

gum-saline, but not by injections of physiological saline (Bayliss). In the case of phosgene administered to one lung I found the blood pressure fell, while the animal breathed with this lung, to be restored on allowing the animal to breathe by the normal lung. Pulmonary stasis and want of oxygen may both come into play. It must be borne in mind that extensive œdema of the lungs withdraws from the blood, and so from the tissue fluids a large amount of water, and this brings about a concentration of the blood and increased resistance to flow due to greater viscosity. Hence, as mentioned above, some hours after gassing there occurs a large increase in the number of red corpuscles per cubic millimetre. Shock leading to stasis and escape of fluid from the capillaries intensifies the concentration. A polycythæmia due to increased formation of red corpuscles may be excited by oxygen want in cases which survive, and are on the road to recovery. Such a compensatory adjustment follows chronic oxygen deficiency, however produced, e.g., by residence at a high altitude, chronic CO poisoning, etc.

The physiological and pathological facts detailed above point to bleeding and injection of gum saline as a line of treatment useful in sthenic cases of irritant gas poisoning which show blueness and venous congestion; oxygen breathing and rest in a temperate atmosphere are indicated as the immediate treatment useful for all severe cases; rest alone sufficing for mild cases.

#### HEALTH CONDITIONS IN EASTERN EUROPE—TYPHUS A SERIOUS MENACE.<sup>1</sup>

By F. NORMAN WHITE, C.I.E., M.D.

*Medical Officer of the Ministry of Health, acting as Medical Commissioner, Typhus Commission, League of Nations.*

A CHADWICK lecture on "Health Conditions in Eastern Europe—Typhus a Serious Menace," was delivered by Dr. Norman White at the Surveyors' Institution, Westminster, on July 15. The countries considered were Latvia, Esthonia, Lithuania, Poland and the Ukraine, all situated on the west border of Soviet Russia. Chief consideration was given to Poland, this being the largest State under consideration, through which pass the main lines of communication between Russia, with its deplorable health conditions, and western Europe. Poland, moreover, has suffered more from epidemic disease than have her smaller neighbours, and the strenuous efforts made by Poland to work out her own sanitary salvation entitle her to special consideration. The health problems of Poland's neighbours are, however, similar in kind.

Sanitary conditions in this part of Europe were in a deplorably backward condition even before the war. As was to be expected, outbreaks of epidemic disease closely followed the outbreak of hostilities in 1914. For the next four years the area under consideration was the scene of almost continuous fighting, and even now, in a large part of the area, war is being waged between Poland and Soviet Russia. Health conditions went from bad to worse, and in 1917 the death rate

<sup>1</sup> Chadwick Public Lectures, London, 1920. Sir William J. Collins, K.C.V.O., M.D., Chairman of the Chadwick Trustees, in the chair.

exceeded the birth-rate in every town and district of Poland. Since the armistice there has been little, if any, amelioration.

A large part of the lecture was devoted to the consideration of typhus fever, a virulent epidemic of which still prevails, especially in Galicia. Statistics demonstrating the severity of the outbreak were given. The lecturer briefly described the part played by the louse in the transference of infection of typhus fever from the sick to the healthy. Conditions in Poland and neighbouring countries are at present most favourable to the spread of the disease. Soap, fuel, and other facilities for cleanliness are unobtainable in many parts of the country; changes of clothing are difficult to obtain; lousiness among the poorer classes is almost universal; privation, want, and disease have lowered the resistance of the population to infection. Overcrowding is rife; in Congress Poland 325,000 houses were destroyed during the war, and in Galicia 438,000. A continuous stream of refugees from Soviet Russia cross the border, many of them infected with typhus, nearly all of them infested with vermin, most of them clothed in rags which fall to pieces if attempts be made to disinfect them. The lecturer explained how impossible it is for the local health authorities to deal adequately with the situation, unaided.

Emphasis was laid on the danger to other countries arising from the persistence of this focus of epidemic disease, and the experience of Holland in 1918-19 was cited as an illustration of this danger.

The relationship between the health conditions and the economic conditions in this part of Europe was discussed, and it was argued that improved economic conditions are almost impossible in existing health conditions. The important part played by disease in the production of industrial and social unrest received consideration. Reference was made to the permanent disabling effect that the present prevalence of disease is likely to have on the rising generation.

It was pointed out that these countries are endeavouring to act as guardians of the health of the West.

The conclusion is that every country in the world has a very real and lively concern in the existing health conditions in Eastern Europe, quite apart from humanitarian considerations.

The essential requirements for the anti-typhus campaign were briefly described, and it was pointed out that unless foreign assistance be forthcoming soon, and in generous measure, the situation is likely to get altogether out of hand.

Tribute was paid to the numerous voluntary organizations which are rendering much needed help in coping with a very dangerous situation.

A demonstration of lantern slides concluded the lecture.

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