



Research Article

Rapid diagnostic tests to inform clinical decision-making for antifungal stewardship in the ICU: a qualitative study with NHS staff, patients, and their legal representatives

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Plain language summary

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Invasive candidiasis is a serious fungal infection of the blood or other organs which can lead to death, especially in critically ill patients. Diagnosing this infection involves a lengthy process which takes up to 2 days or more. Due to the risks of starting treatment late, doctors often start treatment with antifungal medications before having results available. Faster diagnosis is crucial for efficient antimicrobial stewardship and to reduce unnecessary use of potentially toxic and costly drugs.

Antifungal STewardship Opportunities study is investigating the use of rapid tests to improve how we diagnose invasive candidiasis in the United Kingdom. 'Stewardship' is about responsible use of medications that fight off infections. It is believed that these tests will help physicians make the decision on whether antifungal drugs are needed in a timelier way.

Our objective was to understand the risk preferences of patients and physicians in using the Antifungal STewardship Opportunities testing strategy for stopping or modifying medications prescribed before test results were available. The study involved interviews with 21 National Health Service staff members and seven patients or their legal representatives, conducted between December 2021 and December 2022.

The results of the interviews indicated that National Health Service clinicians were generally reluctant to take the risks of stopping the use of antifungal medications if the patient's health conditions improved. Patients trusted their physicians in their decision to continue or stop the treatment. All agreed that there is the need for a quicker, cost-effective, reliable and easy-to-use test. These factors would increase the likelihood for the test to be adopted. To assess the potential of the test, National Health Service needs to have staff and lab capacity to deliver on faster turnaround times. If the Antifungal STewardship Opportunities diagnostic strategy is proven effective, the development of guidelines to support its implementation in National Health Service will follow.