

Use of disinfectants and antiseptics in selected health institutions in Republic of Macedonia

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Abstract

Introduction - Intra-hospital or hospital infections are caused by organisms acquired during hospitalization of the patient and clinically manifest from 48 to 72 hours after their administration. Disinfection procedures, type and quantity of used disinfectant is directly related to the effects of their use.

Objective – The aim of this study was to review of the use of antiseptics and disinfectants in selected hospitals in Republic of Macedonia over five years period, to make analysis of the amount of antiseptics and disinfectants consumed annually on each department in hospitals, to analyze of the total amount of consumed antiseptics and disinfectants in selected hospitals for five years and to compare the results to the microbiological data conducted periodically in each department in hospitals in Strumica, Ohrid, Veles, Stip and Kavadarci for five years.

Materials and Methods - Data from the annual reports collected from hospitals in Strumica, Ohrid, Veles, Stip and Kavadarci over five years were used. Data from annual reports for disinfectants and antiseptics (Bactosal, Ecosal, Dezintal, Betadine, Hydrogen peroxide, Formaldehyde, Ethanol) used on the selected departments for gynecology, surgery and transfusion were collected. Data from annual reports collected from public health centers in Strumica, Ohrid, Veles, Stip and Kavadarci over five years were used. Routine testing period for microbiological controls in hospitals was 15 days.

Results - The results indicate a significant reduction of contamination with conditionally pathogenic bacteria when disinfection is conducted according to the standardized procedures controlled by the IHI times established in each hospital from 2012. The number of conditionally pathogenic bacteria detected is reduced starting from 2012. The reduction of the quantity of disinfectant used is also noted from 2012.

Conclusions - In general disinfectants and antiseptics are used optimally and correctly according to the needs of the hospitals investigated. The amount of disinfectants and antiseptics consumed comparing with the microbiological data indicates their rational utilization starting from 2012. Use of disinfectants according to the standardized procedures established by the IHI times allows current daily care for patients and staff in the hospitals investigated. The processed data from public health centers in Strumica, Ohrid, Veles, Stip and Kavadarci confirm the above and point out the precautions to be taken when conditionally pathogenic bacteria have been detected. It is pointed out the role of IHI times in the hospitals, as well as the role of

hospital pharmacists. We would like to suggest the implementation of disinfection process validation as standardization measure as well as more often routine microbiological controls in the hospitals.

Keywords

disinfectants, antiseptics, disinfection.