

Review Paper:

The Effectiveness of the Healthcare Infection Control Practices Advisory Committee Guidelines in Vancomycin Prescription



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ABSTRACT

Background: In recent years, hospital-acquired infection due to drug-resistant gram-positive bacteria are increasing. One of the most suitable drugs for dealing with these bacteria is vancomycin. Due to the prevalence of vancomycin-resistant gram-positive organisms, the disease control and prevention guidelines have been presented by the Healthcare Infection Control Practices Advisory Committee (HICPAC) to determine the proper use of vancomycin. This study aimed to evaluate the effect of HICPAC guidelines on the use of vancomycin.

Methods: This descriptive-analytical study was conducted during 2011-2012 in pediatric surgical and oncology wards, and pediatric and neonatal intensive care units of Bouali Sina Hospital in Sari, Iran. Initially, HICPAC guidelines were given to professors and residents through lectures, workshops, educational pamphlets, text messaging and E-mail. After training staff and physicians, demographic and clinical data of all patients treated with vancomycin from March to September 2011 were collected by a questionnaire designed based on HICPAC recommendations. Then, the data for the same time on 2012 was collected and compared.

Results: Of 100 patients, 36 were females and 42 aged <28 years. In the end, 48 had complete recovery, 44 had a relative improvement and 8 died. In 68 patients, vancomycin administration was well-suited to HICPAC guidelines before training and in 34 patients after training.

Conclusions: The use of vancomycin in pediatric ward and pediatric intensive care unit was significantly inappropriate in our third referral to the hospital and a considerable number of uncontrolled vancomycin prescriptions was observed. Despite the adequate training with different educational methods, special attention should be paid to avoid antibiotic resistance in the future.

Keywords: Vancomycin, Healthcare Infection Control Practices Advisory Committee, Guidelines, Hospital-acquired infection
