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Venereology at the Polyclinic: Postgraduate Medical Education Among General Practitioners in England, 1899–1914

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Abstract: In 1899 the *British Medical Journal* enthusiastically announced that a new postgraduate teaching college was to open in London. The aim of the Medical Graduates' College and Polyclinic (MGC) was to provide continuing education to general practitioners. It drew upon emerging specialisms and in so doing built upon the generalist training received at an undergraduate level. Courses were intended to refresh knowledge and to introduce general practitioners to new knowledge claims and clinical practices. The establishment of postgraduate institutions such as the MGC marked an important stage in the development of medical education in England. Yet these institutions, and the emergence of postgraduate medical education more broadly, have been largely overlooked by historians. Moreover the history of venereological training among medical undergraduates and postgraduates alike has been overlooked. The study of such special subjects characterised postgraduate study. This article examines the dissemination of venereological knowledge among subscribers to MGC as an important case study for the development of institutionalised postgraduate medical education in England at the turn of the twentieth century.

Keywords: Medical Graduates' College, Postgraduate medicine, Medical specialism, General practitioners, Tabes dorsalis, Syphilis

Introduction

'Medical men', observed the *British Medical Journal* (*BMJ*), 'were to the last day of their lives learners.'

> Most of them after graduating . . . and after entering upon practice, were anxious to supplement the knowledge which they obtained as students, and to carry further their efficiency as medical men.[1]

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[1] *British Medical Journal* (1899), 285.

For these reasons, the *British Medical Journal* enthusiastically announced that a new postgraduate teaching college was to open in London. The Medical Graduates' College and Polyclinic (MGC) was founded by a small group of medical elites who sought to provide continuing education to general practitioners. Teaching focused principally upon specialisms that were omitted from the undergraduate curriculum. Lecturers were 'expected . . . [to] be able to group illustrative examples of diseases so as to make their clinical demonstrations more complete and more instructive'. Courses were intended to refresh knowledge and to introduce practitioners to new knowledge claims and clinical practices.

The MGC was one of a small number of postgraduate medical institutions established during the final decades of the nineteenth century. Their establishment reflected a growing acceptance of medical specialism as a form of professional advancement and a legitimate means of acquiring knowledge. They marked a change in attitude towards systematised medical education that was no longer thought to necessarily end with undergraduate study. Various areas of specialist knowledge and clinical practice were given only cursory attention at an undergraduate level. No practitioner could be expected to master each of the increasingly diverse and specialised fields of medical knowledge.[2] Postgraduate study brought practitioners into contact with unusual and exemplary cases of the types of conditions that they would likely be called upon to treat. It was intended to provide a more holistic theoretical framework within which to conceptualise these cases. As one of the commissioners of the Royal Commission on University Education in London (RCUEL) put it in 1912, postgraduate study was

> a refresher course for the class of man who will not go back to a medical school, who is older and does not want to be a clerk or dresser any more, who wants to know about special diseases, and be refreshed by seeing the way in which an experienced practitioner handles clinical cases.[3]

Postgraduate study offered general practitioners an entrée to an emerging landscape of specialist medical knowledge and practice. It allowed them to refresh their knowledge and build upon their generalist undergraduate training.

Most who sought postgraduate training were general practitioners who otherwise had limited opportunities to refresh or expand their knowledge of subjects such as venereology. As Rosemary Stevens argues, general practitioners were increasingly absent from the staff of major general hospitals where they would have otherwise been regularly exposed to clinical developments and to patients suffering from a variety of conditions.[4] As Leonard Bidwell observed in his testimony before the RCUEL, advances in medicine were thought to be so great that any practitioner who did not refresh his knowledge was 'apt to find himself left behind'.[5] Although his opinion was influenced in part by his desire, as Dean of the West London Hospital (WLH), to attract more postgraduates, it nonetheless reflected a general concern for the state of knowledge among older generations of practitioners. General practitioners without access to hospital resources had to find alternative methods of augmenting their knowledge.

[2] Rosemary Stevens, *Medical Practice in Modern England: The Impact of Specialization and State Medicine* (New Haven, CT: Yale University Press, 1966), 3; London Hospital Archives, London Hospital Medical Council Minutes, 1912, RHL/LM/1/10.

[3] Royal Commission on University Education in London, PP 1912–13 Cd 6312 (Appendix to the fifth report of the commissioners including minutes of evidence, October 1911 to January 1912; with appendices and index), q. 15190.

[4] Stevens, *op. cit.* (note 2), 6.

[5] Royal Commission on University Education in London, *op. cit.* (note 3), Cd 6312, q. 15194.

The dissemination of venereological knowledge at the MGC constitutes an important case study for postgraduate medical education in England at the turn of the twentieth century. Venereal diseases received only cursory attention at an undergraduate level. By contrast, few conditions received more attention in lectures and demonstrations at the MGC which was among a growing number of special clinical institutions that attended to cases, such as gonorrhoeal and early-stage syphilitic infections, that the larger general hospitals were reluctant to accept as inpatients. Each volume of the MGC's monthly journal, the *Polyclinic*, contained numerous articles on the diagnosis and treatment of venereal conditions. It was assumed that most participants in postgraduate study possessed little venereological knowledge beyond the basics acquired as undergraduates. The attention given to venereal diseases at the MGC is an important example of how postgraduate study attempted to build upon and move away from the generalist training advocated at an undergraduate level.

Witnesses before the Royal Commission on Venereal Diseases (RCVD) were concerned about leaving specialist venereological training to postgraduate institutions. William Osler believed that most practitioners faced with the demands of general practice, especially those encountering few venereal cases, would have little time or motivation to pursue postgraduate training.[6] Institutionalised postgraduate study was confined primarily to the metropolis and utilised by a comparatively small percentage of the 23 000 or so practitioners practising in England and Wales at the turn of the twentieth century.[7] Yet it constituted an important channel through which structured and specialised venereological knowledge could be disseminated. Although problematic, the pursuit of special knowledge was thought to be more suitable at a postgraduate level where it neither competed with undergraduate medical schools nor threatened the generalist nature of the undergraduate curriculum.

Historical studies of specialism have tended to focus upon disciplines such as dermatology and ophthalmology that achieved specialist status.[8] A developing understanding of the effects of venereal diseases upon multiple structures and functions of the body did not result in the emergence of a venereological specialism. Lectures and demonstrations at the MGC on the different manifestations of venereal diseases continued to be compartmentalised within different branches of medicine. The place of venereology within postgraduate study, and within the landscape of clinical practice more broadly, has been consequently overlooked.[9] Yet, on the whole, postgraduate venereological study

[6] Royal Commission on Venereal Diseases, PP 1913–16 Cd 8190 (Appendix to Final Report of the Commissioners, Minutes of Evidence), qq. 14096–97.

[7] According to the 1911 census 22 992 men and 477 women recorded their occupation as 'physicians, surgeons, registered practitioners'. See Census of England and Wales 1911, PP 1913 Cd 7019 (Vol. X: Occupations and industries), 12–13.

[8] George Rosen, *The Specialization of Medicine with Particular Reference to Ophthalmology* (New York: Froben Press, 1944); Roger Cooter, *Surgery and Society in Peace and War: Orthopaedics and The Organisation of Modern Medicine, 1880–1948* (London: Macmillan Press, 1993); George Weisz, 'The Emergence of Medical Specialization in the Nineteenth Century', *Bulletin of the History of Medicine* (2003), 536–75; George Weisz, *Divide and Conquer: A Comparative History of Medical Specialization* (New York: Oxford University Press, 2006); Stevens, *op. cit.* (note 2).

[9] For important contributions to the history of venereological knowledge, research and clinical practice see Gayle Davis, *The Cruel Madness of Love: Sex, Syphilis and Psychiatry in Scotland, 1880–1930* (Amsterdam: Rodopi, 2008); E. Sharon, Mathews, 'Matter over Mind: The Contributions of the Neuropathologist Sir Frederick Walker Mott to British Psychiatry, c. 1895–1926' (unpublished PhD thesis: University of Manchester, 2006); Juliet Hurn, 'The History of General Paralysis of The Insane in Britain, 1830 to 1950' (unpublished PhD thesis: University of London, 1998); Michael Worboys, 'Unsexing Gonorrhoea: Bacteriologists, Gynaecologists, and Suffragists in Britain, 1860–1920', *Social History of Medicine* (2004), 41–59.

offered practitioners a more holistic theoretical framework within which to consider the various manifestations of venereal diseases.

The subject of venereal diseases in England has preoccupied historians for many decades. It encompasses important issues surrounding medical knowledge and practice, public health policy, morality, eugenics, gender and sexuality. Historians have examined developments in venereological knowledge,[10] critiqued cultural and moral reactions to venereal diseases,[11] and assessed the effects of state and medical intervention upon the health and sexual practices of men and women of different social classes.[12] However, little specific attention has been given to the integration of new venereological ideas and technologies into clinical practice, especially among general practitioners.

