, *The Social Transformation of American Medicine* (New York: Basic Books, 1982), and Ivan Illich, *Medical Nemesis* (Edinburgh: Edinburgh University Press, 1974). Psychiatrist and anthropologist Arthur Kleinman has recently argued for a renewal of care in biomedicine, based on a cross-cultural analysis of care giving practices; see Arthur Kleinman and Sjaak van der Geest, "'Care" in Health Care: Remaking the Moral World of Medicine', *Medische Antropologie* 21/1 (2009), 159–168; Arthur Kleinman, 'Caregiving: The Odyssey of Becoming More Human', *The Lancet* 373/9660 (24 January 2009), 292–293.

however, the notion that *most* nursing skills were amenable to optimization, and Taylorism could be used to find ways to nurse with greater efficiency.

It was the nurses' movements that would change the designer's work, creating hospital environments that better accommodated nursing activity; hospital environments had to change, not nurses. The NPHT researchers also used films to study the room required for bed-making or in-bed transfusions. The import from the study was not to tell the nurse how to perform her job more efficiently, but simply to determine the minimum and maximum areas around the patient necessary for the expert nurse to carry out a skilled manoeuvre. Still, in the end, they did quantify something. They attempted to reduce the complex processes of nursing care to a simple quantifiable value (minimum distance) that measured flow of traffic (distance travelled). These values were encoded in experimental ward design, and through dissemination in publications and experimental buildings formed the baseline of innumerable other hospital projects worldwide.<sup>57</sup>

To put it another way, nurses provided a service but not (necessarily) a product. That service, or 'care', was not amenable to Taylorist task breakdown. However, all the rest of nurses' work could be accommodated and promoted through optimization of movement. Moreover, for the Nuffield team, the *goal* of good hospital design became better accommodation. For them, the fittest nurse was a caring nurse. They sympathized with the miles she walked each day. By including the fittest nurses, the researchers thought their designs could avoid prescribing a standardized, merely efficient, robotic worker – the scientifically selected nurse – as the ideal nurse. However, they were wrong.

57 Nuffield Provincial Hospitals Trust, *The Work of Nurses in Hospital Wards: Report of a Job-Analysis* (London: Nuffield Provincial Hospitals Trust, 1953).



## Nursing, computers, architecture

The NPHT researchers went on to develop hospital plans that broke decisively with the past, and even connected hospital design to town planning.<sup>58</sup> Their studies thus formed the ground of true innovation, a reconfiguration of hospital organization. They did not anticipate, however, the extent to which their nursing studies could align nursing activity with the new machines, especially the computer, in the technological explosion that characterized postwar medicine.<sup>59</sup> The concept of traffic, quantified by following nurses around with a corkboard and string, became the basis of the 'ward unit'. Traffic-motivated planning exercises were meant to make the hospital more efficient. Efficiency was directly related to compactness, and particularly, to designs that made nurses walk less. One example was Gordon Friesen's promotion of the so-called race-track plan.<sup>60</sup> This planning strategy is based on a double-loaded double corridor: essentially twinned corridors with a row of windowless clinical, storage, and nursing rooms in the centre. It was widely deployed in new construction, quickly becoming a normal environment for modern nursing. Two pavilions built around 1955 for the Royal Victoria Hospital in Montreal can serve as examples. The race-track system is employed here both in the operating suite, where the centre is occupied by prep rooms, and in the medical wing, where the

58 Jonathan Hughes, 'Hospital City', *Architectural History* 40 (1997), 266–288.

59 On the relationship between architecture and technological medicine in the postwar hospital, see Stephen Verderber and David J. Fine, *Healthcare Architecture in an Era of Radical Transformation* (New Haven: Yale University Press, 2000), and Jonathan Hughes, 'Matchbox on a Muffin', 21–56.

60 Hospital superintendent and consultant John Ochsner is sometimes credited with the invention of the plan, but it was the NPHT team's championing of Friesen's Mineworkers hospitals that cemented the diagram as an optimized planning tool. See John Weeks, 'Mechanization of Hospital Design in Britain', *Architectural Design* 31(1961), 10–11.

centre comprises the nursing station and ancillary rooms.<sup>61</sup> The equivalence between nurses and sterilizing equipment is regimented in the plan.

For Gordon Friesen, the nurse was also the motor that made the trolley circulate in his 'automated' supply system. Friesen, as we saw earlier, was preoccupied with the service and supply system. In diagrams published in *Architectural Design*, he showed the layout of the race-track plan's windowless core at Harlan Hospital in Kentucky. The nurses' station appears as just another piece of equipment efficiently positioned in a service core of stairs, lifts, trays and trolleys, mechanical equipment and utility rooms. He accompanied the diagram with a photo of a jovial nurse poised (and deliberately posed) beside a service trolley.<sup>62</sup>

Nursing 'traffic' was the first part of the expanded idea of the computerized hospital; improving communication and control were next on the agenda. Earlier I claimed that the nurse became part of a computerized medical ordering system; next, with the arrival of call systems, the nurse became a node in the communication network. Nuffield Statistician N.J.T. Bailey again:

We can broaden the concept of traffic to include not only the movement of human beings and materials, but also general communications and storage of information. Pedestrian traffic would certainly be reduced by better telephone facilities, call systems, and the adoption of more highly developed recording and filing apparatus. Such questions are especially important in any building where administrative, operational or technical efficiency are paramount. It seems likely that substantial progress would result from detailed cybernetical investigations.<sup>63</sup>

The control centre for communication was to be staffed by nurses. (The required bodily positions and gestures were deemed suitable for nurses of all sizes.) Briefly stated, such cybernetic fantasies, the equivalencies between nursing functions, call systems, and computer operations, finally

61 'Royal Victoria Hospital Montreal: The Modernization Program', *Royal Architectural Institute of Canada Journal* 35 (November 1959): 385–388.

62 Gordon Friesen, 'Automation in Hospital Design', *Architectural Design* (January 1961), 8.

63 Bailey, 'Statistics in Hospital Planning', 154.

made the nurse into an industrial worker. That is, only in the digital age did nursing succumb (conceptually) to automation, to the implementation of routines that made nursing work like factory work.<sup>64</sup> Nurses did not just interface between man and machine; conceptually they had a function within the machine itself. Thus postwar hospitals were designed to use nurses as assembly line workers. These hospitals had factory work as an ideal: they didn't just 'look' that way. This was, in Bailey's phrase quoted above, 'substantial progress'.

We are better placed now to understand what having computers in hospitals meant to nursing life. The legacy of this early postwar research has been profound. The notion of nursing traffic efficiency as the generator of hospital architecture has proven difficult to abandon; it was fundamental to an array of 1970s planning diagrams.<sup>65</sup> Even today, while the visitor experience has been softened with large well-lit atriums, cafes, and gardens, the clinical areas have under girders of traffic efficiency and the circulation of bodies, objects and information. Not only did hospital environments trap nurses between their domestic and professional lives, but also simultaneously, by embedding nursing work at the centre of ward work, they made nurses into assembly line workers – robots, even – as well as caring professionals. Not only did nurses have to work with new machines, unfamiliar new technology, their *ways* of working were now constrained and directed by planning systems organized *like* computer systems.

64 The concept is similar to an observation Marshall McLuhan made in 1964 about media technology, namely, that the content of any new medium is another medium. In this respect, automation is the content of the digital. See *Understanding Media: The Extensions of Man* (New York: McGraw-Hill, 1964).

65 See for example the range of ward unit diagrams assembled by Verderber and Fine in *Healthcare Architecture*, 354.

## Storytelling

My story here has followed my sources in not giving a voice to nurses themselves. Postwar nursing history has problems other than architecture to address: education, expanding roles for nurses outside the hospital, and the tension between professionalization and unionization, to name but three. In this scholarship, it is crucial to know what nurses thought of these ideas, and how they responded to them. Historians tell of the struggles of nurses to grasp, control, and direct their own professional affairs. They thus seek out what Laurel Ulrich calls 'the silent work of ordinary people', listening to nurses' voices and the stories nurses tell themselves.<sup>66</sup> Storytelling helps construct the history of nursing in the lived world, moving from the subjective experience of *a nurse* upward and outward (as it was) to *nursing*. Existing scholarship on postwar nursing therefore tends to focus on institutional and professional history; and to the extent that computation is part of that scholarship, it shows up as an administrative issue, related to software development and management practices.<sup>67</sup> The building and the machine appear only as background or tool (respectively).

