

# A history of The Royal National Throat, Nose and Ear Hospital 1874–1982

GLENICE GOULD PH.D.

## Preface

This history of the Royal National Throat, Nose and Ear Hospital at Gray's Inn Road formed the core of a thesis submitted to the Open University for a Doctorate of Philosophy and is not an official history. I was encouraged to give it wider circulation particularly by Sir Donald Harrison and Mr Edward Donald. The Special Trustees of the Hospital have most generously sponsored this supplement which I hope will serve to provide some interest to those who have worked at Gray's Inn Road. I must begin with an apology as it does not attempt to record the achievements of all the staff at the RNTNE and many eminent contributors to the success of the Hospital have been omitted either through my own ignorance or through lack of space to cover all areas of the Hospital's development. I have been fortunate in obtaining both written and oral historical memoirs from retired doctors, nurses, administrators and technicians who worked for many years at Gray's Inn Road. I would like particularly to thank Peter Zwarts, librarian of the Institute of Laryngology and Otology, and the librarians at the Wellcome Institute for the History of Medicine and the Guildhall. I would also like to thank Andrew Gardner of the ILO for a number of the illustrations. In particular I would like to thank my OU supervisor, Dr Noel Coley, for his patience and encouragement.

## Introduction

To understand the reasons for the growth of specialist hospitals in London and the rise of specialisms, we must first review some of the social factors affecting the provision of medical care in the 19th century. Beginning with the first census in 1801 the Registrar General recorded details of the numbers and occupations of all the citizens<sup>1</sup> and this information was then available for use by public health reformers. There was an outcry about the insanitary state of urban environments following each of the great cholera epidemics that struck British towns and cities in 1831/32, 1848/49 and 1853/54. In 1853 alone there were 20 100 deaths from cholera, more than half of which occurred in London.<sup>2</sup> Overcrowding with lack of light and air, poor diet, poor water supply and totally inadequate sanitation, led to insupportable living conditions in many towns. Most sanitarians, including Edwin Chadwick, Secretary to the Poor Law Commission,

believed that dirt gave rise to disease, a view later shared by Florence Nightingale from her experiences in the Crimea.<sup>3</sup> The predominant Victorian theory was that disease was caused by 'miasmata', bad smells originating from decaying vegetables and animal matter, human and animal excrement and other decomposing material which littered the streets. Public health reformers considered the removal of this filth essential, but there was strong resistance from property owners opposed to the cost involved and the loss of revenue from the sale of this material to farmers as manure.

The Health of Towns Association was set up in 1844. It consisted of many provincial branches linked to a central committee in London<sup>4</sup> and was a propagandist body which disseminated facts and figures from official reports and organized public meetings to petition Parliament about the insanitary conditions of many towns.<sup>5</sup> The Health of London Association was also concerned that a great many people left the towns when ill so that the true

<sup>1</sup> Rivett, G. (1986) *The Development of the London Hospital System, 1823–1982*, King Edward's Hospital Fund for London, pp 14–15.

<sup>2</sup> Longmate, N. (1966) *King Cholera. The Biography of a Disease*. Hamish Hamilton, London, p 195.

<sup>3</sup> Woodham-Smith, C. (1964) *Florence Nightingale*. Fontana, London, p 127.

<sup>4</sup> Membership of the Health of Towns Association included the aristocracy Lord Ashley, the Marquis of Normandy, Lord Ebrington; the Bishops (London, St David's and Norwich) and W.E. Hickson, a tradesman's son, and John Leslie son of a tailor. Doctors Southwood Smith (its founder), John Simon, Joseph Toynbee and R.D. Grainger together with politicians as opposed as Disraeli and Hawes, all united by the miserable condition of London.

<sup>5</sup> Finer, S. E. (1952) *The Life and Times of Sir Edwin Chadwick*, Methuen, London, p 238.

numbers of deaths were not reported by the Registrar General.<sup>6</sup> Both Associations believed that an immense amount of illness was caused by defective drainage and sewerage, the shortage of pure water and inadequate cleansing of streets.<sup>7</sup> This was confirmed by the findings of Dr Arnott, an authority on public health, Dr Kay of Manchester<sup>8</sup> and Dr Southwood Smith (a physician to the London Fever Hospital), who were commissioned by Chadwick to report on the preventability of disease in London.<sup>9</sup> The Public Health Act of 1875 improved sanitation and when Dr John Simon (1816–1904), a member of the Health of London Association, followed in Chadwick's footsteps, medical knowledge and experience began to be applied to public health problems.<sup>10</sup> This was significant for the hospital movement as Simon suggested that more hospitals were needed in London.<sup>11</sup>

Poor people without the support and care of a family needed somewhere to live and poorhouses, or workhouses, had been set up by each parish from 1780 to cater for local orphans, the aged and infirm, and the unemployed including itinerant workers and ex-soldiers. Indeed it is likely that the sick in workhouses exceeded those in hospitals in the mid 19th century.<sup>12</sup> To ensure better administration of the workhouses Chadwick proposed the establishment of unions to combine the aged, sick, unemployed and destitute children in one building and thus cut the costs of running several smaller establishments. These unions were set up under the Poor Law Amendment Act of 1834. Each union had a Board of Guardians and lay visitors to oversee the

living conditions of the inmates; the Guardians were also empowered to appoint union officials including medical officers.<sup>13</sup> It has often been thought that medical care was provided by the New Poor Law for anyone needing it,<sup>14</sup> but in fact the medical officers' contracts were confined to 'sick paupers'. Chadwick, who believed in prevention rather than cure, had 'a contempt for medicine',<sup>15</sup> which resulted in little support from him for the Poor Law medical service. However, as the appointments were arranged by the Guardians of the unions, there were about 4 000 medical officers in post by the end of the century.<sup>16</sup> The reputation of the workhouse infirmary was poor in the eyes of the medical officers<sup>17</sup> in the latter half of the century, but surveys undertaken in 1848<sup>18</sup> and 1858<sup>19</sup> showed that inmates had a relatively good average state of health.

