

PREVALANCE AND RISK FACTORS FOR METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS* IN SWINE-PRODUCTION PERSONNEL IN CHIANG MAI-LAMPHUN PROVINCE, THAILAND

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Methicillin-resistant *Staphylococcus aureus* (MRSA) is one of the major human pathogens causing a wide range of infections and is spreading throughout the world. Recent reports of livestock-associated (LA)MRSA in swine production and humans involved have stimulated global public health concern. Carriage of MRSA among swine farm personnel may cause untreatable infection and outbreaks both in humans and animals; however, prevalence and risk factors of MRSA carriage in these professionals in Thailand have been rarely investigated. This study determined the prevalence of MRSA and risk factors associated with MRSA acquisition and transmission in swine-production personnel from 30 farms in Chiang Mai-Lamphun province from October 2016 to July 2017. Nasal swabs and data collection together with MRSA isolation and confirmation were carried out on 153 subjects (67 farm workers, 30 farm owners, 8 veterinarians and animal husbandmen, and 48 veterinary and animal sciences students) participated in this study. A carriage rate of MRSA was 11% and MRSA prevalence in swine farms in Chiang Mai-Lamphun province was 27%. The highest MRSA carriage rate was found in swine farm workers (9/67) and owners (4/30) but to a lesser degree among veterinary and animal sciences students (4/48) and none among veterinarians and animal husbandmen. Being female, working solely on swine production and working in a farm with a high density of swine appeared to be key risk (but not statistically significant) factors for MRSA acquisition. Therefore, MRSA monitoring as well as promoting knowledge on personal hygiene and responsible use of antimicrobials among swine-production personnel are recommended to lessen the dissemination of MRSA among livestock, humans and community (environment).

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One Health Operation Research under THOHUN Research Grants