

SEROTYPES AND ANTIMICROBIAL RESISTANCE OF *SALMONELLA ENTERICA* SSP IN CENTRAL THAILAND, 2001-2006

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Abstract. This study was carried out to elucidate the epidemiological trends and antimicrobial susceptibilities against *Salmonella* serovars among Thai patients and asymptomatic carriers during 2001-2006 in central Thailand. A total of 1,401 human and 260 non-human isolates from various sources were included. The isolates were characterized using serotyping and antimicrobial susceptibility testing. The most common serovars in patients submitting stool samples were *S. Weltevreden*, *S. Stanley*, *S. Anatum*, and *S. Rissen*. Significantly higher odds ratios were observed in blood samples versus stool sample for *S. Choleraesuis*, *S. Enteritidis*, *S. Typhimurium*, and *S. Typhi*. Children under five years old suffered the most frequently from gastroenteritis. The patients most commonly infected with an invasive serovar were children and people from 26 to 55 years of age. Antimicrobial susceptibility data revealed that *S. Schwarzengrund*, *S. Choleraesuis*, *S. Anatum*, *S. Stanley*, *S. Rissen*, and *S. Typhimurium* were the most resistant serovars observed. The invasive serovar, *S. Choleraesuis* was resistant to cefotaxime and norfloxacin. Antimicrobial resistance to cefotaxime, was observed in *S. Agona*, *S. Rissen*, *S. Typhimurium*, *S. Anatum*, and *S. Weltevreden*. An alarmingly high frequency of resistance to third generation cephalosporins was observed. We recommend Thai authorities take action in order to prevent spread of resistant *S. Choleraesuis* and other serovars among animals and humans by enforcing a more strict policy on the use of antimicrobials in food animals.

Key words: *Salmonella enterica*, serotype, antimicrobial resistance, Thailand

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