

### Investigation on A Measles Outbreak Linked to An Imported Case, Northern Taiwan, 2019

Xiang-Ting Huang<sup>1\*</sup>, Pei-Hsuan Chang<sup>1</sup>, Chiang-Hsiao Hsuan<sup>2</sup>, Ming-Chu Tai<sup>2</sup>, Yu-Fang Tsai<sup>1</sup>, Meng-Yu Chen<sup>1</sup>, Hsin-Yi Wei<sup>1</sup>, Hsiao-Ping Tung<sup>1</sup>, Wen-Yueh Cheng<sup>3</sup>, Hsiao-Chi Wang<sup>3</sup>, Hui-Rong Liu<sup>1</sup>, Jui-Wei Hsieh<sup>1</sup>

#### Abstract

On April 3, 2019, a 29-year-old male was notified as a suspect case of measles (index case). Later he was confirmed as an imported measles case according to the laboratory results and travel history to Hong Kong. From April to May, additional 17 confirmed measles cases occurred in northern region of Taiwan, which all had direct or indirect epidemiological links to the index case, including common exposure in a restaurant (n=7), a hospital (n=4), a workplace (n=5), and in the household (n=1). Virus isolation from all 18 cases revealed identical genotype B3. All the cases were adult, with the mean age of 28 years (range: 19–38 years). Nine (50%) had received >1 dose of measles-mumps-rubella (MMR) vaccine. Fever (83.3%) and rash (94.4%) were the most common symptoms, and seven (39%) did not present cough, coryza, or conjunctivitis. This outbreak highlighted that young adults who were unvaccinated or with partial or waned immunity are susceptible to measles. Modified symptoms characterized with a milder rash or less intense symptoms may lead to challenges in early recognition.

**Keywords:** Adult measles, imported cases, contact tracing, MMR vaccine

<sup>1</sup>Taipei Regional Center, Centers for Disease Control, Ministry of Health and Welfare, Taiwan

<sup>2</sup>Northern Regional Center, Centers for Disease Control, Ministry of Health and Welfare, Taiwan

<sup>3</sup>Center for Diagnostics and Vaccine Development, Centers for Disease Control, Ministry of Health and Welfare, Taiwan

Corresponding author: Xiang-Ting Huang<sup>1\*</sup>

E-mail: xiang@cdc.gov.tw

Received: Sep. 03, 2019

Accepted: Oct. 25, 2019

DOI: 10.6525/TEB.202004\_36(8).0001