There seems good reason, then, to ignore hospital architecture as part of the story of hospital life, or at least to relegate it to the scenery as a mere setting. And yet ponder, for a moment, what exactly is at stake for nurses in the NPHT research films on nursing activity. The films tell a story about how much room and what kind of room the nurse has on the ward within which to work. The films were made not to change nurses, but rather to change hospital design. And yet, paradoxically, they did change nurses. They show that architecture can measure nurses' skill at caring. They made it possible to do what scientific management did not achieve, namely, to quantify nursing activity. In the post war hospital, nursing efficiency could

66 Laurel Ulrich, *A Midwife's Tale: The Life of Martha Ballard Based on her Diary, 1785-1812* (New York: Knopf, 1990).

67 See e.g. Kathryn J. Hannah, 'The Computer and Nursing Practice', *Nursing Outlook* 24/9 (1976), 555-558.

be measured, *had* to be measured, as a way of underscoring and protecting the nurse's mandate to care, precisely because the custodianship of the ward and the occupation of the residence were at the core of the total institutional configuration. Bedside care had a quantifiable place, configuration, and volume, and therefore so did the nurse who carried out bedside care. The moral regulation of the training school was now embedded in organizational structures, the separate but attached planning linking efficient ward practices to the nurses' home.<sup>68</sup>

Why does this architectural storytelling matter?<sup>69</sup> In short, because only architectural sources reveal the tight intertwining between the effect of computers on hospital nursing, and, in parallel, the effect of nursing on hospital design. There are three effects of that methodological gain that I wish to enumerate. First, architecture helps distinguish between a story that attempts to give voice to nurses' personal and professional lives (history at the somatic level) and instead give voice to a group consciousness (history at the social level).<sup>70</sup> Second, architecture adds to the historian's armamentarium a potential narrative path that includes the nursing environment, the hospital's objects and material culture, as sources for the

68 This memoir of the regulation of nursing life in British hospitals was published online in 2008: 'The regimented nature of a nurse's life then was vastly different from today, agrees former RCN general secretary Christine Hancock, who qualified in 1966. "It was regimented at every level – your uniform, your behaviour and the way patients were treated", says Ms Hancock. "As a junior nurse, you didn't see matron that often but the ward sisters were pretty fierce and as important as the senior doctors"' See Adrian O'Dowd, 'Nursing in the 1960s: "The ward sisters were pretty fierce"', <http://www.nursingtimes.net/nursing-in-the-1960s-the-ward-sisters-were-pretty-fierce/577485.article>, accessed 18 December 2012.

69 My argument is that the architectural structure corresponds to the anthropological structures of myth and tradition in narrative theory; see Thomas King, *The Truth about Stories: A Native Narrative* (Toronto: Anansi Press, 2003), and Richard Kearny, *On Stories* (London: Routledge, 2002).

70 See John Protevi, who identifies three compositional scales of bodies politic: personal (referring to the somatic), group (involving the social), and civic (dealing with the institutional); *Political Affect: Connecting the social and the Somatic* (Minneapolis: University of Minnesota Press, 2009).

tale of nursing. The Nuffield NPHT researchers solicited nurses' input, consulted with educators and practitioners, yet nurses' ideas were not put 'into practice', but rather into the built environment.<sup>71</sup> Third, without considering material culture, the plight of nurses' political agency in the hospital always returns to rehearse stories of resistance. (Such resistance can be more or less conscious and class conscious: anything from absenteeism to strikes will do.) Instead, seeing nurses as part of an assemblage or platform that includes architectural and technological matter helps us see how nursing changed historically due to factors not always clear to the participants, and not otherwise clear to the historian.

Sometimes hospital life can change dramatically while the architectural form stays constant, and sometimes the inverse is true. We tend to think of environmental form as merely a reflection of institutional precepts because this latter situation is more familiar: we notice when hospital architecture changes to accommodate new ways of working. But in postwar hospitals, researchers worked to change hospital life and its architectural form simultaneously. Architecture was a protagonist in the elaboration of what a nurse was. Postwar hospital architecture is inextricably interwoven with who postwar hospital nurses were. Architecture in this sense constitutes not just a functional bauble, reflecting patron's wishes or medical ideas, but rather emerges as a dynamic character in the story, actively conditioning hospital activities and nursing identities. The new computerized hospital would be a cybernetic machine, organizing, controlling, maintaining, constraining, and supporting nursing identities.

71 On the intertwining of physical, medical, and social in hospitals, see Annmarie Adams, Kevin Schwartzman, and David Theodore, 'Collapse and Expand: Architecture and Tuberculosis Therapy in Montreal, 1909, 1933, 1954,' *Technology and Culture* 49/4 (2008), 908–942; Alberto Cambrosio and Peter Keating, *Biomedical Platforms Realigning the Normal and the Pathological in Late Twentieth-Century Medicine* (Cambridge, MA: MIT Press, 2003); on the entanglement of material and social, see also Bruno Latour, 'Where are the Missing Masses? Sociology of a Few Mundane Artefacts,' in W. Bijker and J. Law, eds, *Shaping Technology, Building Society: Studies in Sociotechnical Change* (Cambridge, MA: MIT Press, 1992), 225–258; and Andrew Pickering, *The Mangle of Practice: Time, Agency and Science* (Chicago: University of Chicago Press, 1995).

SALLY SHEARD

## Getting Better, Faster: Convalescence and Length of Stay in British and US Hospitals

Convalescence is an integral part of the theory and practice of medicine. The shared expectation of most patients and those looking after them is that there will be recovery from illness, whatever form this may take. It is accepted that this involves a period of time, during which the body experiences physiological and psychological changes. This happens irrespective of whether the patient is at home or in hospital. This essay explores institutional post-surgical convalescence since the early twentieth century, and how its process has been both consciously and subconsciously redefined. It suggests that convalescence has become a substantially social construction, built on a primary response to biological injury. Further, it suggests that cultural, socio-economic and professional factors influence convalescence at two levels: first by determining which markers are regarded as indicating recovery and second by shaping these markers. Integral to the issue of getting better is the quantification and standardisation of the process. This opens up a fascinating new area for research on how lengths of hospital stays have changed – usually shortened – in modern history.

The term ‘convalescence’ derives from the Latin words *con-* ‘intensive’ and *valescere* ‘to grow strong’ (from *valere* ‘to be strong’). At times it has been used interchangeably with rehabilitation, although this is more commonly used to define treatment for patients with mental or physical disabilities from which they will not return to full health or activity.<sup>1</sup> Rehabilitation

1 G. Gritzer and A. Arluke, *The Making of Rehabilitation: a political economy of medical specialisation, 1890–1980* (Berkeley: University of California Press, 1985); J.S. Reznick, *Healing the Nation: soldiers and caregiving in Britain during the Great War* (Manchester: Manchester University Press, 2004).

often implies the use of para-medical specialists such as physiotherapists and occupational therapists, which 'convalescence' does not immediately suggest. Furthermore, the boundaries between convalescence and rest/recuperation, and between acute hospitals and convalescent homes and hospitals are equally blurred. This has been a factor in determining the intermittent interest and involvement of the medical profession in managing convalescence.

Both professional and lay health knowledge concur that convalescence is aided by certain factors, especially rest and good nutrition. For the early hospitals this was in effect their primary function, before the advent of effective surgical and pharmaceutical therapies. From the middle of the nineteenth century convalescence emerged as a discrete *medical* process, which was increasingly managed within specialist hospitals and homes, especially in seaside and rural locations that provided a critical 'change of air' to aid recovery. This required a conscious evaluation of the patient to determine when their condition no longer benefitted from acute hospital medical treatment. It thus prompts an analysis of how recovery was assessed in terms of physiological and psychological processes. Who made these assessments: doctors or nurses? What was the assessment role of the patient? How did such *medical* assessments fit with *economic* demands – to free the hospital bed for the next acute case?

Surprisingly, there is very little historiography on the subject of convalescence or length of hospital stay. Apart from the excellent PhD thesis by Jenny Cronin on the development of Scottish convalescent homes between 1860 and 1939, and an MA dissertation by Catherine Heckman, there are no dedicated studies.<sup>2</sup> Historians of British hospitals such as Abel-Smith, Pickstone and Woodward touch on it fleetingly.<sup>3</sup> Richardson's study of

- 2 Jenny Cronin, *The Origins and Development of Scottish Convalescent Homes 1860–1939* (University of Glasgow: unpublished PhD, 2003); Jenny Cronin, 'Success and Failure in Scottish Convalescent Homes', in C. Rochester, G.C. Gosling, A. Penn and M. Zimmeck (eds), *Understanding the Roots of Voluntary Action: Historical Perspectives on Current Social Policy* (Brighton: Sussex University Press, 2011) 137–154; C. Heckman, *Convalescence* (Unpublished MA dissertation, Kings College, London, 1995).
- 3 Brian Abel-Smith, *The Hospitals 1800–1949: a Study in Social Administration in England and Wales* (London: Heinemann, 1964); John Woodward, *To Do the Sick*



hospital design and architecture contains a short chapter on convalescent homes.<sup>4</sup> Gorsky and Mohan have looked at it in the context of British hospital contributory schemes.<sup>5</sup> It occasionally features in passing in histories of health and welfare services.<sup>6</sup> It is a side issue within histories of medical specialties such as orthopaedics, and in histories of diseases such as tuberculosis which necessarily required extended periods of recuperation in sanatoria.<sup>7</sup> Shorter has researched the concept of fatigue; Linker and Wagner the issue of disability and rehabilitation.<sup>8</sup> However no-one – so far – has looked at this most integral element of medical practice for its own sake.

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*no Harm: a study of the British voluntary hospital system to 1875* (London: Routledge, 1974); John Pickstone, *Medicine and Industrial Society a history of hospital development in Manchester and its region, 1752–1946* (Manchester: Manchester University Press, 1985).

