HARI RAYA CELEBRATION
SPARKS FOOD POISONING OUTBREAK
AT PRE-MATRICULATION INSTITUTION KUALA LANGAT, SELANGOR ON 18-19 APRIL 2025

EP010



MINISTRY OF HEALTH MALAYSIA
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1 INTRODUCTION

- Food poisoning caused by the consumption of contaminated food or drinks due to prolonged holding time & unhygienic practices.
- On 19 April 2025, Kuala Langat District Health Office received a food poisoning notification involving Kolej Matrikulasi Selangor (KMS) students.
- Rapid assessment team was deployed to verify and operation room activated once outbreak confirmed.
- Objective to investigate the food poisoning outbreak, identify etiological agent, risk factors, behavioural & psychosocial factors linked with the incident.

2 METHODOLOGY

A. Epidemiological Investigation

- **Case Definition :** Any student from Mira Block,KMS with diarrhoea or abdominal pain or nausea or vomiting after consuming food before Hari Raya gathering 18-25 April 2025.
- **Case Finding :** Face-to-face interviews & notification from health facilities.
- **Data Management :** A case-control using a 1:2 ratio. Descriptive analysis (frequency and percentage). Analytical analysis using SPSS (OR with 95% CI & p-value <0.05).

B. Laboratory Investigation

- 4 rectal swab, 2 food handler swab and 14 kitchen utensil

C. Environmental Investigation

- Premises evaluated using Risk-Based Food Premise Inspection Form and Hazard Analysis & Critical Control Points (HACCP).



3 RESULT

A. Epidemiological

Cases / Risk : 63 / 454 (13.88%)
All cases : Female, Mira Block, 19-20 years, no fatalities, no hospitalized
Symptoms : Diarrhoea (86.4%), abdominal pain (84.7%), nausea (6.8%), vomiting (6.8%)

- The epidemic curve showed a point source pattern. Incubation Period (IP) ranged 6-14 hours, mean 10 hours.

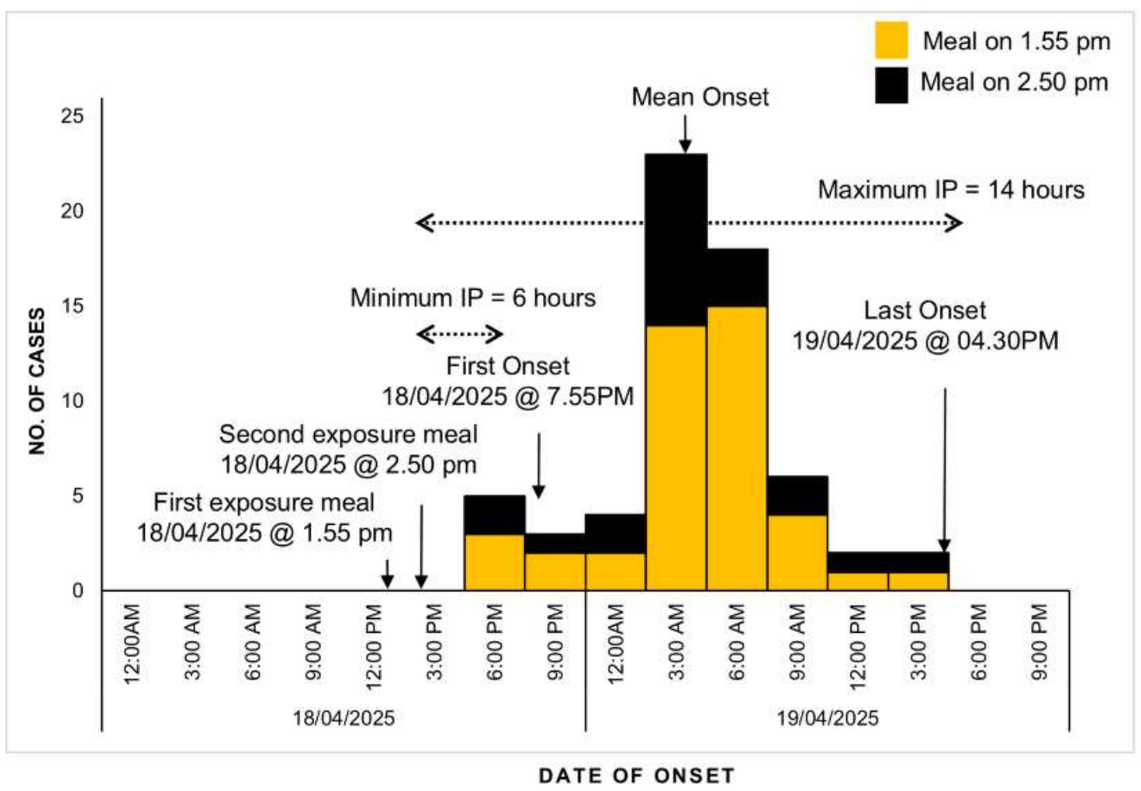


Fig.1: Epidemic curve of outbreak at KMS,18-19 April 2025.