Although the field of venereology experienced dramatic diagnostic and therapeutic advances during the first decade of the twentieth century, the knowledge and skill of practitioners remained limited. The causative micro-organism of syphilis, the spirochaete, was identified in 1905. The serological Wassermann reaction was developed in 1906 and the arsenical-chemotherapeutic drug, salvarsan, was developed in 1909. Yet these developments were slow to permeate general medical practice. The Wassermann reaction was too delicate and specialised for any but the most skilled pathologist to perform. The administration of salvarsan required a similar level of skill. Most general practitioners were thought to be able to diagnose and treat the more common manifestations of acquired and inherited venereal diseases. These included characteristic rashes, chancres and discharges. However, more obscure manifestations were thought to be beyond their diagnostic and therapeutic skill. Although the syphilitic aetiology of general paralysis of the insane and tabes dorsalis was beginning to be understood, most practitioners were limited in their ability to diagnose and treat such neuro-syphilitic conditions.

There were also prevailing medical, social and moral concerns surrounding the prevalence of venereal diseases and its association with racial and national degeneration. Venereal diseases were not directly addressed by public health legislation until the compulsory notification of ophthalmia neonatorum (a form of neonatal conjunctivitis often caused by gonorrhoea) in 1914.[13] Nonetheless, these concerns not only led to the establishment of the RCVD in 1913 but also influenced the level of attention given to venereal diseases in the teaching of postgraduates.

[10] J.D. Oriel, *The Scars of Venus: A History of Venereology* (London: Springer, 1994); Robert Darby, "'Where Doctors Differ": The Debate on Circumcision as a Protection against Syphilis', *Journal for the Society of the Social History of Medicine* (2003), 57–78; Davis, *op. cit.* (note 9).

[11] Mary Spongberg, *Feminizing Venereal Disease: The Body of the Prostitute in Nineteenth-Century Medical Discourse* (New York: New York University Press, 1997); Lesley Hall, *Sex, Gender and Social Change in Britain Since 1880* (London: MacMillan Press, 2000); Lesley Hall, *Hidden Anxieties: Male Sexuality, 1900–50* (Cambridge: Polity Press, 1991); Joanne Townsend, 'Private Diseases in Public Discourse: Venereal Disease in Victorian Society' (unpublished PhD thesis: University of Melbourne, 1999); Claude Quétel, *History of Syphilis* (London: Polity Press, 1992).

[12] Judith R. Walkowitz, *Prostitution and Victorian Society: Women, Class, and the State* (Cambridge: Cambridge University Press, 1982); Jill Harsin, *Policing Prostitution in Nineteenth-Century Paris* (Princeton, NJ: Princeton University Press, 1985); Lucy Bland, "'Guardians of the race", or, "Vampires upon the nation's health"? Female sexuality and its regulation in early twentieth-century Britain', in Elizabeth Whitelegg (ed.), *The Changing Experience of Women* (Oxford: Martin Robertson, 1982), 373–88; Peter Baldwin, *Contagion and the State in Europe, 1830–1930* (Cambridge: Cambridge University Press, 1999), 355–523; Philippa Levine, *Prostitution, Race and Politics: Policing Venereal Disease in the British Empire* (New York: Routledge, 2003).

[13] Anne Hanley, "'"Scientific truth into homely language": The Training and Practice of Midwives in Ophthalmia Neonatorum, 1895–1914", *Social History of Medicine*, (2014), 199–220.

Historians have addressed the rise of specialism primarily in terms of its implications for those practitioners who pursued specialist practice.[14] Few have considered how specialist divisions in medicine and the identification of certain knowledge claims and clinical practices as specialist affected the training and practice of general practitioners. Despite associations with narrow and irregular practice, specialist study equipped practitioners with the knowledge and skill necessary for professional advancement.[15] According to Charles Newman, postgraduate study appealed to practitioners because it pushed professional boundaries, challenged traditional knowledge, and stimulated discussion of new ideas and clinical practices.[16] These early postgraduate institutions catered primarily to the educational needs of general practitioners by attempting to provide clarity to areas of medical uncertainty. In so doing, postgraduate study was seen by some to enhance professional reputations. It enabled practitioners to employ newer and more reliable diagnostic techniques and therapies and potentially led to the expansion of their practices.[17] Practitioners with interests in venereology as well as other specialisms were appointed as lecturers to the MGC where they shared their specialist knowledge and experience with postgraduates and called attention to instructive and diagnostically challenging cases. Yet despite their important role in the development of English medical education, postgraduate institutions have been largely overlooked by historians.[18]

This article examines the organisation and limitations of postgraduate study at the MGC from its establishment in 1899 to the commencement of its specialist course of venereological study in 1914. Tabes dorsalis, a tertiary-stage neurosyphilitic condition, is used as a case study for the teaching practices and types of specialist knowledge available to students. It was one of several venereal conditions to receive ongoing attention in clinical lectures and in the pages of the *Polyclinic*. It was a condition about which there was still much debate and uncertainty, and about which general practitioners in particular were thought to know very little. Most practitioners were probably able to diagnose and treat the more common manifestations of venereal diseases. However, the physiological and neurological manifestations of tertiary-stage syphilis were still relatively unchartered at the turn of the twentieth century and lecturers assumed that most postgraduates were not skilled in their diagnosis or treatment. Developing understandings of neurosyphilis were intertwined with important diagnostic and therapeutic developments. Debate surrounding these conditions and the ways that postgraduates were taught about them demonstrates how new and contested knowledge claims were slowly integrated into a corpus of accepted medical knowledge. They demonstrate how postgraduate study attempted to build upon undergraduate education to equip general practitioners with the knowledge and skills

[14] Mary Poovey, *Uneven Developments: The Ideological Work of Gender in Mid-Victorian England* (Chicago: University of Chicago Press, 1988); Ornella Moscucci, *The Science of Woman: Gynaecology and Gender in England, 1800–1929* (Cambridge: Cambridge University Press, 1990); Rosen, *op. cit.* (note 8).

[15] Stevens, *op. cit.* (note 2).

[16] Charles Newman, "The History of Postgraduate Medical Education at the West London Hospital", *Medical History* (1966), 359.

[17] Anne Digby, *Making a Medical Living: Doctors and Patients in the English Market for Medicine, 1720–1911* (Cambridge: Cambridge University Press, 1994), 100–1.

[18] Gordon C. Cook, *John MacAlister's Other Vision: A History of the Fellowship of Postgraduate Medicine* (Oxford: Radcliffe Publishing, 2005); Gordon C. Cook, *Diseases in the Merchant Navy* (Oxford: Radcliffe, 2007); Charles Newman, 'The rise of specialism and postgraduate education', in F.N.L. Poynter (ed.), *The Evolution of Medical Education in Britain* (London: Pitman Medical Publishing Company, 1966), 169–93; Newman, *op. cit.* (note 16), 339–59.

necessary to accurately diagnose and effectively treat the various conditions encountered in the course of general practice.

Sources

Few records of English postgraduate study in the years before the First World War have survived. The best ways to examine postgraduate study are through articles published in the medical press, testimony given before official enquiries and small collections of surviving archival material pertaining to various postgraduate institutions.

The RCVD and the RCUEL contain valuable information about postgraduate study that is not available from other sources. As with accounts of postgraduate teaching published in journals such as the *British Medical Journal*, testimony given before these commissions contextualises the knowledge claims disseminated among postgraduates at the MGC. Yet witnesses also offered contradictory testimony about the structure, availability, popularity and professional benefits of postgraduate study. When asked about the educational opportunities available to older practitioners, Dr J.S.R. Russell of University College Hospital and Representative of the Royal College of Physicians asserted that there were 'so many postgraduate courses now . . . [that] they are only too glad to avail themselves of them'.[19] By contrast, D'Arcy Power, surgeon to St Bartholomew's Hospital, testified that older practitioners who were not abreast of current medical knowledge had little opportunity to undertake postgraduate study.[20] Both witnesses were lecturers at the MGC and would have appreciated the popularity and effectiveness of postgraduate education. Their divergent opinions are reflective of the fact that postgraduate study was an embryonic and experimental addition to the landscape of medical education and practice.

The structure of the MGC was based upon the London Postgraduate Course (LPC) but apart from a few references in the medical press there appear to be no surviving records of this earlier institution. There are similarly few records of the postgraduate work offered at special institutions such as the London School of Clinical Medicine (LSCM) or St Paul's Hospital as well as larger general hospitals such as the London Hospital.[21] Other postgraduate institutions also offered comprehensive schemes of study but unlike the MGC few records of this teaching appear to have survived.[22] These smaller collections of sources supplement discussion here of the work conducted at the MGC.

