Medical History

The terrible peril: a historical perspective on the venereal diseases

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I have chosen a historical theme for my lecture today to mark the creation of the first chair of genitourinary medicine in the world. The first part is concerned with the events leading to the creation of an organised clinical service for the venereal diseases in the UK and its subsequent growth. In the second part I will examine the history of the Middlesex Hospital in relation to these diseases and the development of the new academic department.

During the nineteenth and early twentieth centuries government reports and legislation did not manage to control these diseases, and, if anything, created more controversy than the illnesses themselves. The Contagious Diseases Acts of 1864 and 1866 required the compulsory registration and police supervision of all prostitutes plus regular examinations and even compulsory hospital detention. The Royal Commission on Poor Laws of 1909 also recommended detention orders for patients with these diseases, and the Royal Commission on Divorce of 1912 reported that the passing on of a venereal disease was an act of cruelty second to none as grounds for divorce.

Society was happier ignoring the problems of these illnesses and, if forced to face them, developed suitable defence mechanisms. One was to project the blame on to the prostitute, or treat her as a non-person. George Vivian Poore, discussing the rape of prostitutes by Jack the Ripper in his book on medical jurisprudence, maintained that they were not "violated because most of them were prostitutes."¹ Other mechanisms to contain the realities of the problem were by detaining the patient or classifying the passing on of such disease as cruelty. The medical profession often added to this censorious and moralistic suppression. Dr Samuel Solly, president of the Royal Medical and Chirurgical Society, giving evidence to a government committee, said of syphilis that it was self-inflicted, was avoidable by refraining from sexual activity, and was "intended as a punishment for our sins and that we should not interfere in the matter."² Even though this was said in 1868, attitudes had not greatly changed by the turn of the century, and some doctors still refused to treat venereal diseases. It was reported that one had written to a patient as follows, "You have had the disease one year, and I hope it may plague you many more to punish you for your sins and I would not think of treating you."³

Prevalence of venereal diseases

In the early 1900s the magnitude of the medical problem represented by the diseases was recognised but not measured with any accuracy. Most of the available data about the prevalence of the diseases were concerned primarily with syphilis.

At the beginning of the century both the mortality and morbidity were high. It is uncertain how high since the existing systems for collecting these two types of data either did not exist as we know them today or were incomplete and inaccurate. Information about syphilis could be derived from the Registrar General, the navy, the army, the police, the local government board, and the prison and lunacy commissioners.

The Registrar General recorded 1639 deaths in adults and 1200 in infants from syphilis in 1910 in England and Wales. These figures were regarded as a gross underestimate, since many deaths were not certified as syphilis for fear of offending relatives. Sir William Osler, regius professor of medicine at Oxford, was convinced that other labels or categories were being used, such as locomotor ataxia, aneurysm, hemiplegia, apoplexy, embolism, general paralysis of the insane, valvular heart disease, and diseases of the liver and other internal organs. He calculated that adult deaths attributable to syphilis probably numbered 60 000 instead of the reported number of less than 2000.⁴

Effect on the Forces

These figures related to mortality, no national figures being kept of the number of cases of syphilis treated, and we have to turn to the army and navy for treatment and morbidity figures. The military authorities had long been aware of the disastrous consequences on their fighting strength. General Ferguson, reporting on the Peninsular War of 1808 to 1814, estimated that during his four years in Portugal he had noted more syphilis than had been found in the hospitals of England in the whole of the previous century.⁵ During the Boer War the rate of admissions to army hospitals for venereal diseases rose to over 500 per 1000 men and represented 37% of all admissions. By 1913 the rate was its lowest ever of 55 per 1000, about 10% of all admissions. A problem still existed, but the army was justifiably proud of its ability to cope and maintained that this decline was due to health education, increased temperance, better leisure facilities within barracks, and improved treatment methods "for both sexes under conditions to which no penal stigma (was) attached."⁶ It is interesting that the army should have had the foresight to plan such a comprehensive approach and to be years ahead of civilian society in its thinking and attitudes.

