

# A Bronx Tale: A Multi-cycle PDSA to Control *Candida auris*

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## Overview/project

*Candida auris* (CA) is an emerging fungus and often multi-drug resistant organism that presents a serious global health threat.

Beginning in September 2019, we started to identify patients with Hospital Onset (HO) CA infections. Unfortunately, as a result of the initial surge of COVID-19 cases in March of 2020 and the various challenges that came with it (i.e. supply of PPE, patient census, etc.), our CA transmission was magnified.

With the implementation of several interventions in the second half of 2020, we noticed a substantial decrease in HO CA. However, we were still seeing HO clinical and surveillance CA cases and needed to implement further interventions to decrease transmission and consequently decrease colonization and clinical cases.

The aim was to decrease the number of incident hospital-onset (HO) *Candida auris* (CA) cases in 2021 by 75% (compared to 2020) and to decrease the percent positivity in serial point prevalence studies (PPS) being conducted in collaboration with the New York State Department of Health (NYSDOH).

## Goals/objectives

Our main goal and plan for infection prevention & control (IPC) activities was to mitigate the transmission of HO CA cases and avoid patient morbidity and mortality related to CA infection.

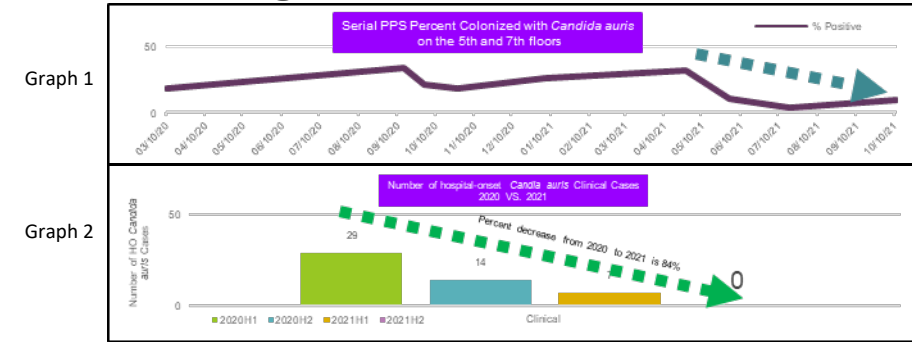
1. To assure patient safety by eliminating HO CA colonization and infection
2. To provide a safe environment for patients, healthcare workers (HCWs), and visitors.
3. Utilizing Halosil (peroxide fog) and Surficide (UV light disinfection) in conjunction with follow up ATP bioburden swabbing to ensure thorough cleaning.

## Methods/measurements

The CA multi-disciplinary committee was established to look at potential gaps in processes leading to transmission of CA. All new cases of CA were also thoroughly investigated by IPC by reviewing the patient's chart, conducting tracers, epidemiologic links and possible gaps in practices. This led to many interventions; some of the most important below:

- Wire glove holders outside all patient rooms
- Each ICU and ventilator room with own isolation cart to prevent cross transmission
- Weekly audits - glucometer cleaning, appropriate cleaning and covering of patient care equipment
- Enhanced cleaning of Hemodialysis (HD) unit and machines with ATP bioburden swabs, Halosil inpatient unit 1x per month, Surficide of inpatient HD unit and machines daily
- ED Trauma bay – transport monitor, ultrasound machine cleaning, disinfection and storage
- Halosil disinfection of MICU/SICU

## Results/findings/conclusions



We decreased transmission, shown by the decrease in the percentage of patients colonized overtime in serial PPS to less than 10.4% since June 2021. (See graph 1)

We surpassed our goal by decreasing the number of HO CA clinical isolates by 84%. (See graph 2) As we have experienced, CA is easily transmissible and contaminates and survives in the environment. It has the potential to cause serious infection especially when a patient becomes colonized. Key to success was administrative leadership, committee formation, identification, investigation and auditing.

## References

- Centers for Disease Control and Prevention
- New York State Department of Health
- Lee WG, Shin JH, Uh Y, Kang MG, Kim Adams, Eleanor, et al. *Candida auris* in Healthcare Facilities, New York, USA 2013-2017. Emerging Infectious Diseases. 2018 Oct; 24 (10);1816-1824

## Acknowledgments

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