resistance which the British doctors were putting up against regimentation was a point made by the winning side in the Italian elections.

Sir Reginald Watson-Jones, in reply to a question whether he would abide by the decision of the majority of the profession, said that he had been and still was a trustee of the Independence Fund, and if the majority of the profession did not enter the Service of course he would abide by that majority. (Applause.) His earlier observations were not the result of "credulity" but were based on an estimate of how best to make tactical use of their strength.

Lord Horder moved the following resolution :

That this meeting advises specialists not to enter into any contract under the National Health Service Acts until conditions of service have been agreed with the Minister.

This was carried by 196 votes to 1 ; there were 9 abstentions.

ACCIDENTAL SYPHILIS

BY

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"The first step, in order that we should understand syphilis, is to recognize that it is by no means necessarily a venereal disease."—Sir Jonathan Hutchinson.

Syphilitic chancres are genital in 95% of cases, and the majority of the other 5% arise in or around the mouth, many of these lesions being acquired through predominantly sexual acts. Not more than 50 examples of non-sexual accidental infection were found in over 35,000 syphilitic patients examined (Moore, 1944). The effect of such modern statistics and of the observed behaviour of the organism outside the body is that towels, bedding, cooking utensils, drinking-vessels, pipes, and the like are now far less often blamed for spreading the disease : in this connexion glass-blowing was once considered a dangerous occupation. It is realized that for the spirochaete to remain viable for transmission the presence of moisture is necessary. In 1878 Lane wrote : "I believe, also, the use of public water-closets at railway stations, hotels, and clubs may be a not very infrequent cause." Since that time this convenient conception of the lavatory seat has fallen into almost complete disrepute, and any such excuse offered by the patient is, perhaps not openly, derided by the clinician ; yet there would seem to be no reason why transfer of moist matter should not occasionally occur by this means. It is, however, universally agreed that sexual intercourse is by far the most frequent cause and that kissing, albeit innocent, takes second place.

An example of infection by kissing was seen in the Army. A youth contracted a lip chancre on Christmas Day, when he was on sentry duty at the periphery of a remote camp in Scotland, and subsequently passed the disease in a similar manner to his fiancée. Schamberg reported oral transmission to seven young girls from one man in a kissing game (Stokes *et al.*, 1944), and there is no doubt that the larger the number of secondary syphilis the greater the danger of such infections, but with modern methods of diagnosis and treatment this danger is becoming minimized.

Chancres have been reported on almost every part of the body ; digital chancres in dental surgeons, gynaecologists, midwives, and oto-rhino-laryngologists, and conjunctival varieties, are examples. Lane mentioned the case of an unhappy surgeon who had the misfortune to contract a digital chancre from an obstetrical case and was later forced to pay heavy damages for passing on the disease during another confinement. Recently I saw a primary lesion in the left axilla, and though no explanation could be found as to its presence the patient showed no surprise.

Extragenital infection was once much more common, and if the thesis that syphilis and yaws are caused by the same organism, and that the former has developed from the latter,

is correct, then it must be admitted that syphilis was originally entirely extragenital, being spread by contact and possibly even by flies. Intermediate forms, in which infection still occurs predominantly by this means, exist to-day as bejel, pinta, and "irinktja"—Australian boomerang leg (Hudson, 1946).

Such intermediate forms have been reported as outbreaks in North-Western Europe. In 1694 a disease called "sibbens" raged in the West of Scotland, and blame for this was placed on Cromwell's army. It was spread not only by coition but also by contact—kissing and suckling, and through drinking-vessels and utensils. Oral lesions were as prominent as genital manifestations, but it must be borne in mind that a woman with a primary sore on the cervix might show the first obvious symptoms in the mouth. Children were also affected, many possibly by suckling. "Radesyge," "the foul disease" of Norway and Scandinavia of the eighteenth century, the spread of which was aided by the fuel-saving custom of "bundling," was believed to have been of a similar nature, as were "Amboyna pimple" of the Moluccas and "Schlerlievo" of the Adriatic coast during the nineteenth century.

In those times mercury was the only effective means of treatment, and this was often delayed until the appearance of secondary signs, so that a diagnosis of "confirmed lues" could be made. This delay, the less-advanced views concerning the advisability of bathing, and the practice of allowing wet-nurses to assist in the suckling of children were the predisposing causes of spread of the infection. In 1752, at Nerac in France, some 40 women and children, in addition to numerous male consorts, were infected as a result of transmission by wet-nurses after one had contracted a nipple chancre from a congenital syphilitic infant.