You will remember I mentioned that other official bodies also kept figures—for example, in 1914 just over 1% of the population in short-term local prisons suffered from overt clinical

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An inaugural lecture delivered at the Middlesex Hospital Medical School on 15 November 1979.

syphilis, and in convict prisons this figure was 17%. Half of these prisoners with infectious syphilis were discharged in this state, not having received adequate treatment.³

Population surveys provided more generally applicable information—for example, a serological survey carried out in 1914 suggested that up to 12% of the adult male population of London and 7% of the female population suffered from acquired syphilis. And the rate for gonorrhoea was thought to be even greater. Writing at the same time, Fournier estimated that 15% of the inhabitants of Paris suffered from syphilis, and Erb calculated that in Berlin the figure was 12%.⁷ The Russian figures were even higher. Dr Gantt, formerly chief of the medical division of the American Relief Administration in Leningrad, reported that 95% of the population in North-western Russia suffered from syphilis.⁸ Many of these rates may have been overestimates due to technical and interpretive problems of early serological tests, but even so the rates for syphilis were probably very high.

Lack of facilities for treatment

The inadequacy of routine statistics was minor compared to the very poor facilities for treatment in existence during the nineteenth and early twentieth centuries. Patients with possible venereal disease could be treated by various institutions and people, but the availability and standards of these services were usually inadequate. Those who could afford it would seek care from private practitioners. But since these illnesses had no formal place in the undergraduate curriculum, many practitioners were poorly trained.

At the beginning of this century one-third of the total population of the UK was insured and, theoretically, entitled to receive medical care and treatment as for any other illness. Under the rules of most insuring societies, however, a person suffering from these diseases was suspended from benefits. The National Insurance Commission had the following rule, "No members shall be qualified for sickness or disablement benefit in respect of injury or disease caused by his own misconduct."⁹ Imagine the reaction now if we were to impose such rules within the NHS for those suffering from diseases related to the habit of smoking, accidents caused under the influence of alcohol, and injuries sustained when not wearing seat belts.

The insured patient defeated by this rule may have turned to the voluntary hospitals. Many of these, however, had specific statutes that did not allow the treatment of patients with contagious and infectious diseases or subscribers who voiced considerable objection to the treatment of venereal diseases. The other agencies that might dispense care were the Poor Law institutions; however, the facilities for treatment were usually inadequate and the staff not trained to deal with such patients.

The stigma and financial hardship of treatment both in the private sector and under the Insurance Act must have driven many potential patients to ignore their disease or turn for treatment to unqualified people. A government report on the practice of medicine and surgery by such people, published in 1910, confirmed that in many large towns the treatment was largely in the hands of lay people.¹⁰

The Royal Commission

The magnitude and urgency of the health problems represented by these diseases gained enough recognition by the early part of the twentieth century for the Government to form a Royal Commission under the chairmanship of Lord Sydenham of Combe, which started to take evidence in November 1913 and reported in March 1916.³ The clinical realities facing the commission must have been a great disappointment in view of three dramatic discoveries in the opening decade of the century. *Treponema pallidum* had first been identified by Fritz Schaudinn

in Berlin in 1905; Auguste von Wasserman and Carl Bruck had developed the complement fixation test, known as the Wasserman reaction, in 1906; and finally Paul Ehrlich had introduced arsenic as a treatment for syphilis in 1909. The belief that these discoveries would solve the scourge overnight had not materialised. Not altogether surprising, since no structured medical service existed in this or other countries for diagnosis and delivery of treatment and thus for putting these discoveries into practice. To their eternal credit, the commissioners managed to tackle many of the problems rather than deny the existence of the situation. They recommended the establishment of a free open-access medical service and suggested that local authorities should be responsible for organising a free service within county and general hospitals; 75% of the cost of the service to come from central government and the remainder from local rates.

Educating the public

Maybe not surprisingly, the only issue that was treated with some caution by the commissioners was that of educating the public. While recognising the necessity of providing medical facilities, they indicated that it would be necessary "to raise moral standards" and instruct the community in "self-control." So as to leave no doubt about their moral propriety, the commissioners concluded that the diseases "are intimately connected with vicious habits."

