

LEGIONELLOSIS - USA: (02) (MICHIGAN)

A ProMED-mail post <<http://www.promedmail.org>>

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<<http://www.freep.com/article/20100728/NEWS05/7280339/Regional-news-Bacterial-outbreak-investigated>>

Officials at Selfridge Air National Guard Base are scrambling to determine the cause of a bacterial outbreak that sickened at least 31 people and led to 2 contracting Legionnaires' disease.

On Monday [26 Jul 2010], doctors diagnosed 2 people with Legionnaires' [disease], an acute respiratory infection that kills 5-30 percent of patients, according to the Centers for Disease Control and Prevention.

The 2 were a member of the Michigan Air National Guard and a civilian for Warren-based TACOM Life Cycle Management Command, one of the U.S. Army's largest weapons researchers and developers.

During the 12-24 Jul 2010 respiratory outbreak, 6 people were hospitalized and later released, said Gen. Kurt Stein, commanding manager of TACOM Life Cycle. Doctors are monitoring those stricken with the upper respiratory illness to see whether they contract Legionnaires' [disease], which can be treated with antibiotics.

Two buildings were closed for sanitizing. Results of air and water tests are expected back within 10 days. Legionnaires' [disease] cannot be spread from person to person and is mainly passed by inhaling contaminated airborne water droplets.

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[Legionellosis is an infectious disease caused by a Gram-negative bacillus of the genus *Legionella*, most commonly *Legionella pneumophila*. Legionnaires' disease is the acute pneumonic form of the disease. Pontiac fever is a non-pneumonic form of legionellosis that is less severe than Legionnaires' disease. Pontiac fever takes its name from an outbreak in 1968 in Pontiac, Michigan.

Although not stated specifically in the news release above, presumably, of the 31 people sickened in the outbreak who were not diagnosed as having Legionnaires' disease, the remainder presumably have Pontiac fever, which develops from a few hours to 2 days after initial infection, with fever, malaise and

muscle aches. Symptoms resolve in 2-5 days without antibiotic treatment. Attack rates of Pontiac fever are high; up to 95 percent of exposed persons become ill. Unlike Legionnaires' disease, there appear to be no predisposing host conditions for Pontiac fever.

The following is extracted from Moderator ML's comments in ProMED-mail post Legionellosis - Spain (03): Barcelona, Pontiac fever 20100718.2405:

"Legionnaires' disease, and presumably Pontiac fever, is acquired by inhalation of an infectious dose of aerosolized *Legionella*. Water temperatures of 25-40 C (77-104 F) support the highest concentrations of the organism in water storage tanks of plumbing systems.

Aerosolization of the contaminated warm water can occur in showers, spa pools, sprays in groceries, fountains, and cooling towers. Why some persons exposed to contaminated aerosols develop Legionnaires' disease and others develop Pontiac fever is unknown.

"The diagnosis of Pontiac fever is usually made on the basis of epidemiologic, clinical, serological, environmental microbiology findings, and, in a variable portion of the affected people, the development of antibodies to the bacterium isolated from the environment. However, *Legionella* species are commonly found in the environment in the absence of illness, and *Legionella* antibodies can be non-specific. Urinary antigen for *L. pneumophila* serogroup 1 is uncommonly positive, and cultures are rarely positive for *Legionella* in patients with Pontiac fever. For a discussion of the pathogenesis and diagnosis of Pontiac fever, see Edelstein PH. Urinary antigen tests positive for Pontiac fever. Clin Infect Dis 2007; 44:2229-31."

The Tank-Automotive and Armaments Command (TACOM) is located in Warren, the 3rd largest city (population 138 247 in the year 2000) in the U.S. state of Michigan, and Metro Detroit's largest suburb. Both the city of Warren and Selfridge Air National Guard Base are located in Macomb County, Michigan. Selfridge Air National Guard Base is an Air National Guard installation (<http://en.wikipedia.org/wiki/Warren,_Michigan>).

Maps of the state of Michigan can be located at <<http://www.mapsofworld.com/usa/states/michigan/michigan-map.html>> and <<http://healthmap.org/r/01bN>>. - Mod.ML]

[see also:

Legionellosis - Spain (03): Barcelona, Pontiac fever 20100718.2405 Legionellosis, nosocomial - USA: (WI) 20100315.0834

2009

Legionellosis, nosocomial - USA: (GA) 20090212.0635 Legionellosis, nosocomial, fatal - USA: (GA) corr 20090208.0573 Legionellosis, nosocomial, fatal - USA: (GA) 20090207.0555

2008

Legionellosis - USA (03): (NJ) nosocomial, fatal 20081005.3149 Legionellosis - USA (02): (NY) 20080824.2640 Legionellosis - USA: (NY) 20080814.2515

2006

Legionellosis, hotel - USA (FL) 20060205.0374

2005

Legionellosis - USA (SD)(02): fountain 20051031.3175 Legionellosis - USA (SD) 20050824.2505 Legionellosis, Legionnaires - USA (PA)(02) 20050812.2363 Legionellosis, Legionnaires - USA (PA): alert 20050811.2349 Legionellosis, hospital acquired - USA (NY) (03) 20050719.2082 Legionellosis, hospital acquired - USA (NY) (02) 20050718.2062 Legionellosis, hospital acquired - USA (NY) 20050715.2021 Legionellosis, resort condominium - USA (MD) 20050202.0360

2004

Legionellosis, hotel - USA (ex OK) 20040325.0826 Legionellosis, hotel - USA (TX ex OK)(02): background 20040324.0823 Legionellosis, hotel - USA (TX ex OK) 20040323.0813

2003

Legionellosis - USA 20030717.1756

Legionellosis - USA (Delaware) 20030713.1721]ml/msp/jw

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