



Infection Prevention and Control Roundtable with Acute Care Facilities in Chicago

02-24-23





Agenda

- Introductions: CDPH and Facility IPs
- Important Updates from CDPH
- Crossroads of acute and long-term care: what can we do to help reduce MDRO burden in healthcare
 - Candida auris Screening (Northwestern Memorial Hospital)
- Recent trends in invasive group A Streptococcal disease
- Ongoing outbreaks of significance
- Open Forum for Questions and Comments



Facility Introductions



In the chat, please
share your name
and facility name



★ Our Team

- Medical Directors:
 - Dr. Do Young Kim
 - Dr. Stephanie Black
- Project Administrator: Shane Zelencik
- Project Manager: Maria Bovee
- Infection Preventionists:
 - Alison VanDine
 - Kim Goitia
 - Val Cela
- Public Health Administrator:
 - Maggie Li
- General number for our team: **312-744-1100**
- cdphhaiar@cityofchicago.org





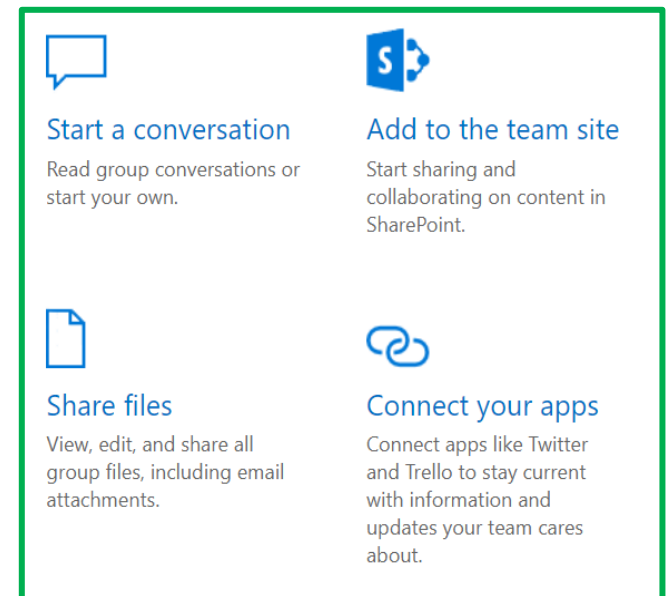
Our Team, Our Services





Our team consists of Infection Prevention Specialists, Epidemiologists, a Project Manager, a Project Administrator, and Medical Directors who provide the following assistance:

- IP&C Guidance and training
- Infection Control Assessments and Responses (ICARs)
- Epidemiology Support
- IP&C Roundtable
- Our partnerships and site visits are meant to be educational, constructive, non-regulatory, and non-punitive
 - We work with you to resolve any identified opportunities
 - These services are not in response to citations or complaints

In Development: Our Group on Outlook Groups

- Comprises the CDPH healthcare settings team and IPs at acute care facilities (that agreed to share contact)
- Purposes are to:
 - Disseminate information
 - Facilitate communication (will include IP contact directory)
 - Share documents
- Fill out the REDCap survey to indicate your interest in joining the group: <https://redcap.link/4i5jynlx>



| | |
|---|--|
|  <p>Start a conversation Read group conversations or start your own.</p> |  <p>Add to the team site Start sharing and collaborating on content in SharePoint.</p> |
|  <p>Share files View, edit, and share all group files, including email attachments.</p> |  <p>Connect your apps Connect apps like Twitter and Trello to stay current with information and updates your team cares about.</p> |





Important Updates

- **NHSN annual survey: Deadline: March 1st** (https://www.cdc.gov/nhsn/forms/instr/57_103-toi.pdf)
- **2023 NHSN Virtual Training (March 21-23):** This course is intended for NHSN users of the Patient Safety Component, Outpatient Procedure Component, and Neonatal Component.
 - Registration details coming soon: <https://www.cdc.gov/nhsn/training/annualtraining.html>
- **New MMWR: Preventing Bloodstream Infections in People on Dialysis**
 - Full report: [Vital Signs: Health Disparities in Hemodialysis-Associated Staphylococcus aureus Bloodstream Infections – United States, 2017–2020 | MMWR \(cdc.gov\)](#)
 - Adults on dialysis were 100 times more likely to have a staph bloodstream infection than adults not on dialysis during 2017–2020.





Crossroads of acute and long-term care: what can we do to help reduce MDRO burden in healthcare?

CDPH Healthcare Settings Team

★ Epidemiology of Organisms by Location Type

- At the last roundtable, we discussed MDRO epidemiology in Chicago
- Prevalence/reporting of MDROs varies by location type:

Percentage of Chicago MDRO cases reported to XDRO by organism and reporting setting, 2022.

| MDRO | Acute care hospital (ACH) | Long-term acute care hospital (LTACH) | Skilled nursing facility (SNF) | Ventilator-capable skilled nursing facility (vSNF) |
|----------|---------------------------|---------------------------------------|--------------------------------|--|
| C. auris | 39% | 42% | 1% | 18% |
| CRE | 66% | 14% | 2% | 19% |
| CP-CRPA* | 11% | 0% | 0% | 89% |
| CP-CRAB* | 43% | 27% | 3% | 27% |