Reading the Royal Commission report today, it is possible to detect the nervousness of the commissioners, who believed that the provision of free facilities for treatment would lead to widespread, indiscriminate, risk-free fornication. Interestingly, as with education, no mention was made in the report of prevention. This omission highlights the moral dilemma that any instruction on how to avoid disease was tantamount to encouraging sex with unknown partners; as Alex Comfort so aptly describes it to "have one's tart and eat it."¹¹

As expected, and for the reasons just given, the Royal Commission's recommendations were not universally accepted. Following the report groups were formed to counteract the effects of a free service which it was anticipated would encourage people to contract diseases rather than control them and undoubtedly open the flood gates of immoral behaviour. The most active organisation was known as the National Council for Combating Venereal Diseases. Their spokesman, unwittingly, coined the lovely tongue-twisting jingle when describing that the function of his organisation was to fight "the terrible peril to our imperial race."¹² One of the driving forces of this organisation was the physician Sir Francis Champneys, who was violently opposed to education and prevention and maintained that, "... venereal disease should be imperfectly combated than that, in an attempt to prevent them, men should be enticed into mortal sin."¹³ This Mikado-like philosophy that insisted that the punishment must fit the crime was not to be easily defeated. The Government, obviously made nervous by the controversy surrounding the commission, approached Rome for guidance. The Pope at this time was Benedict XV, who, having taken up the throne at the outset of war, had followed a policy of strict neutrality and had devoted himself to alleviating unnecessary suffering. These talents showed themselves in his reported shrewd pragmatic and brief edict that because a man imperils his immortal soul, this is no reason why we should not do the best for his mortal body.¹⁴

Venereal disease in the first world war

Even though the Royal Commission had not touched on the role of prevention the start of the 1914-18 war made it inevitable that this would be discussed. Initially, the only overt sign that the army realised the hazards of venereal diseases to their young fighting men was to issue members of the British Expeditionary

Force to France with a leaflet signed by Lord Kitchener exhorting them to sexual continence. This paper was to be treated as confidential by each soldier and kept for ready reference in his active service pay book. It read as follows: "Your duty cannot be done unless your health is sound. So keep constantly on your guard against any excesses. In this new experience you may find temptations both in wine and women. You must entirely resist both temptations, and, while treating all women with perfect courtesy, you should avoid any intimacy. Do your duty bravely, Fear God, Honour the King."¹⁵ This does not seem to have been very successful, since out of 5000 troops on leave in Paris during a two-month period, 20% became infected.¹⁶ The army's well-organised service was not working, and with a war to be won it was realised that immediate steps needed to be taken. Men were issued with prophylactic packs containing tubes of calomel ointment made from mercury and chlorine, and treatment rooms were set up where soldiers could obtain urethral irrigations with potassium permanganate within 24 hours of exposure. The effect of these measures was reported to be immediate. Of the subsequent 300 000 troops to visit Paris on leave, only 3% became infected. The medical officer in charge of these men suggested that of these 3%, one-third of cases were due to men taking no prophylactic action in the hope of contracting disease and thus being unable to return to the front line. Self-inflicted venereal disease was a recognised phenomenon. It was reported that English prostitutes, knowing that they were diseased, offered sexual intercourse to troops at a higher price because of this added bonus of a possible path away from the trenches. It is also reported that, with the same end in mind, certain soldiers would buy and sell tubercle sputum and urethral discharge for use in self-inflicted disease.

I am sure you will not be surprised to learn that the problem and its control was not unique to the British troops. It is estimated that one-quarter of the armies in Europe during the first war were incapacitated by syphilis and gonorrhoea.¹⁷ The attitudes of our allies towards these diseases are intriguing and different. The French exhibited a sexual panache, for which they were once so famous, by establishing regulated and maintained brothels known as "maison tolérées" and kindly offered these facilities to the British troops. All was not so sharing and happy with our other allies, however, and numerous complaints were heard at the Imperial War Conference held in London in 1918. It was stated that Colonial and North American troops were molested by prostitutes on arrival at Victoria station. A New Zealand doctor reported that in Liverpool men were not safe even on the second floor of their barracks because audacious prostitutes solicited them with the use of scaling ladders. It was reputed that Canadian mothers were upset; willing as they were for their sons to die for the Empire, they would not tolerate them being exposed to sin and disease in British streets.¹⁸

