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Epidemiology of urinary tract infections in spinal cord injured patients at Thai Red Cross Rehabilitation Center during 2001-2005

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Background: Urinary tract infection (UTI) is common in spinal cord injured patients. We would like to investigate the epidemiology of bacteria associated with UTI to select an appropriated antibiotic for empirical treatment of UTI before obtaining a microbiology results.

Objective: To determine the prevalence, as well as the causative bacteria and their susceptability pattern of urinary tract infection in spinal cord injured patients hospitalized to Rehabilitation Center, Thai Red Cross Society, Samutprakarn, Thailand from January 2001 to December 2005.

Methods: A retrospetive chart review of 76 spinal cord injured patients.

Results: Of all spinal cord injured patients,there were 50 males and 26 females, with the average age of 44.70 years. An average length of hospitalization was 104.5 days. 71.2% of the patients need clean intermittent catheterization for bladder drainage, and only 2.7% had suprapubic cystostomy. None of patient had indwelling catheterization. 46 patients had 69 episodes of UTI (60.52%). 18 patients had recurrent UTI (14 patients had 2 episodes and 4 patient had 3 episodes). *E. coli* was the most common isolated pathogen (74.36%) followed by *K. pneumoniae* (12.82%), *E. faecalis* (5%), and *P. mirabilis* (5%). Most gram negative pathogens were susceptible to amikacin and third generation cephalosporins. The susceptability of these organism to co-trimoxazole, amoxicillin/clavulanate, and ciprofloxacin were in the range of 34.6 - 60.0%, 44.0 - 50.0%, and 25.9 - 50.0%, respectively.

Conclusion: Urinary tract infections were commonly observed among spinal cord injured patients in our

institution. *E. coli* was the most common isolated pathogen. Suprisingly, most gram-negative pathogens were resistant to cotrimoxazole, amoxicillin/clavulanate, and ciprofloxacin. An antibiotic of choice for UTI in our patients should be aminoglycoside or third generation cephalosporin.