*Not reportable in IL

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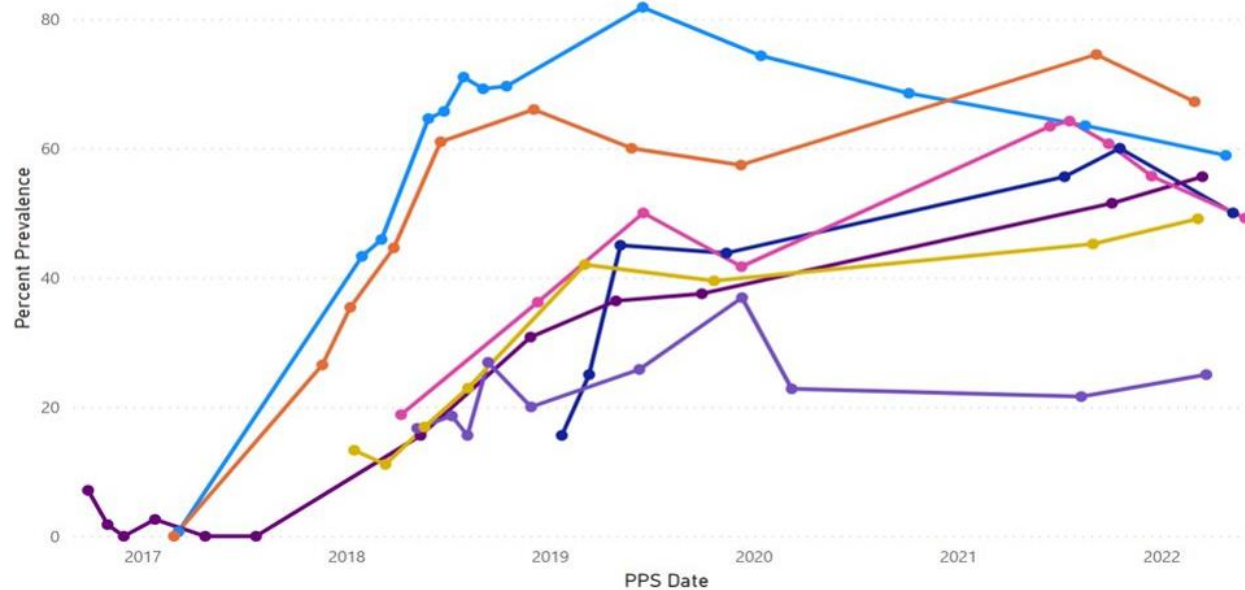
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Candida auris vSNF & LTACH point prevalence data by facility, 2017-2022

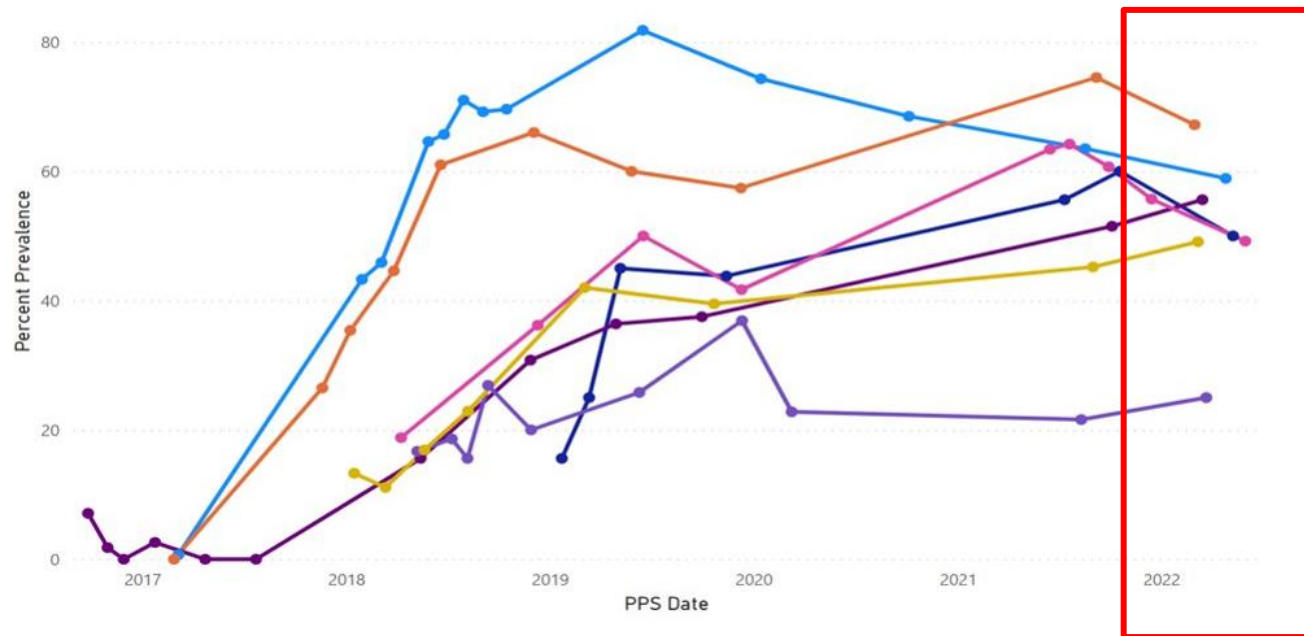


Compared to 0-1% in ACH ICUs

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Compared to 0-1% in ACH ICUs

★ Tier Approaches to MDRO Response

Tier 1

- Organisms for which no treatment options exist or have never or only rarely been detected in the U.S.