Blaming someone else, usually women, for the spread of venereal disease is a phenomenon that in Britain had already been established by hounding prostitutes through the use of the Contagious Diseases Acts. Clearly this tradition was successfully handed on to our colonial and North American allies, who could not conceive of their sons being anything but virginal or at worst the innocent party. We continued to subscribe to this lop-sided philosophy during the war. A leader in the *Lancet* in 1916, defending our young soldiers, stated that they "must make exceedingly easy game for the temptress . . . we do not recruit young men to fight for us, and then submit them to exceptional sexual dangers, without as a country, undergoing an appalling responsibility."¹⁹ A most unfair and biased attitude that places the blame squarely, but not fairly, on the shoulders of the woman, and ignores the essential ingredient of the sexual act—namely that it usually concerns two consenting persons.

Even though the Government was prepared to help finance the service, its development was slow. The new service had to grapple with a backlog of untreated disease in addition to the return of many infected soldiers who had not resisted the temptations in foreign lands. In 1918, the first year that figures

were available, 27 000 cases of syphilis and 17 000 of gonorrhoea were seen in treatment centres. As predicted, the backlog and returning troops contributed to a substantial increase so that in 1919 the number of cases of syphilis had risen to 42 000 and gonorrhoea to 38 000. A decade later syphilis had fallen to below 1918 levels but gonorrhoea continued to climb.

Treatment of gonorrhoea

The lack of success in controlling gonorrhoea to some extent reflected the doctors' and patients' attitudes to the existing treatment regimens. Treatment after the first world war was in its crude and sometimes dangerous infancy. The mainstay was urethral irrigation with strong antiseptic solutions, such as potassium permanganate. Irrigation was by syringe and later by gravity from bottles hung a standard 3 m above the pelvis. The strength of the solution and force of irrigation resulted in the complication of epididymitis. Colonel Harrison, the doyen and father figure of British venereology at the start of this century, noted that practically every patient treated by this method at the Millbank Military Hospital suffered from the complication.²⁰ This was dismissed by his commanding officer as being due to the patients eating turkey and other luxuries at Christmas. This facile explanation did not deter Harrison from making minor alterations to the procedures in use. He reduced the complication of epididymitis to negligible proportions by the simple expedient of lowering the strength of potassium permanganate from 1 in 4000 to 1 in 8000 and the level of the irrigating fluid bottle from 3 m to 1 m above the pelvis. One would like to think that this reduction in epididymitis encouraged patients to seek care more readily, but Harrison was always a keen experimenter, and his search for new treatments for gonorrhoea may well have disarmed all but the most stoical of patients. In the early years after the first war he used bougies heated by an electric current which he introduced into the urethra. I can find no record of why he ceased using this approach but can only imagine that the electrical impropriety of the system encouraged him to start using metal sounds through which he passed hot water.

The use of high temperatures to treat gonorrhoea was in vogue in one form or another until the late 1930s. Harrison applied local heat but others believed in raising the temperature of the whole body. For many centuries the Sudanese had treated syphilis by burying the patient in sand heated by the noon-day sun, and the Ukrainians wrapped the patient in a closely fitting fur coat and laid him on a hot stove.²¹ The Kettering Institute in Dayton, Ohio, formalised and institutionalised this approach by building a special heating chamber, known as the Kettering Hypertherm. Patients with syphilis and resistant and complicated gonorrhoea were placed in this chamber and heated up to 41°C for eight hours. The other popular method of raising body temperature when treating general paralysis of the insane in the 1920s and 1930s was to infect patients with malaria. Success with this technique was variable, and Russian psychiatrists using it reported no decrease in general paralysis, but added cryptically that malaria had increased several fold.⁸

A comprehensive service

These rather primitive approaches have slowly disappeared with the development of more sophisticated diagnostic and treatment centres. The final step in the creation of a comprehensive service came in 1948 with the inception of the NHS. Regional hospital boards and boards of governors took on the responsibility of running the service. There are now about 120 consultants working in 230 clinics for the sexually transmitted diseases in the UK.

It would be satisfying to be able to report that the development of such a comprehensive and sophisticated clinical service within the UK has resulted in a major decline in the diseases.

