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 40%
- Women 60%

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

Most prescribed antifungals

IV route
- Caspofungine 35%
- Fluconazole 24%
- Micafungine 12%

Oral route
- Posaconazole 35%
- Fluconazole 34%
- Isavuconazole 12%

Global conformity of the prescription* (compared to 2015 in our hospital) 81,5 % + 5,5 % 87 %

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

Pharmaceutical opinion
- 79 AMP
  - IMPROPER dosage (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
  ① Switching molecules (32%)
  ② Stopping the therapy (28%)
  - 75,8% of AMP were successfully updated

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