- 4 Harriet Richardson (ed.), *English Hospitals 1660–1948: a survey of their architecture and design* (Swindon: Royal Commission on Historical Monuments of England, 1998), 182–188.
- 5 Martin Gorsky, John Mohan with Tim Willis, *Mutualism and Health Care. British hospital contributory schemes in the twentieth century* (Manchester: Manchester University Press, 2006).
- 6 Anne Borsay and Peter Shapely (eds), *Medicine, Charity and Mutual Aid: the Consumption of Health and Welfare, c. 1550–1950* (Aldershot: Ashgate, 2007); Steven Cherry, *Medical Services and the Hospitals in Britain 1860–1939* (Cambridge: CUP, 1996); A.M. Gray, 'A mixed economy of health care: Britain's health service in the inter-war period', in A. McGuire, P. Fenn and K. Mayhew (eds), *Providing health care: the economics of alternative systems of finance and delivery* (Oxford: Oxford University Press, 1994).
- 7 Roger Cooter, *Surgery and society in peace and war: orthopaedics and the organisation of modern medicine, 1880–1948* (Basingstoke: Macmillan, 1993); Flurin Condrau, 'Urban Tuberculosis Patients and Sanatorium Treatment in the Early Twentieth Century', in Anne Borsay and Peter Shapely (eds), *Medicine, Charity and Mutual Aid: the Consumption of Health and Welfare, c. 1550–1950* (Aldershot: Ashgate, 2007); Helen Bynum, *Spitting Blood. The History of Tuberculosis* (Oxford: Oxford University Press, 2012).
- 8 Edward Shorter, *From paralysis to fatigue: a history of psychosomatic illness in the modern era* (New York: Free Press, 1992); Beth Linker, *War's Waste: rehabilitation in World War I* (Chicago: University of Chicago Press, 2011); Marylin B. Wagner, *Transformation of disability and rehabilitation* (Unpublished PhD thesis, Kent State University, 2000).

This essay outlines some of the primary literature and potential hypotheses that are generated by three inter-related aspects of the history of post-surgical convalescence and length of hospital stay. The first aspect is spatial: it is necessary to determine the location of convalescence – institutional or domestic, and the nature of the relationship between them. It is naive to posit that as housing standards improved for working class families in the twentieth century that domestic convalescence became more prevalent. Other factors were also at play: access to professional domiciliary health care, availability of extended family care. The second aspect is the medicalisation of convalescence. At what point does the doctor withdraw their services and oversight from the process? How is this negotiated (if at all) with the patient? If one relies on the public perception of convalescence, and the almost complete elimination of specialist convalescent hospitals and homes in Britain since the start of the National Health Service [NHS] in 1948, it would seem to suggest that the medical profession have come to view their involvement in the process as more limited – temporally and spatially. This brings us to the third aspect that requires detailed analysis – the periodisation of convalescence, and how this fits with the issue of the length of hospital stay. It is helpful to categorise the experience of post-surgical convalescence into two main periods. The primary period comes immediately after surgery during which the patient is moved within the acute hospital from operating theatre to recovery room and then to a surgical ward. They are confined to bed and under close observation by nursing staff. The secondary period of convalescence can be defined as beginning with permission to get up from bed, and often with a change of location from the acute hospital to a specialist hospital or convalescent home, or direct return to the patient's own home.

## Early twentieth century theories and practices

The process of recovery and the transition from primary to secondary convalescence has always been implicitly and explicitly monitored within acute hospitals. By the early twentieth century, aided by the development of new diagnostic tests, primary convalescence routines and techniques were well established, in which nursing staff took responsibility for monitoring the patient. Daily ward rounds allowed these nursing assessments to be validated by house surgeons who made the decision on when to discharge and whether auxiliary institutional convalescence was required.

The medical profession's interest in, and involvement with, the process and management of institutional convalescence has fluctuated over time in relation to scientific and socio-economic factors. In 1886 the French surgeon Just Lucas-Champonniere expressed the belief that repair was more rapid and more complete when some early patient movement was permitted and that this also reduced the level of pain experienced.<sup>9</sup> In 1899 Emil Ries, a Chicago gynaecologist, published a paper in *JAMA* [Journal of the American Medical Association]: 'Some Radical Changes in After Treatment of Celiotomy Cases' in which he described the beneficial effects of allowing patients out of bed on the first or second day after hysterectomies.<sup>10</sup> By the end of the nineteenth century early post-operative walking was a common practice in European hospitals, helped by the strong advocacy of surgeons such as Kümmell in Hamburg.<sup>11</sup> A small group of French surgeons apparently practiced a radical technique of 'immediate arising' – getting patients to walk from the operating table back to the ward and continued activity

9 J. Lucas-Champonniere, *Bulletin et Memoires de la Societe de Chir.*, 12 (1886), 560; *British Medical Journal* 2 (1908), 981.

10 E. Ries, 'Some Radical Changes in After Treatment of Celiotomy Cases', *JAMA* 33 (1899), 454.

11 H. Kümmell, 'Abkürzung des Heilungsverlaufs Laparotomierter durch frühzeitiges Aufstehen', *Arch. f. klin. Chir* 86 (1908), 494.

until early discharge from hospital.<sup>12</sup> Yet a survey conducted in the 1920s by the American John Bryant suggested that most British, European and American doctors shared a 'traditional attitude of passive care' towards post-operative patients. Bryant had himself been instrumental in setting up an active convalescence programme within the US Army medical corps during the First World War, which was linked to the founding of the Burke Rehabilitation Hospital at White Plains in New York State in 1915. Bryant published his survey to try to 'lessen the medical neglect so often meted out to the convalescent patient, who, precisely because he grows less acutely ill, so often seems to grow progressively less interesting to the physician immersed in the subtleties of latter-day medical science'.<sup>13</sup>

There was, however, already some discussion in British medical circles about a move from the cautious, reflective observation practiced in the nineteenth century hospital. This is evident in a number of articles published in the *Lancet* in the 1920s. Some of the new attention on convalescence in Britain was also a direct outcome of the experiences of wounded soldiers in the First World War. T.E. Sandell, a Colonel in the Royal Army Medical Corps [RAMC] wrote up his experience in 1920, noting the importance of exercise in helping to shorten the period of convalescence.<sup>14</sup> H.E. Claremont's 1922 article, which also focused on shortening convalescence, contained a comparative analysis between British and European surgical cases.<sup>15</sup> James McConnel, who had served with the RAMC, published a book entitled *Shorter Convalescence* in 1930. The foreword, written by the distinguished orthopaedic surgeon Sir Robert Jones, praised McConnel's 'valuable contribution to the physiology of

12 B. Newburger, 'Early Postoperative Walking. II Collective Review', *Surgery* 14 (1943), 142–154.

13 John Bryant, *Convalescence: historical and practical* (New York: Sturgis Fund of the Burke Foundation, 1927), 1.

14 T.E. Sandell, 'Treatment of the Convalescent Soldier', *Lancet* 1 (1920), 1352–1356.

15 H.E. Claremont, 'Shortening of post-operative convalescence: some differences between British and continental treatment', *Lancet* 199 (1922), 427–428.

muscular action and its relation to convalescence.<sup>16</sup> McConnel devoted a section of his book to ‘types of bed exercises’, indicating that these should be established soon after surgery while the patient had ‘reason to think he is still an invalid, namely that he is in bed and under medical supervision.’<sup>17</sup>

### The science behind ‘early ambulation’

The interests of doctors in the process and duration of primary and secondary convalescence needs to be set in the context of the emergence of parallel scientific and clinical research on post-surgical physiology. In the early twentieth century two main foci of interest emerged: on the role of nutrition and return to ambulation after surgery. In the 1920s this was approached from the perspective of muscle physiology. In 1929 Edward Howes, Joseph Sooy and Samuel Harvey published a seminal paper in *JAMA*: ‘Healing of Wounds as Determined by their Tensile Strength’, based on their studies of the ‘velocity’ of healing in laboratory animals such as dogs and rats.<sup>18</sup> They hypothesised that humans would exhibit similar phases during which fibroplasia – the construction of new soft tissue – would occur; commencing on the fifth or sixth day, with tensile strength increasing to a maximum by fourteen days after surgery (and with substantial gains even by the eighth day). The 1930s, however, appears to be a period during which clinical scientists were relatively disinterested in the science of convalescence.

16 James K. McConnel, *Shorter Convalescence* (London: William Heinemann Medical Books Ltd, 1930).

17 McConnel, *Shorter Convalescence*, 78.

18 E.L. Howes, J.W. Sooy and S.C. Harvey, ‘Healing of Wounds as Determined by their Tensile Strength’, *JAMA*, 92 (1929), 42–45.

It was a war, again, that helped to trigger a new wave of research. The quantity and severity of injuries sustained by troops during the Second World War stimulated fresh investigations in how to repair human bodies as quickly and fully as possible. In the USA, Dr L.H. Weed of the National Research Council formed a Committee on Convalescence and Rehabilitation in 1943 which supported a number of research projects. It also helped to stimulate discussion of why earlier discoveries of the benefits of early post-surgical ambulation had not been adopted as clinical practice. A literature survey by Bernhard Newburger had found 189 references, but only forty four were written in English and nearly all of them were published before 1914.<sup>19</sup> He posited that the failure to adopt early ambulation might be due to a lack of confidence (by both surgeons and patients) in the security of catgut sutures with which most wounds were then closed. In 1944 the American Medical Association held a Symposium on the Abuse of Rest in the Treatment of Disease, which was covered by *JAMA*, including a paper by John Powers: 'The Abuse of Rest as a Therapeutic Measure in Surgery: Early Post-operative Activity and Rehabilitation.'<sup>20</sup> A Symposium on Physiological Aspects of Convalescence and Rehabilitation was also held by the American Physiological Society in 1944 and reported in the Proceedings of the Federation of American Societies for Experimental Biology.<sup>21</sup>

There were several significant groups of researchers active in the USA in the 1940s. Robert Elman and his team at the Department of Surgery at Washington University School of Medicine at St Louis, Missouri were experimenting with intravenous injections of amino-acids as a means of supplying protein parenterally.<sup>22</sup> They emphasised the risks of traditional bed rest and warned that appetite could not be taken as an indication of

19 B. Newburger, 'Early Postoperative Walking II Collective Review', *Surgery* 14 (1943), 142-154.

20 J.H. Powers, 'The Abuse of Rest as a Therapeutic Measure in Surgery: Early Post-operative Activity and Rehabilitation', *JAMA* 125 (1944), 1079.

