

LEGIONELLOSIS - AUSTRALIA: (WESTERN AUSTRALIA) ex INDONESIA (BALI) ALERT

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

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From: Gary Dowse <Gary.Dowse@health.wa.gov.au> [edited]

Two middle-aged people in Perth, Western Australia, have recently been diagnosed with severe pneumonia caused by *Legionella pneumophila* serogroup 1 (laboratory confirmed). Both cases had independently holidayed in Bali, Indonesia at the same time (overlapping between 29 Jul and 8 Aug 2010), and both stayed at the same hotel in Kuta, Bali.

Onset dates were 10 Aug and 14 Aug 2010, after their return to Australia. It seems most probable that they were infected in Bali, quite possibly at their hotel. Information provided by people who travelled with the cases has not identified places that both frequented other than the hotel and airports. Both swam in the hotel pool and one is thought to have used a jacuzzi or similar.

Please consider the diagnosis of legionellosis in people with consistent illnesses recently returned from Bali. If you do detect cases I would be interested to hear of this, and could provide the name of the implicated hotel. Indonesian health authorities are being advised.

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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; about 70 percent of cases are due to *L. pneumophila* serogroup 1. 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, USA. Risk factors for Legionnaires' disease include age over 50 years, cigarette smoking, diabetes, chronic heart or lung disease, and immunosuppression.

Legionnaires' disease, and presumably Pontiac fever, is acquired by inhalation of an infectious dose of aerosolized *Legionella*. Usually a building's contaminated water system is incriminated as the source. *Legionella* are found primarily in the hot water portion of plumbing systems and in cooling towers. Water temperatures of 25-40 deg C (77-104 deg 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.

Genotyping of patient and environmental isolates has become a helpful tool to establish transmission pathways. The predominance of one genotype in patient specimens suggests transmission from a common source. Because *L. pneumophila* may be found in water supplies without linkage to any cases of legionellosis, the actual causative infectious reservoir should be demonstrated by means of genotyping methods (see <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC86783/> and <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2730281/>).

A map of the island of Bali can be accessed at http://www.baliguide.com/bali_map.html.

Kuta, on the island of Bali and Perth in Western Australia can be seen on the HealthMap/ProMED-mail interactive maps at <http://healthmap.org/r/03Jc> and <http://healthmap.org/r/01tN> respectively. - Mod.ML]

[see also:

2005

Legionellosis - Australia (NSW)(02) 20050218.0540

Legionellosis - Australia (NSW) 20050216.0526

Legionellosis, fatal, potting soil - Australia (VIC): 2004 20050123.0250

2003

Legionellosis, potting soil - Australia (S.) (02): bkgrrnd 20031230.3167

Legionellosis, potting soil - Australia (South) 20031229.3160

2002

Legionellosis, potting soil - Australia (NSW) 20020808.4988

Legionellosis - Australia (Melbourne): alert 20020417.3977

2001

Legionellosis, hospital - Australia (Melbourne) 20010108.0059

Legionellosis - Australia: background 20001226.2282

2000

Legionellosis, hospital - Australia (Melbourne) 20001222.2255

Legionellosis - Australia (Melbourne) (09) 20000525.0833

Legionellosis - Australia (Melbourne) (08) 20000514.0753

Legionellosis - Australia (Melbourne) (07) 20000504.0684

Legionellosis - New Zealand, UK, ex Australia 20000503.0673

Legionellosis - Australia (Melbourne) (06) 20000501.0663

Legionellosis - Australia (Melbourne) (05) 20000430.0660

Legionellosis - Australia (Melbourne) (04) 20000430.0653

Legionellosis - Australia (Melbourne) (03) 20000428.0640

Legionellosis - Australia (Melbourne) (02) 20000328.0457

Legionellosis - Australia (Melbourne) 20000328.0451]