"Over 4 hours?
your food is NO longer safe to serve!"

Table 1: Food at risk during food poisoning outbreak in KMS.

Type of menu		Case: n=63	Control: n=126	OR	95% CI	p-value
Chicken rendang*	Yes	60(95.23%)	82(65.07%)	**10.5**	**3.11-35.50**	**<0.001**
	No	3(4.77%)	44(34.93%)			
*Nasi minyak**	Yes	57(90.47%)	80(63.49%)	**5.3**	**2.14-13.43**	**<0.001**
	No	6(9.53%)	46(36.51%)			

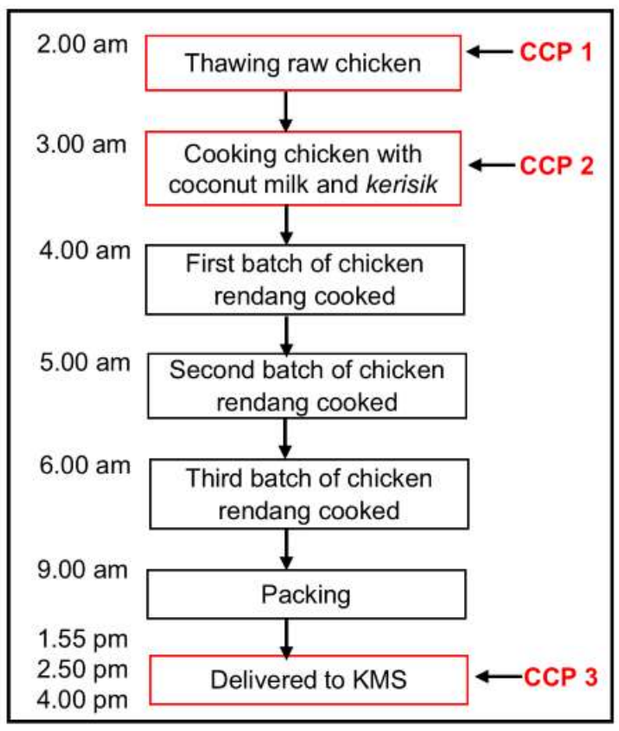
*Significant food at risk

B. Laboratory

Clinical sample : All negative
***B.Cereus & Coliform* :** Detected on hand swab & kitchen utensil.

C. Environmental

Caterer scored : 69%, unlicensed and home-based.
HACCP principles : Identified 3 Critical Control Point (CCP).



CCP1 : 29 cut chickens soaked without drainage, risking incomplete thawing & ice residue.

CCP2 : 3 batches cooked in one wok with perishable ingredients, causing uneven cooking.

CCP3 : Holding time exceed safe 4-hour limit. Food sour & foamy but still consumed by students.

Fig. 2: HACCP flow for the preparation chicken rendang.

4 DISCUSSION & CONCLUSION

- Point source outbreak : *B. cereus* (diarrhoeal type) linked to chicken rendang.
- Epidemic curve and lower GI symptoms consistent agent characteristics (WHO,2023).
- *Coliform* detected, indicating poor hygiene and bacterial proliferation (WHO,2023).
- Improper thawing and incomplete cooking amplified contamination (MOH,2022).
- Adolescents : anxiety, stress and reduced concentration in learning engagement.
- Public health measures broke transmission via epidemiological triad.
- Behavioural science integration improves adolescent outbreak response.

5 ACKNOWLEDGEMENT

The authors wish to thank the Kuala Langat District Health Office and Selangor State Health Department for permissions to present these findings.

6 REFERENCE

Guidelines Investigation Of Food Poisoning HACCP Concept, Food Safety & Quality Division Ministry of Health Malaysia, 2019 Edition

Ministry of Health Malaysia. (2022). National Food Safety Awareness Campaign Report 2022. Putrajaya: Food Safety and Quality Division.