21 Symposium on Physiological Aspects of Convalescence and Rehabilitation, *Federation Proceedings*, 3 (1944), 188.

22 R. Elman and D.O. Weiner, 'Intravenous Alimentation', *JAMA* 112 (1939), 716.

a patient's actual caloric needs.<sup>23</sup> In 1945 Isaac Starr and Robert Mayock, from the Hartnell Research Department of Therapeutics at the University of Pennsylvania published the results of their case control experiments, in which patients undergoing herniorrhaphy were allotted various regimes, including increased intravenous fluids during and after surgery; exercises in bed, and /or early ambulation. They found a faster rate of convalescence in those patients given fluids and 'vertical' exercises.<sup>24</sup> Daniel Leithauser, who had been researching the effects of getting patients ambulant within twenty four hours of surgery, wrote up his results in *Archives of Surgery* in 1943. He hypothesised that 'pulmonary complications increase in direct proportion to the reductions in vital capacities' following surgery.<sup>25</sup> In 1946, in an advance from purely experimental research projects, he published a manual entitled *Early Ambulation and related procedures in surgical management*.<sup>26</sup>

There were a number of other American clinical research centres running related projects in the 1940s. Isidor Ravdin and Fraser Gurd at the University of Pennsylvania were working on liver regeneration. Warren Cole's team at the University of Illinois College of Medicine in Chicago collaborated with the Department of Animal Husbandry at the University of Illinois, Urbana, to translate from animal experiments to develop principles of convalescence in humans. They concluded from an extensive case-control study – in which patients were given pre- and postoperative dietary and exercise regimes – that the best performances were obtained when a

- 23 R. Elman, 'Parenteral Replacement of Protein with the Amino-acids of Hydrolyzed Casein', *Annals of Surgery* 112 (1940), 594; R. Elman, D.O. Weiner and E. Bradley, 'Intravenous Injections of Amino Acids in Postoperative Patients', *Annals of Surgery* 115 (1942), 1160.
- 24 I. Starr, R.L. Mayock, M.G. Battles MG, 'Convalescence from Surgical Procedures: II. Studies of Various Physiological Responses to a Mild Exercise Test', *American Journal of the Medical Sciences* 210/6 (1945), 713–725; F.A. Hellebrandt, 'Recent Advances in Methods of Hastening Convalescence through exercise', *Southern Medical Journal* 39/5(1946), 397–401.
- 25 D.J. Leithauser, 'Confinement to Bed for Only Twenty Four Hours After Operation', *Arch. Surg.* 47 (1943), 203.
- 26 D.J. Leithauser, *Early Ambulation and related procedures in surgical management* (Springfield, Illinois: Charles C. Thomas, 1946).

high *protein* diet was given. A high *caloric* intake itself did not improve results, in fact it appeared detrimental to performance. When a full diet was given every day postoperatively performance scores were better than when the conventional hospital dietary regime of 1/4, 1/2, 3/4 and 4/4 intake on the first four postoperative days was used. Ambulation had a positive effect in all their tests. They presented their findings at the 67th annual meeting of the American Surgical Association at Hot Springs, Virginia in March 1947. In the published version of their paper they note:

Unfortunately the pendulum always swings too far when a new form of therapy is introduced; unquestionably many patients are harmed in vigorous ambulation programs, by the uncontrolled efforts of some surgeons not too well informed on physiologic functions and the inadequate reserves of their patients. As a matter of fact, very little data are available at the present time to indicate which patients should not be ambulated, and how much ambulation should be prescribed. Furthermore, ambulation is only one of innumerable forms of treatment which might be instituted to improve the rate of post-operative convalescence. We are already becoming aware of the great value of a high protein intake (Elman), and liberal quantities of blood. Other factors, including chemotherapy, physiotherapy, psychotherapy, etc., are important in convalescence, but without doubt many other types of therapy still unknown may aid greatly in the speed of recovery from operations.<sup>27</sup>

The discussion following their paper at the Hot Springs conference exposed the *newness* of clinical research interest in post-surgical management – almost a *frontier* camaraderie. One of the most insightful questions came from an English doctor, Wilder Penfield (then working in Montreal):

I should like to ask Doctor Cole a question in regard to terminology, particularly as I know him to be a scholar as well as a scientist. The question refers to the term ambulation. For a new conception it is often wise to employ a new or little used word. But he should indicate to us its correct usage. The verb ambulate, for example – is it intransitive, or does the doctor ambulate the patient? Is it correct to make it an adjective and speak of the ambulated patient?

27 W.H. Cole, R.W. Keeton, N.O. Calloway, N. Glickman, H.H. Mitchell, J. Dyniewicz, D. Howes, 'Studies in Postoperative Convalescence', *Annals of Surgery* 126/4 (1947), 592–611.



Cole replied:

True enough, the meaning of ambulation is extremely varied in the minds of many people. Some doctors are of the erroneous opinion that if the patient is sitting up on the side of the bed he is ambulated, but he is not; a patient may easily develop a thrombosis of the leg while sitting in this position. The patient must walk about. In our ambulation regime we have added exercises which involve practically all the muscles of the body. I do not consider sitting in a chair to be part of ambulation. Regarding the second part of Dr Penfield's question – when can ambulation be used as a noun, verb, adjective, etc.? The dictionary allows us considerable liberty in that respect, but if enough people continuously use a certain word not in the dictionary, it will finally be placed in Mr Webster's dictionary. In other words, usage constitutes law in that respect.<sup>28</sup>

Another key aspect of convalescence – the psychology of recovery – was also the focus of research commissioned by the National Research Council in the US during the Second World War. Harold Wolff was then Professor of Medicine specialising in neurology at the New York Hospital – Cornell Medical Center. He had developed a theory of 'reactive adaptive pattern' or the 'mind-body relationship', which was critical to understanding convalescence.<sup>29</sup> He conducted case control studies in which he subjected patients to a 'psychologic screening test' before surgery. He then instituted two different ward regimes in which one group of patients were given reassurances and positive information about the process of recovery. This group did indeed report a faster desire to be discharged and to be allowed to return to work than the control group.

British doctors and scientists were also beginning to challenge conventional post-surgical theory, but within a conservative medical culture. David Cuthbertson, working in Glasgow, had established the principle of a negative nitrogen balance in convalescing patients in 1932, observing

28 W.H. Cole, R.W. Keeton, N.O. Calloway, N. Glickman, H.H. Mitchell, J. Dyniewicz, D. Howes, 'Studies in Postoperative Convalescence', *Annals of Surgery* 126/ 4 (1947), 610–611.

29 H.G. Wolff, 'Psychogenic Aspects of Convalescence', *Bulletin of Convalescence and Rehabilitation*, p. 69; Minutes of the Seventh Meeting of the Committee on Convalescence and Rehabilitation, National Research Council, 14 January 1944.

that nitrogen excretion on the first postoperative day was low. He further demonstrated that the negative nitrogen balance was greater than that observed during starvation, indicating that lack or decrease in food intake was not the only factor involved in explaining the performance of post-surgical patients.<sup>30</sup>

During the Second World War British hospitals were also forced to critically examine their post-surgical regimes due to reduced bed capacity and staffing levels. In an editorial in 1945 entitled 'Keep Moving Please' the *Lancet* urged a more permanent adoption of early movement, even if this was initially through exercises within bed.<sup>31</sup> A *British Medical Journal* editorial in 1948 generally supported early ambulation, but not early discharge: 'A surgeon would be in a difficult position if he allowed patient to be discharged on the fourth day after appendectomy or the seventh day after cholecystectomy (as reported in some American Journals) and that patient subsequently developed a fatal embolism in the second week.'<sup>32</sup> In 1951 the *Lancet* commented that there were too few British surgeons who favoured early ambulation, and that 'Nature's methods, perfected over millions of centuries, are always purposeful and nearly always right.'<sup>33</sup>

But for the *Lancet's* editorial writer, some surgeons had gone too far. Leithauser, who had pioneered early ambulation in the US, was singled out for criticism because he '... suddenly saw the light, and like many repentant converts, rushed ahead of the preacher. Not merely did he push patients out of bed as soon as they were conscious; he pushed them out of the hospital as soon as they could totter ... A visit to a clinic where early discharge is the rule quickly reveals that it leads to greater waste of beds, for the second and subsequent admissions take more bed days and involve more paperwork than retention till the patient is well. Hasty discharge also leads to increased

30 D.P. Cuthbertson, 'Observations on Disturbance of Metabolism Produced by Injury to limbs', *Quart. J. Med.* 1 (1932), 253; 'Postshock Metabolic Response', *Lancet* 1 (1942), 433.