The MGC was unique among postgraduate institutions in its monthly publication of a journal that was intended as a record of its extensive series of clinical consultations and lectures. This record of teaching extends up to the First World War. As Claire Jones observes, historians have given little attention to how practitioners used medical publications as a means of refreshing or expanding their knowledge.[23] Prominent medical men regularly published accounts of interesting and instructive venereal cases brought before postgraduates. The *Polyclinic* is an invaluable source for understanding the MGC's

[19] Royal Commission on Venereal Diseases, PP 1913–16 Cd 7475 (Appendix to First Report of the Commissioners, Minutes of Evidence), qq. 9907–08, 9911.
[20] *Ibid*., q. 8579.
[21] *British Medical Journal* (1900), 510; *British Medical Journal* (1908), 674; University College London Hospitals Archives, St Paul's Hospital Archives, Committee Minutes (1899) SPA/1/1.
[22] See, for example, Hammersmith and Fulham Archives and Local History Centre, Cash receipt book for postgraduates who joined the West London Hospital Postgraduate College from 1 January 1911, DD/815/132.
[23] Claire L. Jones, '(Re-)Reading Medical Trade Catalogues: The Uses of Professional Advertising in British Medical Practice, 1870–1914', *Bulletin of the History of Medicine* (2012), 363; Claire L. Jones, *The Medical Trade Catalogue in Britain, 1870–1914* (London: Pickering and Chatto, 2013), 10–12.

organisational structure and teaching objectives as well as the structure and development of postgraduate education more broadly. Its extensive collection of venereological articles offers historians valuable information about the ways that orthodox and innovative knowledge claims were disseminated.

However, surviving records do not offer breakdowns of attendance at individual lectures and demonstrations. We cannot accurately chart the popularity of classes devoted to the study of venereal diseases. The frequency with which articles pertaining to venereal diseases appeared in the *Polyclinic* suggests that large numbers of venereal cases were brought for examination and demonstration. That venereological lectures and demonstrations continued to be held suggests that there was ongoing demand for such instruction. Unfortunately, the expense of postgraduate study and the fact that it was primarily based in London meant that many general practitioners elsewhere in Britain would not have been able to afford to attend in person. The *Polyclinic* therefore functioned as a supplementary educational tool for subscribers who attended courses, or as a total educational substitute to actual attendance. As helpful as it may have been, the *Polyclinic* could not wholly compensate for the absence of practical instruction.

It is also difficult to determine how general practitioners were able to apply the knowledge acquired from postgraduate study in the diagnosis and treatment of their patients. Although practitioners paid fees to attend courses, there was little compulsion to persist with such training. Nor were practitioners required to demonstrate a level of attained knowledge upon the completion of these courses. We may know the types of knowledge claims disseminated among general practitioners but, in the absence of formal examinations, it is difficult to determine whether they retained and utilised this knowledge.

Structure and Facilities of the MGC

Premises for the MGC were secured close to University College Hospital, the London School of Tropical Medicine, and the Royal Society of Medicine and included consultation rooms as well as facilities for demonstrations, lectures and practical classes.[24] A subscription also gave practitioners access to the MGC's reading room, library and museum. The latter housed Jonathan Hutchinson's extensive collection of medical prints, anatomical models, photographs, instruments and specimens, much of which pertained to his special interest in venereology.[25] For an additional fee, practitioners could also utilise the MGC's clinical and pathological laboratory.

The MGC offered facilities for practitioners to perform their own tests as well as a limited number of diagnostic services. Practitioners could send samples for analysis. Gonococcal testing at 3s.6d. was modest compared to other pathological services, such as that for the bacteriological diagnosis of diphtheria at a cost of 5s.[26] By 1914 laboratory services at the MGC also included the serodiagnostic Wassermann reaction at a cost of £2.2s., as well as urine analysis to determine the 'presence of arsenic' resulting from salvarsan treatment for syphilis. Accompanying this updated list of diagnostic services

[24] *Polyclinic* (1899), 7, 21.

[25] *Polyclinic* (1908), 120–22. William Osler made arrangements for Hutchinson's collection to be transferred to the Johns Hopkins Medical School after the latter's death. It is now held by the Johns Hopkins Institute of the History of Medicine. See Victor A. McKusick, 'The Clinical Legacy of Jonathan Hutchinson, 1828–1913: Syndromology and Dysmorphology Meet Genomics', *Transactions of the American Clinical and Climatological Association* (2005), 15–38.

[26] *Polyclinic* (1900), 325.

were instructions for the collection of samples: when performing the Wassermann reaction 'much more blood is necessary. Half fill a Wright's capsule or collect about thirty drops in [a] narrow test tube (Special tubes supplied on application.)' and for subscribers unable to attend the MGC 'containers for the dispatch of specimens through the post [could] be obtained on application'.[27] Having been introduced in lectures to the theory and effectiveness of Gram staining and the Wassermann reaction, it was hoped that general practitioners would embrace these new technologies and utilise the MGC's diagnostic services. However, as observed by Michael Worboys and argued by L.W. Harrison in his testimony before the RCVD, bacteriological testing was often prohibitively expensive.[28] It is unclear how frequently the MGC's diagnostic services were utilised but the expense, in addition to subscription fees, probably made these services unaffordable, especially for use on a regular basis.

The seven founders of the MGC held posts at various hospitals and were considered authorities in their different specialisms. Most had venereological experience even if it was not their primary discipline. The President, Sir William Broadbent, brought several cases of locomotor ataxia and general paralysis before postgraduates at the MGC. James Cantlie held posts at the Seamen's Hospital Society, the London School of Tropical Medicine, and Charing Cross Hospital, all of which would have brought him into contact with venereal diseases. He lectured to student-practitioners on venereal diseases and was appointed to the MGC's standing committee of investigation to examine any potential aetiological relationship between yaws and syphilis. Malcolm Morris was a respected consulting surgeon and dermatologist at St Mary's Hospital who worked closely with Hutchinson and also lectured on venereal diseases at the MGC. He campaigned strongly for an inquiry into venereal diseases and was a commissioner to the RCVD. Arguably the most influential of the college founders was Hutchinson, who was also one of England's leading venereologists. As co-founder, council member, chairman, editor of the *Polyclinic*, one-time president, regular lecturer and significant financial benefactor, he was instrumental in the MGC's establishment, organisation and teaching. His involvement certainly influenced the level of attention given to venereal diseases in various courses at the MGC and in the pages of the *Polyclinic*. Venereology continued to figure prominently after his resignation as editor in 1903, and even after his death in 1913, suggesting that venereal diseases were of ongoing concern and interest to a wide cross-section of lecturers and postgraduates.

By the 1890s the majority of medical staff belonging to London general hospitals also held appointments at various special hospitals and postgraduate colleges where their specialist knowledge could be developed and employed in the treatment of patients and the teaching of students.[29] The MGC enjoyed the support and scholarly contributions of many elite medical figures. They were respected authorities in their different fields and would have brought prestige to the fledgling college. Between 1899 and 1905 at least thirty-three practitioners with specialist interests in dermatology, laryngology, ophthalmology, pathology, psychiatry, neurology, and obstetrics and gynaecology lectured at the MGC on the subject of venereal diseases. Among these men were William Osler, the Regius Professor of Medicine in Oxford, who wrote authoritatively on a variety of medical and social issues relating to venereal diseases. Neuropathologist, Sir Frederick Mott, and psychiatrist, George Henry Savage (physician superintendent and later

[27] *Polyclinic* (1914), 60.
[28] Worboys, 'Unsexing Gonorrhoea', 51; Royal Commission on Venereal Diseases, *op.cit.* (note 19), q. 4655.
[29] Stevens, *op. cit.* (note 2), 30.

governor of Bethlem Royal Hospital), both lectured on neurological conditions associated with tertiary-stage syphilis. Ophthalmologists, Marcus Gunn and Sydney Stephenson, lectured on syphilitic conditions of the eye. Gunn was a surgeon at Moorfields and Stephenson was an authority on gonorrhoeal ophthalmia neonatorum. James Sequeria was an authority on the dermatological manifestations of syphilis and James Ernest Lane was surgeon to the London Lock Hospital. When delivering lectures at the MGC these practitioners drew heavily upon their own extensive experience and knowledge as well as the research of medical contemporaries. Their diverse collection of specialisms indicates an understanding of venereology as multifaceted and best addressed not as a self-contained specialism, but within a variety of associated disciplines.

