

Proper use of antifungals : Implementation of operational multidisciplinary teams dedicated to antifungals

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Background and importance

There is an urgent need to establish a proper use of antifungals for systemic use due to resistance and a therapeutic limited arsenal. Drawing on this **we created in June 2018 two operational multidisciplinary teams (OMT)**, each comprising a **pharmacy resident** and an **infectious diseases specialist**. Thanks to a prescription assistant software and a data gathering document, residents analyzed and validated **antifungals medical prescriptions (AMP)** daily. They reappraised each case with the infectious diseases specialist **once a week**.

Aim and objectives

Combine and summarized report of analyzes lead over AMP. This report allowed us to measure the performance of the newly created operational multidisciplinary teams.

Material and methods

All AMP given to adults, including both oral and intravenous, were analyzed in a prospective way from June 18th 2018 to March 01st 2019. The data gathered were :

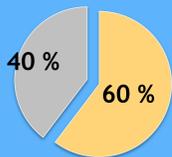
- Patient identity ;
- Antifungals prescriptions (molecule, instauration date, posology and administration route) ;
- Antifungals indications ;
- Patient biological check-up ;
- Clinical and biological proofs in favor of an antifungal infection.

For each prescription, we evaluated how relevant was the indication and the overall compliance of the prescription.

Results

653 AMP

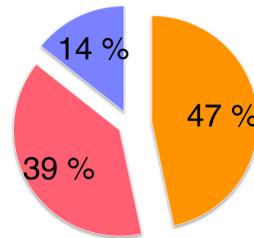
383 patients
Men
Women



Hematology department (49,8%)
Medical intensive care unit (8%)

Treatment indications

- Prophylactic
- Documented
- Probabilistic



Documented

- Invasive candidosis (57%)
- Pulmonary aspergillosis (37%)

Prophylactic

- Acute myeloid leukemia (46,9%)
- Acute lymphocytic leukemia (13,4%)

Probabilistic

- Oropharyngeal candidiasis (28,1%)
- Invasive candidosis (18,9%)

Every month

- 64 AMP analyzed by a pharmacy resident
- 59 AMP appraised by OMT

Pharmaceutical opinion

79 AMP

- IMPROPER posology (48,1%)
- Questionable indication (13,9%)

96 AMP

- IMPROPER dosage (50%)
- MISSING loading dose (29,2%)

62% of AMP were successfully updated

OMT opinions

84% of AMP were reevaluated by an infectious diseases specialist

- Switching molecules (32%)
- Stopping the therapy (28%)

75,8% of AMP were successfully updated

Most prescribed antifungals

IV route

Caspofungine 35%

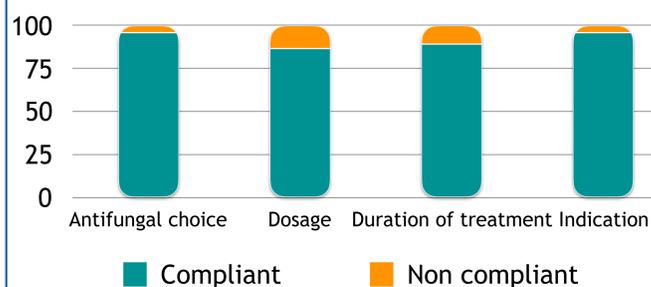
Fluconazole 24%
Miconazole 12%

Oral route

Posaconazole 35%

Fluconazole 34%
Isavuconazole 12%

Relevance and compliance



Global conformity of the prescription*

(compared to 2015 in our hospital) 81,5 % → + 5,5 % → 87 %

* indication, molecule choice, posology, treatment length, lack of therapeutic alternatives

Conclusion

The implementation of operational multidisciplinary teams helped reduce the number of issues, thus contributed to quality prescription improvement.

Keywords : antifungals, operational multidisciplinary teams, appropriate use