31 Anon, 'Keep Moving Please', *Lancet* 1 (1945), 118.

32 Anon, 'Early Rising after Operation', *British Medical Journal* 2 (1948), 1026–1027.

33 Anon, 'Early Movement, Early Rising, and Early Discharge', *Lancet* 1 (1951), 95–96.

morbidity, and often to a lamentable end-result'.<sup>34</sup> The consensus of the British medical press in the immediate post-war period seemed to be that American doctors were indeed faster, but not always better, at managing their surgical patients.

## The business of convalescence

As the *Lancet* and *British Medical Journal* editorials also noted, post-surgical ambulation was dependent on hospital design. Some hospitals, particularly those founded before the nineteenth century, were set in grounds that provided space for gardens to encourage a return to walking. However, as towns and cities expanded (and the cost of urban land increased) new hospitals were usually built on tight plots with no opportunities for gardens. Increasingly ambulant patients also proved a strain on wards designed for beds with little space for easy chairs. The conventional dependence on bed pans for bed-bound patients meant that there were usually too few lavatories. Specialist convalescent hospitals and homes were therefore a logical solution. Florence Nightingale had commented in her *Notes on Hospitals* in 1863:

It is a rule without any exception, that no patient ought ever to stay a day longer in hospital than is absolutely essential for medical or surgical treatment. What, then, is to be done with those who are not fit for a work-a-day life? Every hospital should have its convalescent branch and every county its convalescent home.<sup>35</sup>

In Britain there had been a steady growth in the number of convalescent hospitals and homes from the mid nineteenth century. There were three main routes of foundation: by acute hospitals looking for increased efficiency in the through-put of patients; by charities conscious that convalescent

34 Anon, 'Early Movement, Early Rising, and Early Discharge', *Lancet* 1 (1951), 95.

35 F. Nightingale, *Notes on Hospitals* (3rd edition, London: 1863), 107.

conditions could not be achieved in the average working class home; and by the expanding market of health insurance and mutual aid organisations, that offered a stay at a convalescent institution as a benefit of membership.

The peak of the *business* of convalescence in Britain lies in the inter-war period, when there were around 431 specialist convalescent hospitals and homes, according to a survey by the American Elizabeth Gardiner.<sup>36</sup> Cronin has also calculated that the majority of Scottish patients now convalesced outside of acute hospitals: by 1934 there were over 34,000 annual patient stays in Scottish convalescent homes alone, a dramatic increase from 4,000 in 1871.<sup>37</sup> A survey by the Joint Advisory Committee of the Liverpool Hospitals Board had found that organised convalescent treatment was required for 50 per cent of surgical cases, 45 per cent of gynaecological cases and 30 per cent of medical cases.<sup>38</sup> The most popular convalescent hospitals and homes, especially those located on the relatively balmy south coast of England, had waiting lists varying from three weeks to three months in the peak summer period.

The variety of British convalescence institutions and funding mechanisms has to be understood within the ‘mixed economy’ of welfare that existed before radical reforms of 1945–1948.<sup>39</sup> Before the NHS only part of medical care was provided by the state: through limited national health insurance (which mainly covered working men for free primary health care) and local government which provided municipal hospitals and some clinics. ‘Voluntary’ hospitals and private physicians were funded in a variety of ways – by direct patient payments, and by insurance schemes operated by a

36 E.G. Gardiner, *Convalescent Care in Great Britain* (Chicago: University of Chicago Press, 1935).

37 Cronin, *The Origins and Development of Scottish Convalescent Homes*, 296.

38 Reported in Institute of Almoners, *Survey of Convalescent Facilities in England and Wales* (London: Institute of Almoners, 1947), 3.

39 Steven Cherry, ‘Regional comparators in the funding and organisation of the voluntary hospital system, c. 1860–1939’ in M. Gorsky and S. Sheard (eds), *Financing Medicine. The British experience since 1750* (London: Routledge, 2006), 59–76; John Mohan, ‘“The caprice of charity”: geographical variations in the finances of British voluntary hospital services before the NHS’, in M. Gorsky and S. Sheard (eds), *Financing Medicine. The British experience since 1750* (London: Routledge, 2006), 77–92.

range of commercial companies and mutual societies. Some of these were sizeable organisations such as hospital contributory schemes. As Gorsky and Mohan neatly summarize: 'Convalescence was integral to the consensus upon which the whole edifice of hospital contribution rested.'<sup>40</sup> It was a significant expenditure element within schemes such as the Birmingham Hospitals Contributory Association, which spent on average 11 per cent of its budget on convalescent homes between 1928 and 1946. In Liverpool and Sheffield hospital associations operated convalescence and 'after-care' services that liaised with local authority home help departments and voluntary support networks.<sup>41</sup> Trade publications such as *The Contributor* and *The Hospital* illustrate the dilemmas for these schemes – convalescence benefits maintained subscribers' loyalties, but also increased demand and created tensions in the allocation of funds between hospitals and these additional services. But increasingly such stays were seen as holidays, particularly when there was no active medical supervision.

The creation of the NHS in 1948, following quickly on from the wartime Emergency Medical Service which had seen a temporary nationalisation of all hospitals, irrevocably altered the extent of institutional convalescence in Britain. This put pressure – direct and indirect – on how patients were processed by acute hospitals, especially the length of their stay after surgery. Between 1942 and 1945, linked to the wartime government's debates on how to plan for a post-war welfare system, the Nuffield Provincial Hospitals Trust (a charity focused on the provision of hospital care outside of London) undertook the first comprehensive survey of Britain's hospitals. It noted the potential for increasing the size and number of convalescent hospitals.<sup>42</sup>

In July 1945 the Institute of Almoners – the hospital officers who were responsible for matching discharged patients with suitable convalescence accommodation – began their own survey of convalescent hospitals and

40 Gorsky, Mohan with Willis, *Mutualism and Health Care*, 136.

41 Gorsky, Mohan with Willis, *Mutualism and Health Care*, 55, 135.

42 Ministry of Health, *Hospital Survey. The Hospital Services of the North-Western Area* (London, HMSO, 1945), 12–13.

homes. It found that most of the homes only had medical supervision from a local general practitioner, who visited once a week. Few could cope with patients with post-operative dressings that needed regular changing. Many of the hospitals and homes they visited were in old buildings. They criticised those that still had open wards of up to twenty beds, with no privacy screens and those which had 'institutional' style dining rooms.<sup>43</sup> None of the homes they visited seemed to fully understand the importance of diet in convalescence. In twenty of the homes they found that there was a maximum length of stay of two weeks. The committee opposed any fixed duration, and advocated a minimum of three weeks, the duration of stay to be determined only by medical and/or social needs. The Institute's report concluded:

... active efforts to make the convalescent period yield the maximum benefit to the patient seem generally to be lacking. This is to a great extent a medical question, but it is to be deplored if the English system of convalescent homes, which was for so long regarded as one of the best in the world, has now fallen below the standards reached in other countries.<sup>44</sup>

In addition to falling standards, the committee also calculated that since the end of the Second World War – which had severely disrupted their operation – a significant number of convalescent hospitals and homes had closed. Although the Ministry of Health had been alerted during the war that there was a shortage of convalescence accommodation, it decided to 'disclaim' [i.e. not to bring within the new NHS] 230 institutions.<sup>45</sup> Under section 79 of the 1946 National Health Service Act, only those institutions which provided 'regular medical supervision and nursing care' were eligible for nationalisation. This had to be more than 'rest, good food, fresh air and regular hours' which was the limit of service provided by many traditional homes. The reasoning behind this was that many of these homes were used

43 Institute of Almoners, *Survey of Convalescent Facilities in England and Wales* (London: Institute of Almoners, 1947), 8.

44 Institute of Almoners, *Survey of Convalescent Facilities in England and Wales* (London: Institute of Almoners, 1947), 7.