Tier 2

- Organisms not commonly detected in a geographic area

Tier 3

- Organisms that are known threats in a geographic area but not endemic

Table 1: Summary of Response Recommendations for MDRO Containment by Tier

| Description | Tier 1 Resistance mechanisms never or very rarely identified in the United States; pan-resistant organisms with the potential for wider spread in a region | Tier 2 Mechanisms and organisms not regularly found in a region | Tier 3 Mechanisms and organisms regularly found in a region but not endemic |
|---|---|--|--|
| Healthcare Investigation¹ | | | |
| Review the patient's healthcare exposures prior to and after the positive culture | Always | Always | Always |
| Contact Investigation¹ | | | |
| Screening of healthcare roommates | Always | Always | Always |
| Broader screening of healthcare contacts ² | Always ³ | Sometimes ⁴ | Sometimes |
| Prospective lab surveillance ⁵ | Always | Always | Always |
| Retrospective lab surveillance ⁶ | Always | Always | Sometimes |
| Household contact screening | Sometimes | Rarely | Rarely |
| Environmental sampling | Sometimes | Rarely | Rarely |
| Healthcare personnel screening | Sometimes | Rarely | Rarely |
| Evaluate potential spread to healthcare facilities that regularly share patients with the index healthcare facility ⁷ | Sometimes | Sometimes | Rarely |
| Infection Control Measures | | | |
| Prompt notification of healthcare providers and patient and implementation of appropriate transmission-based precautions | Always | Always | Always |
| Clear communication of patient status with transferring facilities | Always | Always | Always |
| On-site infection control assessment with observations of practice, such as Epidemiology and Laboratory Capacity (ELC) Infection Control Assessment and Response (ICAR) | Always | Always | Sometimes |

¹ For Tier 1 and 2 organisms/mechanisms, healthcare exposures and healthcare contacts over the preceding 30 days should be investigated unless information is available about the time the organism was most likely acquired. This includes any healthcare facility where the patient had an overnight stay during that time period. In some investigations, outpatient facilities and emergency departments might also be included. For Tier 3 organisms, investigation of healthcare exposures and healthcare contacts is generally limited to the current and sometimes prior admission.

² This may include targeted screening of contacts at highest risk for acquisition and/or unit point prevalence surveys.

³ If the MDRO is a novel organism for which data on the frequency and modes of transmission are not known, or if the index patient was not on Contact Precautions during their entire stay in a healthcare facility, then additional screening (beyond roommates) is recommended. Broader screening, including patients on the same ward as the index patient and/or patients that shared healthcare personnel, might be particularly important for detecting novel MDROs when data on the frequency and modes of transmission are lacking.

⁴ If the index patient was not on Contact Precautions during their entire stay in a healthcare facility, then broader screening (beyond roommates) is recommended. Screening can initially be limited to the contacts at highest risk for acquisition, such as those still admitted who overlapped on the same ward as the index patient and who have a risk factor for MDRO acquisition (e.g., bedbound, high levels of care, receipt of antibiotics, or mechanical ventilation). Alternatively, facilities may choose to screen entire units using point prevalence surveys.

⁵ Prospective surveillance of clinical cultures should be conducted for three months after the last identified case.

⁶ Conduct a laboratory lookback covering at least 6 months prior to identification of index case.

⁷ A public health investigation should also be initiated at healthcare facilities known to regularly share patients with healthcare facilities where transmission has occurred, such as post-acute care facilities. At a minimum, this should include notification of the facility and a request to retrospectively and prospectively evaluate clinical cultures for the phenotype of interest. This could also include admission screening of patients at the facility (e.g., transfers from the index facility) and/or point prevalence surveys of high-risk patients or units.

<https://www.cdc.gov/hai/pdfs/containment/Health-Response-Contain-MDRO-H.pdf>



Proposed Chicago MDRO Tiers



Tier 1



TBD based on CDC national data



★ Proposed Chicago MDRO Tiers

Tier 1

TBD based on CDC national data

Tier 2

CP-CRAB non-OXA mechanism

CP-CRPA with mechanism

C. auris in non-vSNF/LTACH healthcare setting or other congregate setting

C. auris cluster* in ACH

CP-CRE – VIM, IMP, OXA-48

CP-CRE NDM in non-vSNF/LTACH healthcare setting or other congregate setting

CP-CRE NDM cluster* in ACH

Cluster of Pan-R organisms (e.g., *Elizabethkingia*)

**Cluster definitions still need to be determined*

★ Proposed Chicago MDRO Tiers

Tier 1

TBD based on CDC national data

Tier 2

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Cluster of Pan-R organisms (e.g., *Elizabethkingia*)