Many who lectured at the MGC were also involved with the teaching of undergraduate medical students at their respective hospitals. They would have appreciated the limitations of undergraduate venereological training. The content of most lectures given at the MGC assumed a working knowledge of common symptoms, modes of transmission and methods of treatment. Chancres, rashes, discharges, genital sores and the Hutchinsonian triad of interstitial keratitis, notched teeth and middle ear deafness were among the common symptoms of acquired and congenital infection.[30] Lecturers built upon this knowledge by offering detailed study of specific venereal conditions such as tabes dorsalis. They emphasised the obscurity and multiplicity of symptoms and conceptualised these symptoms within a wider theoretical framework. Although lecturers assumed a certain degree of knowledge among postgraduates, they were also aware of the gaps in their knowledge. Conditions such as tabes dorsalis were difficult to diagnose accurately and link aetiologically to an underlying syphilitic infection.[31] These were the types of challenging venereal cases that occupied lectures and demonstrations at the MGC and filled the pages of the *Polyclinic*. That greater attention was given in the pages of the *Polyclinic* to more uncommon or ambiguous symptoms and conditions suggests that these were more likely to have been overlooked or misdiagnosed and therefore required further clinical study.

Consultations at the MGC

Subscribers with instructive cases under their medical supervision were encouraged to contact the Medical Superintendent in order to arrange for these cases to be presented for consultation. Letters of recommendation were required from the family practitioner, as was a declaration that the patient in question was suitably ill and impoverished, and therefore deserving of gratis consultation. In September 1900 the MGC offered 17 consultations at which 87 patients were 'presented for advice'.[32] By the end of that year 1027 patients had been received for consultation.[33] The MGC's system of referral reflected a wider trend in professional practice. Stevens argues that a system of referral was well established among practitioners by the turn of the twentieth century. General practitioners who had insufficient knowledge or experience to treat particular cases could seek a second opinion. One contributor to the *Polyclinic* lamented that for most poor patients where 'further assistance is desired the home practitioner can but say, "you had better go to a hospital"; and he knows . . . that he must forego all further interest in his patient'.[34] This account

[30] *Polyclinic* (1904), 138.
[31] *Polyclinic* (1902), 109–12; *Polyclinic* (1902), 179.
[32] *Polyclinic* (1900), 297.
[33] *Polyclinic* (1901), 98.
[34] *Polyclinic* (1900), 81.

reflected long-standing concerns among general practitioners that they were losing patients to the hospitals.[35] The MGC's system of referral, although based on this wider model, allowed general practitioners to retain their cases. It allowed them to receive information about the nature of a patient's condition whilst giving consultants access to difficult or interesting cases that fell within their field of special interest.[36]

There is little indication of any pattern in the referral or acceptance of patients for consultation. Articles and abstracts in the *Polyclinic* suggest that there was a steady supply of venereal cases. Some patients were referred because their illness was suitably interesting and edifying to postgraduates. In other cases the referring practitioner sought a second opinion or wanted to improve their knowledge in a particular field. Fletcher Little explained during the first meeting of governors 'that a patient would be simply seen, examined, and demonstrated, but the diagnosis and scheme of treatment would be supplied only to the medical man'.[37] The patient was presented to attending postgraduates who, guided by the lecturer, discussed the nature of the patient's history and symptoms, the method of diagnosis, and the most effective means of treatment. Some of the more perplexing or unusual cases warranted return visits to allow postgraduates to chart either the patient's deterioration (in untreatable and degenerative cases such as locomotor ataxia) or their improvement under a prescribed treatment regime.[38] According to Theodore Williams, the value of the MGC was not only in the volume of cases seen each year but also the manner in which these cases and accompanying medical knowledge were conveyed. The postgraduate was able to 'ask questions and examine the patients for himself'.[39] The open discussion that often followed offered postgraduates an opportunity to seek clarification or elucidation on various aspects of the case.

Historians and sociologists of medicine have written extensively upon the use and importance of case histories in the development and dissemination of knowledge.[40] As Ivan Crozier observes, case histories transformed subjective experiences of illness into statistically regular and medically comprehensible data.[41] Practitioners at the MGC sought to make venereal conditions understandable through the presentation of cases and the keeping of case histories in which they described and categorised symptoms. However, such practices have been criticised for their objectification and subjugation of the patient in favour of a reductionist approach to the disease process.[42]

Despite such problems, case histories have long been central to the study and practice of medicine. They exposed students to common and uncommon symptoms, as well as the most appropriate diagnostic and therapeutic practices. These cases were both

[35] Select Committee of House of Lords on Metropolitan Hospitals, Provident and other Public Dispensaries, and Charitable Institutions for Sick Poor, PP 1892 XIII, (321) (Third Report, proceedings, evidence, appendix and index), p. cxxxii.
[36] Stevens, *op. cit.* (note 2), 33.
[37] *British Medical Journal* (1899), 285.
[38] *Polyclinic* (1900), 199; *Polyclinic* (1900), 161–4; *Polyclinic* (1900), 347–8.
[39] *Polyclinic* (1904), 67.
[40] Ivan Crozier, 'Pillow Talk: Credibility, Trust and the Sexological Case History', *History of Science* (2008), 375–404; Carol Berkenkotter, *Patient Tales: Case Histories and the Uses of Narrative in Psychiatry* (Columbia, SC: University of South Carolina Press, 2008); Kathryn Montgomery Hunter, *Doctor's Stories: The Narrative Structure of Medical Knowledge* (Princeton, NJ: Princeton University Press, 1991).
[41] Crozier, *op. cit.* (note 40), 376.
[42] Michael Foucault, *Discipline and Punish* (Harmondsworth: Penguin Books, 1991), 191–2; Hunter, *op. cit.* (note 40), 44–8: 51–68.

contextualised by, and instrumental in developing medical knowledge.[43] Cases presented for consultation at the MGC conformed to this theoretical and educational framework. They offer important insight into the knowledge and values of postgraduates and the practitioners who lectured to them.

Cross-Institutional Co-operation and Hospital Affiliation

Postgraduate colleges did much to refresh their students' knowledge and introduce them to new ideas and practices but they were nonetheless faced with a constant shortage of instructive clinical material.[44] The MGC was not equipped to accommodate inpatients or provide ongoing medical care and supervision. The *Polyclinic* was normally optimistic in its estimation of the popularity and efficacy of clinical classes. Yet the editor was aware that the supply of cases upon which these classes relied was in turn dependent upon the co-operation and enthusiasm of subscribers. Unlike the WLH, which offered inpatient care and, by extension, a steady supply of clinical material for the practical instruction to its postgraduates, most cases brought for consultation at the MGC were drawn from the private practices and hospital work of its lecturers and postgraduates. The majority of lectures, clinical demonstrations, practical classes and laboratory work was conducted on the MGC's own premises and with little cross-institutional co-operation.

The MGC was therefore eager to establish professional links with metropolitan hospitals and medical schools, thereby making available to its postgraduates the wealth of clinical cases in wards and outpatient departments. Unfortunately, several of the larger teaching hospitals declined the MGC's offer of affiliation. This reluctance was, according to the *Polyclinic*, due to the fact that these hospitals already accepted undergraduate students and could not adequately accommodate postgraduate study.[45] As George Weisz correctly observes, the comparative lack of teaching staff and resources in English medical schools meant that opportunities for specialist study, particularly specialist postgraduate study, were scarce.[46] In 1906 Hutchinson, in his capacity as a member of the Medical Council of the London Hospital, recommended that 'formal teaching to postgraduates on patients in the wards or in the outpatient department to the exclusion of [the hospital's] own students [to be] ... undesirable'. A 'system of supervision over ... extra students attending any of the departments of the hospital' was established but even Hutchinson, despite his competing interests in the MGC, continued to privilege the educational needs of undergraduates above those of qualified practitioners.[47]

Various practitioners involved with postgraduate teaching stressed the need for specially tailored classes that were separate from those of undergraduates but the practicalities of such arrangements in teaching hospitals were often problematic.[48] The MGC's demand that prospective affiliates provide separate and specially tailored classes undoubtedly contributed to the reluctance of institutions to accommodate postgraduates. This lack of co-operation raises questions about the efficacy of the teaching programme offered by the MGC. Although the *Polyclinic* remained optimistic about the MGC's ability to maintain a steady supply of clinical material, the majority of venereally diseased patients

[43] Berkenkotter, *op. cit.* (note 40), 17–26.
[44] Newman, *op. cit.* (note 16), 352.
[45] *Polyclinic* (1900), 69–71.
[46] Weisz, *op. cit.* (note 8), 562.
[47] London Hospital Archives, London Hospital Medical Council Minutes (February 1906) RLH/LM/1/6.
[48] Royal Commission on University Education in London, *op. cit.* (note 3), q. 15162.

whose circumstances would have entitled them to gratis consultation continued to gravitate towards hospital outpatient departments and Poor Law infirmaries. Although the MGC continued to offer important opportunities for clinical instruction, postgraduates at the MGC were unlikely to have enjoyed access to the larger selection of clinical material available at established teaching hospitals.