Syphilis has been inoculated deliberately by the physician on numerous occasions. Hunter's unfortunate experiment in 1767 is perhaps the most famous ; but that of Bell, who in 1792 published an account of his failure to transfer syphilis to three medical students smeared subpreputially with gonococcal pus and his subsequent success with two students when syphilitic matter was applied, deserves fuller mention. Wallace, in 1835, infected five healthy persons with matter from a secondary syphilitic, and thus proved that this stage of the disease was indeed infectious—a fact which Hunter and Ricord, as a result of more cautious lukewarm experiments confined to those already infected, had previously erroneously denied. Similar experiments also proved the infectivity of blood, and the prophylactic action of mercury was vividly demonstrated by the human experiments of Metchnikoff.

Apart from these calculated performances, the medical profession has been responsible for its fair share of the spread of extragenital infections. Cupping, as part of the ritual of celebration of St. Luke's Day, accounted for 180 cases at Brno, in Moravia, in 1578 ; though cynics will suggest some other feature of the celebrations as the most likely cause. In Hunter's time cases arose after transplanting teeth—a practice then in vogue. If the transfer was made too soon, or from a living person, a chancre occasionally developed after an appropriate interval in the socket of the recipient.

Vaccination was another great source of infection, and by employing the arm-to-arm technique the presence of an infectious syphilitic infant early in the chain might have serious results. Lancereaux (1868) referred to 351 persons known to have been inoculated with tainted serum ; of these 258 contracted the disease. In 1870 Hutchinson published a series in which 10 out of 12 children were affected, and two years later a further series showing 15 possible infections out of 26. In one series of 46 most of the children, with their mothers—not to mention the fathers—became afflicted, and there were 19 deaths among the children. To-day this kind of tragedy is almost unknown, and the possibility is scarcely taught to the rising generation of medical students, though the textbooks used by our fathers contained tables of differential diagnoses concerning vaccinal syphilis. I have seen a primary yaw develop in a vaccination site, but it is to be hoped that the two infections were not acquired simultaneously.

Eustachian catheterization was another cause, and at a meeting in Paris in 1861, 13 cases due to this procedure were reported. In more recent times blood transfusion has occasionally been a means of transmission, even during the incubation period of

the disease (Moore, 1944). Tattooing also has produced an occasional case. Hutchinson (1905) published a startling photograph of three chancres developing in the forearm over a tattoo mark of the Crucifixion. The Jewish rite of circumcision has also produced oral lesions in the rabbi, and the spitting of disinfectants has caused the reverse at a precocious age in the subject. Murrell and Gray (1947) described five cases of acquired syphilis in children at Edinburgh and those of two adults who contracted extragenital lesions as a result of fondling a congenital syphilitic infant. One child, prone to sucking things, was said to have found a condom in the park—a mode of infection also cited by Stokes.

The rather flimsy excuse for writing this article has been the recent experience of a lip chancre in a young woman obtained from her fiancé, who apparently had also obtained the infection by innocent means, though this is by no means completely proved.

The woman, a virgin aged 25, had had a chancre on the upper lip for nearly four months before she was referred for treatment, by which time she showed well-marked secondary signs of rash, adenitis, condylomata about the anus, and mucous patches on the vulva and lower lip. *Treponema pallidum* was recovered from the condylomata, and the serology was strongly positive. She denied any history of intercourse, though she had recently warmly welcomed her fiancé after his return from the Far East. He gave a history of intercourse in Java just over twelve months before, but two months later a serological test gave negative results. He was now well and no signs were detected. The serology, both Wassermann and Kahn, proved strongly positive, and detailed questioning revealed that ten months previously he had struck a man in the teeth with his fist and had broken the skin. This wound went septic, and though dressed at hospital with frequent antiseptics it refused to heal for six weeks, the turning-point being the application of penicillin cream in the fourth week. A well-marked cicatrix on the knuckle of the right hand was shown in evidence, and the epitrochlear gland on that side was just palpable. I had previously seen another patient from the same area who had been infected by a bite on his chest from a native.

These examples are cited to show: (1) that non-sexual transmission is no great rarity; (2) that there is no reason for not giving the benefit of the doubt to persons with a positive serology who deny all history of previous genital disease or of sexual intercourse; and (3) that the possibility of extragenital infection—yes, even the water-closet seat—should be accepted at least in women and not conceded as a favour with the tongue in the cheek.