Tier 3

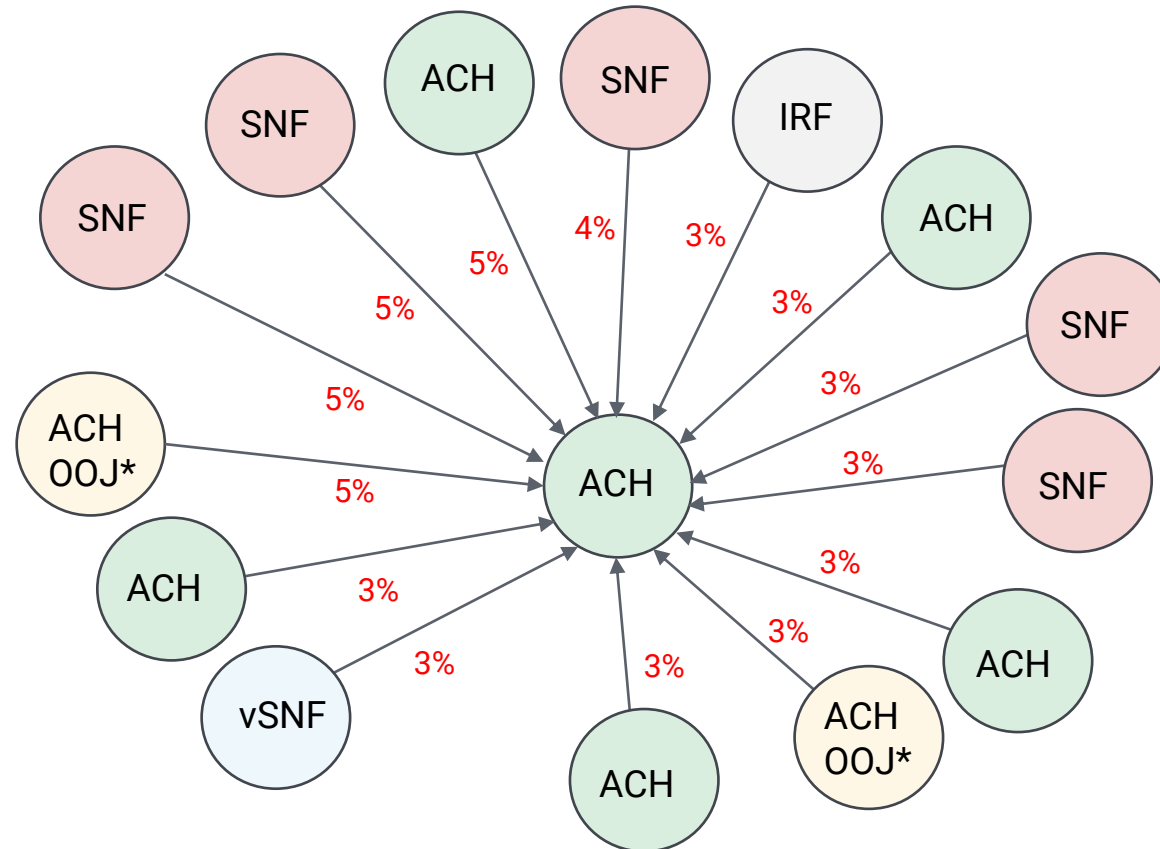
CP-CRE NDM: single cases in ACH, or clusters* in vSNF/LTACH

