

CONSUMPTION-BASED INDICATORS IN AN INTENSIVE CARE UNIT AFTER AN ANTIMICROBIAL STEWARDSHIP PROGRAM IMPLEMENTATION

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Background and importance: Antibiotic resistance is one of the main public health problems worldwide. The quality indicators commonly used to measure the use of antimicrobials in ICUs have been agreed upon at both national and European levels, which allows us to know the current consumption of antibiotics.



AIM AND OBJECTIVES

Description and analysis of hospital antibiotic use indicators based on consumption data, over a one-year period (July 2023 - June 2024) in the Intensive Care Unit (ICU) of a third-level hospital in the first year of the implementation of an Antimicrobial Stewardship Program (ASP) team.

MATERIALS AND METHODS

Retrospective study in which eight of the indicators recommended by a panel of experts made up of members of the Spanish Society of Hospital Pharmacy (SEFH) and the Spanish Society of Infectious Diseases and Clinical Microbiology (SEIMC) were calculated using a modified Delphi method, corresponding to a one-year period (July 2023 - June 2024) of the Adult Intensive Care Service in a third-level hospital. This period was divided into 4 quarters.

Our hospital is public, with approximately 1,000 beds and an area of influence of 490,696 inhabitants, with an Intensive Care Unit of 30 beds, generating an average of 650 stays per month.

The consumption data was obtained from the Pharmacy Service's economic management program, as well as the Defined Daily Doses (DDD) for every 100 stays (E).

RESULTS

| INDICATORS | 2023 | 2023 | 2024 | 2024 |
|--|--------|--------|--------|--------|
| | 3Qr | 4Qr | 1Qr | 2Qr |
| Global consumption of antimicrobials | 161,48 | 205,39 | 186,72 | 160,05 |
| Global consumption of antifungals | 23,02 | 19,4 | 16,65 | 16,8 |
| Consumption of carbapenems | 19,54 | 25,29 | 19 | 24,87 |
| Consumption of fluoroquinolones | 7,43 | 11,48 | 9,86 | 8,99 |
| Consumption of fosfomicin | 4,25 | 0,45 | 0,03 | 0,06 |
| Consumption of new beta-lactams | 4,92 | 5,36 | 4,58 | 2,59 |
| Ratio of amoxicillin-clavulanic acid IV/piperacillin | 3,55 | 2,86 | 2,16 | 3,21 |
| Sequential therapy | 0,16 | 0,06 | 0,14 | 0,09 |

CONCLUSION AND RELEVANCE

These results allow us to obtain a clear picture of antibiotic consumption in our environment, specifically in the intensive care unit, which is one of the most relevant units in the use of antibiotics and the generation of resistance.

From these results we will be able to compare our results with other hospital situations and how the implementation of different strategies for the improvement of antibiotics use can impact on them.



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