PREVALENCE OF EXTENDED-SPECTRUM BETA-LACTAMASE AND CLASS 1 INTEGRON INTEGRASE GENE *INTI1* IN *ESCHERICHIA COLI* FROM THAI PATIENTS AND HEALTHY ADULTS

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Abstract. Among 120 *Escherichia coli* isolates from Thai patients, 37 and 9 isolates were extended-spectrum beta-lactamase (ESBL) and suspected ESBL producers respectively while 5 *E. coli* isolates from 120 Thai healthy adults were suspected ESBL producers. Integrase (*intI1*) gene was detected in 99% of the clinical and 87% of the non-clinical isolates. Among 37 ESBL producers, percent recovery of bla_{TEM}, bla_{CTX-M}, bla_{SHV} and bla_{VEB} was 78%, 78%, 8% and 8%, respectively. Twenty-five isolates of ESBL producers carried both bla_{TEM} and bla_{CTX-M}, 2 isolates carried 3 genes (bla_{TEM}, bla_{CTX-M}, and bla_{SHV}) and 3 showed no detectable *bla* gene. Among the 14 suspected ESBL producers, *intI1* and bla_{TEM} were detected in 13 isolates. ESBL producers from clinical samples were resistant to most of the tested antimicrobial agents compared to non-ESBL producers and isolates from healthy adults with about half of the latter susceptible to all tested antimicrobial agents. Only one clinical isolate was resistant to imipenem. Susceptibility to trimethoprim/sulfamethoxazole among the clinical isolates in ESBL producer group (27%) and non-producer group (33%) were comparable, whereas the percent susceptibility of the non-clinical isolates was about twice that of the clinical isolates.

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