CP-CRAB (OXA or unknown mechanism) cluster*



Patients are transferred between setting types across the continuum of care

- Example of ACH patient transfer network – academic center



Not all facilities are pictured

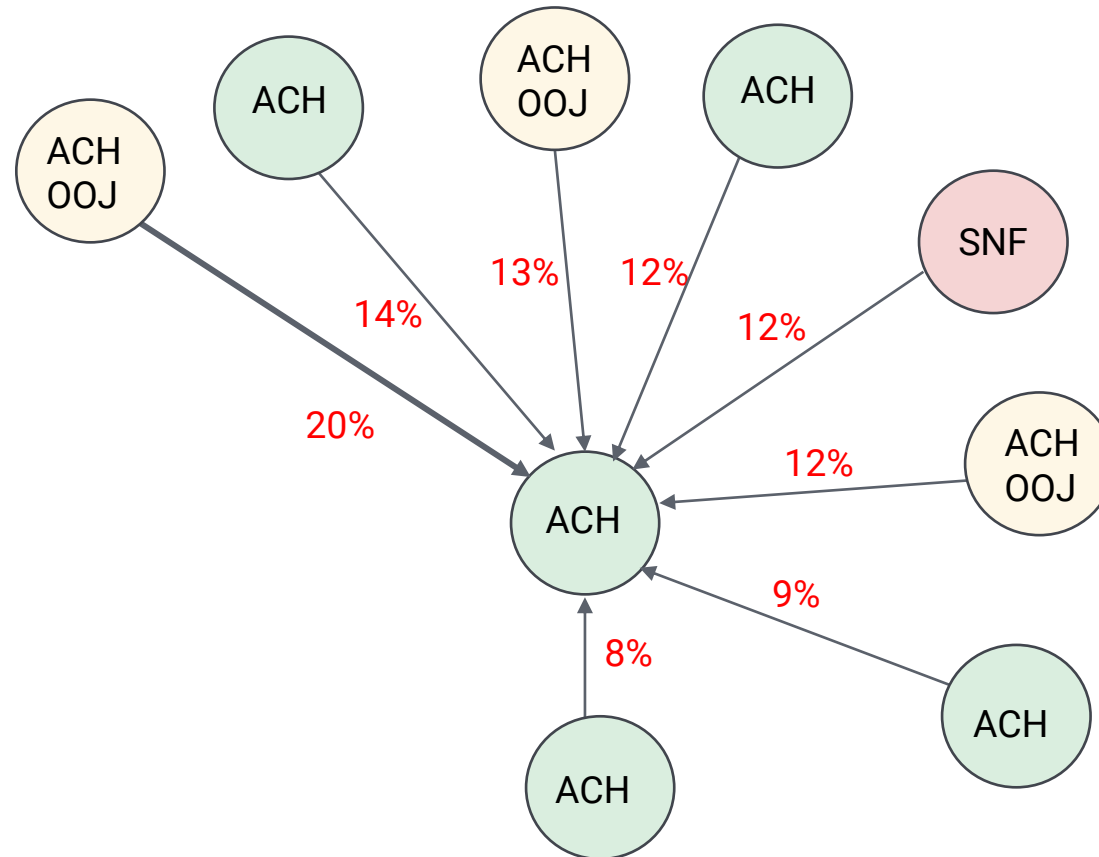
**Out of jurisdiction (i.e., Chicago)*





Patients are transferred between setting types across the continuum of care

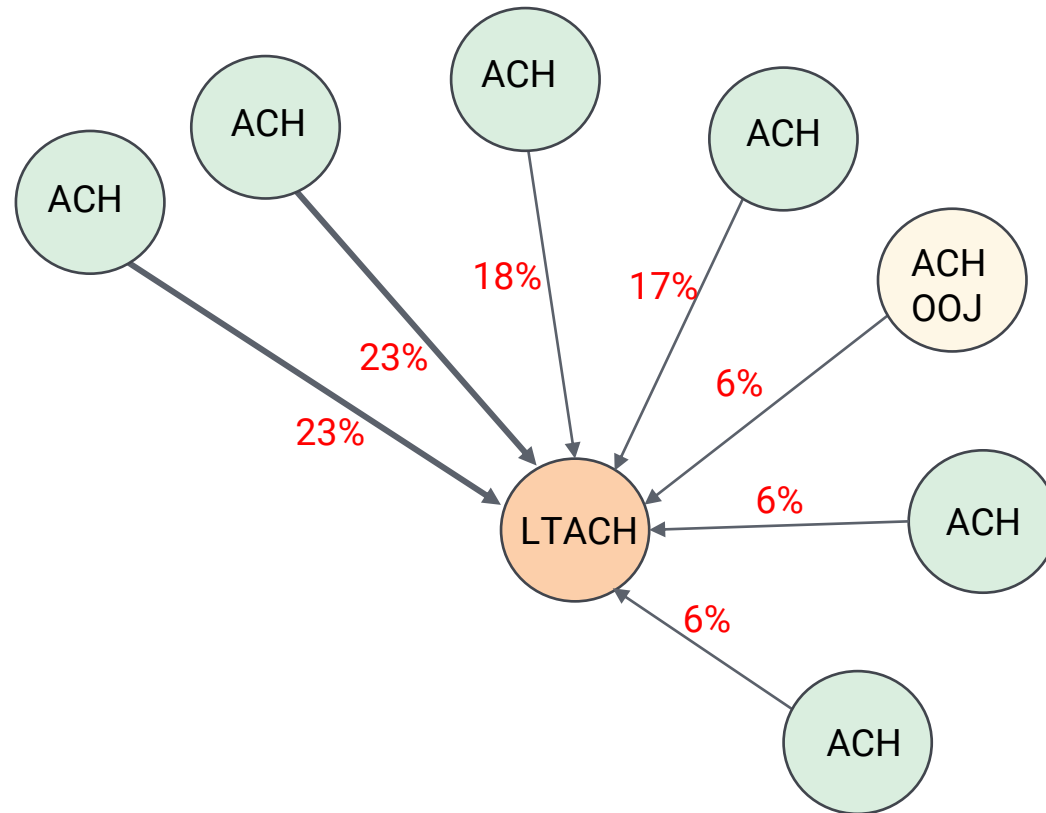
- Example 2 of ACH patient transfer network – community hospital





Patients are transferred between setting types across the continuum of care

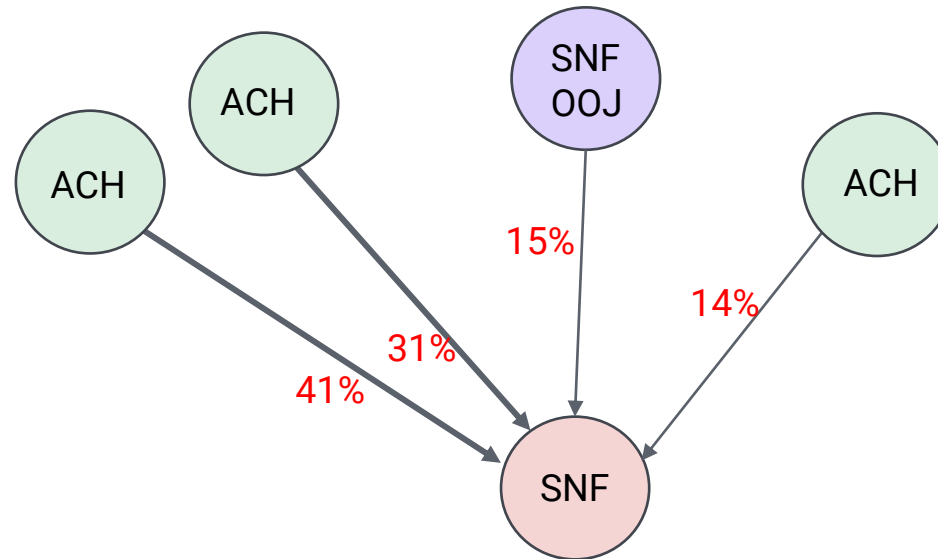
- Example of LTACH network





Patients are transferred between setting types across the continuum of care

- Example of SNF patient transfer network



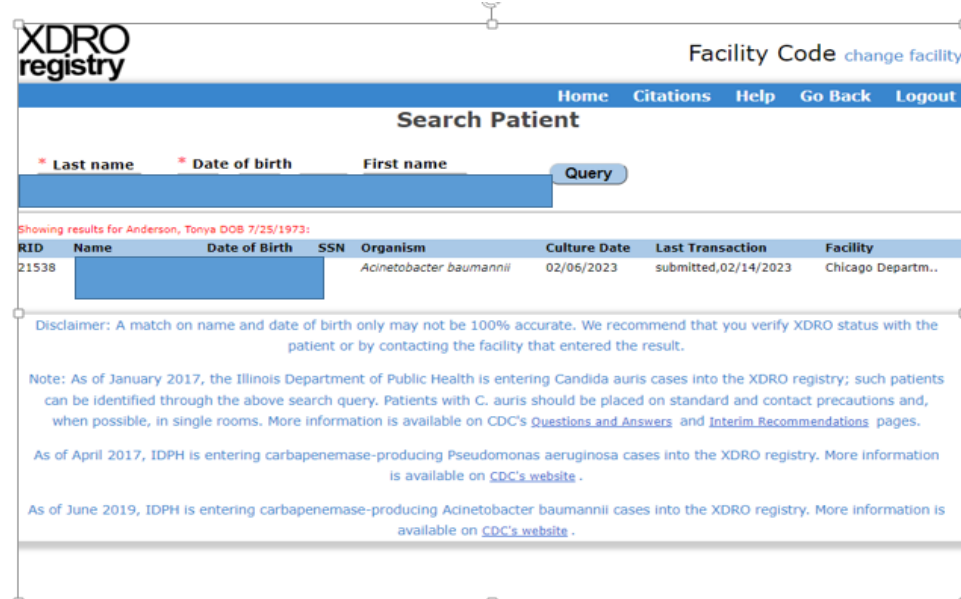


Patient transfer networks are complicated and allow for the spread of MDROs across different settings and jurisdictions



