



Review of antifungal treatment prescriptions for Haematology Inpatients at NUH

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INTRODUCTION

The incidence of invasive fungal infections is increasing each year with improvements in medicine and availability of wider selection of immunosuppressive agents for haematological malignancies. Despite improved treatment strategies, there is potential for patient harm due to toxicities and development of resistance. According to the national antifungal stewardship program, antifungal therapy/treatments for inpatients should be reviewed 48-72 hour after initiation and every 7 days thereafter by specialist stewardship team. A review at 24hours should ensure appropriate diagnostic investigations have been organized; with further reviews at 48-72 hours and 7 days to evaluate available diagnostics and to assess the continued need for antifungals. By undertaking timely clinical review of the antifungal treatment prescriptions by senior members of the patient team, inappropriate use of the antifungal agents can be reduced; there will be improvement in patient outcomes and reduction in the development of resistance to antifungals.

AIM

1. To measure the proportion of antifungal treatment prescriptions reviewed at 24 hours, 48 to 72 hours and 7 days.
2. To look at whether appropriate investigations had been arranged within 24hrs of decision to prescribe.
3. To assess the patients on empiric treatment who had proven or probable infection.

METHOD

1. Inpatients prescribed antifungals medications on more than one occasion and in large quantities within the Haematology department of Nottingham University hospital were selected by pharmacy for this study.
2. A total of 15 patients were prescribed antifungal medications during a month period (November 2019)
3. The antifungal stewardship CQUIN data collection proforma was used to collect data.

REFERENCES

- <https://www.england.nhs.uk/nhs-standard-contract/cquin/cquin-19-20/>
<https://www.england.nhs.uk/wp-content/uploads/2019/03/PSS1-meds-optimisation-trigger-5-antifungal-stewardship-implementation-pack-v7.pdf>
https://www.nuh.nhs.uk/clinical-guidelines?smbfolder=140&pag_page=2

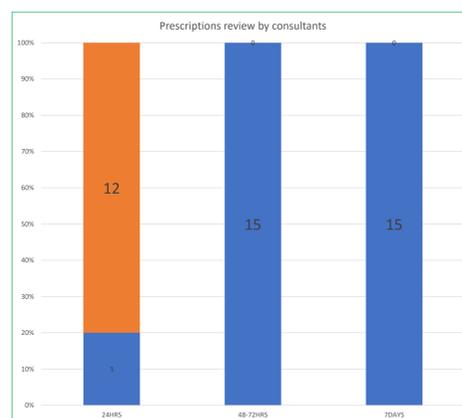
RESULTS

1.100% of the prescriptions were reviewed at 7 days, 100% were reviewed at 48-72 hours. At 24hours, only 20% of the antifungal prescriptions were documented as being reviewed by a consultant; the remaining 80% of prescriptions were reviewed by Haematology specialty registrars.

2.83% of the patients had HRCT requested- 25% had HRCT before the treatment was started, 50% had the HRCT within 3 days of initiation of treatment and 25% had the HRCT after 3 days of initiation of treatment.

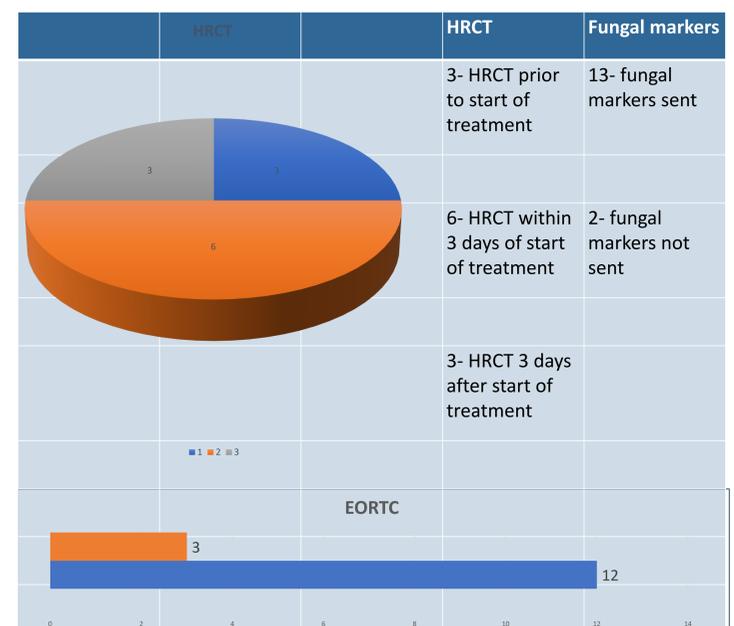
3.86% of the patients had fungal markers tested.

4.33% of the patients on empiric treatment had a proven or probable infection (EORTC criteria).



Prescriptions
 24hrs- 3/15 reviewed
 48-72hrs- 15/15 reviewed
 7days- 15/15 reviewed

EORTC Criteria
 3/15 had a proven or probable infection



CONCLUSIONS

This study has shown that the current practice of inpatient antifungal treatment reviews at 48-72 hours and 7 days have met the national antifungal stewardship requirements. However improvement is required to meet the requirement of a 24hour review by a consultant.

The initiation of antifungal treatment for inpatients is usually a consultant-led decision. Regular review of prescriptions are undertaken during the daily verbal board rounds and discussed in the multidisciplinary team meetings twice a week. An improvement in documentation of these reviews is recommended to meet the national requirements.

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