Co-operation was sought from hospitals that were not affiliated with medical schools – an approach that Bidwell considered more appropriate for postgraduate teaching.[49] At a Council meeting in July 1900, the Seamen's Hospital Society was added to the list of potential affiliates.[50] In October Guthrie Rankin proposed that the Metropolitan Asylums Board Hospitals, the West London Hospital, the Lock Hospital Soho and Bethlem Royal Hospital be included in the MGC's 'scheme of Hospital Association'.[51] Nevertheless, as Newman argues, special hospitals continued to have a minimal role in postgraduate education.[52] It appears that the London Lock, Bethlem and the Asylum Hospitals declined the invitation to affiliate. The Seamen's Hospital Society was already affiliated with the LSCM and the WLH offered its own 'well-organised and successful postgraduate scheme'.[53]

It was hoped that other institutions would prove more amenable thereby securing 'very excellent opportunities for clinical observation to all postgraduates who may join us'.[54] By the end of 1900, ten general and special hospitals including the Dreadnought Hospital Greenwich, Victoria and Albert Dock Hospital, the Evelina Hospital, the Westminster Ophthalmic Hospital and Blackfriars Hospitals that specialised in skin diseases had 'expressed a favourable compliance with the broad outlines of [the MGC's] scheme' and by January of the following year it had begun to take effect.[55] The *Polyclinic* advised its readers that 'gentlemen . . . waiting for hospital opportunities can be put in touch with whatever class of bedside work they require by applying at the Superintendent's office' where a list of these affiliated institutions could be obtained.[56]

Subscriptions, Attendance and the College Journal

The MGC published annual subscription numbers and monthly attendance figures that probably recorded multiple attendances by some subscribers whilst others did not attend at all. The total number of original members was quoted as 535 in 1899.[57] Subscriptions fluctuated over the following decade with 731 subscribers in 1903, 712 in 1906, 637 in 1909 and 681 in 1912.[58] In January and February of 1900 the MGC recorded average weekly attendances of 230 practitioners.[59]

[49] *Ibid.*, 266.
[50] Royal Society of Medicine of London, Medical Graduates' College and Polyclinic: Council Minute Book (1899–1927), RSM/02.
[51] *Ibid.*
[52] Newman, *op. cit.* (note 18), 169.
[53] Cook, *Diseases in the Merchant Navy*, *op. cit.* (note 18), 71.
[54] *Polyclinic* (1900), 71.
[55] Royal Society of Medicine of London, Medical Graduates' College and Polyclinic: Council Minute Book (1899–1927) RSM/02; London Metropolitan Archives, Report of the Medical Committee to the Committee of Management with Recommendations Regarding the Admission of Students of the Medical Graduates College and Polyclinic to the Practice of the Hospital (November 1900) H09/EV/A/20/001.
[56] *Polyclinic* (1900), 361; *Polyclinic* (1901), 99.
[57] *Polyclinic* (1899), 14; *Polyclinic* (1904), 29.
[58] *Ibid.*; *Polyclinic* (1907), 29; *Polyclinic* (1910), 23; *Polyclinic* (1913), 22.
[59] *Polyclinic* (1900), 202.

Although total monthly attendances continued to increase, successive fee reductions throughout 1900 suggest that the College did not attract the levels of professional interest initially anticipated. Annual subscriptions for non-resident practitioners were reduced to one guinea (compared to the two guineas charged to those 'as reside in the London division of Churchill's Directory').[60] Most subscribers were drawn from the greater London area but a sizable minority were based in other English cities and as far away as Bombay and New South Wales.[61] Fees were soon changed again in order to equalise resident and non-resident subscriptions at one guinea. The Council was 'doubtful whether in reality [the London practitioner had] actually taken anything like such full advantage of his opportunities as it was thought he might do'. It was hoped that such a reduction would alleviate financial pressures by increasing subscriptions among those who had hesitated 'to commit themselves to an annual burden of two guineas'.[62] Yet several years after the equalisation of fees (which were described as 'too indiscriminately low') contributors to the *Polyclinic* still lamented that 'the advantages and opportunities offered ... [were] far from ... widely known'.[63] These respectable but comparatively small subscription numbers reflected the fact that postgraduate study, although gaining popularity, had yet to become a fully integrated stage in English medical education and professional advancement.

Terms of subscription included free monthly delivery of the *Polyclinic*. For subscribers who attended classes, the journal acted as a record of, and supplement to, practical venereological study. For those who could not attend classes, the write-up of select lectures and unusual cases was intended to provide some exposure to contemporary medical knowledge and practice. The journal functioned as a substitutional, rather than supplementary educational tool and as such its efficacy was limited. The fact that non-resident practitioners were unable to examine patients, engage in professional discussion or make regular use of the MGC's laboratory significantly hindered attempts to improve their venereological knowledge.

The *Polyclinic* offered contradictory estimations of the quality of its own articles. According to Rankin, the journal was

> a valuable clinical record, which summed up the work of the College and enabled members whose engagements prevented regularity of attendance to keep themselves *au fait* of the work carried on in the consultation and lecture rooms.[64]

Hutchinson similarly asserted that articles were intended as 'instructive commentary upon [the College's] consultation work' which, it was hoped, would 'afford to those ... who may not be able to attend regularly or perhaps not at all, as good a substitute as printed material can be for *actual* observation'.[65] Yet despite his editorial enthusiasm, even Hutchinson acknowledged the educational limitations inherent in a reliance upon written information as a total or even substantial substitute for practical study. Of the large volume of patients presented at the MGC each month, only 'the more important cases' were written up for publication. Many of these articles were considered to be 'mere fragments

[60] *Polyclinic* (1900), 326.
[61] *Polyclinic* (1900), 1–15.
[62] *Polyclinic* (1900), 251.
[63] *Polyclinic* (1904), 2; *Polyclinic* (1903), 5.
[64] *Polyclinic* (1900), 328.
[65] *Polyclinic* (1900), 18. Original emphasis.

of narratives without endings'.[66] As early as 1901, it was regretted that only 'a small portion' of the cases presented for consultation 'found adequate record' in the pages of the *Polyclinic*.

> Some of our members will put themselves to great trouble to bring for demonstration an important case, and a skilled physician will devote much time and care to its investigation, and then neither . . . will [write] out the record in an accurate but pithy form suitable for publication.[67]

Even detailed write-ups of cases and lectures were limited in their didacticism by the simple fact that they lacked the visual stimulus and stimulating discussion that accompanied clinical classes. They provide a good indication of common misdiagnoses and forms of treatment prescribed to venereally diseased patients. However, given the potential for the misdiagnosis of uncommon or obscure symptoms, a lack of practical experience placed the absentee student at a significant disadvantage.

Despite its limitations as a substitute for practical instruction, much can be gained from considering the *Polyclinic* as a means of disseminating venereological knowledge. Practitioners could write to the editor for advice on difficult cases. The *Polyclinic* was a valuable forum through which readers could correspond and receive answers to clinical conundrums. In 1900 one correspondent delivered an apparently healthy child of a woman with a clear indurated syphilitic chancre. He asked if he should also treat the child with mercury. The correspondent was advised to 'better wait events' since 'the child may not improbably have escaped'. They were also reminded to 'forbid the mother to nurse her child and in warning her as to the danger of infecting it'.[68]

The *Polyclinic* regularly included articles and editorial correspondence on the subject of venereal diseases. Cases recorded in the *Polyclinic* often adhered to the same schematic format. The lecturer or writer offered an overview of the patient's medical history and occasionally brief reference was made to the patient's own account of illness. Symptoms were documented and the difficulties of diagnosis were raised. A final diagnosis was made and the case concluded with a discussion of the most efficacious form of treatment. The *Polyclinic* was not unique in its write-up of instructive cases. Articles were regularly published in the wider medical press on cases presenting various manifestations of venereal diseases. What made the *Polyclinic* unique was the regularity and detail with which accounts of venereal cases were published and the fact that these accounts were regularly accompanied by practical instruction. Most articles on the subject of venereal diseases dealt with only one or two specific symptoms. Yet when considered collectively, the great volume of material published between 1899 and 1914 offers an overview of important developments in venereology. Rankin described the extensive series of cases of tabes dorsalis presented to postgraduates and written up for publication as 'a valuable clinical exhibition of the various aspects in which the disease may present itself to the physician'.[69] These cases offered important clinical experience and provided a holistic framework thorough which to consider orthodox understandings and new ideas regarding the aetiology, diagnosis and treatment of venereal diseases as manifested through different morbid conditions.

[66] *Ibid*., 17; *Polyclinic* (1901), 2.
[67] *Polyclinic* (1901), 2.
[68] *Polyclinic* (1900), 272.
[69] *Polyclinic* (1902), 24.