Unfortunately, this has been seen only in relation to syphilis. In contrast, in the past 30 years gonorrhoea has considerably increased and in the past ten years alone the cases per 100 000 population have increased by over 40% and in the same period the rate for non-specific genital infection in men has increased by 130%. In 1978 there were 447 000 new cases registered in clinics in the UK and the commonest diseases were non-specific genital infection and gonorrhoea. The remaining cases covered a wide range of conditions such as trichomoniasis, candidiasis, scabies, pediculosis pubis, herpes, warts, Reiter's disease, hepatitis B, other conditions affecting the genitourinary tract, and psychosexual problems. The three conditions for which the service was originally created—namely, syphilis, gonorrhoea, and chancroid—now account for less than 15% of the cases seen in clinics today. A wide range of diseases are now seen, many of which are not necessarily spread by sexual intercourse. Of the reported cases each year one-quarter do not need treatment but are patients seeking reassurance, advice, and check-ups. It is to be hoped that the very special feature of the service—namely, that an "open-door" policy is maintained and patients can attend without being referred by their general practitioner—encourages patients to seek help. In recognition of the widening scope of the specialty, the change in emphasis away from the old statutory venereal diseases and with the aim of removing some of the social stigma of attending a clinic, the specialty has been renamed genitourinary medicine. It is no longer appropriate to talk about clinics and specialists in venereal diseases. The specialty is an exciting and expanding one concerned with total patient care for a wide range of conditions.

I have brought you up to contemporary times by taking a broad look at the development of the service for these diseases. I would now like to take a specific look at our own domestic history here at the Middlesex.

Policy at the Middlesex Hospital

The Middlesex Hospital was founded in 1745 and initially called the Middlesex Infirmary. Originally, there were 20 governors who would meet once a week in a local pub called The Bear and Rummer. John Watson acted as secretary at these meetings keeping detailed minutes.

As I indicated earlier, voluntary hospitals, such as the Middlesex, often excluded patients with venereal diseases. Thus the earliest references that I can find to these diseases in this hospital are concerned with discharging those patients who had been admitted by mistake. The minutes of the meeting held on 2 June 1753 record that "Thomas Troy to be discharged being reliev'd of his Fever, but having the venereal disease, unfit for the house." Another example was to be found on 22 May 1765, "It appears on inquiry that Elizabeth Holmes an inpatient admitted 16 April for cough and fever has the venereal disorder but denied it on her admission. Ordered that she be discharged." Even though I have given examples of patients being discharged when found to have venereal disease, it was possible to be admitted with such a condition after a letter of recommendation by a doctor stating that the patient was of good character and the innocent party.

This cat-and-mouse behaviour appears to have continued until 1 August 1805, when Mr Cartwright, a surgeon to the hospital, suggested to the governors that the wards be opened to patients known to suffer from venereal disease. Our governors, always shrewd businessmen, agreed in November that year that this should be allowed, but that each patient was to pay two guineas on admission. This payment heralded an important event—namely, that patients with venereal disease became the first private patients of the Middlesex Hospital. Two wards were to be given over to this and were formally opened on 17 March 1806 being called the Lock Wards, derived from Loke, a house for lepers. Thankfully, the name was changed two months later and the wards renamed Pykes and Hawkins.

1838, 32 years after the wards had been opened, saw a re-appraisal of the hospital's policy. The governors noted that the wards were never full and that admission had fallen over the years and thought that the charge of two guineas might be the cause of this decline. They were obviously humane and far sighted and decided to abolish the fee to the patients while at the same time keeping open the wards.

In December 1849 the governors once again reviewed their policy towards such patients and considered the advisability of discontinuing all admissions. They opted for retaining the wards, but not before calling for detailed reports from the hospital chaplain and matron. The chaplain had made an impact nine years previously by adding the female wards to his list for daily prayers. He subsequently claimed "more fruit of (his) labours" in this ward than any other. His report to the governors in 1849 recommended that the women should be confined to their rooms except for Divine Service on Sundays. He found this "useful to the poor creatures themselves by showing them with what abhorrence their grievous sin is regarded and useful to the other patients by shielding them from their bad example and advice."

