

none of which had the character of pneumococcus, streptococcus, or influenza. On the picture-hall plate, and especially upon the canteen plate, a very large number of colonies appeared, some of which closely resembled these species. Unfortunately, through being affected by the epidemic, I was unable to pursue this matter further.

Now, the fact that seven of the thirteen nurses were attacked despite this apparent purity of the ward air suggests that infection is occasioned by close contact of healthy with infected individuals. This seems to be the main cause.

The pictures, where men are close together, and the canteen, where at times the crowd eat and drink (particularly before retiring, when incubator conditions are best attained in the body), were likely centres of infection. Close contact in limited air-space or limited ventilation, by expectoration, possibly by the use of contaminated drinking-utensils, forks, spoons, &c., bed-clothing, dried pocket-handkerchiefs, in some cases by damage of the protective mucous membrane by the use of unsuitable disinfectants or disinfectants in excessive amounts—by some or all of these and similar means do I consider that the disease in general was transferred orally and nasally from one person to another.

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REPORT OF CAMP COMMANDANT ON MEDICAL TRANSACTIONS AND PREVAILING DISEASES FOR AWAPUNI TRAINING-CAMP FOR THE YEAR ENDED 31st DECEMBER, 1918.

GENERAL HEALTH.

The general health of the N.Z. Medical Corps in Awapuni Camp during the past year has been very good. With the exception of influenza there has been no prevalent or epidemic disease.

The following comparative table discloses the fact that, whilst the average number constantly sick per thousand of the strength was greater during the past than the previous year, it also shows that the increase was due entirely to the influenza epidemics of August and November, 1918:—

Average constantly Sick per Thousand of the Strength.

Year.				Influenza.	Other Diseases.	Total.
1917	..	..	..	0.80	7.35	8.05
1918	..	..	..	14.12	6.33	20.45

CEREBRO-SPINAL MENINGITIS.

There were no admissions for this disease, but two men were admitted as carriers and were kept under observation. The cases are returned as "No appreciable disease."

INFLUENZA.

The epidemic of August accounted for 54 admissions, the average duration of sickness in each case being five days. The disease was not of a virulent character—in no case did pneumonia appear as a complication. There were no deaths.

During the epidemic of October and November 174 cases were admitted to hospital, the average duration of the disease being ten days. There were no pneumonic complications among the October cases, but the cases occurring in November were nearly all of a severe type, and 27 subsequently developed pneumonia. There were two deaths in the camp hospital—one on the seventh day after admission, and the other on the tenth day—and five deaths out of hospital.

Origin of the Outbreak.—The average type of the disease with us without pneumonic complications would appear to have been introduced from Auckland, because on the 30th October two men were admitted to hospital, one of whom had been on leave in that city. This man was the first of the severe type of cases. He subsequently developed pneumonia, and died in Palmerston North Hospital twenty-one days later. On the 31st October 2 more cases were admitted, on the 1st November 5 cases, on the 2nd November 29 cases, and on subsequent days large numbers were admitted daily.

Grouping of Cases.—Type I: Cases of virulent influenza without pneumococcal infection. These cases would start off with high fever, intense headache, pains in the back and limbs, dirty tongue, and all symptoms of influenza of the common type, but more severe. After three or four days their temperature would become subnormal, and they would be very debilitated and depressed. Two cases were delirious for three or four days after their temperature fell. One was quite silly and talked nonsense, and passed urine and faeces under him for four days. Improvement was fairly rapid in all these cases.

Type II: Some patients developed cough early in the disease. This was soon accompanied by bright blood-stained sputum. The skin was often bluish-black in tinge, particularly about the face. Respirations slightly increased and slightly embarrassed. Physical signs indicated patches of consolidation mostly at the bases and behind, but occasionally in front. Epistaxis was not infrequent. Improvement was slow, the temperature falling by lysis. A few cases got into a semi-comatose condition and slept continuously; were dull and slow to answer when roused and spoken to.