

STUDIJA PREVALENCIJE BOLNIČKIH INFEKCIJA U USTANOVU TERCIJARNOG NIVOJA ZDRAVSTVENE ZAŠTITE

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STUDY OF THE PREVALENCE OF HOSPITAL-ACQUIRED INFECTIONS IN THE TERTIARY HEALTH CARE INSTITUTION

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SAŽETAK

Cilj. Bolničke infekcije (BI) predstavljaju veliki izazov za zdravstvene sisteme jer dovode do povećanja morbiditeta, produženja hospitalizacije sa neizvesnim ishodom i povećanja troškova lečenja. Cilj studije bio je da se sagleda situacija sa BI u ustanovi tercijarnog nivoa zdravstvene zaštite.

Metode. Studija prevalencije BI sprovedena je u Univerzitetskom kliničkom centru Kragujevac (Srbija) tokom novembra 2022. godine u okviru nacionalne studije. Prema metodu Evropskog centra za prevenciju i kontrolu bolesti obučeni timovi prikupili su podatke o pacijentima koji su primljeni pre osam sati ujutru na svim odeljenjima bolnice. Analizirane su varijable na nivou odeljenja i pacijenta.

Rezultati. U studiju je bilo uključeno 567 pacijenata. Prevalencija pacijenata s najmanje jednom BI iznosila je 8,3%, a prevalencija svih BI 8,6%. Najviše prevalencije bile su u jedinicama intenzivnog lečenja za odrasle (34,6%) i pedijatrijske/neonatološke jedinice (21,2%). Najčešće su registrovane pneumonije (32,7%), zatim infekcije mokraćnog sistema (28,6), dok su infekcije operativnog mesta i infekcije krvi bile podjednako zastupljene (16,3%). Među 50 izolata bakterija, 24 (48,0%) bile su bakterije iz reda Enterobacterales, slede gram-negativni nefermentativni bacili sa 24% (*Acinetobacter* spp. – 14 i *Pseudomonas aeruginosa* – pet izolata), a devet (18%) izolata pripadalo je gram-pozitivnim kokama. Izolovani patogeni su pokazali visok stepen rezistencije na ispitivane antibiotike. Multivarijantna logistička regresija identifikovala je sledeće nezavisne faktore rizika za nastanak BI: produženi boravak u bolnici, lošiji Makejb (McCabe) skor, intubacija pacijenata i primena antimikrobnih lekova.

Zaključak. Studija prevalencije omogućila je brzo sagledavanje osnovnih epidemioloških karakteristika BI u našoj bolnici i pružila pomoć u definisanju prioriteta za preduzimanje odgovarajućih mera prevencije.

Cljučne reči: studije preseka; infekcije; bolnice.

ABSTRACT

Objective. Healthcare-associated infections (HAIs) represent a major challenge to healthcare systems because they lead to increased morbidity, prolonged hospitalization with uncertain outcomes, and increased treatment costs. The aim of this study is to assess the situation regarding HAIs in a tertiary level health care institution.

Methods. HAI point prevalence study was conducted at the University Clinical Center Kragujevac (Serbia) during November 2022 within the national study. According to the method of the European Center for Disease Prevention and Control, trained teams collected data on patients who were admitted before 8 a.m. in all departments of the hospital. The variables were analyzed at both ward and patient levels.

Results. 567 patients were included in the study, and the prevalence of patients with at least one HAI was 8.3%, while the prevalence of HAI was 8.6%. The prevalence was the highest in adult (34.6%) and pediatric/neonatology (21.2%) intensive care units. Pneumonia was the most frequently registered type of HAI (32.7%), followed by urinary tract infections (28.6%), while surgical site infections and blood infections were equally represented (16.3%). Among the 50 isolates, 24 (48.0%) were bacteria from the order of Enterobacterales, followed by gram-negative non-fermenting bacilli with 24% (*Acinetobacter* spp. 14 and *Pseudomonas aeruginosa* 5 isolates), and 9 (18%) isolates belonged to Gram-positive cocci. The isolated pathogens showed a high degree of resistance to the tested antibiotics. Multivariate logistic regression identified the following independent risk factors for HAI: prolonged hospital stay, worse McCabe score, patient intubation, and use of antimicrobial drugs.

Conclusion. The prevalence study enabled a quick overview of the basic epidemiological characteristics of HAI in our hospital and provided help in defining the priorities for taking appropriate prevention measures.

Key words: cross-sectional studies; infections; hospitals.