During the 19th century the population of Britain as a whole increased from 12 million in 1801 to 38 million in 1901,<sup>20</sup> accompanied by a drift of people to the towns and cities, where industries and commerce provided employment. In the 1840s, the death rate in towns was greater than the live birth rate so town populations grew by imports of people from the country.<sup>21</sup> The mortality in the 1840s was 22 per 1 000 (2.2 per cent) but the infant mortality was much greater at 150 per 1 000 (15 per cent) live births.<sup>22</sup> Although this was an improvement on the previous century<sup>23</sup> life was still tenuous and in Southwark in 1847 the average age at death was 20 years for artisans and 46 for gentry.<sup>24</sup>

<sup>6</sup> Gavin, H. (1985) *The Unhealthiness of London*, Gardling Publishing, London, p 7.

<sup>7</sup> The Health of London Association. (1847) *Report on Sanitary Conditions of the Metropolis*, Chapman Elcoate, London.

<sup>8</sup> Kay, J. (Sir James Kay-Shuttleworth) (1832) *The Moral and Physical Condition of the Working Classes employed in the Cotton Manufacture in Manchester*. James Ridgway, London.

<sup>9</sup> Finer, op. cit. note 5, pp 155–156.

<sup>10</sup> Lambert, R. (1963) *Sir John Simon 1816-1904 and English Social Administration*. MacGibbon & Kee, London, p 227.

<sup>11</sup> *Ibid.*, p 479.

<sup>12</sup> Abel-Smith, B. (1964) *The Hospitals 1800-1948. A Study in Social Administration in England and Wales*, Heinemann, London, p 4.

<sup>13</sup> Parliamentary Papers. (1834) *Poor Law Amendment Act, A Collection of the Public General Statutes Passed in the 4th-5th year of the reign of William the Fourth*. Eyre and Spottiswood, London, Guildhall Library, p 586.

<sup>14</sup> Coleman, V. (1985) *The Story of Medicine*. Robert Hale, Bury St Edmunds, p 198.

<sup>15</sup> Finer, op. cit., note 5, pp 159–160.

<sup>16</sup> Hodgkinson, R. G. (1975) *Science in Public Health In: Open University Course, AST281. Science and the Rise of Technology since 1800*, Unit 10, p 32.

<sup>17</sup> Reports regarding medical officers of hospitals was undertaken by *The Lancet* and reported: *ii*, 1856, p 203; *ii*, 1864, pp 355–356; *i*, 1883, pp 653–655; *i*, 1893, p 819.

<sup>18</sup> Farre, A., Grainger, R. D. (1850) *Report to the General Board of Health on Metropolitan Workhouses*. House of Commons, London.

<sup>19</sup> Farnall, B. (1866) *Report on the Infirmary Wards of the Metropolitan Workhouses*. House of Commons, London.

<sup>20</sup> Rhodes, P. (1985) *An Outline History of Medicine*, Butterworths, London.

<sup>21</sup> Harrison, J.F.L. (1988) *Early Victorian Britain 1832–1851*, Fontana Press, London, p 27. The growth of some large British cities between 1831–1851 includes Manchester from 182,000 to 303,000; Leeds 123,000 to 172,000; Birmingham 144,000 to 233,000; Glasgow 202,000 to 345,000.

<sup>22</sup> *Ibid.*, p 16.

<sup>23</sup> Sir Walter Besant in his study on St Botolph's Bishopsgate a century earlier calculated that out of 885 children born, 516 (58 per cent) died before the age of five and that expectation of life was under 30 years. Quoted in Evans, A.D. and Howard, L.G.R. (1930) *The Romance of the British Voluntary Movement*, Hutchison, London, p 138.

<sup>24</sup> Druitt, B. (1966) *The Growth of the Welfare State*. Hamish Hamilton, London, p 118.

The population of London rose from one to four million between 1801–1871 and overcrowding in badly-built housing became a growing hazard. The Metropolitan Board of Works, set up in 1855 by Sir Benjamin Hall,<sup>25</sup> initiated various aspects of urban improvement including the completion of the main London sewerage system. Between 1856 and 1887 the Metropolitan Board of Works spent over £14 million on river pollution, occupational diseases, industrial health, milk supplies, food and drug regulation, the drink trade and the provision of parks or open spaces.

By 1865 widespread unemployment in London led to overcrowding of the workhouses.<sup>26</sup> Those who were sick could not work and treatment in the infirmaries worsened. Consequently poverty, unemployment and sickness were linked with the slums of London and other cities such as Glasgow and Manchester, which were studied for the Chadwick Report.<sup>27</sup> Although London did not now have as many beggars as formerly there were still great numbers subject to malnutrition and alcoholism. While the Chadwickians promulgated the view that dirt and sickness were directly linked, other medical people considered that there were wider social causes for the diseases.<sup>28</sup> The large number of people in the towns, particularly London, began to manifest different diseases such as typhoid, typhus, venereal disease and tuberculosis. Rising industrialization brought occupational diseases such as chimney sweeps' cancer and lead-poisoning among painters. One of the best known is the match-girl's necrosis of the jaw bone caused by phosphorus.<sup>29</sup> The death of Prince Albert in 1861, due to typhoid fever, the same cause as great numbers living in the slums of London, showed that such diseases were not limited to the poor.<sup>30</sup> With the increased incidence of these different disorders there came a need for increased availability of treatment and the need for more specialized medical knowledge. This was to be provided by the increased numbers seeking medicine as a career and by more opportunities to study the disease intensively in hospitals where many similar cases could be brought together.