Teaching at the MGC

As outlined in the first issue of the *Polyclinic*, the MGC's timetable of clinical demonstrations, lectures and practical classes were intended to facilitate the dissemination of current medical knowledge and practice and to stimulate discussion of various subjects of special interest. Specialists drew upon their own experience and specialist knowledge as well as such research as that conducted by Mott at the London County Council Pathological Laboratory at Claybury Asylum.[70] By 1903 the MGC also offered annual courses of composite lectures that, unlike normal lecture series, were designed to encapsulate current medical orthodoxies.

Accounts in the *Polyclinic* suggest that venereological instruction remained popular. In 1900 Hutchinson's lecture on 'The Present-Day Treatment of Syphilis', had 'proved so attractive that it had been found necessary to call into acquisition the larger accommodation of the combined library and consultation rooms'.[71] The initial decision to offer classes in the diagnosis and treatment of venereal diseases represented an attempt to fill a perceived gap in medical knowledge. That each volume of the *Polyclinic* contained a comparatively high proportion of articles devoted to the various aspects of venereal diseases suggests that the MGC was responding to healthy attendance rates and an ongoing desire among practitioners to receive venereological training.

Demand was sufficiently high to warrant the introduction in 1914 of a special course of practical classes devoted to the diagnosis and treatment of venereal diseases.[72] The identification of the spirochaete in 1905, and the development of the Wassermann reaction in 1906 and salvarsan in 1909 had revolutionised venereology during the preceding decade. These rapid diagnostic and therapeutic developments, along with the establishment of the RCVD in 1913, probably influenced the decision to run what appears to have been the first systematised pedagogic approach to venereological instruction among postgraduates. However, it is difficult to draw definite conclusions about the educational benefit derived from these courses and to determine how postgraduates applied their newfound venereological knowledge in clinical practice.

Compared to the fragmented treatment of venereology at an undergraduate level, the MGC provided a more systematised, if not an entirely coherent, theoretical approach to venereology. Venereal cases were regularly brought before postgraduates as examples of ophthalmic, dermatological, neurological, antenatal or genito-urinary conditions. In the years following the establishment of the MGC, a course of six clinical lectures in 'General Ophthalmology' frequently included an entire lecture on 'syphilitic affections of the eye'. The course in 'Comparative Pathology' included a lecture on 'Diseases of the Genito-Urinary Organs' in which syphilis often figured prominently. The course of lectures in 'Practical Biology' held in association with King's College offered practical laboratory-based experience in the diagnosis of diseases including syphilis.

Teaching at the MGC reflected a transitional period in the conceptualisation of conditions such as venereal diseases. Its approach remained, in some respects, pre-theoretical. As in undergraduate study, symptoms were conceptually and diagnostically

[70] *Polyclinic* (1900), 11; F.W. Mott, 'Brain Syphilis in Hospital and Asylum Practice: With Notes of Sixty Cases and Twenty-Three Asylum Postmortem Examinations', *Archives of Neurology* (1900), 7–165; F.W. Mott, 'Tabes in Asylum and Hospital Practice', *Archives of Neurology* (1903), 1–327; *British Medical Journal* (1908), 10–13; *British Medical Journal* (1909), 1403–8.
[71] *Polyclinic* (1900), 201.
[72] *The Lancet* (1914), 1023.

compartmentalised within specialist disciplines such as dermatology and ophthalmology. Lecturers relied upon traditional observational, diagnostic and therapeutic practices that delineated symptoms according to the bodily structure or function affected. As at an undergraduate level, venereology did not constitute a single field of study. Yet despite such apparent compartmentalisation, the specialist study of conditions such tabes dorsalis suggests that postgraduates at the MGC were slowly being encouraged to consider individual cases or specific symptoms within a wider theoretical and pathological framework.

In 1900 the *Polyclinic* claimed that practitioners commonly made the mistake of expecting the 'full roll [*sic*] of phenomena' to be present in every case. Chancres may escape observation and characteristic secondary-stage ulceration of the tonsils may never appear. Characteristic sores and rashes might be so faint as to avoid accurate diagnosis.[73] If this was indeed the case then large numbers of practitioners were potentially misdiagnosing those patients whose symptoms did not correlate to the full list of characteristic indicators. Reliance upon the presence of all common symptoms in order to make a diagnosis of syphilis demonstrated a fundamental lack of venereological knowledge. Lecturers at the MGC emphasised the importance of not expecting an assortment of common symptoms and attempted to teach practitioners to make accurate diagnoses based on what might be only one or two obscure symptoms such as ocular paralysis.

The objective was to diagnose, treat and alleviate the discomfort caused by specific morbid conditions such as ocular paralysis that was identified as a symptom of tabes dorsalis. Yet lecturers also stressed the importance of such symptoms as indicators of a current or past venereal infection. Practitioners needed to be able to distinguish between a localised ophthalmic condition and an early indicator of tertiary-stage syphilis. Tabetics experienced slow deterioration of the spinal cord nerves that carried sensory information to the brain. Apart from the visual impairment brought on by ocular paralysis, symptoms could also include diminished reflexes, inco-ordination and unsteady gait, sporadic sharp pains throughout the body, personality changes, dementia, deafness, rectal crises and sexual dysfunction. These symptoms were demonstrated in the cases brought for consultation at the MGC. As Gayle Davis observes, many of the symptoms characteristic of neurosyphilis were not unique to venereal infections and could have been easily misdiagnosed when relying upon observational practices.[74] Nor could these symptoms often be easily linked to syphilis. There was normally an extended interval between an identifiable syphilitic infection and the manifestation of tabetic symptoms. Furthermore, not all syphilitics appeared to develop tertiary-stage infection and those who did may have presented symptoms such as cutaneous gummas that were seemingly not linked to, or accompanied by, neurological dysfunction.[75] As early as 1889 the respected neurologist, William Gowers, observed that mercury was unable to reverse the tissue damage brought on by tabes dorsalis and common syphilitic treatments therefore had little diagnostic significance.[76] Tabes dorsalis was therefore of particular interest to postgraduates because

[73] *Polyclinic* (1900), 132–4.
[74] Davis, *op. cit.* (note 9), 104.
[75] Gummas are soft, non-cancerous growths that can affect any part of the body, potentially causing neurological dysfunction, bone and joint pain, as well as organ deterioration. Their most obvious manifestations were the cutaneous lesions and necrosis that often accompanied tertiary-stage syphilis.
[76] *British Medical Journal* (1889), 236.

it was diagnostically and therapeutically challenging and because, in the years before use of the Wassermann reaction became widespread, its venereal aetiology remained a subject of debate.

As Mott observed in his lecture, 'On the Early Signs and Symptoms of Tabes and General Paralysis', a person in the early stages of either disease would present themselves for the treatment of one of many otherwise obscure symptoms.

> A spontaneous dislocation or fracture will take him to the surgeon, and very possibly bladder trouble. A squint, with double vision, or failing sight, ending perhaps rapidly in blindness, will take him to the ophthalmic department. . . . A fit, or mental symptoms, will take him to the neurologist or alienist. Each of these modes of onset of the disease is indicative of a special localised degeneration of some part of the nervous system.[77]

Harry Campbell similarly stressed the challenging nature of tabes by bringing before postgraduates two cases in which diagnoses were hampered by the fact that optic atrophy was the only symptom experienced by each patient.[78] As Gowers reminded postgraduates, 'almost every common symptom of a morbid state is sometimes absent'.[79] Postgraduates were therefore encouraged to familiarise themselves with diagnostically challenging physiological 'modes of onset' so that they might recognise an underlying venereal infection.

The rise of germ theory and laboratory-based medicine gave currency to the idea of micrococcal specificity. However, as Davis observes, before the identification of the spirochaete and the development of the Wassermann reaction it was difficult to identify the exact pathological cause of tabes dorsalis.[80] It may have been identified as a specific disease entity but practitioners spoke with varying degrees of certainty about its aetiology. Discussion instead focused upon symptomatology. Throughout the 1880s suspected cases of tabes dorsalis were discussed in the medical press in terms of their characteristic, unique or diagnostically challenging symptoms. Practitioners had begun to discuss the pathology of tabes dorsalis but this discussion rarely extended beyond the post-mortem identification of irregularities such as sclerosis of the posterior columns of the spinal cord. During the final decades of the nineteenth century a conclusive diagnosis was only thought to be obtainable through post-mortem examinations that allowed clinicians to identify a series of internal physical changes that correlated with physiological changes observed in the living patient.[81] The micrococcal aetiology of these changes was rarely addressed with any certainty or in any detail. In 1889 Gowers conceded that, although he strongly suspected the role of a causative syphilitic micro-organism in the development of tabes dorsalis, he could not draw any definite conclusions.[82] In his 1903 lecture on 'Syphilis of the Nervous System', delivered at the MGC, he continued to focus upon pathological changes without speculating upon the micrococcal cause of such changes.[83]

The MGC provided practitioners with a forum in which to discuss difficult aetiological, diagnostic and therapeutic questions surrounding conditions such as tabes dorsalis. Although lectures given at hospitals and at institutions such as the Medical Society of

[77] *Polyclinic* (1902), 235.
[78] *Polyclinic* (1903), 80.
[79] *British Medical Journal* (1903), 774.
[80] Davis, *op. cit.* (note 9), 125–46.
[81] *British Medical Journal* (1882), 732; *British Medical Journal* (1889), 169; Royal Society of Medicine, *Proceedings of the Royal Society of Medicine: General Reports* (London: Longmans, Green and Co., 1912), 85–6.
[82] *British Medical Journal* (1889), 57.
[83] *British Medical Journal* (1903), 773–8.

