

## Staphylococcal Food Poisoning in A Training Institution, Hsinchu County, 2022

Pei-Juan Chao<sup>1</sup>, Ting-Yu Cheng<sup>2</sup>, Hsien-Ya Hsiung<sup>3</sup>, Tsai-Hua Lin<sup>3</sup>,  
Wan-Chin Chen<sup>1</sup>, Cha-Shien Yen<sup>2</sup>, Chia-Ping Su<sup>1\*</sup>

### Abstract

A training institution in Hsinchu County went to the Taoyuan area for outdoor training from July 26 to 29, 2022. After consuming the breakfast provided by the breakfast shop in Hsinchu County in the morning of July 28, many personnel successively developed symptoms including vomiting and diarrhea. We conducted a cohort study by Google questionnaire to analyze the causative food. Among 332 valid questionnaires, 68 met the case definition, and the attack rate was 20%. The median incubation period was 3 hours (range: 1–7 hours), which was consistent with *Staphylococcus aureus* food poisoning. Analysis showed that the relative risk ratio of the sandwich was 18.28 (95% confidence interval: 5.86–56.98) with statistical significance. *Staphylococcus aureus* and type B enterotoxin were detected in the stool samples of the cases and the sandwich. We concluded that the causative substances were *Staphylococcus aureus* and type B enterotoxin, and the cause food was the sandwich. In this event, due to the large number of servings and multi-process of sandwich preparation, the interval between food preparation and consumption was long. We recommend that when people order many servings and cannot eat immediately after the food is prepared, they should choose a meal that needs a shorter preparation time, not mixing hot and cold products, and eat within 2 hours after food preparation.

**Keywords:** Food-poisoning, *Staphylococcus aureus*, enterotoxin, cohort study

<sup>1</sup>Field Epidemiology Training Program, 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>Public Health Bureau of Hsinchu County Government, Taiwan

Corresponding author: Chia-Ping Su<sup>1\*</sup>

E-mail: cpsu@cdc.gov.tw

Received: Dec. 07, 2022

Accepted: Mar. 27, 2023

DOI: 10.6525/TEB.202309\_39(17).0002