

CHP investigates cluster of Carbapenemase-producing Enterobacteriaceae

The Centre for Health Protection (CHP) of the Department of Health is today (June 16) investigating a cluster of Carbapenemase-producing Enterobacteriaceae (CPE) involving six residents of a residential care home for the elderly (RCHE), and reminded all RCHEs to follow the [Guidelines on Prevention of Communicable Diseases in RCHE](#) (the Guidelines) to implement measures for the detection, prevention and control of infectious diseases.

The CHP earlier received notification from the Hospital Authority (HA) that five female residents aged 68 to 100 of an RCHE in Cheung Chau who attended public hospitals for underlying illnesses, had clinical samples tested positive for CPE upon laboratory tests. The CHP immediately carried out epidemiological investigations after receiving notifications from HA. It is found that one of the above mentioned cases, who was infected with CPE when she was hospitalised, might be the source of infection of the outbreak in the residential care home. The CHP conducted contact tracing screening at the RCHE concerned and an additional female resident aged 70 was found to have infected. All six residents are in stable conditions.

The CHP conducted a site inspection and found that the RCHE concerned had not fully implemented the related infectious disease prevention and control measures. The CHP advised the RCHE to implement the necessary infection control measures to prevent infectious diseases outbreaks, including maintaining good environmental hygiene and hand hygiene for staff and residents.

The CHP will continue to put the RCHE under medical surveillance and investigate the cluster.

Enterobacteriaceae (for example, *Escherichia 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.

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 MDR0s by not eating raw or undercooked foods.