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BATTERIOLOGIA

ANTIMICROBIAL STEWARDSHIP PROGRAMS: THE ROLE OF COOPERATION AND COMMUNICATION

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INTRODUZIONE

The reduction in antibiotic consumption in general and their appropriate use, specifically those that favor the onset of Clostridium difficile infection (CDI) are two fundamental measures of control of bacterial antibiotic resistance.

METODI

For some years now, microbiologists at our hospital have offered a support and counseling service to clinicians,and since 2017 there has been an infectiologist who is consulted by doctors in the more complex infection cases. No restrictive methods were adopted for the choice of antibiotics and the request for infectious advice is suggested but not mandatory. The clinicians were sensitized to the judicious use and selection of antibiotics, and all support services available to them through training and information. During 2017, was promoted training events for 180 clinicians and nurses, with non-mandatory attendance, on the management of the septic patient and also of the infected patient with instructions on antibiotic treatment. The aim was also to promote interdisciplinary cooperation and collaboration between clinicians, microbiologists, infectiologist, pharmacologists and intensivists.

RISULTATI

As a result, the number of blood culture sets required for 1000 days of hospitalization increased from 60.1 in 2017 to 68 in 2018. The number of discharges in the two years studied is comparable (9884 vs. 9915) as well as the days of hospitalization (87688 vs. 88832). There were no organizational changes to the departments or substantial changes in the number and type of services and clinicians. The hospital has 340 beds.
The consumption of antibiotics was monitored by the hospital pharmacists and data showed a decrease in consumption of fluoroquinolones: ciprofloxacin from 6948 in 2017 to 5876 in 2018 (reduction of 15.4%), Levofloxacin from 10095 in 2017 to 8635 in 2018 (reduction of 14.5%). Total consumption fell from 59751 administrations in 2017 to 55962 administrations in 2018, a decrease of 6.3%. Against this the number of patients that tested positive for C. difficile Toxin A / B (C. Diff. Quik Chek Complete, Techlab) fell from 47 out of 301 patients in 2017 to 13 out of 295 in 2018, therefore the rate of annual positivity fell from 15.6% to 4.4%.Considering the CDI rate method as the number of cases of CDI for 1000 hospital discharges, the pre-intervention figure is 5.2 and the post-intervention is 1.5, a 71% reduction in the number of cases.

CONCLUSIONI

The results obtained are very encouraging as they are comparable or superior to those reported in the literature in which restrictive stewardship methods have been used. In our case, the high reduction in CDI cases is probably due not only to the reduction in antibiotic consumption but also to their more appropriate use due to the work of training, information and construction by the interdisciplinary team of collaborative relationships with clinicians and nurses.