Hospitals had been founded in London since the 12th century with St Bartholomew's in 1123 and St Thomas's in 1207. During the 18th century charities for the care of the sick developed as a recognized

form of public service, but although many hospitals were founded in the 18th century, there were only about 3 000 patients in hospital in 1800; by 1851 the number of in-patients had more than doubled.<sup>31</sup> There was a strong sense of duty amongst the Victorians to contribute to local causes whether financially or by voluntary service, and the hospitals benefited greatly from this. The increased sense of moral responsibility, particularly among those with power, arose as a response to criticisms and demands from humanitarian movements and individuals. In the 1860s Dickens held readings of his work for audiences including scientists,<sup>32</sup> politicians and socialites, raising money for such projects as the new children's hospital which was being set up by Dr Charles West.<sup>33</sup> With this greater awareness and the increasing wealth of some sections of society, the desire to rectify some of the inequalities was channelled into philanthropy, which took the form of subscriptions to, and endowment of, charities including hospitals.

Voluntary hospitals, which had been set up in the previous generation mainly by rich men without the support of Church, State or ratepayers, were included with other institutions receiving donations. The earlier hospitals founded in the Middle Ages, mostly through religious orders, provided a haven for the lame, blind, chronically sick and beggars.<sup>34</sup> The voluntary hospitals were set up as charitable institutions involving one or more medical men with the aim of caring for the acutely ill. They were maintained by the benefactions of individuals and were served by an unpaid medical staff.<sup>35</sup>

The increasing population in London meant that there were too few voluntary hospitals. Admission to hospital was not easy; it was mainly through letters of introduction from governors or patrons. This would be difficult for the poor. The destitute could be sent to the voluntary hospital by their workhouse guardians if the patient could not be treated by their infirmary. Self reliance and thrift led some who were poor to make provision for illness and hospitals would usually accept labourers, small tradesmen and mechanics who could pay.<sup>36</sup> In the 1860s there was a mushrooming of hospital building in London sponsored by the wealthy business community to cater for the increased number of patients.

<sup>25</sup> *Report of the Metropolitan Board of Works* (1889) Judd & Co., London gives a complete summary of the work undertaken by this organization before it became the London County Council in 1889.

<sup>26</sup> Rogers, J. (1889) *Reminiscences of a Workhouse Medical Officer*, Fisher, London.

<sup>27</sup> Chadwick, E. (1842) *Report on the Sanitary Conditions of the labouring population of Great Britain*. Edinburgh University Press, London.

<sup>28</sup> Hamlin, C. (1992) Predisposing Causes and Public Health in early Nineteenth Century Medical Thought. *Social History of Medicine*. p 5, 70.

<sup>29</sup> Hodgkinson, op. cit., note 16, p 24.

<sup>30</sup> Hibbert, C. (1984) *Queen Victoria in her Letters and Journals*. John Murray, London, pp 155–156.

<sup>31</sup> Abel-Smith, op. cit., note 12, p 16.

<sup>32</sup> Owen, R. (1894) *The Life of Richard Owen*. John Murray, London, p 129.

<sup>33</sup> Piller, G. J. *The Story of the Hospital for Sick Children, Great Ormond Street*. B.W.W. Printers, Bridgewater, undated, p 4.

<sup>34</sup> Abel-Smith, op. cit., note 12, p 4.

<sup>35</sup> Rivett, op. cit., note 1, p 24.

<sup>36</sup> *Ibid.*, p 28.

Leprosy and lunacy were among the oldest traditions of hospital specialization but specialist hospitals were also founded in London for fever, venereal disease and child birth. Following the end of the Napoleonic war (1815) and the return of many soldiers with eye problems, ophthalmic hospitals were established.<sup>37</sup> Between 1800–1900 96 hospitals were set up in London of which over half were specialist: 43 general, 13 maternity/women, 12 children, five naval/military, four eye, three ENT, three nerves, three rectum, two heart, two homeopathic, two skin, one cancer, one chest, one dental, one fever. Many of the specialist hospitals treating specific parts of the body, such as ear, nose and throat,<sup>38</sup> rectum<sup>39</sup> or chest<sup>40</sup> were first established as dispensaries, small establishments, sometimes with only one or two rooms where the doctor would see the patient, provide out-patient treatment and dispense the medication. As patient numbers built-up and more extensive treatment was given for which in-patient accommodation was needed, the dispensary would be enlarged to a hospital. The care of patients such as children or epileptics, who were not catered for in the general hospital, inspired the foundation of hospitals such as Great Ormond Street<sup>41</sup> and Queen Square.<sup>42</sup> In other cases, however, specialist hospitals arose because of the growing number of ambitious doctors who moved towards specialism as a means of advancement.

The Metropolitan Poor Bill (1867) established State hospitals in London,<sup>43</sup> mostly for infectious diseases and the insane, but these did not incorporate the improvements in environmental conditions as recommended by Florence Nightingale, Dr Sutherland and Timothy Holmes in the Report of the Select Committee of 1861 covering ventilation, cleanliness and sanitation. More hospitals had been built by the late 1860s, but in respect of cleanliness and administration many had sunk to a very low level. The voluntary hospitals had the best surgeons and physicians but medical science was in its infancy and environmental conditions were little better than the workhouse infirmaries.<sup>44</sup> The poor quality of hospital care was not helped by the practice of

bringing the dead or dying into hospital.<sup>45</sup> Henry Burdett, of the King's Fund, in his comprehensive study of hospitals and sanatoria around the world also emphasized the need for good financial management to provide adequate revenue.<sup>46</sup> Thus modern tenets of health and safety together with good administration were recognized at this time but were not always implemented. The medical relief system which mainly treated its patients in the workhouse infirmaries or state mental hospitals sometimes transferred patients to the voluntary hospital. If the ailment was very specific they would use the special hospitals, to which some Boards of Guardians used to subscribe as insurance for their patients. Once the introduction of the nursing methods of Florence Nightingale and the antiseptic routine of Lister had permeated the hospitals, they became more acceptable places for treatment of the prosperous artisan, the middle class, and even the rich. It has been suggested that the improved status of doctors began from the 1870s when hospitals became centres of medical progress and hospital practice for doctors began to be regarded as a symbol of professionalism.<sup>47</sup>

The Victorian specialist hospitals arose primarily from the growing desire by the voluntary hospitals to exclude particular diseases and age groups: children, maternity cases, the insane, infectious and venereal diseases, although in practice some voluntary hospitals did take in a varied mix of patients. The specialist hospitals could be regarded as exclusive in concentrating mainly on particular areas of the body. Their doctors had general medical knowledge and were able to treat concomitant conditions as a result of cancer, venereal or infectious diseases in these patients.