London also acted as channels through which to disseminate specialist knowledge, there is little indication that general practitioners were frequently in attendance.[84] Similar lectures given at the MGC were important not only for their detailed and specialised content but also for the fact that they catered primarily to the educational needs of general practitioners.

Among the diagnostic practices regularly taught to postgraduates at the MGC was the examination for, and identification of, ocular paralysis. In 1900 Hawthorne presented three cases of ocular paralysis and gave detailed demonstrations of the examination process through which to arrive at an early and conclusive diagnosis. The size and shape of both pupils must be examined. The light response in each eye should be tested and the contraction of each pupil noted in order to determine whether the patient had developed the characteristic Argyll-Robertson pupil. 'In order to secure an accurate conclusion as to the condition of each pupil light reflex, each pupil must be alternately shaded and exposed to light, the other eye during the examination remaining covered.'[85] Hawthorne argued that the 'existence of ocular paralysis . . . must always give rise to a suspicion of syphilis' and be considered 'very frequently the first evidence of serious organic disease of the central nervous system'.[86] Such lectures offered postgraduates opportunities for detailed study of a single but diagnostically significant symptom of tabes dorsalis. They laid out in great detail the clinical process through which practitioners could confidently arrive at a correct diagnosis of ocular paralysis that could in turn indicate the onset of tabes dorsalis.

In January 1910 J.E.R. McDonagh, surgeon to the Lock Hospital, delivered a lecture at the MGC on the serum diagnosis of syphilis. Although general practitioners were not in a position to perform the highly specialised Wassermann reaction themselves, such a lecture demonstrated that it was thought necessary for them to understand the nature and effectiveness of the reaction. Such an appreciation might in turn make them more likely to send samples for analysis. The information conveyed by McDonagh was highly specialised. For practitioners who had qualified before the development of this technology, such lectures, along with articles in the medical press, provided important channels through which up-to-date diagnostic information could be disseminated. McDonagh not only introduced postgraduates to the theory of the Wassermann reaction but also explained when the test should be performed and what physiological conditions (such as recently finishing a course of mercury) might produce a false negative. According to McDonagh, the 'blood [must be] examined not less than one month after last taking mercury'.[87] This information was potentially of great assistance to general practitioners in determining when to take a sample for analysis. Despite extolling the benefits of the Wassermann reaction, he also warned practitioners against relying too heavily upon its results which, he claimed, should always be accompanied by a thorough physical examination. Practitioners therefore had to be as knowledgeable as possible of the various physical and neurological manifestations of syphilis.

Such lectures were at the frontier of venereological knowledge. Lecturers were expected to be *au fait* with the diagnostic and therapeutic innovations that informed clinical practice. They drew upon this knowledge in the teaching of postgraduates and in so doing helped

[84] See, for example, *British Medical Journal* (1889), 57–64; *British Medical Journal* (1906), 1021–3; *British Medical Journal* (1911), 1337–42.
[85] *Polyclinic* (1900), 99.
[86] *Ibid.*, 101.
[87] *Polyclinic* (1910), 30.

to define the MGC as a centre of expertise. The MGC provided general practitioners with detailed instruction on medical orthodoxies whilst also introducing them to new and sometimes controversial knowledge claims. They gave clarity to symptoms that might have otherwise been misdiagnosed and provided general practitioners with the knowledge necessary to conceptualise these symptoms within a more holistic theoretical and pathological framework.

In 1903 the MGC announced the commencement of a series of 'composite lectures':

> these lectures shall supply the unavoidable deficiencies of those given with reference to the cases of individual patients, and shall offer systematic *résumés* of our knowledge respecting special forms of disease. . . Our lecturers are not to be required to produce the results of original research or to propound original views, but rather to give . . . a sound exposition of the present state of knowledge concerning the subject in hand.[88]

Given that, in 1903, the College experienced one of its many financial crises, it is possible that 'composite lectures' that propounded medical orthodoxy were not only viewed as a pedagogic necessity but also constituted a calculated commercial venture. This may have been a clever attempt to compensate for areas of medical uncertainty by tempting fee-paying practitioners with the appealing prospect of medical certainties. However, that such a course of lectures was designed to supplement a focus on the symptoms of individual patients suggests that practitioners were beginning to move away from complete reliance upon empirical and opportunistic observation. A focus on the 'present state of knowledge' suggests that practitioners had begun to contextualise their clinical practice and the symptoms of individual patients within a more coherent and holistic theoretical framework.

Composite lectures were forums in which to clearly state the accepted knowledge and practice pertaining to the clinical subject under discussion.[89] In 1904 these lectures included 'Gonorrhoea in Women', 'What is Syphilitic?' and two lectures on the 'The Relationship of Syphilis to Insanity'.[90] Lectures given in January of 1906 included 'Some Unusual Manifestations of Syphilis in the Upper Air Passages', while the December series included 'Syphilis of the Nervous System' and 'The Prophylaxis of Venereal Diseases'.[91] The mandate of the composite lecture series suggests that the content covered was representative of venereological orthodoxy. Yet with the exception of Lane's lecture on prophylaxis, for which there is a surviving transcript, there is little to indicate either the content of composite venereological lectures or their influence upon the clinical practices of postgraduates.[92]

Lane's lecture on venereal prophylaxis was both an overview of venereological orthodoxy and an account of some of the prevailing social attitudes towards venereal diseases. The subject matter was drawn from his involvement in the 1901 Brussels Congress which also addressed venereal prophylaxis. His lecture documented venereological research and outlined a broad proposal for curtailing the spread of infection. He stressed the need for practitioners to be familiar with the 'trustworthy methods of treatment' and to impress upon their patients the seriousness of their condition and the

[88] *Polyclinic* (1903), 1–2.
[89] *Ibid*., 2–4.
[90] *Polyclinic* (1904), viii.
[91] *Polyclinic* (1904), viii; *Polyclinic* (1906), iv.
[92] Royal College of Surgeons, J. Ernest Lane, *The Prophylaxis of Venereal Diseases: A Paper Read Before the London Medical Graduates' College and Polyclinic, December 10, 1906* (London: John Bale, Sons and Danielson, 1907), 3–15.

availability of those treatments.[93] He viewed greater education as a more effective means of prevention than the regulationism employed under the Contagious Diseases Acts. His criticism of regulationism and the accompanying unscientific practices employed in the hurried and inadequate examinations of suspected prostitutes reflected growing understandings of micrococcal causation and disease progression.[94] These empirical practices did not, according to Lane, take adequate account of the possibility that the patient had entered a latent stage of infection or that their symptoms were so obscure as to be overlooked. Lane mentioned the spirochaete only in passing, suggesting that he assumed his postgraduate audience to be familiar with this very recent development. With the identification of the spirochaete and the development of the Wassermann reaction, practitioners such as Lane stressed the need to avoid what they viewed as a fundamentally flawed and unscientific process by placing greater emphasis upon laboratory-based practices. Although Lane's lecture offered a sweeping account of venereological knowledge and practice it was nonetheless well informed and disseminated the most up-to-date information.

That the MGC marketed its composite lecture series in terms of medical orthodoxy suggests that the content of normal clinical lectures was, to some extent, the product of each lecturer's unique professional experience. Clinical lectures at the MGC served as forums for raising new ideas in the diagnosis and treatment of venereal diseases. According to the *Polyclinic*, the MGC enjoyed the services of 'men of undoubted authority who have made certain subjects their own'.[95] However, inconsistencies in the medical knowledge disseminated to postgraduates suggest that these subjects were not always epistemologically cohesive. In some instances there was little certainty to be imparted.

