

Prevalence of *Escherichia coli* O157:H7 and Enterobacteriaceae on hands of workers in Halal cattle Abattoirs in Peninsular Malaysia

ABSTRACT

Background: Several occupational diseases of multiple origins are encountered among abattoir workers. Presence of indicator microorganisms (coliforms) on hands of workers can be used a gauge for hygienic practices. **Methods:** A cross-sectional study was performed to assess the prevalence of *E.coli* and enterobacteriaceae among Halal abattoir workers in some government halal abattoirs of Malaysia. A total of one hundred and sixty-five hand swab samples were collected from workers of Halal abattoirs in Malaysia. The samples were subjected to microbiological analysis for characterisation and serotyping. **Results:** The results have shown that no *Escherichia coli* O157:H7 was isolated on the hands of abattoir workers before and after work. However, a total prevalence of 9.7% was recorded for all samples during work. For non-O157:H7, total prevalence of 33.3% during work and 13% after work were obtained. High prevalence was recorded in sample taken during work from Tampin, Jasin and Kemaman (100% each) while low prevalence where observed in Shah Alam, Banting and Ipoh (20% each). **Conclusions:** Based on the findings the hygienic practices of hand washing among the workers in few locations was found to be low especially after work.

Keyword: *Escherichia coli* O157:H7; Occupational safety; Foodborne disease; Zoonoses; Public health; Prevalence