Guidance for facilities

- Query XDR0 Registry on all new admissions
- To set up **auto alerts** please contact XDR0 help desk
 - For IDPH log-in help, call 217-524-3648 or 312-814-3648
 - For XDR0 registry questions, email DPH.XDR0registry@Illinois.gov
- If patient is found in XDR0 registry, initiate **contact** precautions and be sure to use appropriate cleaners/disinfectants
- If a patient has a positive culture for MDRO, it is important to add them to the XDR0 registry
 - Doing so ensures that patient can easily be identified as having previous colonization and expedites placing them on contact precautions and reduces chance of transmission
- When transferring a patient colonized with a MDRO please notify the receiving facility



The screenshot shows the XDR0 registry search page. At the top left is the logo 'XDR0 registry'. At the top right is the text 'Facility Code change facility'. Below this is a navigation bar with links: 'Home', 'Citations', 'Help', 'Go Back', and 'Logout'. The main heading is 'Search Patient'. Below the heading are search fields for '* Last name', '* Date of birth', and 'First name', followed by a 'Query' button. Below the search fields, it says 'Showing results for Anderson, Tonya DOB 7/25/1973:'. A table with one row of results is shown. The table has columns: RID, Name, Date of Birth, SSN, Organism, Culture Date, Last Transaction, and Facility. The row contains: 21538, [redacted], [redacted], [redacted], Acinetobacter baumannii, 02/06/2023, submitted,02/14/2023, and Chicago Departm... Below the table is a disclaimer: 'Disclaimer: A match on name and date of birth only may not be 100% accurate. We recommend that you verify XDR0 status with the patient or by contacting the facility that entered the result.' Below the disclaimer is a note: 'Note: As of January 2017, the Illinois Department of Public Health is entering Candida auris cases into the XDR0 registry; such patients can be identified through the above search query. Patients with C. auris should be placed on standard and contact precautions and, when possible, in single rooms. More information is available on CDC's Questions and Answers and Interim Recommendations pages.' Below the note is another note: 'As of April 2017, IDPH is entering carbapenemase-producing Pseudomonas aeruginosa cases into the XDR0 registry. More information is available on CDC's website.' Below that is a final note: 'As of June 2019, IDPH is entering carbapenemase-producing Acinetobacter baumannii cases into the XDR0 registry. More information is available on CDC's website.'

| RID | Name | Date of Birth | SSN | Organism | Culture Date | Last Transaction | Facility |
|-------|------------|---------------|------------|-------------------------|--------------|----------------------|-------------------|
| 21538 | [redacted] | [redacted] | [redacted] | Acinetobacter baumannii | 02/06/2023 | submitted,02/14/2023 | Chicago Departm.. |

Candida auris Screening

CDPH IP Roundtable Meeting, February 24, 2022

Jacqueline Maniscalco, MPH, BSN, RN

Infection Preventionist

Northwestern Memorial Hospital, Chicago, IL



Illinois is a hotspot for *C. auris* and we know it is very prevalent in skilled nursing, nursing home or long-term care

We want to identify the right patients and have the right precautions in place to reduce spread



DRUG-RESISTANT *CANDIDA AURIS*

THREAT LEVEL **URGENT**

323 Clinical cases in 2018

90% Isolates resistant to at least **one** antifungal

30% Isolates resistant to at least **two** antifungals

Candida auris (*C. auris*) is an emerging multidrug-resistant yeast (a type of fungus). It can cause severe infections and spreads easily between hospitalized patients and nursing home residents.

WHAT YOU NEED TO KNOW

- *C. auris*, first identified in 2009 in Asia, has quickly become a cause of severe infections around the world.
- *C. auris* is a concerning drug-resistant fungus:
 - Often multidrug-resistant, with some strains (types) resistant to all three available classes of antifungals
 - Can cause outbreaks in healthcare facilities
 - Some common healthcare disinfectants are less effective at eliminating it
 - Can be carried on patients' skin without causing infection, allowing spread to others

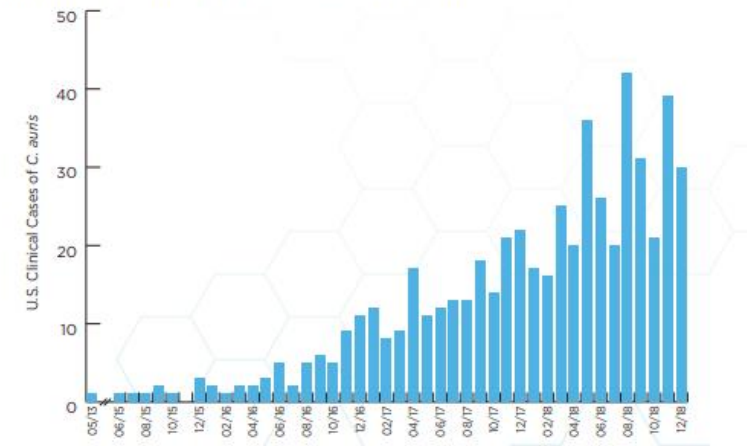
Data represents U.S. cases only. Isolates are pure samples of a germ.



