Nosocomial infections in intensive care - clinical study

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Introduction and objective: Although the frequency of nosocomial infections has declined since the introduction of infection control, it is still a serious problem. Our aim is to assess to what extent nursing attitude may contribute to the development of the MRSA.

Material and method: Our research was a cross-sectional investigation targeting at the teams of nurses working in the department of intensive care (case group n=46) and surgical department (control group n=45). Inclusion criteria was bedside nurses while nurses who carrying out other activities than bedside nursing were excluded. Sample selection was non-randomized. The investigation was carried out in the department of intensive care in Pécs and Szekszárd Hospital between 1 September 2012 and 1 December 2012. I completed the data collection through WHO self- assessment questionnaire with my own questions. Data collection was processed frequency and through χ^2 test in Microsoft Excel.

Results: Concerning the issue of hand hygiene reminders there were significant differences in the departments of Szekszárd Hospital (p=0,006) and in the departments of intensive care (p=0,027) among the nurses who deemed the hand hygiene reminders to be frequent in their department. The correlation between the frequency of hand hygiene trainings and the admitted MRSA frequency is quite likely, since in cases of most departments where trainings were deemed to be more frequent, the admitted MRSA frequency was lower. Concerning the direct hand hygiene audits we can say that there was a significant difference between the admitted frequency of direct hand hygiene audits and the deemed MRSA frequency in the department of Pécs Hospital (p=0,011) and in the surgical departments (p=0,022).

Conclusions: Application of the bedside hand disinfection technique, the proper use of the phase-1 hand sanitizer and more frequent hand hygiene trainings may result in the decrease of the MRSA frequency. More frequent hand hygiene audits and hand hygiene reminders displayed on a number of places may promote the improvement of hand hygiene knowledge. On the whole, the permanent improvement of hand hygiene knowledge is of great importance.