45 John Pater, *The Making of the National Health Service* (London: King Edward's Hospital Fund for London, 1981), 148.

by patients paid for by local government authorities, and the Ministry could see no way to prevent NHS funds being used to subsidise 'non-medical' users.<sup>46</sup> There were also concerns that it would also prove administratively tricky to send patients outside their NHS regions, and most convalescent institutions were located on the coast. The message was clear: only very exceptional cases of institutional convalescence will be provided for free on the NHS. If hospitals and homes wished to continue they could do so as private facilities, administered by the remaining sickness societies and trades unions that had traditionally provided such a service. Ministry officials acknowledged that there might even be some benefit for the state in this continuation.<sup>47</sup> They were even prepared to help with co-ordination for London patients: 'The evidence that hospital beds are wasted through delay in getting admission to convalescent homes is impressive and we came to the conclusion that it would be worth considering the establishment of a Central Information Office – *not* a central admission office – for the four metropolitan regions.'<sup>48</sup>

Yet by the early 1950s the problem of premature and/or unprepared patient discharge was highlighted by academic studies. Thomas Ferguson and Angus MacPhail in the Department of Public Health at the University of Glasgow (with funding from the Nuffield Provincial Hospitals Trust) conducted a survey of 705 men who had been in-patients at one of four West of Scotland hospitals. The men's progress on discharge was followed for up to two years, and information collected on their socio-economic circumstances and subsequent medical care. Through extensive interviewing the researchers sought to explain the high levels of re-admittance to hospital, and failure to return to previous levels of employment:

It seems clear that further breakdown is sometimes precipitated by the transition – often sudden and dramatic from the protective care of the modern medical ward

46 The National Archives [TNA] MH 123/324 Central Information Office: Convalescence bed vacancies pool, 1951–1955.

47 TNA MH 99/18, Pater to W. Bain Grey 4 May 1948.

48 TNA MH 123/324 King Edward's Hospital Fund for London. Convalescence and Recuperative Holidays, June 1951; Ministry of Health minute 13 September 1951.

to Spartan conditions outside. Hospital treatment is usually only an episode in the general care of the patient; and the health services cannot stand in isolation from other social services. There is a limit to what medicine can do to preserve fitness in the face of bad conditions of living and working.<sup>49</sup>

Ferguson and MacPhail also commented on a larger study of 24,074 patients of which a very low percentage (0.4 per cent) were sent to convalescent homes on discharge. They noted that 'It is an important finding that a formidable proportion of the patients who left hospital on completion of treatment were still far from established good health; it is urgently necessary to take such steps as will ensure that patients obtain as much permanent benefit as possible from hospital care.'<sup>50</sup>

In Liverpool the Regional Hospital Board conducted a study to see whether patients could be successfully moved from acute hospitals into 'Recovery Homes'. These were defined as the equivalent of recovery wards in acute hospitals, and not for patients classified as 'convalescent'. The study had been stimulated by concerns about pressure on NHS resources, and increasing waiting lists. Using a census of patients in fifty of the ninety one hospitals in the Liverpool region on one night in September 1950, it was calculated that 31 per cent were deemed suitable for transfer to a recovery home. When this sample was scaled up to the region's average annual hospital admission of 181,000 patients, and factoring in how long they stayed for various conditions, it was estimated that 1,062,600 bed days in acute hospitals would have been freed up. This positive quantitative result had to be balanced against potential negative outcomes, especially

... the impact on the patient, who might lose confidence in the recovery home which he believed, whether rightly or wrongly, to be inferior to the hospital. This in itself would be a therapeutic loss, and would be a reflection of a more fundamental loss in the shape of interruption, however mitigated, in the doctor-patient relationship. This led on to the complementary effect on the doctor. Divided medical responsibility,

49 T. Ferguson and A.N. MacPhail, *Hospital and Community* (Oxford: Oxford University Press, 1954), v.

50 Ferguson and MacPhail, *Hospital and Community*, 29.



the lowering of standards among doctors confined to recovery home work and the possible departure from the ideal of unity in medical care were emphasised.<sup>51</sup>

The report also emphasised that introducing such an efficient system would actually increase hospital costs, as more patients would be being treated. In the event, Liverpool's hospital governors decided not to proceed with such a radical innovation. At a national level, the Ministry was aware that there were problems with bed blocking, premature discharge and lack of public convalescence facilities. However requests from the British Hospitals Contributory Schemes Association for the NHS to 'buy' the use of the remaining private homes fell on deaf ears.<sup>52</sup>

In 1956 the Ministry of Health established a working party to investigate convalescence treatment. It concluded that '... the treatment of convalescence has remained a medical and nursing backwater, largely unaffected by changes in the main stream ... It needs to become more active, more planned and more integrated with other aspects and disciplines of medicine.'<sup>53</sup> Taking another approach, the Ministry of Health's Standing Medical Advisory Committee's 1959 report on Rehabilitation of the Sick and Injured sought to strengthen the role of the General Practitioner – the family doctor – in the management of convalescence:

There is no sudden transition from the state of being dependent to the recovery of independence and much must depend on the timely intervention of the family doctor. Taking this into account, together with the marked loss of mental and physical function which follows inactivity, it is not surprising that, if patients are left to their own devices, convalescence tends to be a tardy process. Another factor working in the same direction is the virtual removal of pressing financial incentives for an early return to work ... Hence it has come to be recognised that positive management is just as necessary in convalescence as in the acute stage of illness.<sup>54</sup>

51 Liverpool Regional Hospital Board, *The recovery home in the hospital service: an inquiry by a Joint Committee of the Liverpool Regional Hospital Board and the Board of Governors of the United Liverpool Hospitals* (Liverpool: 1953).

52 TNA MH 99/94, Note on convalescence, 3–5.

53 Ministry of Health, *Convalescent Treatment. Report of a Working Party* (London: HMSO, 1959), 39.

54 Ministry of Health, *Rehabilitation of the Sick and Injured, Report Prepared by the Standing Medical Advisory Committee for the Central Health Services Council and the Minister of Health* (London: HMSO, 1959).

These ministerial pronouncements, while helpful to the financial management of the NHS, also reflected ongoing scientific research, both in Britain and the USA. Controlled trials were being conducted in hospitals, with mixed motivations: to identify the most effective recovery process for the patient, but also the most efficient use of healthcare resources. In 1956 Eric Farquharson's article in the *Lancet* announced the results of his experiments with herniorrhaphy as an out-patient procedure at the Royal Infirmary of Edinburgh. The 485 men in Farquharson's trial had been operated on under local anaesthesia and discharged the same day, rather than after the customary ten days in hospital. He estimated that this innovation had saved the NHS 4,830 bed days which would have cost approximately £7,500. It also had the potential to dramatically reduce waiting lists. 'Early ambulation has no deleterious effects on wound healing. It reduces the incidence of complications, uplifts the patient's morale, and in every way accelerates his recovery.'<sup>55</sup>

In the USA too, the medical press was following the transition to earlier ambulation and discharge. In 1958 the *Annals of the New York Academy of Sciences* published a special issue devoted entirely to a recent conference on surgical convalescence. In his introductory remarks, Emerson Day noted that over the past twenty years there had been much progress in the understanding and management of surgical convalescence, and research into basic physiology had led to 'drastic' revisions in the understanding of ambulation and recovery. However, there had been no subsequent adoption of policies for shortened hospitalisation and convalescence. Convalescence was now judged by many of those presenting at the conference as 'prolonged'. It was clear that the opinions and practices of individual hospitals and doctors differed widely. This special journal issue brought together a range of discussions: from the effects of nitrogen balance on stamina to studies on the factors which influenced patients' emotional reactions to surgery and postoperative adjustment.<sup>56</sup>

55 E.L. Farquharson, 'Early Ambulation with Special Reference to Herniorrhaphy as an outpatient procedure', *Lancet* 2(1955), 517–519.

56 A.M. Sutherland, 'Psychological Factors in Surgical Convalescence', *Annals of the New York Academy of Sciences* 73 (1958), 491–499.

One of the contributors to the *Annals* special issue was Francis Moore. In 1950 his team at the Peter Bent Brigham Hospital in Boston (linked to the Harvard Medical School) had begun to review metabolic balance studies in surgical patients. By his own admission, their studies were 'crude in the extreme, being merely a measure of the intake and output of nitrogen, sodium and potassium and a correlation of these with the patient's clinical behaviour, certain aspects of his body composition, and the familiar laboratory studies of blood counts and chemical analyses.'<sup>57</sup> Moore began to discern a series of dynamic phases of convalescence, which he had formalised into a four phase model of convalescence in 1952.<sup>58</sup> He argued that post-operative hospital convalescence was a normal process – not a disease or disruption in the body's pathology – and therefore needed no intervention.

In the first stage of Moore's model, (lasting two to three days) the body suffered injury or trauma (surgical or accidental). It then lost lean tissue and gained water. The patient was weak and listless, had no ambition or appetite and wanted to be quiet and alone. Nitrogen was lost from the body in proportion to the extent of the injury. The second stage Moore labelled 'The Turning Point' or the 'Lipstick Positive Sign' (when female patients resumed an interest in using makeup). It was marked by a decrease in the rate of lean tissue catabolism and a decrease in excretion of urinary nitrogen. Gastro-intestinal function including peristalsis returned, along with a desire for food and diuresis of water and salt. This stage also typically lasted one to two days. The third stage was signified by spontaneous nitrogen anabolism leading to increased strength and muscle re-growth. Moore noted that this would not occur without appropriate diet and that exogenous calorie intake must be in excess of work output for protein synthesis to occur. This phase ended when lean tissues of the body had been

57 F.D. Moore, 'Getting Well: the Biology of Surgical Convalescence', *Annals of the New York Academy of Sciences* 73 (1958), 388.

58 F.D. Moore and M.R. Ball, *The Metabolic Response to Surgery* (Springfield, Illinois: C. Thomas, 1952). The research had been part-funded by the Subcommittee on Metabolism in Trauma, of the Advisory Committee on Metabolism of the Office of the Surgeon General of the US Army, and part by the Atomic Energy Commission, both based in Washington D.C.

returned to an absolute maximum, as determined by genetic constitution and the external work requirement of the individual. The fourth and final stage of convalescence as outlined by Moore was the fat gain phase, in which the patient continued to gain weight, whilst total body water remained constant. When the patient's body weight had returned to normal, the fat gain phase was over and *biological* convalescence was considered to have been completed.<sup>59</sup>

In his *Annals* paper Moore stressed that it was important not to try to cover up short term effects of convalescence (e.g. Nitrogen, potassium or weight loss) and to allow the body to heal itself. It appeared that having established the parameters for the physiology of convalescence, that scientific attention was shifting towards psychological factors. Wolff had already demonstrated in the 1940s that patient expectation played a significant role in determining when people felt fully recovered. Now there emerged a number of research projects that looked at doctors' expectations and predictions, and their impact on patients' progress.

