

IMPACT OF OPTIMIZING USE CARBAPENEM ANTIBIOTICS PROGRAM

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Background

Appropriate use of antimicrobials is very complex because of the difficult in the management of infectious diseases and the spread of antibiotic resistance

Purpose

To analyze the use of carbapenems antibiotics based on the criteria of infection by extended spectrum beta-lactamases microorganisms (ESBL) and the empirical guide of antibiotics of a third level hospital

Material and methods

Prospective observational study in a third level hospital from 1-31 March 2017. All admitted patients who started antibiotic treatment with imipenem, meropenem or ertapenem were included.

The indication of antibiotic therapy was evaluated based on ESBL criteria and empirical hospital treatment guidelines. In patients who did not meet these criteria, a recommendation was made to the physician to consider another therapeutic option.

Variables collected: age, sex, type of infection, culture, type of intervention (dose adjustment, change of antibiotic, suspension of treatment) and service

Results

129 patients were included. Average age: 64.21 years (2-92); 40.3% female (N=52) and 59.7% male (N= 77). 134 prescriptions were evaluated (67 meropenem, 53 imipenem and 14 ertapenem), of which 44% (N=59) were considered inadequate and optimizable and a recommendation was made. The services with the most prescriptions evaluated were: Internal Medicine (26.86%), General Surgery (22.38%), ICU (11.94%) and Pneumology (11.19%). The most common clinical syndromes for these prescriptions were pneumonia (33%), intra-abdominal infections (23%), urinary tract infections (12%) and skin and soft tissue infections (11%). Microbiological samples were obtained in 70.89% of the patients, of which 46.31% were positive. Regarding the recommendations made, 83.1% (N=49) were a change in treatment, 10.2% (N=6) dose adjustment and 6.7% (N=4) was to suspend antimicrobial agents. 45% of them were accepted.

Conclusions

Although the degree of acceptance of the intervention must be improved, pharmaceutical great action contributed to optimising the use of restricted antibiotics, reducing their use in cases where they were not indicated or where other alternatives existed.

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