Using administrative data linkages to identify missing CLABSI cases

**AGENDA**
- Introduction to Issue
- Hypotheses
- Methods
- Results
- Lessons Learned

**INTRODUCTION TO ISSUE**
- Surveillance performed on hospital-acquired central line-associated blood stream infections (CLABSI) in the ICU
- CLABSI rate = (# CLABSI cases / # central line-days) × 1000
- Significant increases in ICU capacity and central line-days during the COVID-19 pandemic
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**HYPOTHESES**

Completeness, accuracy and timeliness of CLABSI surveillance data affected due to pandemic pressures

CLABSI rates increased throughout the pandemic due to an increase in central line-days and ICU capacity

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**AHS IPC CLABSI DEFINITION**

A laboratory-confirmed blood stream infection (BSI) where:

A central line or umbilical catheter was in place for more than two calendar days following the first access of the central line, with day of device placement being Day 1

AND

The date of the positive blood culture was in an inpatient location, and during the current admission

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**METHODS: ADMIN DATA LINKAGES**

- Provincial laboratory data: all inpatient positive blood cultures
- ICU central line-day data
- Existing cases in surveillance platform

**RESULTS**

- 1,527 positive blood cultures, January 2020-March 2022
- 671 records for Analyst preliminary review
- 78 records sent to ICPs for detailed chart review
- Microbiology naming convention
- BSI secondary to another site
- Only 1 common commensal
- Blood culture present before ICU admit
- 264 matching surveillance records
- 592 collected <3 days following line insertion
- Excluded 593 non-CLABSI records
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RESULTS

- 76 records sent to ICUs for detailed chart review
- Excluded 26 non-CLABSI records
- 43 missing CLABSI identified

- 3 in Jan-Mar 2020 (Q4)
- 9 in 2020/2021 FY
- 31 in 2021/2022 FY
- 15 common commensals
- 28 pathogens

Excluded 35 non-CLABSI records
- 16 secondary to another site
- 19 other reason for exclusion

RESULTS

CHANGE IN CLABSI RATES FOLLOWING CASE-FINDING, 2019-2022

LESSONS LEARNED

- Improved data quality:
  - Completeness
  - Accuracy
  - Timeliness

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