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## Isolation of enterococci, their antimicrobial susceptibility patterns and associated factors among patients attending at the University of Gondar Teaching Hospital

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**Statement of the problem:** Enterococci become clinically important especially in immune compromised patients and important causes of nosocomial infections. Data on the prevalence, antimicrobial susceptibility patterns and associated factors of enterococci are scarce in Ethiopia.

**Methods:** A hospital based cross-sectional study was conducted at the University of Gondar Teaching Hospital from February 28, 2014 to May 1, 2014. Clinical samples including urine, blood, swabs and other body fluids from patients requested by physician for culture and antimicrobial susceptibility test during the study period were included. A total of 385 patients were included in the study.

**Result:** The overall prevalence of *enterococci* infection was 6.2% (24/385). The commonest sites of infections were urinary tract followed by wound and blood. Among the 24 isolates, 33.3% (8/24) were resistant to all tested antimicrobial agents. Forty one point seven percent (10/24) of the *enterococci* isolates were vancomycin resistant *enterococci* (VRE). Moreover, two third of the isolates were multidrug resistant (MDR) *enterococci*. In multivariate analysis, duration of hospital stay for two days and more than two days with infection rate: 17/32 (53.1%), previous history of any antibiotics (AOR= 9.13; [95% CI; 2.01 - 41.51] P= 0.00) and history of urinary catheterization (AOR= 8.80; [95% CI; 1.70 – 45.64] P= 0.01) were associated with presence of higher *enterococci* infections than their respective groups.

**Conclusion:** The prevalence of *enterococci* infections among patients with UTIs, wound infections and sepsis were higher than the other patients. Multi drug resistant enterococci including VRE were isolated from clinical samples in the study area. Being hospitalized for  $\geq 48$  hours, having history of any antibiotic administration and catheterization were associated factors for enterococci infections. Therefore, efforts should be made to prevent *enterococci* infections and emergency of multidrug resistant *enterococci*.

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