Admission to a general voluntary hospital was limited by the necessity of obtaining a recommendation from a subscriber and by regulations that did not permit admission of chronic conditions, for which prospects of a cure or improvement were negligible.<sup>48</sup> This meant that the relatives of the patients, or maybe the patients themselves, if the illness was a chronic one, needed great determina-

<sup>37</sup> Treacher Collins, E. (1929) *The History and Traditions of the Moorfields Eye Hospital*. H.K. Lewis, London, pp 6–7.

<sup>38</sup> Scott-Stevenson, R., and Guthrie, D. (1949) *A History of Oto-Laryngology*. E. and S. Livingstone, Edinburgh, p 118.

<sup>39</sup> Granshaw, L. (1985) *St Mark's Hospital, London. A Social History of a Specialist Hospital*. King Edward's Hospital Fund for London, p 1.

<sup>40</sup> Butterworth, Lady (1925) *The Story of a City Hospital 1848–1925*. City of London Hospital for Diseases of Heart and Lungs Centenary booklet.

<sup>41</sup> Piller, op. cit., note 33, p 3.

<sup>42</sup> Holmes, Sir Gordon M. (1954) *The National Hospital, Queen Square, 1860–1948*. E. and S. Livingstone, London, p 9.

<sup>43</sup> Ayers, G. M. (1971) *England's First State Hospitals and the Metropolitan Asylum Board*. Wellcome, London, p 13.

<sup>44</sup> Hodgkinson, R. (1967) *The Origins of the National Health Service*. Wellcome, London, p 593.

<sup>45</sup> Woodward, J. (1974) *To do the sick no harm. A Study of the British voluntary hospital system to 1875*. Routledge and Kegan Paul, London, p 135.

<sup>46</sup> Burdett, H. (1893) *Hospitals and Asylums of the World. Their origin, history, construction, administration, management and utilization: with plans of the chief medical institutions accurately drawn to a uniform scale, in addition to those of all the hospitals of London in the jubilee year of Queen Victoria's reign*. 4 vols. Vol. III 'Hospitals-History and Administration'. J.A. Churchill, London, p 113.

<sup>47</sup> Bruggemeier, F. J. (1989) Medicine and Science. In: *Science, Technology and Everyday Life*, (ed.) Chant C., Routledge, in association with the Open University, pp 310–313.

<sup>48</sup> Rivett, op. cit., note 1, p 30.

tion to get treatment. This changed when patient numbers became of paramount importance for the hospitals when trying to obtain charitable funds. The number of patients treated was used as an indication of the need for the hospital by the charitable organizations and the interpretation of numbers became important.

By the 1870s there was great optimism that science applied to medicine would result in new treatments and efforts were made to apply chemistry, biology and physics, to medical diagnosis and treatment in the 19th century which encouraged the advance of innovative solutions. There was the vaccination programme for the prevention of smallpox,<sup>49</sup> the use of the achromatic microscope in the 1830s which enabled the new science of microbiology to flourish. The work of Louis Pasteur (1822–1895) in the 1860s on atmospheric germs or bacteria which caused disease, and of Robert Koch (1843–1910), who discovered the organisms causing tuberculosis and cholera, promoted work in bacteriology and epidemiology.<sup>50</sup>

Although initially John Simon, like Edwin Chadwick, maintained a belief in public measures, as a surgeon he did not have Chadwick's antipathy to the role of medicine in public health.<sup>51</sup> He undertook research into physiology and pathology and initiated studies in the 1860s to ascertain the influence of nutrition on metabolism.<sup>52</sup> But the tradition of clinical observation by the bedside was always more popular among physicians than experimentation.<sup>53</sup> With the scientific developments of the 19th century, the physician began to build on the earlier diagnostic skills he had acquired from using the stethoscope,<sup>54</sup> and more accurate diagnoses were achieved. This was aided by increasing knowledge of physiological chemistry and the use of chemical analysis. The 19th century saw the development of

pharmacology and the introduction of drugs such as acetyl salicylic acid (aspirin) and a number of other synthetic drugs of undoubted potency.<sup>55</sup>

Surgery had been held in high esteem in France for some time and by the 1800s this acceptance had spread to England although human cadavers for anatomical dissection were scarce and limited to those for post mortem, the unclaimed poor<sup>56</sup> or the bodies of hanged murderers.<sup>57</sup> Many English surgeons tried to include a visit to Paris at some part of their training to gain experience in morbid anatomy.<sup>58</sup> The study of physiology was later encouraged by Sir Michael Foster (1836–1907), professor of physiology at Cambridge and founder of the Physiological Society.<sup>59</sup> The study of surgical ideas and information from India through doctors in the Colonial Service renewed interest in the ancient Indian use of scalpels, scissors, hooks, probes, forceps, catheters and syringes in surgery.<sup>60</sup> The invention of new instruments also helped the progress of surgery and this movement escalated in the latter half of the century when specialists created more effective instruments for specific applications.<sup>61</sup> Throughout all fields of medicine surgeons were able to improve their skills due to the increased availability of corpses for dissection after the Anatomy Act of 1832 and the aid of general anaesthesia from the late 1840s, antiseptics and aseptic surgery from the mid-1860s.

Narcosis by drugs such as opium had been available for centuries.<sup>62</sup> The final acceptance of the principles of surgical anaesthesia appear to have become inevitable by the 1840s.<sup>63</sup> In 1846, at University College Hospital, London, Robert Liston used ether in a surgical operation. In the following year James Young Simpson, a Scottish surgeon, who had noted the adverse side effects of ether, used chloroform in childbirth and Horace Wells published his work on nitrous oxide.<sup>64</sup> By 1847 three general anaesthetics had become available, ether, chloro-

<sup>49</sup> Lambert, op. cit., note 10, p 253.

