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Legionnaire's Disease

LEGIONNAIRE'S DISEASE

This "new" disease has achieved instant notoriety and new outbreaks receive broad press coverage - for example the current outbreak in the "garment district" of New York City. But should we be concerned with this disease in Alaska? The answer is definitely yes. In July the first case of Legionnaire's Disease was reported in Alaska. The case involved a man hospitalized in Anchorage with pneumonia and pleural effusion. Acute and convalescent titers performed at the Center for Disease Control in Atlanta provided presumptive evidence that Legionnaire's Disease had occurred.

Legionnaire's Disease is an acute respiratory illness caused by a distinctive Gram-negative bacterium not previously recognized to cause illness. Typically, patients having this illness are middle-aged or older having initial symptoms of malaise, myalgia, and headache. Shortly afterwards fever rises, and chills or rigors may occur. A nonproductive cough frequently occurs. Pleuritic chest pain, diarrhea and/or vomiting, and delirium can also be seen. Chest x-rays reveal patchy infiltrates that progress to nodular consolidation. The disease often becomes progressively worse and about 15% of the cases end fatally. However, it is likely that Legionnaire's Disease includes a broad spectrum of illness, possibly including even asymptomatic disease.

Diagnosis is made by demonstration of a rise in antibody titer in paired sera obtained at least three weeks apart, culture of the organism, or demonstration of the bacterium in tissue by direct fluorescent antibody technique. All of these tests are performed at the CDC in Atlanta, and this office or the State laboratories can help in forwarding samples for testing.

The specific recommended therapy is erythromycin in a dose of 0.5 to 1 gm every six hours for adults and 15 mg/kg every 6 hours for children.

This illness should be thought of in patients presenting with "atypical" pneumonias such as mycoplasma or psittacosis

1. Fraser DW, et al: Legionnaire's Disease. Description of an epidemic of pneumonia *N ENGL J MED* 297:1189-1197, 1977
2. McDade JE, et al: Legionnaire's Disease. Isolation of a bacterium and demonstration of its role in other respiratory disease. *N Engl J Med* 297: 1197-1203, 1977.
3. Legionnaire's Disease: diagnosis and treatment. *Ann Intern Med* 88:363-365, 1968.