

Outcomes of an observational protocol to prevent healthcare-associated infections (HAIs) in a urology ward

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Introduction & Objectives: Healthcare-associated infections (HAIs) are a potentially severe complication and, lead to higher health costs and have negative consequences concerning morbidity and mortality. Our purpose is to present the results of our working group project with the aim of reducing the incidence of HAIs in a Urology ward and, optimise their treatment.

Materials & Methods: We designed an observational protocol and information about all patients hospitalised in urology were collected in a database designed to analyse the incidence, risk factors and characteristics of HAIs. First of all, we evaluated the situation in 2012 and 2013. Based on the results obtained, a critical evaluation was carried out, and specific measures are established to reduce HAIs and improve their management. The measures implemented included the periodical revision of the evolution and characteristics of IRAS, assessing risk factors according to patient profiles, implementation of protocols for empirical treatment according to the local microbiological results, and training for all healthcare professionals in order to prevent infections, such as correct hands washing, avoid the use of rings and watches, early removal of vascular and urinary catheters. Finally, we evaluated the impact and results of the implemented measures.

Results: The incidence of IRAS in patients admitted to urology decreased from 6.6 to 7.3% in 2012-2014 to 5.4 to 5.8% in 2016-2018. In patients with risk factors for infections, we reported that the incidence of HAIs decreased in those with immunosuppression from 12.8-18% in 2012-2013 to 8.1-10.2% in 2017-2018, in those with a previous urinary tract infection from 13.6% to 4.8%, in those who underwent a radical cystectomy (65% to 36.6%), if a urinary catheter prior admission (12.6% to 10.8%), and patients with a nephrostomy tube (16% to 10.9%). The effect of the protocol and the better training in healthcare professionals was also demonstrated with a reducing in the percentage of patients with suspicion of HAIs in which cultures were not collected, decreased from 6% to 0% in 2017 and 2018. Moreover, the implementation of protocols for empirical treatment has reduced the percentage of patients with inadequate empirical antimicrobial therapy from 20% to 8.1% with no increase in the isolation of multidrug-resistant microorganisms. Finally, the incidence of extended-spectrum betalactamase (ESBL) producing bacteria declined from 25% in 2012 to 10.9% in 2017-2018. However, special attention is required from ESBL-producing bacteria non-E.coli, mainly reported in patients with a urinary catheter in the upper urinary tract.

Conclusions: The incidence of HAIs must be monitoring, and measures for prevention are useful to decrease the rate of infections and optimise their management. An active aptitude to control HAIs is required, and the program must include medical staff, nurses and also patients and relatives.