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

CASES OVER TIME

C. auris began spreading in the United States in 2015. Reported cases increased 318% in 2018 when compared to the average number of cases reported in 2015 to 2017.



CDC Infection Prevention and Control for *Candida auris*

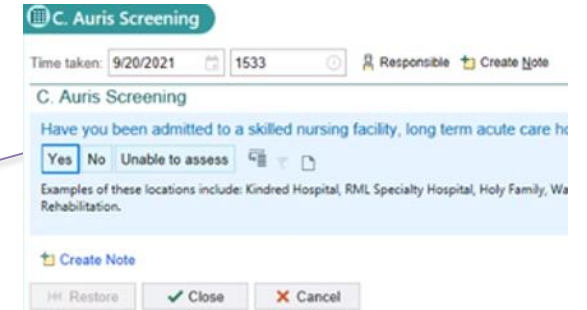
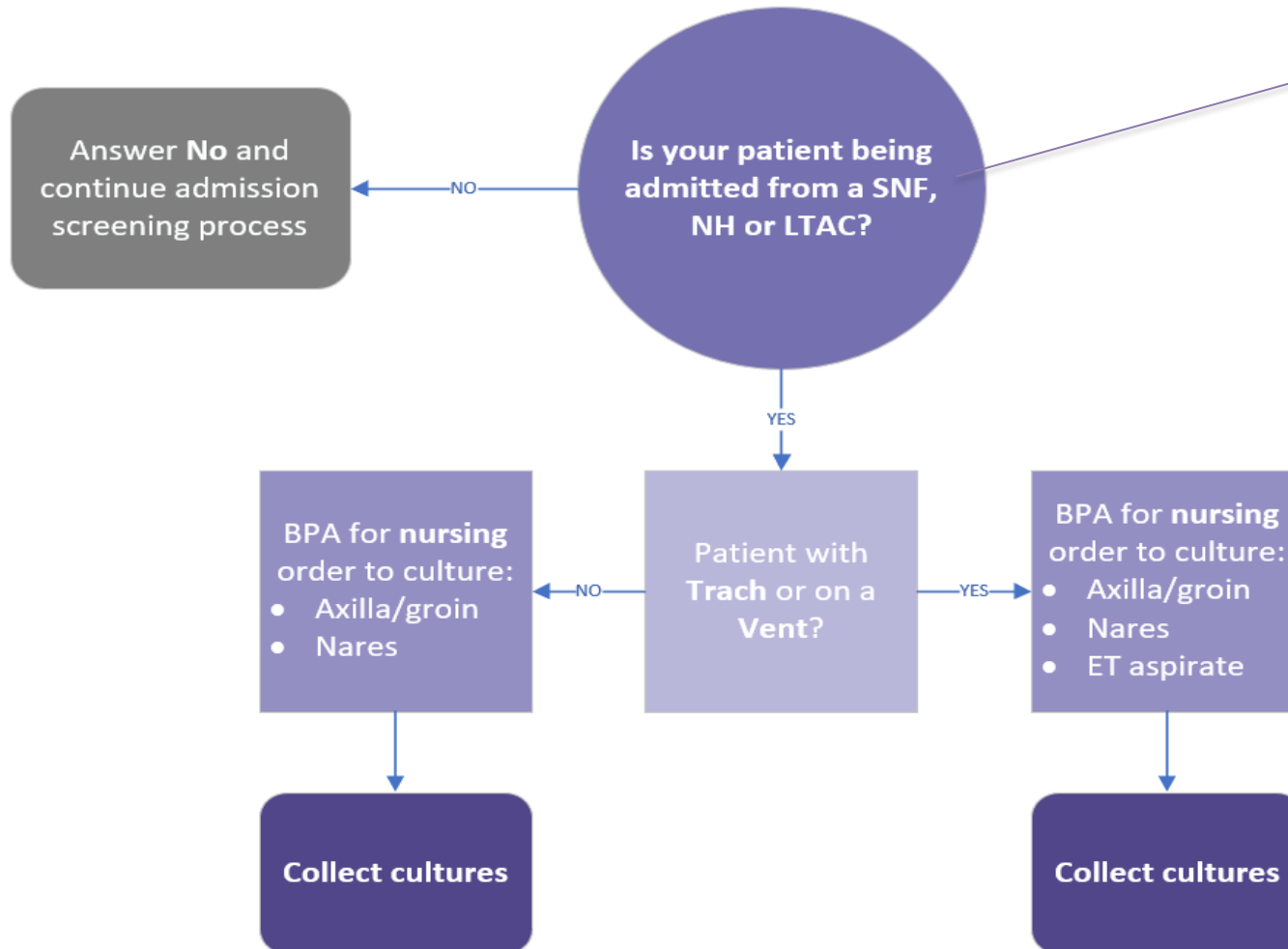
Summary

- Screening
 - Consider screening patients at high risk of *C. auris*, including
 - Close healthcare contacts of patients with newly identified *C. auris*
 - *At a minimum, consider screening patients who require higher levels of care (e.g., mechanical ventilation) and who overlapped on the ward or unit with the index patient for 3 or more days, as these patients are at high risk of colonization*
 - Patients who had an overnight stay in a healthcare facility outside the US in the last year



Candida auris Screening

Process Map for Required Documentation on Admission



Candida auris Screening

Admission Required Documentation

Resurgence of *Candida auris* in Skilled Nursing, Acute Rehab and Long Term Acute Care Facilities is driving the need for screening of patients admitted from these facilities.

- *C. auris* screening has been added into the Admission Navigator as required documentation for patients 18 and older.