<sup>50</sup> Weir, N. (1990) *Otolaryngology. An Illustrated History*. Butterworths, London, p 2.

<sup>51</sup> Lambert, op. cit., note 10, p 64.

<sup>52</sup> *Ibid.*, pp 44–45.

<sup>53</sup> *Ibid.*, p 341.

<sup>54</sup> Maulitz, R.C. (1993) The Pathological Tradition. In: *Companion Encyclopaedia of the History of Medicine*, (eds.) Bynum, W.F., Porter, R., vol. 1, Routledge, London, p 179. Laennec's first description of the stethoscope was given in *Treatise on Mediate Auscultation*, Paris, 1819.

<sup>55</sup> Weatherall, M. (1993) Drug therapies. In: *Companion Encyclopaedia of the History of Medicine*, (eds.) Bynum, W.F., Porter, R., vol. 2, Routledge, London, p 924; Vane, J.R. (1993) *Aspirin and other salicylates*. Chapman and Hall, London.

<sup>56</sup> Richardson, R. (1991) Trading Assassins and the licensing of Anatomy. In: *British Medicine in an Age of Reform*, (eds) French, R., Wear, A., Routledge, London, p 83.

<sup>57</sup> *Ibid.*, p 75.

<sup>58</sup> A Physician (1883) *Seventy Years of Life in the Victorian Era*. Fisher Unwin, London, p 21; Cameron H.C. (1948) *Joseph Lister, The Friend of Man*. Heinemann Medical Books, London, p 27; Scott Stevenson, R. (1946) *Morell Mackenzie*. Heinemann Medical Books, London p 29.

<sup>59</sup> Bynum, W. F. (1994) *Science and the Practice of Medicine in the Nineteenth Century*. Cambridge University Press, pp 112–113.

<sup>60</sup> Coleman, op. cit., note 14, p 15.

<sup>61</sup> Granshaw, op. cit., note 39, p 125; MacDonald, G. (1932) *Reminiscences of a Specialist*. Allen and Unwin, London, p 233; Cartwright, F.F. (1967) *The Development of Modern Surgery*. Arthur Barker, London, p 263.

<sup>62</sup> Duncum, B. M. (1947) *The Development of Inhalation Anaesthesia with Special reference to the Years 1846-1900*. Wellcome Historical Medical Museum, Oxford University Press, p 563.

<sup>63</sup> *Ibid.*, p 9.

<sup>64</sup> Cartwright, op. cit., note 61, p 32; Finer, op. cit., note 5, p 37.

form and nitrous oxide; their increasing use lessened the risk of death from shock at surgery. Anaesthetics was one of the first 19th-century specializations and Dr John Snow one of the first Victorian specialists with his administration of chloroform to Queen Victoria during childbirth in 1853.<sup>65</sup> It is often thought that there was a rapid increase in surgical operations following the introduction of general anaesthesia but a *Lancet* study undertaken in 1848-49 soon after its introduction found that operations were no more frequent and it was not until some 10 years later that minor conditions like hernia were being operated upon.<sup>66</sup>

Although anaesthesia lessened the risk of death from shock at surgery, the wounds were still open to sepsis. Cross infection was a constant menace in hospital and there was a high incidence of gangrene following surgery. Lister's advocacy of operating without antiseptic contact<sup>67</sup> to prevent sepsis, which he ensured through the use of carbolic acid phenol spray and dressings, led to a great movement to clean up hospitals and medical practice in the 1860s. Following Lister's move to King's College Hospital in 1877 carbolic dressings and the carbolic spray were used on patients in London.<sup>68</sup> The development of surgery depended on anaesthesia, antiseptics and asepsis with the rise of surgical specialties and specialist hospitals in advance of medical specialties.<sup>69</sup> It is generally accepted that although asepsis and anaesthesia made surgery less dangerous many operations were undertaken with fatal results because the surgical techniques had not developed sufficiently. As more intrusive surgery gradually became possible, its techniques were practised more freely – even perhaps where it would be hard to justify surgery. One area of medicine where this readily occurred was in women's complaints where such operations as ovariectomy and clitoridectomy were performed by several surgeons including Isaac Baker Brown (father of the founder of the Gray's Inn Road Hospital) at St Mary's Hospital.<sup>70</sup>

In the early 19th century, nursing was more in the nature of domestic help and some women made a living by midwifery or laying out the dead. Religious nursing orders had appeared during the 12th and 13th centuries but it was not until the work of

Elizabeth Fry and Florence Nightingale that nursing became more 'professional' and patients could look for improvements in treatment at home, in the hospital and even the infirmary, with far more dedicated nursing care. The Elizabeth Fry Institute of Nursing was set up in 1840 to train nurses for private families and these nurses attended Guy's Hospital<sup>71</sup> for their training but when Florence Nightingale established her non-religious training school for nurses at St Thomas's in 1862 a source of nurses for hospital work was available in the capital to utilize the number of women now wishing to take up a profession in their own right. The Church of England Nursing Sisterhood of St John, set up in 1848, trained the existing nurses with the sisters acting as supervisors<sup>72</sup> the Nightingale School trained matrons and usually set up a completely new nursing establishment within the hospital, separating the nurses from the 'scrubbers' although the practice remained in many small hospitals to combine the post of nurse with that of cleaner. There was often tension between the consultants and the sisters over the method of running the wards and the discipline of the nurses and Lister had problems with St John's nurses over his aseptic methods.<sup>73</sup>

