Surveillance of healthcare-associated infections in a Tunisian university hospital

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Introduction:

Healthcare -associated infections has become a worldwide public health problem. The aim of this study was to estimate the incidence of healthcare- associated infections in a university hospital of Tunisia.

Methods:

This was a cohort study conducted in six intensive care units in a university hospital of Tunisia during three months (from august to October 2018). Data was provided from patients' files. Data entry and analysis was done using SPSS version 22. Multivariate analysis was used in order to identify independent risk factors for healthcare associated infection.

Results:

A total of 202 patients were enrolled in this study. The incidence rate of healthcare-associated infections was 53,96%(109/202). The ratio infection/infected was estimated to 1.65(109/66).

The incidence of multi-drug resistant pathogens was 21,28% (43/202). The most common resistant pathogens included pseudomonas aeruginosa resistant to cefdazidime in 13,76%(15/109) followed by those resistant to extended spectrum cephalosporin 11.92% (13/109), followed by carbapenem-resistant acinetobcater baumanii 6,42%(7/109) then by carbapenem resistant pathogens and enterococcus resistant to vancomycin 2.75%(3/109) and finally staphylococcus aureus resistant to methicillin 2.1%(2/1.83). The multivariate analysis showed that long duration of central line catheterisation (RR = 7.44; 95%CI[2.79-19.82]), tracheotomy(RR = 8.61;95%CI[2.09-35,39]) and length of stay (RR = 1.08; 95%CI[1.04-1.13]) were found as independent risk factors for healthcare -associated infection.

Conclusions:

The emergence of mutli-drug resistant pathogens needs to be deeply studied and effective measures have to be taken in order to detect and prevent transmission of resistant strains and/or their resistance determinants, especially those with phenotypes having the fewest viable treatment options.

Key messages:

- The incidence of healthcare associated infection in the intensive care unit was high.

- Effective measures have to be taken in the intensive care unit to detect and prevent transmission of resistant pathogens.