



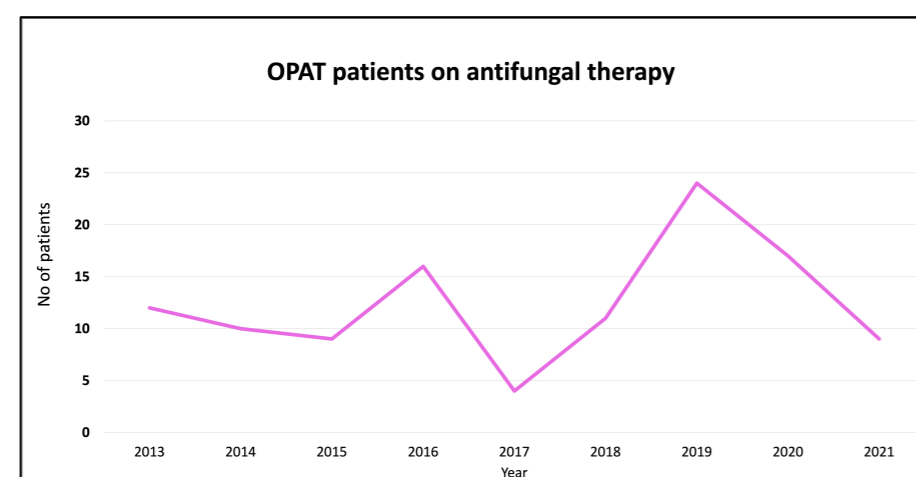
The treatment of fungal infections in the Republic of Ireland using outpatient parenteral antifungal therapy: A Retrospective Review 2013-2021

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Background

Outpatient parenteral antimicrobial therapy (OPAT) has been recognised as a safe and cost-effective alternative to inpatient treatment. However, there is little published data on the efficacy and safety of antifungal therapy on OPAT.

We aimed assess the number of people treated using OPAT for a fungal infection through the National OPAT programme in the Republic of Ireland between 2013 and 2021.



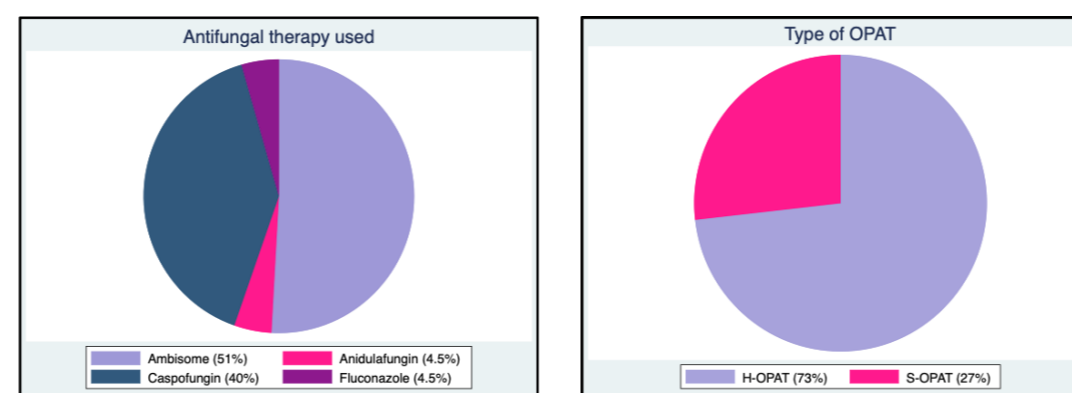
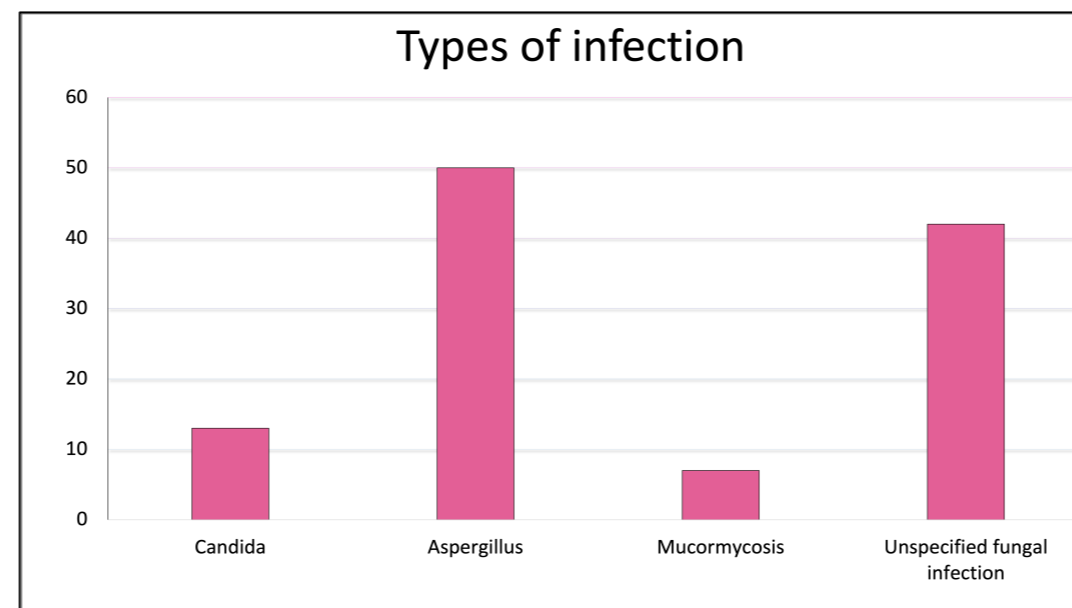
Methods

