

Candida auris environmental screening in the Intensive Care Unit

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1. Introduction

- *Candida auris* is an emerging pathogen that has caused outbreaks in healthcare settings globally, especially in intensive care.
- It is challenging to identify in the laboratory, it is multidrug resistant, and can easily spread in healthcare settings causing invasive infections (1; 2; 3).
- Our Trust recently identified a case of *Candida auris*, which was later linked to two further cases within our renal High Dependency Unit and ICU areas between November 2018 and February 2019. Having implemented enhanced Infection Control precautions across the units, we were still unable to prevent transmission of the organism; we therefore undertook environmental screening to check whether environmental contamination was a link to the outbreak.
- Other studies have identified environmental contamination with *C. auris* as an important factor in transmission.

2. Methods

- Enhanced patient screening of the units involved was initiated on identification of the initial case and continued throughout their admission period.
- Screening of the environment was undertaken from multiple locations in patient rooms, including both high touch surfaces, such as bedside tables and bedrails, and locations further away from the patient, such as window sills following discharge of the index patient.
- The environmental screening was done using swabs on a single day following enhanced cleaning of the patient environment.
- Clinical and screening samples were cultured using Sabouraud dextrose and *Candida* chromogenic agar plates, examined after 3 and 5 days incubation.



3. Results

- There were two separate episodes of cross transmission – Renal HDU and General ICU and both episodes involved the same index patient.
- A further positive case was identified in either unit through the enhanced *Candida auris* screening and the transmissions were linked to time and place.
- Twenty one environmental screening samples were collected in ICU and all the results were negative.

4. Discussion

- The enhanced weekly patient screening helped to detect further *Candida auris* cases
- Despite intensifying Infection Prevention and control measures (enhanced cleaning, PPE usage and employment) more cases were identified in both units.
- Environmental and equipment screening did not identify environmental contamination with *C. auris*. This is in contrast to the findings of others. This could be due to an absence of viable *C. auris* on surfaces, the selection of surfaces to sample, or the lab methods used.
- Our findings suggest that environmental hygiene interventions were adequate.

References

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