

CHP investigates outbreak of Carbapenemase-producing Enterobacteriaceae at elderly home in Sheung Shui

The Centre for Health Protection (CHP) of the Department of Health is today (September 25) investigating an outbreak of Carbapenemase-producing Enterobacteriaceae (CPE) at a residential care home for the elderly (RCHE) in Sheung Shui, and reminded the public to maintain strict personal and environmental hygiene and to use antibiotics properly.

The CHP received notification from the Hospital Authority that an 89-year-old female resident of the aforementioned RCHE attended a follow-up consultation at a public hospital for her underlying illness on August 26 and was found to have a fever. Her urine sample tested positive for CPE upon laboratory testing, and the clinical diagnosis was urinary tract infection. Upon receiving the notification, the CHP carried out an epidemiological investigation and found that two female residents, aged 79 and 91, who had previously acquired the infection during hospitalisation and been identified as carrier cases, might be the source. A site inspection was conducted on September 10 by the CHP. It was found that the RCHE had yet to fully implement relevant infection control measures, which caused the transmission in the RCHE. The CHP conducted contact tracing and screening at the RCHE and found that the rectal swabs of 16 other female residents, aged between 70 and 103, also tested positive for CPE. All 16 residents remain asymptomatic and are in stable condition.

The CHP conducted another site inspection yesterday (September 24) and advised the RCHE again to adopt and reinforce necessary infection control measures against CPE, including maintaining good environmental hygiene and hand hygiene for staff and residents. The RCHE has been put under medical surveillance.

The CHP's investigations are ongoing.

RCHEs are reminded to follow the [Guidelines on Prevention of Communicable Diseases in Residential Care Homes for the Elderly](#) on detection, prevention and control of infections. If there is suspicion of an infectious disease outbreak, the institution should report to the CHP promptly for follow-up.

A spokesman for the CHP said, "Enterobacteriaceae (for example, *E. coli* and *Klebsiella*) are common pathogens that can cause infections at different body sites including urinary tract infections, intra-abdominal infections or bacteraemia. CPE are enterobacteriaceae that produce carbapenemase – an enzyme that can deactivate carbapenems and other beta-lactam antibiotics such as penicillins. These bacteria are commonly resistant to multiple

antibiotics, limiting therapeutic options, and may render severe clinical infections difficult to treat. The range of diseases associated with CPE varies from asymptomatic carriage to potentially life-threatening or fatal infections. The level of risk depends on which part of the body is affected by the infection and the general health of the patient."

â€‹â€‹The spokesman added that proper use of antibiotics and maintaining good personal and environmental hygiene, especially hand hygiene, are important for the prevention of emergence and cross-transmission of multi-drug resistant organisms (MDROs) like CPE. In addition, susceptible individuals such as the elderly, infants and young children, pregnant women and people with weakened immunity can lower the risk of contracting MDROs by not eating raw or undercooked foods.