ANTIMICROBIAL SUSCEPTIBILITY PATTERNS AND PHAGE TYPES OF *SALMONELLA TYPHI* FROM VIETNAM

Nguyen Dac Trung^{1,3}, Usanee Suthisarnsuntorn¹, Thareerat Kalambaheti¹, Wijit Wonglumsom² and Witawat Tunyong¹

¹Department of Microbiology and Immunology, Faculty of Tropical Medicine, Mahidol University; ²Department of Clinical Microbiology, Faculty of Medical Technology, Mahidol University, Bangkok, Thailand; ³Department of Microbiology, Thai Nguyen Medical University, Thai Nguyen, Vietnam

Abstract. A retrospective study of the patterns of antimicrobial susceptibility and phage types of 111 *Salmonella typhi* strains isolated in 1996 from Vietnam was carried out. The strains were tested for susceptibility to chloramphenicol, ampicillin, tetracycline, trimethoprim-sulfamethoxazole, nalidixic acid, ceftazidime, ceftriaxone and ciprofloxacin. Simultaneous resistance to chloramphenicol, ampicillin, tetracycline and trimethoprim-sulfamethoxazole were present in 84 strains (75.7%). Nalidixic acid resistance was only observed in 2 multidrug-resistant strains (1.8%). Twenty-one strains (18.9%) were completely susceptible to all drugs tested. All 111 strains were susceptible to ceftazidime, ceftriaxone and cipropfloxacin. The MIC values for chloramphenicol, ampicillin and trimethoprim-sulfamethoxazole corresponded with the results by disk diffusion method. On Vi phage-typing, 5 different phage types (28, A, D1, E1 and M1) were found in 12 strains (10.8%). However, most *S. typhi* strains were indistinguishable by this typing technique because they were degraded Vi-positive or untypeable Vipositive strains (35.1% and 54.1%, respectively). There were no correlations between antimicrobial resistance patterns and phage types in the tested *S. typhi* strains in this study.

Correspondence: Nguyen Dac Trung, Department of Microbiology, Thai Nguyen Medical University, 284 Luong Ngoc Quyen Street, Thai Nguyen City, Thai Nguyen Province, Vietnam. E-mail: trungmicrobio@yahoo.com