The matron's report was briefer and agreed that the wards should be retained but with certain stipulations. Given the context of the diseases under discussion her choice of words was not entirely appropriate. She agreed that patients should be admitted to the wards but that "no intercourse is ever permitted them with the other patients, they cannot therefore have any immoral influence on the minds of others." One of the hospital rules that existed in an attempt to prevent this possible mental contamination was that of debarring female syphilitic patients from using the hospital garden in the presence of other patients.

After this debate on the advisability of retaining the beds for such patients little happened over the next 70 years. But after the Royal Commissioner's report the hospital had to consider its own role in the new government and local authority system. Doctor James Pringle, who had been in charge of the department of dermatology at the Middlesex since 1888 and was responsible for looking after patients with syphilis, was asked for his opinions on how the Middlesex should organise its services. He maintained that the hospital could deal with the diseases by using the existing departments. Thus the physician would only look after cases of syphilis, the urological surgeon after cases of gonorrhoea in men, and the obstetrician and gynaecologist was to be limited to caring for women with gonorrhoea. This resulted in a cumbersome and fragmented part-time service, and it was not until 1964 with Dr Duncan Catterall's appointment that the Middlesex was served for the first time by a properly trained full-time venereologist. In May 1965 he moved into a new clinic in Charlotte Street named after James Pringle. In the first 12 calendar months that the clinic was open 5800 new cases were seen with 21 000 attendances. Our latest figures for 1978 show 21 000 new cases and 54 000 attendances. We see more outpatients than all the other specialties put together in this hospital, and we are now the second busiest clinic in the UK. Currently, 40% of all cases of sexually transmitted diseases are seen in London clinics.

Chair of genitourinary medicine

The final aspect of the Middlesex's history is concerned with the creation of the chair of genitourinary medicine. I have pointed out how the service in this country had developed, but despite a well-organised system the number of cases of sexually transmitted diseases has increased. Whereas at the start of the century major research into identifying the treponeme and developing serological tests and treatments for syphilis were being undertaken without a structured service enabling these discoveries to be put into practice, we find ourselves today with a good unified service but fragmented research. Some is carried

out by practising and busy physicians in genitourinary medicine and the rest by scientists working in laboratories removed from the clinics and contemporary problems and realities. An academic department can offer unified research to dovetail with an organised service.

The idea of a chair was first raised, appropriately, over a glass of champagne at a reception of the Horseshoe Club for visiting Americans held in Nuffield Lodge in Regents Park in the summer of 1964. Claude Nicol of St Thomas's, Ambrose King of the London, and Duncan Catterall discussed the possibility of creating a chair in their specialty, and all agreed that this was necessary. Duncan Catterall was particularly fired by the idea, which he took to the vice-chancellor of the University of London, who agreed that this was a necessary and important development. Even though the university had agreed to create a chair no funds were available, and it was suggested that Duncan Guthrie, at that time director of the National Fund for Research into Crippling Diseases, should be approached to see if his outstanding abilities as a fund raiser could be recruited. Many individuals, organisations, and the DHSS have given generous financial support.

The two Duncans, Guthrie and Catterall, have been the real workers. I am delighted that Duncan Guthrie's efforts will always be remembered since the chair is named after him, but I am sure he will agree with me that the real praise belongs to Duncan Catterall, who has fought for this moment for 15 years. It requires a remarkable man to be able to think of such an idea and never give up despite the years of political and financial battles that ensued. Not only has Duncan created and fathered the chair, he has created a clinical service for the Middlesex, and a personal reputation for his clinical and teaching skills that are second to none in the world: a fact borne out by the many patients attending the clinic and by his peers who have, in the past, elected him as president of the Medical Society for the Study of Venereal Diseases and currently to the post of president of the International Union of Venereal Diseases and Treponematoses—the ultimate international accolade. Finally, he is the father figure of British genitourinary medicine, officially through his role of adviser to the Department of Health, but more importantly, unofficially in that his advice and wisdom are continuously sought by his colleagues in this and all other specialties.

I have today examined the history and development of a service for the sexually transmitted diseases in the UK and the Middlesex Hospital. The lessons learnt from the past can help to distil out the reasons for our inability to eradicate the diseases and show how the new department can develop an underlying philosophy and research strategy.

