# SYSTEMIC ADMINISTRATION OF ANTIFUNGAL **MEDICINES: ANALYSIS OF PRESCRIPTIONS**

A. ZOVI<sup>1</sup>, C. INSERRA<sup>1</sup>, V. SCALZI<sup>1</sup>, L. ZAMPOGNA<sup>1</sup>, M. PIACENZA<sup>1</sup>, G. ZEREGA<sup>1</sup>. <sup>1</sup>ASST FATEBENEFRATELLI SACCO - L.SACCO HOSPITAL, PHARMACY, MILAN, ITALY **5PSQ-044** 

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# Background

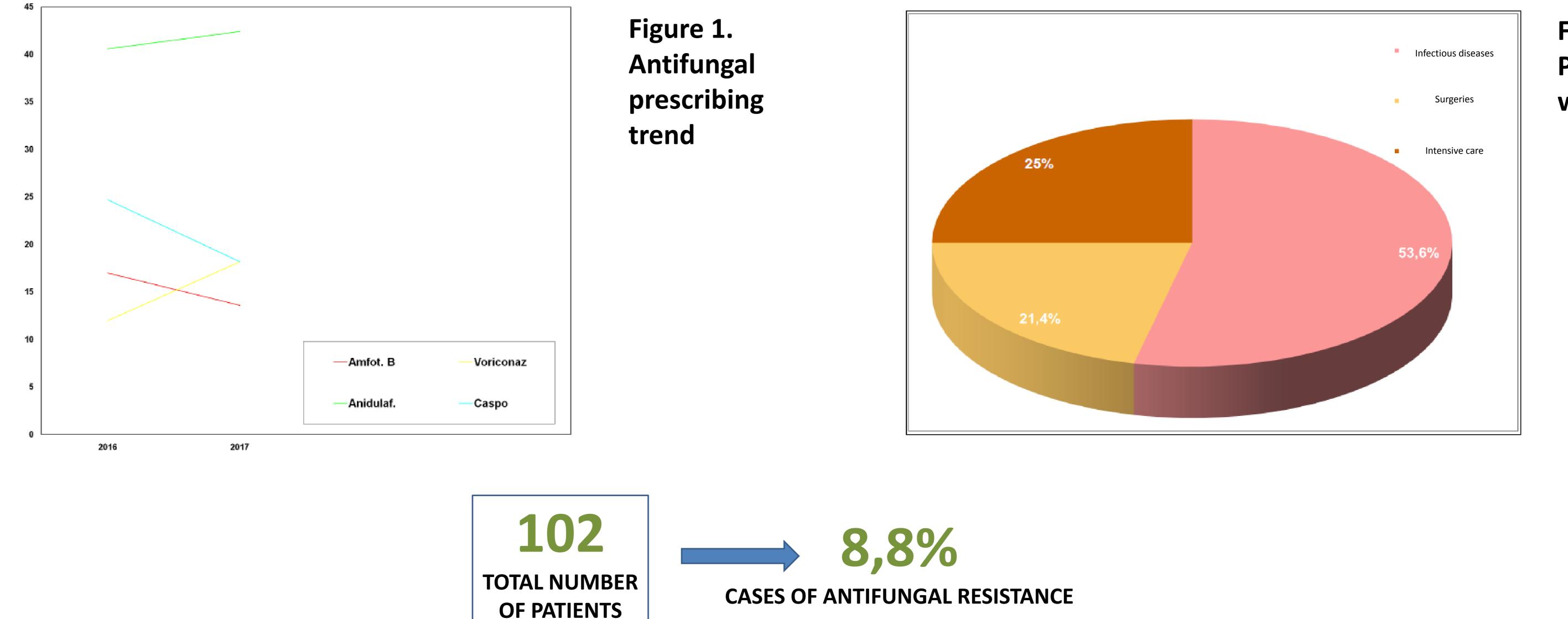
In order to contrast the increasing number of antimicrobial resistances, the correct use of antibiotic and antifungal therapies is a priority for Public Health. A specific monitoring program to control antifungal prescriptions for systemic administration was implemented at the Hospital. A prescription monitoring form containing informations about prescribed molecule and reason for prescribing must be filled out only by an Infectious Disease Specialist and sent to the Hospital Pharmacy to guarantee prescription appropriateness.

