

Communicable Diseases

WATCH



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FEATURE IN FOCUS

Investigation of the first local dengue case in Hong Kong, 2020

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The Centre for Health Protection (CHP) of the Department of Health (DH) confirmed the first local case of dengue fever in 2020. We summarise below the epidemiological investigation and actions taken in response to the case.

The patient was an 84-year-old man with underlying illnesses. He presented with fever on April 3, 2020. He attended the Accident and Emergency Department of a public hospital on April 9 due to persistent fever, and was admitted on the same day. Blood test showed deranged liver function, leucopenia and thrombocytopenia. The blood specimen collected on April 9 tested positive for dengue NSI antigen, dengue virus IgM and dengue virus type 2 RNA by Public Health Laboratory Services Branch of CHP of DH on April 15. The patient had no travel history during the incubation period (14 days before his symptom onset). He lived in a village in Yuen Long with his wife. The families of his son and daughter lived nearby in the same village, and he regularly visited the backyard garden of his son for farming. He had otherwise been mostly staying at home. He did not recall history of mosquito bites during incubation period but he indicated that there were many mosquitoes around his home.

Upon receiving notification of the case on April 15, CHP immediately commenced epidemiological investigation and conducted field visit to the patient's residence, jointly with the Pest Control Advisory Section (PCAS) of the Food and Environmental Hygiene Department (FEHD) on the same day. The patient's family members were asymptomatic. Active case finding was conducted through interviews of residents living in the vicinity and questionnaire surveys. Health advice and educational materials were disseminated to the residents. The case was announced through press release, appealing to residents of the area to call the CHP hotline. A telephone hotline was set up to facilitate case finding and to offer health advice to persons who had been to the vicinity of the village and with symptoms of dengue fever.

The PCAS of FEHD carried out vector investigation and mosquito control measures. Vector control and prevention measures were also strengthened in the vicinity of the patient's residence, and the clinics and hospitals that the patient had visited during his infectious period.

CHP had immediately issued letters to doctors and private hospitals to alert them about the local case of dengue fever for heightening vigilance. Letters were also issued to institutions including schools, kindergartens/child care centre/kindergarten-cum-child care centre, elderly homes and homes for the disabled to reinforce messages about prevention of dengue fever infection and the importance of enhancing vector control measures.

The patient remained in stable condition after admission and was discharged on April 16, 2020. A total of 28 households with 114 residents had been reached by interviews or questionnaire surveys. All persons identified were asymptomatic. By the end of surveillance period on May 15, 2020, no additional cases have been detected.

To eliminate potential breeding sites of mosquitoes and to avoid mosquito bites remain the best measures for the prevention and control of dengue fever. At present, there is no locally registered dengue vaccine available in Hong Kong and no curative treatment. Travellers who return from affected areas should apply insect repellent for 14 days after arrival in Hong Kong to prevent mosquito bite. If they feel unwell, they should seek medical advice promptly, and provide travel details to doctor. Members of the public may visit CHP's dengue fever page (<https://www.chp.gov.hk/en/features/38847.html>) or DH's Travel Health Service (<https://www.travelhealth.gov.hk/eindex.html>) for further information on dengue fever and outbreaks in other areas. Information regarding control and prevention of mosquito breeding can be found on FEHD's website (https://www.fehd.gov.hk/english/pestcontrol/handbook_prev_mos_breeding.html).

NEWS IN BRIEF

A sporadic case of listeriosis

On May 17, 2020, the Centre for Health Protection (CHP) of the Department of Health recorded a sporadic case of listeriosis affecting a 25-year-old woman with good past health. She presented with vomiting and polydipsia on May 13. She attended a private clinic on May 15 and was found to have high blood glucose level. She was admitted to the intensive care unit of a public hospital on the same day. Blood culture collected on May 15 yielded *Listeria monocytogenes*. The diagnosis was listeriosis with severe sepsis, newly diagnosed Type 1 diabetes with diabetic ketoacidosis. She was treated with antibiotics. Her condition improved gradually and she was discharged on June 1. She had no recent travel history. She had history of consuming sashimi, hotpot with raw egg, ice-cream and yoghurt during the incubation period but she could not recall the details. Her household contacts remained asymptomatic.

A sporadic case of psittacosis

On May 23, 2020, CHP recorded a sporadic case of psittacosis affecting a 59-year-old man with good past health. He presented with fever and myalgia on May 6 and was admitted to a public hospital on May 12. Chest X-ray showed left basal infiltrates. The clinical diagnosis was pneumonia and he was treated with antibiotics. The sputum collected on May 14 tested positive for *Chlamydia psittaci* DNA. He remained stable and was discharged on May 16. He had no recent travel history. He did not keep any pets at home and did not recall any contact with birds or bird droppings during the incubation period. His home contacts remained asymptomatic.