

R427

Publication Only

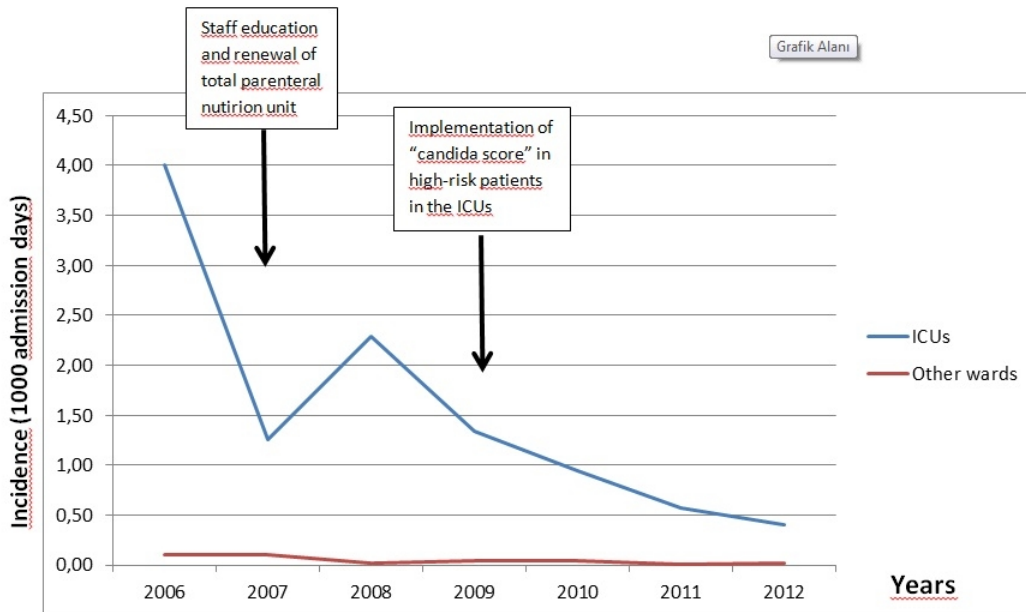
Infection Control: Infection control

Decrease in the incidence of candidaemia with the implementation of "Candida score" in intensive care units

M. Dizbay¹, O. Guzel Tunccan¹, N. Aksakal², K. Hize1¹, D. Arman¹, E. Senol¹, F. Ulutan¹, F. Aktas¹

¹Infectious Diseases and Clinical Microbiology, Gazi University Faculty of Medicine, Ankara, Turkey ;

²Public Health Department, Gazi University Faculty of Medicine, Ankara, Turkey



Objectives: Candidemia remains a major cause of morbidity and mortality in the health care settings. It can be prevented with the application of some interventions. We aimed to analyze the effect of staff education, renewing the total parenteral nutrition unit and establishing candida score in the high-risk patients in intensive care units on candidemia epidemiology

Methods: Nosocomial infection surveillance is performed prospectively in our hospital. The data were obtained from infection control committee records and patient files. All candidemia episodes during 2006 - 2012 period were selected and analyzed retrospectively. Mainly two interventions were done in our hospital to decrease candidemia incidence: staff education and renewal of total parenteral nutrition unit with an automatized system in 2007, and application of 'candida score' in high-risk patients in the ICUs to guide empirical antifungal treatment in 2009. The incidence of candidemia were compared before and after interventions. Candidemia incidence was calculated using following formula: Number of candidemia / Admission days x 1000. For the statistical analysis, the percentages of candidemia through seven years were assessed by Cochran Armitage test of linear trend.

Results: A total of 267 episodes of candidemia were identified in the study period. A significant decrease in the number of candidemia was observed in 2007 after staff education and renewal of the total parenteral nutrition unit (p: 0,035). In 2008, a statistically significant increase was detected (p: 0.020). In 2009, 'Candida score' was introduced in the ICUs to detect high-risk patients and to decide early antifungal therapy. And then candidemia incidence was decreased significantly year by year (figure 1).

Conclusion: Candidemia is a fatal infection, especially in the ICUs. To prevent candidemia, all of the efforts should be performed. In this study, staff education and renewal of total parenteral nutrition has shown a positive effect to decrease candidemia incidence, but its effectivity was limited for a short period. Implementation of 'candida score' in the ICUs was found to be more effective to decrease candidemia incidence.