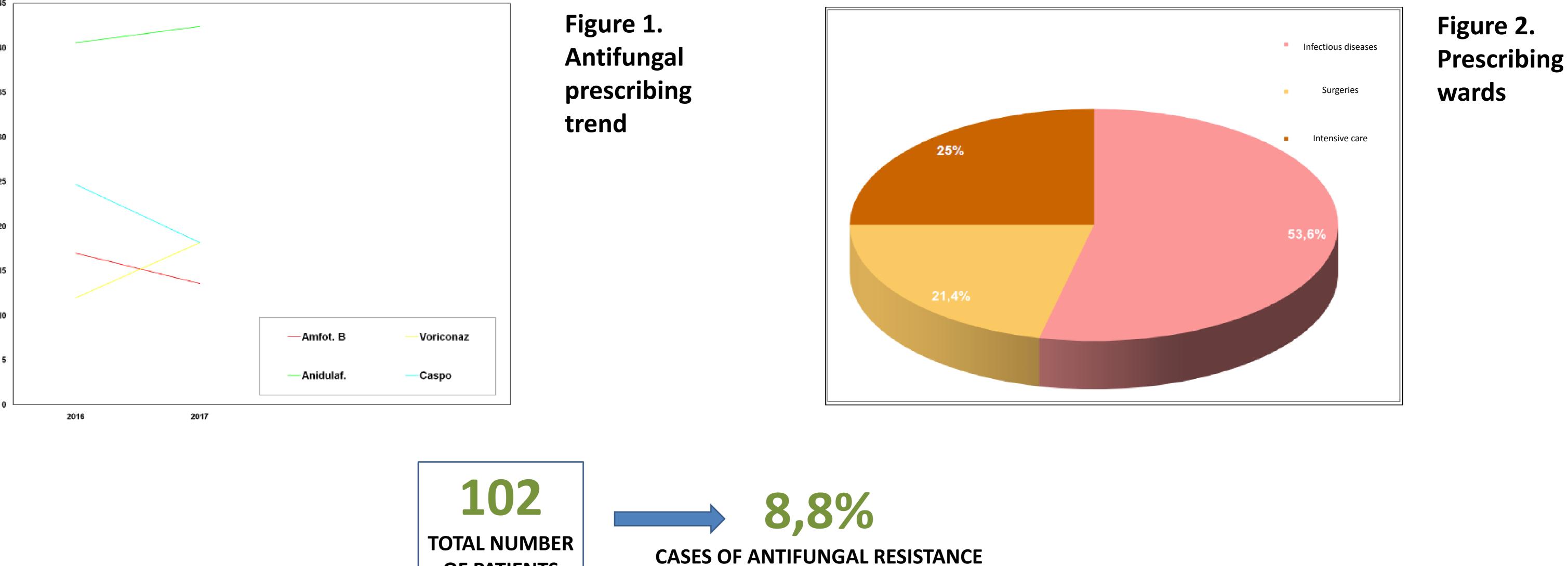
#### Purpose

To analyse the trend and the appropriateness of antifungal prescriptions in order to verify the usefulness of the monitoring tool.

## Material and methods

Every prescription monitoring form sent to the Hospital Pharmacy from January 2016 to June 2017 was considered for analysis. Extracted data were: prescribed molecule, dosage and duration of treatment, reason for prescribing, prescribing ward. Data deriving from different years (2016 and 2017) were also compared.





### Results

A total of 224 prescription monitoring forms (102 patients) was analysed. Prescribing wards were: infectious diseases (53.6%), intensive care (25%) and surgeries (21.4%). In 60.8% (2016) and 92.4% (6 months of 2017) of cases prescription monitoring forms were totally and properly completed. Analysis showed candidaemia, invasive pulmonary aspergillosis, persistent fever in neutropenic patient as the major reasons for prescribing. Prescribed molecules respectively in 2016 and in 6 months of 2017 were: amphotericin b lipo (17%; 13.6%), voriconazole (12%; 18.2%), anidulafungin (40.6%; 42.4%), caspofungin (24.7%; 18.2%), posaconazole (5.7%; 7.6%). Dosage and duration of therapies was always in accordance to data sheet indications except for 9 patients (hospitalised in infectious disease ward) who required longer time of treatment and increase in the dosage. Prescription appropriateness was 90% in 2016, 96% in 2017. Antifungal resistance caused at least one change in treatment (in terms of prescribed drug) in 8.8% of patients: 6 in 2016, 3 in 6 months of 2017.

## Conclusion

An increase of prescriptions for anidulafungin, voriconazole and posaconazole was found during the analysis which could reflect the increase of detected antimicrobial resistance. However, the analysis showed an improvement over the years in the completeness of data from monitoring prescription forms and in prescription appropriateness confirming the usefulness of the monitoring tool.