For me, the important lessons of my historical wanderings are in relation to our knowledge of the natural history of the sexually transmitted diseases, the development of treatment regimens, the importance of an organised service, and finally society's attitudes towards the diseases.

The early pioneers of the specialty are to be congratulated for the way in which they tackled problems and developed the service. They often, however, did not realise the importance of accurate descriptions of the diseases or the need to test the efficacy of new treatments in a scientific manner. Thus many of the current attempts to control the sexually transmitted diseases have no scientific or adequately documented basis and are not founded on an understanding of the natural history of the diseases. It is easy to understand how this arose as a result of an overwhelming clinical problem with no existing short and effective treatment regimens. Naturally, any new treatment was to be welcomed, be it malaria or electrically heated bougies. But we must ask ourselves how much suffering could have been avoided if accurate clinical observations and controlled trials had been carried out. Venereological approaches were often based "on a handful" of uncontrolled cases and advocacy based on "(my) personal experience."²² Foulds, reviewing the British psychiatric published reports in an assessment of different treatments over the years, commented that "claims for the

success of a treatment are closely associated with the absence of the means whereby these claims can be scientifically substantiated."²³ An observation that holds for genitourinary medicine as for many other specialties. One of the fundamental problems that we face in trying to control the sexually transmitted diseases is our lack of understanding of the diseases, with regard to aetiology, long-term sequelae, and even their transmission. A description and appreciation of these factors, an understanding of the illnesses from a biological point of view, and assessment of the most efficacious treatments are a research priority for controlling them.

Importance of an organised service

The next lesson to be learnt from history concerns the importance of an organised service. I have described the evolving service and have no doubt that it is currently the best in the world. History has shown that once a problem is partially or completely solved, the infrastructure to deal with it is usually disbanded. The Americans developed an excellent service after the first world war, which they dismantled with the discovery of penicillin and an initial drop in gonorrhoea and syphilis. The result is that they now have one of the highest rates in the world for these two diseases, with no unified service and no formal education of medical students. There is still room for improvement in Britain's service and for the need to monitor ourselves continually and our ability to control the diseases. Once a patient presents for medical care, the diagnosis and treatment of a sexually transmitted disease will depend on which agency he has chosen, the training of the staff, the facilities available, and their optimal use. Many of the diseases can be asymptomatic, particularly in women, resulting in a substantial number of patients not seeking help or being diagnosed. The academic department will need to examine the types and standards of services and training provided within both hospital and general practice, establish and test new diagnostic procedures within clinics but also develop alternative tests that preferably do not require genital examination and can be used to identify symptomless individuals in the community or presenting to doctors not trained in the specialty. Finally it will also be necessary to develop sensitive and more comprehensive notification systems and fight for appropriate resources for the specialty at a national level.

The last lesson revolves around society's attitudes. Even though today I have examined only 100 years of history, clearly society is terrified of these diseases, partly because of the health consequences but also because of their link with sexual behaviour—yet another taboo area. We have seen how society looked on these diseases as an offence that could be ignored or punished by detaining the culprit in prison or hospital, curtailing all sickness benefits, and often withholding treatment to reinforce the sinful nature of the diseases. Yet the attitudes often differ towards the sexes. The woman is portrayed as the purveyor of disease and sin, the prostitutes are shut up, not their clients, and it is the young fighting men who have to be protected from the women. At the Middlesex in the past we needed to be saved from the moral pollution of diseased women, and the chaplain of the hospital only wrote about saving women by his prayers. His remarks illustrate society's double standards. William Acton, the Victorian physician maintained, "that the majority of women (happily for society) are not very much troubled with sexual feelings of any kind."²⁴ Society has, and still does, allow the man to be sexual and lustful, but the woman who has such feelings is to be regarded as abnormal, wicked, and the carrier of disease. Certainly a neat way of ignoring female sexuality.

If we are to tackle the problem of the sexually transmitted diseases we will need to examine our own attitudes towards them and those who contract them. It is true that the dirty, the emotionally disturbed, the promiscuous, the homosexual, and the social class V person are those who suffer these illnesses.

