

### First Diarrhea Outbreak of Enterotoxigenic *Escherichia coli* (ETEC) Infection in Taiwan, 2017

Chien-Hua Chu<sup>1\*</sup>, Wan-Chin Chen<sup>2</sup>, Chia-Ping Su<sup>2</sup>,  
Fang-Tzy Wu<sup>3</sup>, Hsiao-Lun Wei<sup>3</sup>, I-Ping Lin<sup>4</sup>

#### Abstract

Enterotoxigenic *Escherichia coli* (ETEC) is recognized as a leading cause of diarrhea in low-income countries with unsatisfactory sanitary conditions and among travelers to those countries. Taiwan Centers for Disease Control was notified that 206 of 360 students from a senior high school in New Taipei City developed gastro-intestinal symptoms after returning from their graduation excursion during June 6 to June 9, 2017. Stool specimens from ill students and restaurant food handlers were negative for routine enteric pathogens. Because diarrhea was more common than vomiting in this outbreak, the median incubation period was 47 hours, and the median duration of diarrhea was 97 hours, ETEC infection was highly suspected. Specimens were further tested and positive for ETEC, so the first diarrhea outbreak of ETEC infection in Taiwan was confirmed. In order to achieve early treatment and effective prevention, we recommend that ETEC should be considered as the cause of illness when stool cultures are negative for routine enteric pathogens, and the symptoms are similar to ETEC. Additionally, use of PCR techniques along with routine methods to confirm ETEC infection should be considered.

**Keywords** : Enterotoxigenic *Escherichia coli*, diarrhea outbreak, gastro-intestinal symptoms

<sup>1</sup>Division of Infection Control and Biosafety, Centers for Disease Control, Ministry of Health and Welfare, Taiwan

<sup>2</sup>Division of Preventive Medicine, Centers for Disease Control, Ministry of Health and Welfare, Taiwan

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

<sup>4</sup>Division of Acute Infectious Diseases, Centers for Disease Control, Ministry of Health and Welfare, Taiwan

Corresponding author: Chien-Hua Chu<sup>1\*</sup>

E-mail: olin@cdc.gov.tw

Received: May. 29, 2018

Accepted: Nov. 08, 2018

DOI: 10.6525/TEB.201905\_35(9).0001