**Candida auris** Outbreak on an Ontario Intensive Care Unit (ICU)

Tahhan, S., Da Silva, B., Nugent, J., Dr. Chan, T., Dr. MacDonald, C., Sarabi, Q., Dr. Small, L.

Trillium Health Partners, Mississauga Hospital Site, Mississauga, ON

**Background**
- *Candida auris* is an emerging yeast
- Often multi-drug resistant, with some strains described as resistant to all available classes of antifungals.
- It survives well in the environment
- Responsible for outbreaks in healthcare settings.
- The CDC has declared it an emerging global threat.

**Issue**
- On December 5, 2021 a patient was admitted to Trillium Health Partners (THP) hospital ICU with disseminated tuberculosis.
- They immigrated to Canada from the Philippines in 1989 and last visited in 2016.
- Their prolonged ICU stay was complicated by stroke with poor neurological recovery, renal failure requiring intermittent hemodialysis, and recurrent bacterial infections requiring extensive antimicrobial treatment.
- On September 1, 2022, a blood culture returned positive for *C. auris*.

**Results**
- All subsequent PP results were negative
- No additional cases of *C. auris* identified.
- All environmental swabs were negative.
- Outbreak was declared over on October 7th, 2022 following (3) negative PP screens.
- Contact Precautions and enhanced cleaning with sodium hypochlorite were discontinued.
- Further *C. auris* PP screens were conducted on the ICU every (4) weeks – post outbreak declaration over.

**Interventions**
- All ICU patients were placed on Contact Precautions.
- Enhanced environmental cleaning with hydrogen peroxide was initiated.
- Point prevalence (PP) screen for *C. auris* was conducted on September 7, 2022.
- Bilateral axilla and groin swabs were collected on all patients admitted to the ICU up until August 31, 2022.
- Hospitalized roommates identified during patient tracing within the last (3) months were included.
- Validated screening method was not available at THP microbiology laboratory, specimens were tested in parallel by an external reference laboratory.
- Second case was identified from a patient with prolonged ICU stay.
- Both patients were never in close proximity to one another.
- A potential epidemiologic link was identified, both patients received intermittent hemodialysis - same portable unit.
- Outbreak on ICU was declared on September 20th, 2022.
- Follow-up PP testing was conducted weekly for (3) consecutive weeks.
- Nasal and rectal swabs were added to the screening.
- Sodium hypochlorite replaced hydrogen peroxide for daily cleans of ICU.

**Lessons Learned**
- The need to create *C. auris* screening policy that includes a readily available validated screening method.
- Determining the most sensitive body sites for screening.
- The importance of multidisciplinary collaboration and clear communication during an outbreak.

**Contact Precautions**

**PP screen**

**Validation**