A retrospective analysis of all patients with fungal infections discharged on outpatient antifungal therapy between 1/1/2013 to 31/8/2021 was performed using information available from the national OPAT database.

All patients on OPAT were pre-recorded in the database by each host centre.

Data collected was anonymised and analysed using STATA/SE version 17.0.

Variables used included age, year of treatment commencement, type of fungal infection and treatment used. Method of OPAT delivery was also included.



Results

From a cohort of 14,749 patients, 112 (<1%) were treated for fungal infections using OPAT during the study period. The mean age of patients on treatment was 45 years (SD 18).

30 patients (27%) undertook self-OPAT while 82 (73%) patients were registered as healthcare administered.

The most commonly treated infection was aspergillosis (50/112; 44%), followed by *Candida sp* infection (13/112; 12%) and mucormycosis (7/112; 6%). The remainder were documented as undifferentiated fungal infection (42/112; 38%).

Amphotericin B was prescribed most frequently (57/112; 51%) followed by caspofungin (45/112; 40%), anidulafungin (5/112; 4.5%) and fluconazole (5/112; 4.5%). 2 patients (2/112; 2%) received dual antifungal therapy, while 2 others (2/112; 2%) received concomitant antimicrobial therapy.

The median number of days of treatment was 34 (IQR 14-42 days) in 75% patients.

Conclusion

Antifungal administration via OPAT strategies for invasive fungal infections are infrequent yet increasing in Ireland with the expansion of nationwide OPAT services and the field of Infectious Diseases. Our data demonstrates that it is both an effective method of treatment for patients with complex fungal infections while also reducing length of hospital stay. Despite early reluctance, the expected logistic and toxicity-related disadvantages are outweighed by the advantages of a decrease in hospital stay.

As the number of invasive fungal infections diagnosed continue to rise with the advent of emerging mycoses, it is crucial that investment is made in continuing to expand this specialist service as well as the implementation of therapeutic drug monitoring and drug toxicity monitoring.

With close monitoring and early intervention, OPAT teams can manage the side adverse drug reactions without readmission or long term sequelae.

Our study may also demonstrate this model of care could be implemented in other countries where OPAT services for invasive fungal infections has not yet been developed.

References:
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