Venereal disease in wartime, 75 years ago

War is always associated with a sharp rise in the incidence of sexually transmitted disease, especially among service personnel, far away from home and subjected to the dangers and suffering of battle. So what was the status of venereal diseases in this country in the dark days of the very middle of World War II, in 1942, 75 years ago? A good idea is given by looking through the pages of *The Lancet* for that year, the journal's size much reduced by the severe paper rationing of wartime. There were no fewer than 47 publications that year – nearly one every week – on various aspects of the venereal diseases, including leading articles, statements from the Ministry of Health, clinical and bacteriological studies, and letters.

An interesting leading article announced the introduction of the new Defence Regulation 33B, which laid down the carefully defined circumstances under which compulsion could be used to force persons to attend for treatment of venereal disease. Compulsion had long existed in many other countries, but had hitherto been voluntary in the UK. 'Persons named by two other people already under treatment as the suspected cause of the infection could be required by notice served by the medical officer of health of the county or borough in which they live to attend for examination and, if necessary, treatment by a specialist in venereal diseases, civilian or in His Majesties' forces, and to continue until certified as free from venereal disease in its communicable form'.

By 1942 the sulphonamides, given orally, had been clearly established as effective treatment for gonorrhoea and the organic arsenical neoarsphenamine, by intravenous administration, for syphilis.

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A letter from Dr LW Harrison, Advisor in Venereal Diseases to the Ministry of Health, made a plea to medical practitioners, many of whom started treatment with sulphonamides without first taking a bacteriological smear for confirmation of the diagnosis and also prescribed inadequate dosage. This may have aborted symptoms without eradication of the infection. He advised a 4-day course of sulphathiazole 5 g daily, which gave a better than 90% chance of cure.

Another leader in the *Lancet* warns that *Trichomonas vaginalis* infection was not influenced by the sulphonamides and its presence should be suspected in women if symptoms persist after treatment with these drugs.

Yet another *Lancet* leader, on 14 November, complimented the Chief Medical Officer of the Ministry of Health, Sir Wilson Jameson, on 'the tact and persistence he has shown in securing the withdrawal of the taboo on the mention of venereal disease on the radio and in the daily press, even though this may arouse the curiosity of young children in this subject and lead them to ask awkward questions of their parents'.

Sir Wilson pointed out that the rise in known civilian infections of syphilis had risen from 5000 in 1939 to 5600 in 1940 and 7300 in 1941. If service cases were added, the rise was 70% and a parallel rise in cases of gonorrhoea would probably be revealed if the figures could be obtained, but his estimate was that there had been nearly 70 000 new cases of venereal infection in the last year. The *Lancet* suggested that newspapers could perform a valuable service by publishing details of the local venereal disease clinics in their advertising columns, perhaps alongside announcements from the Ministry of Labour and the Ministry of Food.

The effective treatment of syphilis had been developed by Paul Ehrlich (a Nobel Prize winner already in 1908), and his co-workers in Frankfurt-on-Main, Germany. First, in 1911, this was by using the highly toxic organic arsenical, arsphenamine, which was poorly soluble and which had to be given by intravenous drip. Soon after this was replaced by the more soluble neoarsphenamine, which was given by intravenous injection at weekly intervals.

Neoarsphenamine (neosalvarsan) remained the standard treatment of syphilis during the Second World War. Indeed, as a medical student in 1945, on my first medical 'firm' at the old Radcliffe Infirmary in Oxford, I watched the very experienced and rather elderly male nurse in the venereal disease clinic skilfully giving this large intravenous injection to a queue of men.

Even after adequate treatment with neoarsphenamine, late sequelae of syphilis might manifest. Indeed, it was only in the 1940s that statistics regarding these problems were becoming available. The *Lancet* leader of 6 June 1942 quotes a Scandinavian report of that year on the incidence of cardiothoracic syphilis 20–25 years after treatment of the initial infection. Normally the latent period of late cardiac lesions is 15–25 years. In this study of 220 patients infected 20–22 years previously, 19.6% showed evidence of cardiovascular complications. The leader writer next reports on 550 cases of frank cardiovascular syphilis and notes that 220 of these had what would be considered to have been adequate original treatment but nevertheless had developed aortitis or other cardiac complications. Again, as a student, I saw a male patient with a syphilitic thoracic aortic aneurysm, as well as a patient with tabes dorsalis and a third with a gumma of the testis, all of whom had been treated for syphilis in the First World War.

Of course, few people knew, in 1942, that studies were already taking place, on British and American servicemen in strict secrecy and not published till towards the end of World War II, on the efficacy of a new substance called penicillin, which would effectively and rapidly deal with both the spirochaete of syphilis and the gonococcus, and which would introduce a new era in the treatment of venereal disease. **BJHM**

Conflict of interest: none.