But it is only part of the truth and the convenient way of ignoring the realities of the diseases and that the gonococcus, treponeme, and other organisms are ubiquitous. The other part is that the clean, the stable, the non-promiscuous, the heterosexual, and the social class I university professor can also suffer. The transmission of the diseases is dependent on certain behavioural and biological factors. The knowledge of why individuals put themselves at risk, how often they do this, and why they behave in different ways after doing so is essential to understanding the spread of disease and its containment and eventual control. The behaviour of the individual must be a component of the research strategy offered by the new academic department. Likewise, society's attitudes play an important part in controlling the diseases and will need to be examined and appreciated more fully. For example, the moral dilemma afforded by active health education and advice about these diseases still exist today, as it does in relation to other areas, such as contraception and abortion. The fear expressed is that advice and freely available services in these three areas will lead to promiscuity and irresponsible sexual behaviour. Certainly promiscuity may be a factor in the spread of disease, but it can only be one of many others. I do not subscribe to the school of thinking that believes that making clinics as unpleasant as possible will act as a deterrent to contracting disease. The only deterrent offered by this approach is keeping patients away from clinics once they have become infected. The age of the basement and dark alleyway clinic is ending, but needs to be speeded up. Poor facilities in dark corners and notices about clinic hours in underground lavatories are some of modern society's ways of trying to avoid the realities of a major health problem which at the same time stigmatises patients. The "terrible peril" is no longer represented by the disastrous clinical consequences of suffering from inadequately or untreated syphilis and gonorrhoea, but by the positions that we, as society, adopt towards educating the young for the realities of sexual life and towards those that are diseased or at risk—so much so that they are left ignorant, ashamed, and stigmatised, and they fail to seek help.

History has shown that the scientific discoveries in the area of sexually transmitted diseases throughout this century have only partially helped in the control of these illnesses. I have suggested that this was originally due to the lack of a clinical service through which to operate the discoveries, and later due to the lack of a scientific approach. But even a good service and good controlled trials of treatment and a better understanding of natural history are not enough and will not solve the problem. A total approach is required. For example, the discovery of a vaccine for gonorrhoea will not solve the problem of this disease unless at the same time we examine painful moral, ethical, and behavioural implications that will be associated with such discoveries. I do not believe that the only department in the world should, or can afford to, devote itself to a single problem or should be wedded to a single scientific discipline.

My training as a doctor has equipped me to define and tackle only some of the scientific areas that I have identified. Given the complex factors associated with the spread of the sexually transmitted diseases, the most profitable way of tackling the problem is through the marriage of disciplines. This can be achieved by establishing a team consisting of clinicians, laboratory workers, epidemiologists, statisticians, and behavioural scientists and collaborating with other departments within the school and hospital. It will not be possible or even desirable to create an expertise in every field. Much of the proposed research, particularly on the laboratory side, will entail collaboration with several other departments within this school and hospital and other institutions. One of the benefits of the current economic climate will be to force different departments and establishments with allied interests to co-operate and pool knowledge rather than compete and create unnecessary duplication. I have said nothing of the department's teaching responsibilities, but I am sure you will agree from what I have said today that education of the public and medical and ancillary professions is as important as conducting comprehensive research programmes.

The sexually transmitted diseases present a challenge to all of us. It will be an important and stimulating challenge and one that I look forward to.

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(Accepted 11 January 1980)

What is the most suitable treatment to relieve the nausea and pain of an acute attack of migraine?

More and more doctors are using prophylactic management to avoid acute attacks for it is recognised that once an attack starts it may be very difficult to relieve the distress of pain and vomiting. Certainly a regimen of metoclopramide 10 mg, diazepam 5 mg, and pentazocine 30 mg by injection seem to be effective in many patients in relieving the combined distress of pain and nausea. At the onset, most patients gain relief from applying ice or a very cold bag to the head and lying in a darkened room. A few prefer not to lie down. Ergotamine may still be used, if given early in an attack, with a dramatic improvement in some patients and with the usual precautions on its use.

Correction

Hypersensitivity to local anaesthetics

We regret that an error occurred in the answer to this Any Question? (7 June, p 1360). The penultimate line should read "premedication with atropine sulphate 600 µg intravenously . . ."