

CHP investigates case of Legionnaires' disease in RCHE

The Centre for Health Protection (CHP) of the Department of Health is today (December 19) investigating 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 female patient, aged 86 with underlying illnesses, lives in a residential care home for the elderly (RCHE) in Wan Chai. She has developed fever, shortness of breath and oxygen desaturation since December 15. She was admitted to Ruttonjee Hospital on the same day for treatment. The clinical diagnosis was pneumonia. She is currently in serious 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 during the incubation period.

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

Tracing of contacts including staff and residents in the RCHE where the patient stayed is ongoing and those identified will be put under medical surveillance. The CHP has provided health advice against LD to staff and residents, including suspending the use of water dispensers in the RCHE immediately, and providing sterile or boiled water for drinking, tooth brushing and mouth rinsing. Furthermore, for the sake of prudence, the CHP also suggested the RCHE to suspend the use of shower heads concerned, or install effective water filters against legionella at the concerned water outlets. Investigation is ongoing.

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 which support breathing. People may become infected when they breathe in contaminated droplets (aerosols) and mist generated by artificial water systems, or when handling garden soil, compost and potting mixes.

Immunocompromised persons should:

- 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. Also, 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 should observe the health advice below:

- Observe personal hygiene;
- Do not smoke and avoid alcohol consumption;
- Strainers in water taps and shower heads should be inspected, cleaned, descaled and disinfected regularly or at a frequency recommended by the manufacturer;
- 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 (μm) and the filter needs to be changed periodically according to the manufacturer's recommendations;
- Drain and clean water tanks of buildings at least quarterly;
- Drain or purge for at least one minute 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 doctors' professional advice regarding the use and maintenance of home respiratory devices and use only sterile water (not distilled or tap water) to clean and fill the reservoir. Clean and maintain the device regularly according to the manufacturer's instructions. After cleaning/disinfection, rinse the device with sterile water, cooled freshly boiled water or water filtered with 0.2 μm 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. Wear gloves and a face mask;
 2. Water gardens and compost gently using low pressure;
 3. Open composted potting mixes slowly and make sure the opening is directed away from the face;
 4. Wet the soil to reduce dust when potting plants; and
 5. Avoid working in poorly ventilated places such as enclosed greenhouses.

The public may visit 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.