

Frequency of methicillin resistant *Staphylococcus aureus* in the noses of Malaysian chicken farmers and their chicken

ABSTRACT

The prevalence of methicillin resistant *Staphylococcus aureus* (MRSA) and methicillin sensitive *Staphylococcus aureus* (MSSA) carriage among poultry and poultry farmers in Malaysia is largely unknown. In the current investigation, chickens and chicken farmers from 30 chicken farms were screened for MRSA and *S. aureus* carriage. The genetic characteristics of the isolates were determined through multi locus sequence typing (MLST), *Staphylococcus* protein A (*spa*) typing and virulent gene profiling. The outcome of the study showed lack of MRSA and extremely low *S. aureus* prevalence (n=7 of 503, 1.4%) among chicken flocks and the poultry farmers in Malaysia. *Staphylococcus aureus* isolates belonged to 4 sequence types (ST): ST97 (*spa* type t359), ST1179 (t359), ST 692 (t2247) and ST188 (t189). It can be concluded that MRSA/MSSA prevalence is very low among chicken and chicken farmers, human and chicken cross transmission of *S. aureus* does not seem to be a threat in Malaysia.

Keyword: Chicken; Malaysia; Mrsa; *Staphylococcus aureus*