Henry Moss of the Harrison Department of Surgical Research at the University of Philadelphia and the Albert Einstein Medical Center, had a long-standing interest in the role of doctors in predicting the period of convalescence.<sup>60</sup> He was also one of the speakers at the 1958 New York Academy of Science conference, reporting on his research the previous year with C.W. Schwegman and Curtis Dohan.<sup>61</sup> They had sent a questionnaire to American surgeons, asking how long they would keep a patient off work following surgery for inguinal herniorrhaphy. The responses varied from seven to eighty four days for light work and from twenty one to 180 days for heavy work. There was a similar divergence of opinion to their questions on appendectomy, hemorrhoidectomy, cholecystectomy and hysterectomy.

59 F.D. Moore, 'Getting Well: the Biology of Surgical Convalescence', *Annals of the New York Academy of Sciences* 73 (1958), 387-400.

60 N.H. Moss, C.W. Schwegman, F.C. Dohan, 'Surgical Convalescence; when does it end?' *JAMA* 165/4 (1957), 322-326.

61 Moss, Schwegman, Dohan, 'Surgical Convalescence; when does it end?' 322-326; N.H. Moss, F.C. Dohan, 'Surgical Convalescence: when does it end?' *Annals of the New York Academy of Sciences* 73/2 (1958), 455-464.

Moss and Dohan's paper was not the only one to probe the issue of doctors' directives. David Gold of the US Air Force contributed a paper on when Air Force personnel returned to 'full duty' following appendectomy, and proposed that the traditional *civilian* convalescence period could be substantially shortened, based on what military surgeons could achieve.<sup>62</sup> Harvey Saffier and Allan Fleming, who used health insurance and industrial case studies, calculated that not one of their civilian patients had returned to work by the time that 75 per cent of Gold's Air Force patients had.<sup>63</sup> Fleming's company offered benefits from the first day of disability for salaried employees, and from the eighth day they were covered by accident and health insurance, which would pay for a maximum period of thirteen weeks of disability. There was therefore, little incentive to return to work quickly. Using insurance claims from the 90,000 workforce for two common operations – appendectomy and herniorrhaphy – in 1956, he could see little improvement in lost working days compared with statistics from thirty years earlier. Although the hospital stays were now shorter, patients were spending longer at home convalescing before returning to work. Fleming suggested that this was the fault of expectations set up by hospital surgeons. The last paragraph of his paper makes clear some of the motivation behind these new occupational health research projects:

I make one plea to surgeons. When you are satisfied concerning the surgical recovery of a patient, leave the decision as to return to work to the plant [factory] physician, if the patient's company has one. A well-trained and experience industrial physician knows the nature of the employee's job and is better able to judge ... The addition of another two-week period of convalescence merely for the sake of safety can often be avoided by so doing. Keeping people gainfully employed is our job. An unnecessary extension of convalescence is waste, and today, the price of waste is high.<sup>64</sup>

62 D. Gold, 'Early Ambulation and Return to Full Duty in the United States Air Force', *Annals of the New York Academy of Sciences* 73 (1958), 517–523.

63 H.J. Saffier, 'The Duration of Surgical Convalescence as Indicated by Insurance Statistics', *Annals of the New York Academy of Sciences* 73 (1958), 444–454; A.J. Fleming, 'Return to Work After Surgery: An Industrial Study', *Annals of the New York Academy of Sciences* 73 (1958), 509–516.

64 Fleming, 'Return to Work After Surgery', 515–516.

Paul Hawley, rector of the American College of Surgeons, used his conference paper to look at the sociology and economics of convalescence. He calculated that in 1954 approximately 8,100,000 Americans had undergone surgery. If half of these operations were on working-age people (the rest were children and the elderly), and if the period of surgical convalescence could be shortened by 25 per cent, then the estimated savings to the national economy would be more than \$1 billion per annum.<sup>65</sup> This chimed with the recent report from the Research Council for Economic Security, which had found that absences of more than four weeks due to disability were a significant problem that the USA urgently needed to address.

## The patient within the economic model

In Britain, as NHS costs continued to increase during the 1960s, the government began to look at how it measured – indeed if it measured – those costs. Although there were budgets set for Regional Health Boards, family practitioner services and those health services provided through local government (and mainly paid by local property rates), there was amazingly little information on what individual hospital procedures actually cost. In 1950 a basic costing scheme had been introduced, and in 1966 this was upgraded to a departmental costing scheme – but it proved difficult to relate costs to the hospitals' ultimate product – fit patients.

In 1962 Professor T.E. Chester of the University of Manchester had supervised a study by Beatrice Hunter that looked at the impact of administrative factors on length of hospital stay.<sup>66</sup> Writing in the foreword, he noted:

65 P.R. Hawley, 'Sociological Importance of the Convalescent Period', *Annals of the New York Academy of Sciences* 73 (1958), 482–486.

66 B. Hunter, *The Administration of Hospital Wards* (Manchester: Manchester University Press Studies in Social Administration, 1962).

There has been a general feeling that something is wrong with the hospital service. Many suggestions have been made about how to cure the trouble, but these have been based on insufficient evidence about its real cause. Doctors faced with a patient suffering from vague symptoms due to an undiagnosed ailment carry out various tests. They use tracers such as barium and isotopes to pinpoint the source of the trouble. We decided to take a leaf out of the doctors' book and try to diagnose the malaise in the hospital system by similar means. The patients themselves, as they went through the hospital, could be used as tracers and could show where inefficiencies and shortcomings occurred. The efficiency of a car factory can be judged by the throughput of cars and, although the throughput of patients cannot be estimated on quite the same basis, patients have an advantage over cars in that they can speak and know what is happening to them.<sup>67</sup>

What emerged from the Manchester study was a recognition that it ought to be possible to work out the cost of each patient treated in a hospital (medical, nursing costs, food, laundry, share of the overheads, etc). Similar studies were conducted by Anne Scitovsky at the Stanford Research Center in California; for heart disease by the University of Louvain Medical School in France, by Yale University and the World Health Organisation. The common aim of these projects was to determine whether optimal use was being made of hospital resources. Chester got further funding, and John Babson was tasked with developing a methodology and pilot study, which he published in 1973. It demonstrated that patients who had undergone hernia surgery (what used to be called herniorrhaphy) would cost the NHS less if they were discharged before their sutures needed removing, and sent either to convalescent homes, which were now increasingly referred to as extended care facilities [ECFs], or directly home under the care of a district nurse. Babson calculated that the cost of treating a hernia patient traditionally in an acute hospital (average length of stay 9.2 days) was £58.15. If the patient was discharged to an ECF the total convalescence period fell to 6.6 days and the cost was £48.80. The cheapest option of all was to discharge the patient early to his home after 5.83 days in hospital. This cost

67 Hunter, *The Administration of Hospital Wards*, vii.

£42.05, including 56p for the district nurse's visit.<sup>68</sup> A linked study looked at the cost effectiveness of using day care units for minor surgery. Again, there were potential problems with the increased financial burden on local government authorities who provided the district nursing service.

One of Babson's recommendations was that hospital consultants should no longer have the right to decide when to admit and discharge patients, but that this should be 'managed' by administrators who had oversight of waiting lists and bed occupancy rates. Babson was but one of a handful of health economists and health service administrators who were beginning to see length of stay and convalescence from the hospital's financial perspective. Another key researcher was Mike Heasman, Director of the Research and Intelligence Unit of the Scottish Home and Health Department. He published a number of papers from the mid-1960s on increasing the efficiency of in-patient treatment related to length of stay, and opened up discussion in the 1970s on the trade-off between efficiency and effectiveness in hospital care.<sup>69</sup> He took advantage of improvements in hospital records in 1967 to extract statistics on length of stay by consultant. This showed wide variations for common surgical procedures, including some patients spending unnecessary days in hospital *before* their surgery. By presenting each consultant with their own performance statistics, it was hoped (and supported by the British Medical Association's Planning Unit) that they might be persuaded to alter their practices to save NHS resources. At that time, however, there was no incentive for British doctors to work more efficiently and to reduce lengths of stay. In contrast, in the

68 John H. Babson, *Disease Costing* (Manchester: Manchester University Press Studies in Social Administration, 1973), 27.

69 Michael A. Heasman, 'How long in hospital? A study in variation in duration of stay for two common surgical conditions', *Lancet* 1 (1964), 539–541; Michael A. Heasman, 'Inpatient Management: Variations in some Aspects of Practice in Scotland', *British Medical Journal* 1 (1971), 495–498; Michael A. Heasman, 'Increasing the Efficiency of In-Patient Treatment', in M.M. Hauser (ed.), *The Economics of Medical Care* (London: George Allen and Unwin Ltd, 1972). See also D. Morris, A. Ward and A. Handyside, 'Early Discharge After Hernia Repair', *Lancet* 1 (1968), 681.



