

Prevalence of Nosocomial Infections in Adult Intensive Care Units at a Kosova Teaching Hospital

To the Editor—Nosocomial infections constitute an important public health challenge worldwide. They result in high morbidity and mortality, prolonged hospital stays, greater use of antibiotics, and increased costs.^{1,2} The burden of this problem is highest in intensive care units (ICUs). Nosocomial infection rates in ICUs, even in highly developed countries, are 25%–35%, with mortality exceeding 25%, whereas in developing countries, two-thirds of patients admitted to intensive care suffer at least 1 nosocomial infection.³ We report on a survey of the prevalence of nosocomial infection in adult ICUs at the University Clinical Centre of Kosova (UCCK).

The health care sector in Kosova has scarce human and material resources. It receives only €35 per capita per year. Infection control in Kosova is taking the first steps towards establishing national policies in prevention and control of nosocomial infections. In the past, within the UCCK and 5 county hospitals, hospital infection control committees existed solely on paper. The awareness of nosocomial infection increased during the last few years, and, in May 2006, the Ministry of Health established the National Committee for Prevention and Control of Nosocomial Infections as the executive body to combat this challenge. The first study of the prevalence of nosocomial infections in targeted high-risk areas, undertaken in 2003 at UCCK, showed an overall prevalence of 17.4% (29 infections in 167 patients).⁴

The UCCK is the only tertiary care center in Kosova. It has 2,400 beds and serves 2.1 million inhabitants. Our study used a point prevalence methodology and was performed on September 15, 2006, in the 3 ICUs at UCCK. Patient data were obtained from medical records and by physical examination. Data on the following types of infection were recorded: nosocomial pneumonia, nosocomial urinary tract infection, surgical site infection, and nosocomial bloodstream infection. The US Centers for Disease Control and Prevention criteria were used to define nosocomial infections.⁵ Specimens of endotracheal aspirate, sputum, and urine, as well as nasal, throat, axillar, and perineal swab specimens, were obtained from all patients. Diagnostic bacteriologic testing was done using standard procedures in the Department of Microbiology at the National Institute for Public Health of Kosova.

Of 28 patients surveyed, 11 had a total of 18 nosocomial infections. Of these 18 nosocomial infections, which all occurred in the central ICU, ventilator associated pneumonia accounted for 8 (44.4%), bloodstream infections for 5 (27.8%), urinary tract infections for 4 (22.2%), and surgical site infection for 1 (5.6%).

The overall prevalence rate was 64.3%. The mean age of

the patients was 42.1 years (SD, 15.3 years). The median length of stay before the survey was 17.3 days (range, 2–112 days). No infections were detected in the pulmonological and neurological ICUs. In the central ICU, 68.7% of patients had nosocomial infections, with a predominance of ventilator associated pneumonia (72.7% of infections).

Laboratory testing yielded isolates for 26% of patients. Gram-negative bacilli represented 63.6% of all isolates, with a predominance of *Acinetobacter* species (27.2%) and *Pseudomonas aeruginosa* (18.2%). Of the 28 surveyed patients, 17 (60.7%) were receiving antimicrobial treatment at the time of the survey.

The prevalence of nosocomial infections in Kosova is higher than in other European countries, where estimates range from 20% to 35%.⁶ The high prevalence in Kosova can be attributed to many factors: a lack of financial support, inadequate numbers of trained personnel working in infection control, understaffed hospital units, and insufficient equipment and supplies. These results emphasize the need for infection prevention interventions in ICUs.

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