

CHP investigates Legionnaires' disease case in Pamela Youde Nethersole Eastern Hospital and follows up its infection control measures

The Centre for Health Protection (CHP) of the Department of Health is today (October 9) investigating a new case of Legionnaires' disease (LD) in Pamela Youde Nethersole Eastern Hospital (PYNEH) and instructed the hospital to continue to implement the relevant infection control measures. The PYNEH is also requested to conduct a comprehensive review of the safety and maintenance of the water supply system.

The CHP announced a case of LD in PYNEH on [August 23](#) in which a 27-year-old female patient was infected by LD during her stay in PYNEH. The CHP has immediately requested suspension of affected outlets in the ward until installation of effective water filters against legionella at the concerned outlets. PYNEH should also urgently arrange disinfection of the affected water supply system. Medical surveillance should be enhanced in the two wards to which the patient was admitted for early detection of possible cases without apparent symptoms. The CHP has also provided health advice against LD to in-patients staying in the two high risk wards, including those with weakened immunity, should use sterile or boiled water for drinking, tooth brushing and mouth rinsing.

In view of the laboratory findings of the water samples and environmental swabs announced by the CHP on [September 12](#) in relation the first nosocomial case, PYNEH has installed water filters at wards in phases and also arranged disinfection for the water tanks, water pipes and water supply system of the wards in the Main Block and E Block in phases.

The CHP received a report of another new LD case from the hospital at the night of October 6. The new case involved a male patient, aged 92 with underlying illnesses, who has been admitted to another ward in PYNEH since September 23 for haematuria. His condition deteriorated on October 4 with desaturation. His clinical diagnosis was pneumonia and he is currently in serious condition. His sputum specimen tested positive for Legionella species upon laboratory testing. Initial enquiries revealed that the patient had no travel history and had only stayed at the hospital during the incubation period. Investigations at this stage suggest that the patient may be infected after using unfiltered water in the hospital ward. The case is the second nosocomial infection case at the hospital recently.

â€‹ A spokesman for the CHP said, "PYNEH should strictly and fully implement nosocomial infection control measures. The CHP noticed that the hospital has further installed over 400 effective water filters in all 61 wards in the Main Block and E Block. The hospital has also suspended the use

of water outlets without effective water filters, so as to minimise the risk to spread LD."

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.

â€‹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.