

It will be seen that the camps in 1918 did not enjoy the same immunity from infection which they did in 1917. The chief exception is as regards diphtheria, which was reduced from 21 in 1917 to 12 in 1918. Of these 12, 8 were among men while absent on leave. This result is somewhat striking when we remember that a very widespread epidemic of diphtheria affected the civil population throughout the year. This freedom must be attributed to the use of the inhalation chamber and careful segregation of suspicious throats among recruits and men returning from leave.

Simple Pneumonia shows a total of 14 cases, the same as 1917. One death occurred in a post-influenzal case prior to the severe epidemic of November.

Cerebro-spinal Fever.

Incidence.—The effect of the widespread influenzal epidemic, beginning in July and culminating in November, is reflected in the increased incidence of cerebro-spinal fever. In all 55 cases occurred, as compared with 13 in 1917. Of these 55, 7 followed directly on an influenzal attack during the earlier epidemic, and 24 during the severe type of the disease in November and December. Thus in all 31 were post-influenzal cases, and of these 11 died. Of the 24 cases not a direct sequel of an influenza attack, it is probable that they were the outcome of the general prevalence of catarrhal disease in the camps produced by influenza, since it is known that the meningococcus tends to become virulent as a result of aggregation of such catarrhal cases.

The following table shows the incidence of meningococcal infection in Featherston and Trentham. No cases occurred in Awapuni or in Narrow Neck Camps:—

Month.	Featherston.			Trentham.		
	Cerebro-spinal Meningitis.	Influenza.	Measles.	Cerebro-spinal Meningitis.	Influenza.	Measles.
January	..	8	40	..	23	17
February	..	13	19	..	20	35
March	..	10	11	..	13	17
April	..	3	3	1	14	..
May	..	14	..	..	26	..
June	..	8	..	..	18	..
July	4	99	2	..	78	1
August	11	403	10	1	103	13
September	1	326	14	1	877	14
October	8	458	23	2	484	14
November	19	3,174	18	6	1,566	7
December	1	6	..	..	5	..
Totals	44	4,522	140	11	3,227	118

It will be seen that, as in the year 1917, Featherston suffered much more severely than did Trentham. This is partly because there were an average of 5,674 troops in Featherston as against 2,744 in Trentham. But as the incidence in Featherston was four times that of Trentham we must conclude that, as before, the chief source of the disease was the presence at Featherston of new recruits in their early weeks of training.

The above table shows very markedly the influence which was exercised by influenza, since but for a sporadic case in Trentham in April no case occurred till July, when the first wave of influenza was established at Featherston, and here cases accompanied the course of this wave throughout August, September, and October.

In Trentham the epidemic did not begin till August, and in this month also a cerebro-spinal meningitis case was reported.

The secondary influenza wave of severe type which swept the camps in November produced as a sequel a very marked increase in cerebro-spinal meningitis infection at Featherston, as 19 cases occurred there during that month; and in Trentham, which had hitherto been very free of meningococcal disease, 6 cases arose, all in convalescents from influenza attacks. At Featherston the reports indicate that after the use of anti-meningococcal vaccine on the convalescents from influenza the cerebro-spinal meningitis cases ceased.

Pneumonia of the type seen in 1916 associated with meningococcal infection does not appear to have been prevalent. Captain Crawshaw mentions pneumonic symptoms in three of his cases, and in two there was a fatal result. But in these the meningeal symptoms appear to have also occurred, and it seems probable that these were cases of double infection. In 1916 the post-measles pneumonia was not generally accompanied by evidence of cerebro-spinal infection, though there was good reason to believe that the meningococcus was the cause of the pulmonary condition. There is little evidence of the occurrence of the meningococcal pulmonitis during the November epidemic, though the clinical symptoms of many of the post-influenzal broncho-pneumonias were not unlike the post-measles pulmonitis cases of 1916. The age-incidence, however, differs greatly, since the meningococcal lung-infections were mostly among youths of 20 to 22, whereas the influenzal pneumonias of November, 1918, were largely among older men. There is then little evidence of meningococcal lung-infections following on the recent influenzal attacks. Of the total of 55 cases, 12 occurred among men absent from camp on leave, 2 of whom died. In one of these cases it was obvious that infection was not received in camp. In the other 11 the matter