USA, there was some incentive for patients to push for discharge before the day on which their health insurance coverage terminated.<sup>70</sup>

The move towards earlier discharge might have been good for the financial health of the NHS, but it happened without full consideration for what would happen to patients afterwards. As with Ferguson and McPhail's research in the 1950s, there was still evidence of a damaging discontinuity in care in the mid-1970s. The Royal College of Nursing published its research report: *Discharged from Hospital* in 1975.<sup>71</sup> It found that many ward sisters did not regard the preparation of the patient for 'aftercare' as important. It highlighted the need for coordination of community (local authority-funded) services if the trials of shortened hospital stays conducted by Hockey at the Queen's Institute of District Nursing in 1970 were to be fully implemented.<sup>72</sup>

In 1977 a paper was published by Jeremy Hurst, a member of the British government's Economic Service entitled 'Saving Hospital Expenditure by Reducing In-Patient Stay'.<sup>73</sup> Based on an analysis of various hospitals and patient types using data from the new Hospital In-Patient Enquiry [HIPE] which had been established in 1974, it calculated the average hospital stay at between seven and thirteen days. When examined by speciality, the range was from ENT (four days) to Rheumatology/General Chest medicine (45 days). Hurst's conclusion was that NHS Area Health Authorities (who now worked to tighter annual budgets using the Resource Allocation Working Party formula [RAWP]), could save up to £100 million p.a. if hospitals operated a selective policy of early discharge. Some hospitals experimented with 'five day wards' in which uncomplicated surgery cases

70 R.J. Milne, 'Comment on "Increasing the Efficiency of In-Patient Treatment"', in M.M. Hauser (ed.), *The Economics of Medical Care* (London: George Allen and Unwin Ltd, 1972), 223.

71 Ida Roberts, *Discharged from Hospital* (London: Royal College of Nursing and National Council of Nurses of the United Kingdom, 1975).

72 L. Hockey and A Buttimore, *Co-operation in Patient Care* (London: Queen's Institute of District Nursing, 1970).

73 Jeremy W. Hurst, *Saving Hospital Expenditure by reducing in-Patient Stay* (London: Government Economic Service Series No.14 HMSO, 1977).

could be treated on weekdays, and the wards closed at the weekends to save on staffing costs. At the European level, some countries looked to end the policy of unrestricted daily payments through health insurance for patients – which encouraged hospitals to keep patients for longer.<sup>74</sup> The average length of stay for general surgery in Britain fell from 8.9 days in 1974 to 7.1 days by 1984; for appendectomies it fell from 14.9 to 11.9 days, and for inguinal hernias from 7.3 to 4.9 days. However, the Americans were still doing it faster: the average hospital stay for hernias by 1985 was 3.0 days.<sup>75</sup>

The impact of new surgical techniques such as keyhole surgery in the 1980s facilitated day surgery. Its widespread adoption also forced changes in hospital practices: patients now required tuition in changing dressings and domestic wound care. These innovations, and also their promotion by influential professional groups such as the Royal College of Surgeons, was welcomed by the Conservative government of 1979–1997, which put greater emphasis on NHS performance indicators and efficiency initiatives. It also instituted new data collection policies such as Hospital Activity Analysis. This was used by Myfanwy Morgan, Elizabeth Paul and H.B. Devlin in 1987 for a survey of lengths of stay for appendectomy, inguinal hernia repair and cholecystectomy.<sup>76</sup> Given the standardising trends within the NHS since 1948, it showed a surprising and considerable variation amongst hospital districts. In the Northern Regional Health Authority, three of the districts had hospitals in which the average length of stay for hernia operations was 125 per cent of the regional average – resulting in over 2,000 additional bed days per year being occupied. Clearly, there were well-entrenched *regional* practices for patient post-surgical management. This highlights

74 Brian Abel-Smith and Alan Maynard, *The Organisational, Financing and Cost of Health Care in the European Community* (Brussels: CEC, 1979), 154–156.

75 Myfanwy Morgan and R. Beech, 'Variations in Lengths of Stay and Rates of Day Case Surgery: Implications for the Efficiency of Surgical Management', *Journal of Epidemiology and Community Health* 44/2 (1990), 90–105.

76 Myfanwy Morgan, Elizabeth Paul and H.B. Devlin, 'Lengths of Stay for Common Surgical Procedures', *British Journal of Surgery* 74/10 (1987), 884–889; Morgan and Beech, 'Variations in Lengths of Stay and Rates of Day Case Surgery: Implications for the Efficiency of Surgical Management', 90–105.

the importance of tradition within clinical education, and the system of surgical 'firms' adopting whatever orthodoxy their consultant decreed. It is an impermeable culture, which no amount of *national* NHS directives will fully overcome.

By the 1990s, with unprecedented interest in the efficiency and cost of the NHS (and some discussion that it might not be worth saving as a model) there were concerns about how far the reduction in length of stay could be pushed, and at what cost. Length of stay was even being used as one of the Health Service indicators on which some hospital managers' performance-related pay depended.<sup>77</sup> British health economists were also looking to European neighbours for inspiration on reducing hospital costs. Most countries appeared to be introducing policies to reduce lengths of hospital stays, and testing a range of financial incentives and penalties: reducing quotas for bed days, capping the reimbursement of hospital costs by health insurance schemes, etc. Denmark had been particularly successful in developing day hospitals and day surgery, and reduced lengths of stay by 25 per cent in five years. One Danish county also experimented with charging local authorities for the stay of their residents in hospital when their medical condition no longer required it – forcing them to provide community accommodation to reduce bed blocking. Portugal had also achieved a 14 per cent reduction in length of stay, and Belgium a 16 per cent reduction over five years. Germany's main sick funds introduced flexible budgets to try to standardise length of hospital stay.<sup>78</sup>

Many of the European schemes looked for inspiration to the USA, where the development of Diagnostic Related Groups [DRGs] had enabled Medicare to begin experimenting with a 'prospective payment system' in 1980. This effectively capped the reimbursement of hospital costs and

77 A. Clarke, 'Why are we trying to reduce length of stay? Evaluation of the costs and benefits of reducing time in hospital must start from the objectives that govern the change', *Quality in Health Care* 5/c (1996), 172–179. This paper is based on a systematic Medline search on references to length of stay published in English between 1983 and 1995.

78 Brian Abel-Smith, *Cost Containment and New Priorities in Health Care* (Aldershot: Avebury, 1992), 120.

increased pressure on doctors not to let patients stay over the defined period.<sup>79</sup> A study in Massachusetts showed that 20 per cent of the reduction in acute hospital length of stay coincided with the introduction of the prospective payment system.<sup>80</sup> Patients in adjacent beds in an American hospital having the same surgical procedure could find that they had different lengths of stay purely because they had different health [insurance] plans.<sup>81</sup> But alongside these predominantly economic explanations for varying lengths of stay, evidence also exists of the importance of other, often surprising factors. A study in the USA of several thousand discharges found that over the course of an academic year, as newly-qualified doctors became more confident, the average length of their patients' stays reduced by 0.43 days.<sup>82</sup>

## Conclusion

Attitudes to convalescence resonate with a shift in twentieth century society towards increased productivity and activity. For hospitals, the management of convalescent patients came to be seen as a problem rather than a natural part of their activities. After the basic science of physiological and psychological recovery had been established in the mid-twentieth century,

- 79 Paul Starr, *The Social Transformation of American Medicine* (New York: Basic Books, 1982); L.D. Weiss, *Private Medicine and Public Health. Profit, Politics and Prejudice in the American Health Care Enterprise* (Boulder, Colorado: Westview Press, 1997).
- 80 A.M. Epstein, J. Bogen, P. Dreyer, K.E. Thorpe, 'Trends in length of stay and rates of readmission in Massachusetts: implications for monitoring quality of care', *Inquiry* 28 (1991), 19–28.
- 81 R.S. Stern, P.I. Juhn, P.J. Gertler, A.M. Epstein, 'A comparison of length of stay and costs for health maintenance organization and fee-for-service patients', *Arch Intern Med* 149 (1989), 1185–1188.
- 82 E.C. Rich, G. Gifford, M. Luxenberg, B. Dowd, 'The relationship of house staff experience to the cost and quality of inpatient care', *JAMA* 263 (1990), 953–957.

convalescence was increasingly viewed primarily from an economic and institutional perspective. Shorter hospital stays effectively shifted secondary convalescence out of the gaze of the doctor. One might even suggest that it has become invisible within society. Few British people now remember convalescent hospitals and homes, which were such an integral part of medical care up until the formation of the NHS in 1948. Professional, cultural and, most importantly, commercial expectations are that convalescence should be as fast as possible.

Yet there are biological limits to speeding up this process, as even nineteenth century doctors observed. There is a tipping point at which the risks of physical or psychological damage appear. Premature discharge, especially in recent years, has been shown to result in a surge in re-admissions, particularly among elderly patients, who (at least in Britain) have reduced access to local authority social services care. These 're-bounds' would not be so surprising if the history behind shortening lengths of hospital stay were understood by doctors and hospital managers. This broad overview paper indicates how stresses on hospital systems, such as wars and economic recessions, are linked to renewed attempts to use advances in scientific knowledge to alter hospital practices. What weighs against these developments is tradition at a personal, professional and institutional level. The patient has a clear expectation of what their recovery should involve, which is determined by their past experiences and the attitude shown by their doctors, which is also based as much on past practice as current scientific theory.



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