Professionalism in medicine, as in many other disciplines, developed quite rapidly in the 19th century. The roles of physicians, surgeons and apothecaries had been demarcated before 1815 with the physicians undertaking medical cases and writing prescriptions which the apothecaries dispensed. Apothecaries were permitted to give free advice but usually also sold their own medications. The surgeons carried out surgery only but the greater need for medical attention with the rising population led the apothecaries and surgeons to take on the role of general practitioners and the Association of Apothecaries and Surgeon Apothecaries of England and Wales was formed in 1809. The Acts of Parliament in 1815 brought apothecaries, surgeons and physicians together for the first time to fight the ever-growing threat of unqualified practitioners (quacks and midwives).<sup>74</sup> This was followed by the 1858 Medical Act which regulated the qualifications of practitioners in medicine and surgery providing a new charter for the Royal College of Physicians of

<sup>65</sup> Coleman, op. cit., note 14, p 153; *The Lancet* had denied the fact that the Queen had chloroform in 1853 as it regarded it as a very dangerous substance but by 1857 had accepted it as a usual procedure even for a royal birth (Sykes W.S. (1960) *Essays on the first hundred years of Anaesthesia*, vol. 1. E. & S. Livingstone, Edinburgh, pp 79–80).

<sup>66</sup> Cartwright, op. cit., note 61, pp 35–36.

<sup>67</sup> Cameron, op. cit., note 58, p 133.

<sup>68</sup> Cartwright, F. F. (1991) In: *The Story of King's College Hospital and its Medical School*. (ed.) D.J. Britten, Fontana Press, London, p 49.

<sup>69</sup> Fraser, Sir, F. R. The Rise of the Specialist and Specialist Hospitals. In: *The Evolution of Hospitals in Britain*. (ed) F.N.L. Poynter, Pitman Medical, London, . 173.

<sup>70</sup> Dally, A. (1991) *Women Under the Knife*. Hutchison, London, p 138 and p 159.

<sup>71</sup> McInnes, E. M. (1963) *St Thomas's Hospital*. George Allen and Unwin, London, p 115.

<sup>72</sup> The St John's House had some 200 nurses supplying King's, Charing Cross, the Hospital for Sick Children in Nottingham, the Leicester Royal Infirmary, the English Hospital in Paris and an extensive private network (Cartwright, op. cit., note 68, p 37).

<sup>73</sup> Cameron, op. cit., note 58, p 128.

<sup>74</sup> Cope, Sir, Z. (1959) *The Royal College of Surgeons of England*. Anthony Blond, London, pp 35–39.

England and the Royal College of the Surgeons of England.<sup>75</sup> Medical training in Scotland was of a high degree and regarded by many as excelling that south of the border,<sup>76</sup> particularly at Edinburgh, but it is paradoxical that the Scottish Universities, such as Glasgow<sup>77</sup> and St Andrews, also had the habit of selling medical degrees: St Andrews 605 degrees were sold in 1862.<sup>78</sup> The rules of the Royal Colleges ensured that the Scottish M.D. gave no right to practice medicine in London, although many Scots were able to settle and practice in the rest of England.

There was a hierarchy of medical advisers linked to patients. The Apothecaries served the lower classes and were not licensed to advise for money but to make up the medicines ordered by the physicians and later the surgeons.<sup>79</sup> The chemists and druggists were shopkeepers who could only sell proprietary medicine and drugs. The rich employed fellows and licentiates of the Royal College of Physicians who were drawn exclusively from graduates of Oxford and Cambridge.<sup>80</sup> In 1800 the Royal College of Physicians had 47 Fellows, 115 licentiates and 26 extra-licentiates.<sup>81</sup> The physician received payment for his advice although there were no fixed charges.

By 1854 the Royal College of Surgeons, created in 1800 from the Company of Surgeons, numbered 200 Fellows and 8 000 members. The right of ordering medicines for patients under their care was acquired by surgeons after severe contest with the physicians but they were not allowed to be paid for their advice, only for treatment. Surgeons far out-numbered physicians who, with their classical education, regarded themselves as the 'elite' of medicine and often opposed reforms and changes in practice. The College of Surgeons initially included the medical officers in parishes and unions, factory and prison surgeons, public vaccinators, medical officers of health, coroners and army and navy surgeons.<sup>82</sup> Following the Medical Act of 1858 the College fought to retain its independence and not to combine

with the College of Physicians against pressure from the medical press, the General Medical Council and the profession.

There were 15 000 practitioners registered in 1860 but fewer than 1 200 were working in the 117 voluntary hospitals and only 579 physicians and surgeons had charge of in-patients.<sup>83</sup> London had 3 749 medical practitioners but in the countryside distribution varied widely.<sup>84</sup> Promotion was slow in London and, with large numbers of men entering the medical profession, new rules were set up by the Royal Colleges for physicians and surgeons to retire at 65.

The advantage offered by medicine as a profession was the combination of an honest living with the social position of a gentleman.<sup>85</sup> In most hospitals it was expected that young house surgeons worked without payment, with a few hospitals paying an honorarium of £50. Some gained extra income by coaching, acting as curators of medical museums, or by medical journalism.<sup>86</sup> It was considered that the junior doctor came for the experience and the hospital doctor could look forward to the eventual prestige of consultant and the resultant private practice. Medical science had developed so rapidly during the 19th century that by 1870 it was no longer possible for one man to be familiar with all the theoretical information and practical skills available to the practising clinician. Thus the doctor referred to other opinions and the need for colleagues with more specialized knowledge began to be appreciated. The idea of professionalism, which developed in the last quarter of the 19th century had its impact on medicine. The doctors relied on their medical knowledge rather than public patronage and prestige to impress their patients.<sup>87</sup> Women were excluded from this growing profession and were directed more into the subordinate role of nursing<sup>88</sup> as more nurses were needed with the growing number of hospitals.

London was an obvious centre for medical specialization in Britain for not only was it the capital with a large residential population, but London was also within fairly easy reach of outlying

<sup>75</sup> *Parliamentary Papers*. (1858) Act to regulate qualifications of Practitioners in Medicine and Surgery. The Medical Act. Eyre and Spottiswood, London, p 304 the charter for Physicians, p 305 the charter for the Surgeons.