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REPORT ON DISPENSING

In 1947 the Minister of Health and the Secretary of State for Scotland set up a Working Party "to investigate the differences in the work of pharmacists in England and Scotland in the dispensing and supplying of medicines and appliances, with particular reference to the position likely to arise under the National Health Service."* The Working Party also included Wales in its survey. Its composition was as follows: W. Penman, F.I.A. (Chairman); D. A. Bryan, M.P.S.; G. H. M. Graham, M.P.S.; A. A. Meldrum, M.P.S.; and J. Shields, M.P.S. Associated with it was a steering committee, of which Mr. Penman was the chairman, composed of officials of the Ministry of Health and of the Department of Health for Scotland, the Secretary of the National Pharmaceutical Union, and a representative of the Pharmaceutical Standing Committee (Scotland).

The Chairman decided how many and which pharmacies should be visited. The number selected was 300, of which 215 were in England, 25 in Wales, and 60 in Scotland. They

were chosen, so far as possible, to provide a random sample from selected areas. Visits were also made to a few selected pharmacies giving a comprehensive service of the highest class, and to pricing bureaux. No inquiries were made into dispensing done under contract with doctors, dispensing done for institutions such as hospitals and infirmaries, and "counter prescribing." The four pharmacists in the Working Party were divided into two teams, each team containing one representative of England and Wales, and one of Scotland. A trial tour was made initially in Devon and Cornwall. A questionnaire was also sent to certain pharmacies not visited.

Formularies and Standardization

The Working Party points out that it is generally claimed that there is less use of formularies in Scotland than in England and Wales, and broadly speaking it substantiates this claim so far as mixtures are concerned. It found that of the National Health Insurance prescriptions for mixtures dispensed during July, 1947, 83.1% in England were based on national and B.P.C. formularies against only 3.5% in Scotland. In Scotland medical men are more inclined to use repeatedly what are virtually their own formulae, and there were 18.9% of such repeated prescriptions. Non-identical mixtures comprised 16.9% in England and 77.6% in Scotland. The corresponding figures for privately prescribed non-identical mixtures were 53.4% in England and 91.7% in Scotland. There was in fact a much less frequent use of formularies in the case of private prescribing, and a corresponding increase in non-identical formulae, than in the case of N.H.I. prescribing.

In the case of ointments, creams, and pastes those prescribed according to formulary were 93% in England, 95.8% in Wales, and 71.2% in Scotland; those according to non-identical formulae, 7% in England, 4.2% in Wales, and 17.9% in Scotland. In addition, 10.9% in Scotland were prescribed according to doctors' own formulae. The report points out that, as opposed to the practice in regard to mixtures, most formulary ointments are bought from wholesale houses in the form in which they are dispensed. There is no appreciable divergence of practice where tablets are concerned, for they also are bought wholesale. These three groups of medicaments comprise about 65% of the total prescriptions. Proprietary preparations account for another 5%, and the remaining 30% consists of miscellaneous articles such as glandular preparations, linctuses, appliances, and so on.

Ingredients and Prescriptions

It was found that in Scotland the number of doses per mixture is, on the average, higher than in England and the volume of the mixture smaller. In England ten- or eight-ounce bottles, containing tablespoon doses, are most commonly prescribed, whereas in Scotland the standard is a six-ounce bottle containing dessertspoon doses. There is no evidence that there are more ingredients in a Scottish than in an English prescription; indeed the figures indicate that on an average there are fewer ingredients in a Scottish prescription for both mixtures and ointments.

Stock mixtures are more popular in England than in Wales or Scotland, the average number kept in the English pharmacies visited being 13.6, in the Welsh 2.3, and in the Scottish 2.6. Two mixtures almost universally kept in stock were compound acid mixture of bismuth with pepsin, B.P.C., and compound bismuth mixture with pepsin, B.P.C. Practically all stock mixtures used in England, apart from these two, are compounded on the premises by the pharmacist or his staff. Concentrated mixtures bought from wholesale houses are rarely used.

The Working Party, commenting on this difference of opinion about the desirability of using stock mixtures, points out that the Scottish attitude is that each prescription should be regarded as a thing apart, since it is prescribed for a particular patient. This involves more work and may lessen the monetary reward. The English pharmacist, on the other hand, would probably argue that there must be small errors in dispensing the individual prescription and that these are greatly reduced by dispensing from a stock mixture. He might add that he uses up the stock mixture in a day or two so that it does not become stale. He therefore saves his own and his customer's time.

* The report will be published by H.M.S.O.