Recommended Therapeutic Practices

Contradictions in espoused knowledge were not only evidenced in discussion of conditions such as tabes dorsalis but also in debates over the most effective therapeutic practices to adopt. Salvarsan was a very recent development and not widely used beyond the confines of a select number of hospitals. It is unsurprising therefore that its therapeutic benefits and mode of administration were not discussed as frequently among postgraduates as the more traditional mercurial treatments. Mercurial injections, and the absorption of mercury through the skin by inunction were advocated by some practitioners but dismissed as ineffective, inconvenient or dangerous by others. Mercury needed to be administered slowly lest the patient suffer mercury poisoning. The question, therefore, was how best to administer safe but sufficient dosages. In his testimony before the RCVD Russell argued that inunction was preferable because practitioners could exercise greater control over the dosage.

> If you have given too much mercury . . . by thoroughly washing it out of the skin you get rid of any further absorption . . . into the system. If however . . . you have injected the mercury, you have no means of getting out what is under the skin.[96]

[93] *Ibid*., 8.
[94] J.E. Ross and S.M. Tomkins, 'The British Reception of Salvarsan', *Journal of the History of Medicine and Allied Sciences*, (1997), 400.
[95] *Polyclinic* (1904), 67.
[96] Royal Commission on Venereal Diseases, *op.cit.* (note 19), q. 9843.

Hawthorne, Gowers and Thomas St Clair also recommended inunction as the best method of administration. By contrast, Lane attempted to dissuade postgraduates from using inunction in most cases because he considered it to be unreliable, imprecise and 'dirty', making it 'difficult . . . to conceal the nature of the disease from the family'.[97] Although C.R.B. Keetley, senior surgeon to the WLH, stressed that hypodermic injections were generally 'to be discountenanced', he nonetheless advocated their use in cases where 'more usual' forms of treatment were ineffective. In such cases, he advised that the injections 'must be intramuscular'.[98] Keetley's cautious advocacy contrasted markedly with Lane's enthusiasm for intramuscular injection, which the latter believed to be the most efficacious means of combatting 'malignant' syphilitic cases. In his testimony before the RCVD, Sir Clifford Allbut, Regius Professor of Medicine at Cambridge, claimed that the subcutaneous administration of mercury through intramuscular injections was only a recent development which may explain why practitioners appear to have differed so greatly in their attitudes towards this method of administration.[99] Some practitioners chose to commence treatment immediately upon the identification of syphilitic symptoms whereas others such as Lane recommended caution until the patient developed secondary-stage symptoms that could better confirm the presence of syphilis.[100] Such caution reflected a degree of diagnostic uncertainty as well as an awareness of the therapeutic limitations and potential harms of mercury. Yet before the development of salvarsan in 1909 practitioners had few therapeutic alternatives.

The MGC did not administer treatment but instead recommended treatments to be administered by the attending practitioner. With a few notable exceptions, patients rarely returned for follow-up consultations at the MGC and consequently the course of their illness and the efficacy of prescribed treatment regimes went unmonitored. There was often an implicit assumption that the prescribed treatment would be effective or at the very least an understanding that the efficacy of treatment was variable. Little reference was made to the ineffectiveness of treatment or to the inability or unwillingness of a patient to persist with treatment.[101] For one of Hawthorne's patients – a woman with acquired syphilis – the normal 'authoritative dose' of mercury produced extreme salivation and extensive ulceration of the lips, tongue and fauces. This case, although described as 'extreme', nonetheless illustrated 'that doses must be selected not as a matter of routine but in accordance with what experience shows to be the requirements of the individual'.[102]

The unpredictability of patient reactions to mercurial treatments was linked to discussion about the need for greater experience among practitioners who were required 'to judge in each case when a suitable dose had been administered'.[103] In 1904 Lane admitted that

> it is, of course, difficult to say when the disease is cured, if ever, but after treatment lasting over three and after an absence of symptoms for two years, the surgeon is justified in giving a hopeful prognosis. . . Should the patient wish to marry, he should as a precautionary measure have a further course of mercury.[104]

[97] *Polyclinic* (1902), 440; *British Medical Journal* (1903), 776; *Polyclinic* (1904), 143.
[98] *Polyclinic* (1903), 163.
[99] Royal Commission on Venereal Diseases, *op.cit.* (note 19) Cd 8190, q. 13647.
[100] *Polyclinic* (1904), 142.
[101] *British Medical Journal* (1906), 1022; *Polyclinic* (1904), 144.
[102] *Polyclinic* (1902), 478.
[103] *Ibid*.
[104] *Polyclinic* (1904), 147.

Such caution reflected uncertainties regarding the epidemiology of syphilis and its responsiveness to available treatments. Gowers had also reminded postgraduates in 1903 that

> instances have been met with by everyone who has had much experience, in which there was recurrence after recurrence, in spite of most thorough treatment. . . . Hence, whether syphilis is or is not incurable as a constitutional malady, it is certainly one of the cure of which we can never be sure.[105]

Before the identification of the spirochaete in 1905 there was little appreciation of the effect of treatment at a microbial level or of the need to standardise treatments according to their optimal effect upon a causative micro-organism. That each patient seemingly had a different physical response meant that practitioners could not rely upon standardised doses. Tailoring treatment regimes highlighted the importance of developing sensitivity to the therapeutic needs of individual patients. It was a sensitivity based upon extensive clinical experience and a thorough understanding of the different methods of treatment. Lane assumed that his postgraduate audience were 'all perfectly familiar with the customary methods of administering' mercury and instead focused upon the circumstances under which each method should ideally be applied.[106]

Inconsistencies in advice given by these practitioners, although unintentional, were indicative of an under-defined syllabus as well as a fundamental lack of coherent knowledge and agreement regarding standard clinical practices. The content of lectures was not determined by, or reflective of an institutionally agreed-upon knowledge base but rather upon the professional experiences of individual lecturers. Just as there were discrepancies in the types and duration of treatments prescribed, so too venereological teaching was limited in its cohesion and regulation.

Conclusion

That the content of postgraduate lectures was inconsistent suggests more than a simple lag in the assimilation of new knowledge claims. It was indicative of fundamental discrepancies that were the product of uncertainties and attempts on the part of different practitioners to overcome those uncertainties. Differences among medical practitioners, especially in the variety of their recommended therapeutic practices, suggest that they were searching for, but not necessarily finding adequate solutions to venereological conundrums. The process of knowledge dissemination in this period could be described as an attempt to rationalise medical uncertainties and problems. Lecturers were not simply reiterating medical orthodoxies but also speculating over new specialised knowledge claims. They drew upon their own clinical experience and the work of their contemporaries in the instruction of postgraduates. Such an approach to venereological education, and to medical education more broadly, at the MGC inevitably produced inconsistencies, as lecturers and postgraduates sought the best diagnostic and therapeutic methods and attempted to clarify the aetiology of conditions such as tabes dorsalis.

The MGC faced many organisational and financial problems that impeded the effectiveness of postgraduate instruction. Fewer than anticipated general and special hospitals were willing to affiliate. There were constant concerns about the supply and quality of instructive clinical material. Subscription numbers were never as healthy as the MGC would have wished. Although an important educational tool, the *Polyclinic* could

[105] *British Medical Journal* (1903), 777.
[106] *Ibid.*, 143.

never be an adequate substitute for actual attendance. Unfortunately, the MGC could find no 'successful serum for the financial microbe' that had invaded its 'circulation' and its 'congenital energy' slowly deteriorated.[107] Publication of the *Polyclinic* ceased in 1917 and the MGC finally closed in 1927.

Despite such problems, the MGC constituted an important channel through which orthodox and innovative knowledge could be disseminated. It drew upon emerging specialisms and in so doing built upon the generalist training received at an undergraduate level. Such instruction was one of the first concentrated attempts at what could be described as professional development for general practitioners. The recommendations of the RCVD, published in their Final Report of 1916, allowed for general practitioners' access to laboratory facilities and for the establishment of specialist treatment clinics that were often staffed on a sessional basis by general practitioners.[108] However, before this date, general practitioners had significantly fewer opportunities to study venereal cases in any regular or systematised way.

Institutionalised postgraduate education began to gain real purchase during the interwar years and early institutions like the MGC were instrumental in this process.[109] They did much to establish the legitimacy of postgraduate study, especially in disciplines such as venereology that were given only cursory attention in undergraduate study. Their establishment marked an important shift in conceptions of medical knowledge and education. The generalist nature of the undergraduate curriculum was beginning to be recognised as insufficient for effective and safe clinical practice. Postgraduate training recognised the fact that a general practitioner's knowledge constantly needed to be refreshed and augmented in systematised ways that could not be achieved simply in the course of general practice.

[107] *Polyclinic* (1901), 32.
[108] Ross and Tomkins, *op. cit.* (note 94).
[109] National Archives, Ministry of Health, Report of the Postgraduate Medical Education Committee: Proposed Establishment in London of a British Postgraduate Hospital and Medical School (1930) CAB/24/211, 31.