<sup>76</sup> Parry, N., Parry, J. (1976) *The Rise of the Medical Profession. A study of Collective Social Mobility*. Croom Helm, London, p 105.

<sup>77</sup> *Ibid.*, p 107.

<sup>78</sup> Haight, G.S. (1940) *George Eliot and John Chapman*. Yale University Press, p 94.

<sup>79</sup> *Parliamentary Papers* (1815) The Apothecary's Act, Eyre and Spottiswood, London, p 1736.

<sup>80</sup> Clark, Sir G. (1966) *A History of the Royal College of Physicians of London*. vol. 2, Clarendon Press, Oxford, p 710.

<sup>81</sup> Fellows of the Royal College of Physicians were graduates from Oxford or Cambridge prior to 1830. Following that Licentiates could become Fellows after examination by members of the Council. Licentiates were able to practice anywhere in England following a three part examination after university or apprenticeship training. Extra-licentiates were those who practiced outside London who only took one part of the examination.

<sup>82</sup> Glenn, R. G. (1871) *A Manual of Laws Affecting Medical Men*. Churchill, London, p 147.

<sup>83</sup> Abel-Smith, *op.cit.*, note 12, pp 19–20.

<sup>84</sup> Rivington, W. (1879) *The Medical Profession*. Fannin, Dublin, p 3.

<sup>85</sup> Carter, R. (1903) *Doctors and Their Work*. Smith, Elder, London, p 17.

<sup>86</sup> Cartwright, *op. cit.*, note 61, p 293; Rivett, *op. cit.*, note 1, p 34; Law, F.W. (1975) *History of Moorfields Eye Hospital*. vol. II, H. K. Lewis, London, p 37.

<sup>87</sup> Peterson, M. J. (1978) *The Medical Profession in Mid-Victorian London*. University of California Press, p 281–282.

<sup>88</sup> Parry, *op. cit.*, note 76, p 254.

districts. Road and rail travel in the 1870s had become more comfortable and less expensive, so patients came in from villages, towns and even cities. By 1870 there was 13 600 miles of railway<sup>89</sup> and in 1873 urban tramlines spread out from Aldgate and Whitechapel to Stratford, Hackney and Stoke Newington.<sup>90</sup> Increased specialization meant that doctors called in colleagues for consultations and the referral system started. Consultants began to have rooms in one area rather than at home, initially around Harley Street and Wimpole Street, close to Euston and Paddington stations. This meant that people from outside London could visit the Harley Street consultants within a day providing they could afford to. In 1873 there were 36 qualified men in Harley Street rising to 157 by the end of the century.<sup>91</sup> Doctors could meet in London at the Royal Society of Medicine close to their consulting rooms to exchange ideas and London specialists were also called to assist abroad.<sup>92</sup>

The doctors wanted specialist hospitals for teaching and research and there were growing links between medical education and hospital practice.<sup>93</sup> However, the specialist hospitals complained that general hospitals were not used as educational centres.<sup>94</sup> The need for hospital experience was recognized by the medical colleges in 1813 when it became a requirement of the Royal College of Surgeons for their members to have had a year's attendance in surgical practice in a hospital<sup>95</sup> and the Apothecaries Act of 1815 required six months hospital, infirmary or dispensary practice as well as five years apprenticeship. The Fellows of the Royal College of Surgeons were expected to take on more of a teaching role following the Medical Act of 1853. The desire for teaching was such that in the early 1820s the theatre of St Thomas's Hospital was crowded by upwards of 400 students.<sup>96</sup> The lectures of great men were taken down more or less completely by students but it was an unwritten law that these should not be published.<sup>97</sup> However, Thomas Wakley, the editor of *The Lancet* broke the rules by publishing such lectures in his journal from 1823. This was in effect the only way that surgical practices and improvements could be spread to the growing number of young doctors, many of whom were unable to see these operations for

themselves. The increase of medical specialties was regarded with concern in certain quarters, and warning given that the disappearance of the general consulting physician would be a grave blow to the progress of clinical medicine.<sup>98</sup> The rise of surgical specialties and special hospitals in advance of the medical specialties is attributed not only to anaesthesia, antisepsis and asepsis but to the accurate anatomical knowledge gained by surgeons, particularly military ones.<sup>99</sup>

The early hospitals were usually endowed and the voluntary hospitals were founded with subscriptions from large numbers of willing contributors. This was the main source of finance and many consultants gave their services free although the 'History of the Royal College of Physicians' refers to 'physicians and surgeons of the hospitals, eminent in their callings, received salaries proportionate with their standing'.<sup>100</sup> They all retained the fees paid by students. At St Thomas's this was three guineas each and with numbers such as 400 at a time a consultant could more than compensate for the free treatment of patients<sup>101</sup> and the hospital provided a good point of contact with patients for private practice. Lecture fees was one source of revenue that specialist hospitals took up from inception.

There was growing concern at the inadequacy of hospital accommodation in 1873 and lack of availability of specialist opinion in the capital, so the Hospital Saturday Fund and Hospital Sunday Fund were set up to extend funds to the new hospitals. In 1873 the Hospital Saturday Fund was started in London at Speaker's Corner by Captain Mercier, Treasurer of St John's Hospital for Diseases of the Skin. He asked employed people to pay small regular contributions to maintain the hospitals. The Metropolitan Hospital Sunday Fund was started by the Rev. J.C. Miller, Vicar of Greenwich, at a public meeting held at the Mansion House in 1872. Churches of all denominations gave their collections on a certain Sunday to help the sick; the first Sunday after Trinity was usually 'Hospital Sunday'.<sup>102</sup> They had a flag day, money from house to house collections and invested legacies. Grants were made to hospitals, nursing homes, district nursing associations and medical charities. This charity is still in operation today. The third and most powerful of

<sup>89</sup> Derry, T. K., Jarman, T.L. (1956) *The Making of Modern Britain*. John Murray, London, p 133.

