

CHP investigates case of Legionnaires' disease

The Centre for Health Protection (CHP) of the Department of Health is investigating today (June 13) a case of Legionnaires' disease (LD), and stressed the importance of using and maintaining properly designed man-made water systems and that susceptible groups should strictly observe relevant precautions.

The male patient aged 92 with underlying illnesses, who lives in an elderly home in Tai Po, was admitted to Alice Ho Miu Ling Nethersole Hospital on May 31 for decreased general condition and right ear discharge. He developed shortness of breath since June 7. The clinical diagnosis was pneumonia and he is in critical condition.

The patient's urine sample tested positive for *Legionella pneumophila* serogroup 1 antigen upon laboratory testing.

Initial enquiries revealed that the patient had no travel history in the incubation period.

"Epidemiological investigations with the hospital and elderly home are ongoing to identify potential sources of infection, high-risk exposure and clusters, if any. Relevant water samples and environmental swabs are being collected from potential sources for testing," a spokesman for the CHP said.

Tracing of contacts including in-patients and staff of the ward as well as residents and staff of the elderly home where the patient stayed in the incubation period is ongoing and those identified will be put under medical surveillance. The CHP has provided health advice against LD to staff, in-patients and residents, including those with weakened immunity who should use sterile or boiled water for drinking, tooth brushing and mouth rinsing.

Apart from the above case, as of June 9, a total of 22 LD cases had been reported in 2018. In 2017 and 2016, there were 72 and 75 cases respectively

Legionellae are found in various environmental settings and grow well in warm water (20 to 45 degrees Celsius). They can be found in aqueous environments such as water tanks, hot and cold water systems, cooling towers, whirlpools and spas, water fountains and home apparatus that support breathing. People may get infected when they breathe in contaminated droplets (aerosols) and mist generated by artificial water systems. They may also get the infection when handling garden soil, compost and potting mixes.

Persons with weakened immunity should strictly observe the health advice below:

- Use sterile or boiled water for drinking, tooth brushing and mouth

rinsing;

- Avoid using humidifiers, or other mist- or aerosol-generating devices. A shower may also generate small aerosols; and
- If using humidifiers, or other mist- or aerosol-generating devices, fill the water tank with only sterile or cooled freshly boiled water, and not water directly from the tap. In addition, clean and maintain humidifiers/devices regularly according to manufacturers' instructions. Never leave stagnant water in a humidifier/device. Empty the water tank, wipe all surfaces dry, and change the water daily.

The public, including susceptible groups, should take heed of the general precautions against LD below:

- Observe personal hygiene;
- Do not smoke and avoid alcohol;
- Remove strainers in water taps and shower heads quarterly for cleaning;
- If a fresh water plumbing system is properly maintained, it is not necessary to install domestic water filters. Use of water filters is not encouraged as clogging occurs easily, which can promote growth of micro-organisms. In case water filters are used, the pore size should be 0.2 micrometres and they need to be changed periodically;
- Drain and clean water tanks of buildings at least quarterly;
- Drain or purge for at least one minute the infrequently used water outlets (e.g. water taps, shower heads and hot water outlets) and stagnant points of the pipework weekly or before use;
- Seek and follow medical advice regarding the use and maintenance of home respiratory devices and use only sterile (not distilled or tap) water to clean and fill the reservoir. Clean and maintain the device regularly according to manufacturer's instructions. After cleaning/disinfection, rinse the device with sterile water, cooled freshly boiled water or water filtered with 0.2-micrometre filters. Never leave stagnant water in the device. Empty the water tank, keep all surfaces dry, and change the water daily; and
- When handling garden soil, compost and potting mixes:
 1. Water gardens and compost gently using low pressure;
 2. Open composted potting mixes slowly and make sure the opening is directed away from the face;
 3. Wet the soil to reduce dust when potting plants; and
 4. Avoid working in poorly ventilated places such as enclosed greenhouses.

More information is available in the CHP's [LD](#) page, the [Code of Practice for Prevention of LD](#) and the [Housekeeping Guidelines for Cold and Hot Water Systems for Building Management](#) of the Prevention of LD Committee, and the CHP's [risk-based strategy](#) for prevention and control of LD.