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ANALYSIS OF ANTIFUNGAL CONSUMPTION IN AN INTENSIVE CARE UNIT OVER 5 YEARS - 4CPS-058

I PATIER[1], M. ACHAQUES-RODRIGUEZ[2], F.J. ALONSO-ZAZO[3], F. FERNANDEZ-FRAGA[4].
[1]HOSPITAL UNIVERSITARIO DE SAN JORGE, PHARMACY, HUESCA, SPAIN.; [2]UNIVERSITARIO QUIRONSALUD MADRID, PHARMACY, POZUELO DE ALARCON, SPAIN.; [3]HOSPITAL CLÍNICO SAN CARLOS, PHARMACY, MADRID, SPAIN.
[4]HOSPITAL UNIVERSITARIO DE MOSTOLES, PHARMACY, MOSTOLES, SPAIN.

Background and Importance

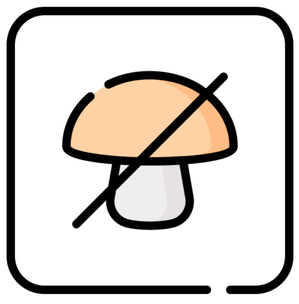
Fungal infections pose a high cost, both in terms of morbidity and mortality, as well as economically. Antifungal treatments (AF) generally receive less attention and review in Antimicrobial Stewardship Programs (ASP) than antimicrobials. These infections have increased in recent years, primarily due to the rising number of patients with risk factors for invasive fungal infection, such as immunosuppressed patients and those who have received broad-spectrum antibiotic treatments.

Aim and Objectives

To analyze the consumption of broad-spectrum antifungals in the Intensive Care Unit (ICU) of our center over a 5-year period, observe trends, and assess whether the SARS-CoV-2 pandemic has altered their usage.

Materials and Methods

This is a comparative, retrospective, longitudinal study of the consumption of systemic broad-spectrum antifungals (liposomal amphotericin B, voriconazole, caspofungin, anidulafungin and micafungin) in the ICU of a third-level University Hospital in Spain. DDD and DOT/100 Bed Days were calculated for each AF. Data on treatment duration and the number of episodes with prescribed antifungals were obtained.



Results

Over the 5-year study period, a total of 855 admissions were included, generating a cumulative stay of 10,686 days, with AF prescribed in 12 episodes/100 admissions. A consistent distribution pattern was observed, with liposomal amphotericin B (LBL) being the primary prescribed AF (close to 50%), followed by echinocandins (30%), and finally voriconazole (25.3%). The median overall consumption was 39.26 DDD/100B (39.21-65.12) and 9.03 DOT/100B (8.34-10.46). This represented a 42.9% decrease in DDD/100B and a 42.5% decrease in DOT/100B, primarily due to reduced LBL usage, which decreased by 54.3%. Regarding the average duration of each AF cycle, there was a decreasing trend from 12.65 to 9.4 days.

Conclusion and Relevance

The consumption of AF in our center's ICU has significantly decreased during the study period, coupled with a reduction in the average treatment duration. Concerning the most acute phase of the COVID-19 pandemic (2020), there is an increase in AF consumption related to an increase in the number of episodes with AF and overall ICU activity, which decreases in 2021 and 2022.

Contact: **ipatier@salud.aragon.es**