<sup>90</sup> Rivett, op. cit., note 1, p 22.

<sup>91</sup> Coleman, op. cit., note 14, p 188.

<sup>92</sup> Mackenzie, Sir M. (1888) *The Fatal Illness of Frederick the Noble*. Sampson Low, Marston Searle and Rivington, London, p 9.

<sup>93</sup> Abel-Smith, op. cit., note 12, p 17.

<sup>94</sup> Kershaw, R. (1909) *Special Hospitals. Their Origin, Development and their Relationship to Medical Education. Their economic Aspects and Relative Freedom from Abuse*. Pulman, London, p 43.

<sup>95</sup> Newman, C. (1957) *The Evolution of Medical Education in the 19th Century*. Oxford University Press, p 18.

<sup>96</sup> Sprigge, Sir S. (1898) *The Life and Times of Thomas Wakley*. Longmans, Green & Co., London, p 77.

<sup>97</sup> Treacher Collins (1873) op. cit., note 69, pp 58–59; *The Lancet* i, pp 18–20.

<sup>98</sup> Gull, Sir W. W. (1884) *A collection of the published writings of William Withey Gull, Memoir and Addresses*. New Sydenham Society, Wellcome Institute, London.

<sup>99</sup> Fraser, op. cit., note 69, p 173.

<sup>100</sup> Clark, op. cit., note 80, p 428.

<sup>101</sup> Abel-Smith, op. cit., note 12, p 17.

<sup>102</sup> Law, F. (1975) *The History of Moorfields Eye Hospital*. 2 vols, vol. II, H.K. Lewis, London, pp 9–10.



the hospital charities was the Prince Edward Hospital Fund founded in 1897 by Edward, Prince of Wales.<sup>103</sup> A capital sum was built up and interest from it formed a permanent endowment. Donations and legacies were also added to this Fund. The Prince encouraged his Fund's General Council to concern itself with the quality of management in the hospitals it supported and when he came to the throne it took the name of King Edward's Hospital Fund for London, now known as the King's Fund. The power of this fund was expanded to create amalgamations and ensure reforms within hospitals. These three funds were vital for the running of the specialist hospitals for, although many received sufficient funds for their establishment, the rising running costs with increased numbers of patients was not anticipated. The administration of these grants did not always run smoothly. Hospitals had to submit balance sheets when applying for the grants so there was often disagreement on the interpretation of these.

In the voluntary hospitals doctors provided treatment with payment; it was honorary status for both consultants and governors who regarded their work as their personal contribution to the relief of the sick poor. The consultants saw their private patients either at home or in their consulting rooms which left the junior doctors in the hospitals in an invidious position. The young doctors, who although necessary because of the increasing number of patients, required remuneration to live as they were expected to work solely in the hospital in which they were employed and had not built up a private practice to support themselves. This led the ambitious to specialize.<sup>104</sup> The rest would usually go into general practice where they would be able to earn a reasonable salary. The paid hospital staff were usually the apothecary, steward, chaplain, matron and a clerk/secretary.<sup>105</sup> The ethics of charging patients for treatment was a questionable one at this time when the hospitals were largely run on voluntary funds. Many specialist hospitals found it necessary to charge for prescriptions and this policy evoked reactions in the medical world where complete hospital care was expected to be free to the patient.

It was a mark of social status to govern a voluntary hospital and some hospitals had large numbers of governors involved in the selection of consultants<sup>106</sup> which meant that lay-men were selecting professional medics. Many members of the aristocracy held patronage at hospitals, particularly the specialist hospitals, and this encouraged endowments and subscriptions from high society. Queen Victoria gave her patronage to special hospitals like the Hospital for Sick Children and the National Hospital for Nervous Diseases and the royal children gradually became patrons of many hospitals. However, it also meant that when patronage was withdrawn the hospital's survival could be threatened.

With the move towards specialization by practitioners, clinicians and surgeons the development of the specialist hospital was a natural progression. The production of medical journals and textbooks resulting from increased knowledge and research proliferated. This was seen as a bonus with the more open sharing of knowledge that had been achieved by painstaking and accurate clinical observations or by changing strategies in surgery. Publication enhanced the reputations of the hospitals and were used as a means of self advertisement. The rapid multiplication of medical journals to house the resulting papers went from around 10 in 1800 to 130 by the end of the century<sup>107</sup> with specialist journals growing from two to 90 during that time.<sup>108</sup>

The peak of special hospital building appeared around the mid-century following the Medical Act of 1853 with its register for medical practitioners; with the assistance of the foundation of hospital charities such as the Hospital Saturday and Sunday Funds and the King's Fund; the rise of medical journalism, the acceptance of the 'specialist' by the public with resultant social standing and wealth and with the increased numbers of men and eventually women seeking medicine as a career. The majority of special hospitals were set up in London in Victorian times, but most have disappeared and the question remains whether the foundation of special hospitals was a natural development in medical education. This history of the Royal National Throat, Nose and Ear Hospital, Gray's Inn Road, aims to record some of the achievements of the hospital and to show the necessity for such specialist establishments.

<sup>103</sup> Rivett, op. cit., note 1, p 373–374.

<sup>104</sup> Granshaw, L. (1989) Fame and fortune by means of bricks and mortar: the medical profession and specialist hospitals in Britain, 1800–1948. In: *The Hospital in History* (eds) L. Granshaw, R. Porter, Routledge, London, p 200.

<sup>105</sup> Abel-Smith, op. cit., note 12, pp 7–8.

<sup>106</sup> Treacher Collins, op. cit., note 69, p 106.

<sup>107</sup> Bynum, W. F., Wilson, J. C. (1992) Periodical knowledge: medical journals and their editors in nineteenth century Britain. In: *Medical Journals and Medical Knowledge*. (eds) W.F. Bynum, S. Lock, R. Porter, Routledge, London, p 29.

<sup>108</sup> Peterson, op. cit., note 87, p 270.