The screenshot shows a web-based form titled "C. Auris Screening". At the top, it displays "Time taken: 9/20/2021 1533" and "Responsible" with a "Create Note" button. On the right, there are checkboxes for "Show Row Info", "Show Last Filed Value", "Show Details", and "Show All Choices". The main question is "Have you been admitted to a skilled nursing facility, long term acute care hospital, or acute rehab hospital in the past 6 months? See row information for examples." Below the question are three radio button options: "Yes", "No", and "Unable to assess". At the bottom, there is a "Create Note" button and a row of control buttons: "Restore", "Close", "Cancel", "Previous", and "Next".

- An answer of yes to the first question regarding SNF, Rehab or LTAC, will cascade a second question regarding having a tracheostomy with a correlating BPA.

Candida auris Screening

BPAs Trigger the Screening Orders

- BPA for a patient with a trach or who is on a vent:

C. Auris Screening

C. auris screening indicates this patient needs lab tests, as indicated below. Please place orders now.

| | | |
|---|---|---|
| <input checked="" type="button" value="Order"/> | <input type="button" value="Do Not Order"/> | <input checked="" type="checkbox"/> Candida auris Screen, Axilla/Groin |
| <input checked="" type="button" value="Order"/> | <input type="button" value="Do Not Order"/> | <input checked="" type="checkbox"/> Candida auris Screen, Nares |
| <input checked="" type="button" value="Order"/> | <input type="button" value="Do Not Order"/> | <input checked="" type="checkbox"/> Candida auris Screen, Endotracheal Aspirate |

Acknowledge Reason _____

- BPA for a patient who does not have a trach or is not on a vent:

Important (1)

C. Auris Screening

C. auris screening indicates this patient needs lab tests, as indicated below. Please place orders now.

| | | |
|---|---|--|
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Acknowledge Reason _____

For assistance in swabbing for Endotracheal Aspirate, please contact the Respiratory Therapist for assistance.

Candida auris Screening

Specimen Collection Swabbing Guidance Added

- Directions on how to perform the specimen collection properly will display for each required specimen source when the Print Label button is selected.

The screenshot displays a software interface for 'Work List Tasks'. On the left, a 'Time View' table lists tasks for 11/02/21. The main window shows details for a task: 'ESwab 21NM-306M00002' for a patient named FEINBERG 13 E. The 'Nose' collection source is selected. Below this, a section titled 'Candida auris Screen, Nares (Scheduled: 11/2/2021 1426)' provides detailed collection instructions. A green bar at the bottom of the task window indicates 'All collections documented'. At the bottom right, there are buttons for 'Reprint Labels', 'Accept', and 'Cancel'.

| Time | Task |
|------|--------------------------------|
| 0800 | Care Team Task: Accompan... |
| 0800 | Perform Peri Care |
| 0800 | Administer acetaminophen |
| 0800 | Administer magnesium hydroxide |
| 0800 | Administer ondansetron (Z) |
| 1300 | Administer acetaminophen |
| 1300 | Administer ondansetron (Z) |
| 1400 | |
| 1426 | Print Label for Candida auris |
| 1426 | Print Label for Candida auris |
| 1426 | Print Label for Candida auris |
| 1800 | Care Team Task: Accompan... |
| 1800 | Administer acetaminophen |
| 1800 | Administer magnesium hydroxide |

ESwab 21NM-306M00002 Lab: Northwestern Memorial Hospital Lab

Collected on 11/2/2021 at 1437 by TESTUSER, RN OMNI EIGHT INPATIENT in NMH
FEINBERG 13 E via Non-blood Collection

Nose Axilla, Left Axilla, Right **Nose** Trachea Tracheostomy Bronch, Right
Bronch, Left

Candida auris Screen, Nares (Scheduled: 11/2/2021 1426)

Collection containers:
Central Region: Eswab Kit
All other Regions: Red Cap Swab

- Nares: Collect 1 swab of the anterior nares (shallow front part of the nose – not a NP swab)
- Insert swab no more than 1/2" into one nostril.
- Slowly rotate the swab, gently pressing against the inside of the nostril at least 4 times for a total of 15 seconds.
- Using the same swab, repeat the process on the other nostril.
- Axilla/groin: With one swab, you will swab bilateral axilla and groins as outlined below.
- Firmly rub the swab across the axilla skin surface at least 5 times, targeting the crease in the skin where the arm meets the body. Repeat on other side (i.e. swab both armpits at least 5 times).


✓ All collections documented

Reprint Labels Accept Cancel

Candida auris Screening

The Appropriate Response to a Positive *C. auris* Result

- If the result for *C. auris* is a Positive status, a mismatch icon will display on the My Patient List.

| Patient Location ▲ | Room/Bed | Patient Name | Age/Gender | Infection Isolation |
|--------------------|----------|--------------|-------------|---|
| WS 202 01 | 202/01 | Nmit, Himwsr | 68 y.o. / M | Candida auris  |

- The required isolation type for *C. auris* is Contact Plus.

Nmit, Himwsr Unit: WHIPREHAB Room: 202 Bed: 01

Orders | Triage Summary | ED | Profile | Req Doc | Due Meds

Isolation Updates Required: Contact Plus

| Current | Required | Reason |
|---------|--------------|---------------|
| None | Contact Plus | Candida auris |

Contact Plus Isolation Instructions

- Perform hand hygiene
- Wear gown and gloves upon entering room
- Provide patient and family education regarding isolation
- Environmental Services cleans room with a sporicidal agent daily and upon discharge
- Prior to transport, ensure patient is in a clean gown

For NM's complete policy, reference <https://nm.edu/cid/documents/view/4099>

Candida auris Infection Instructions

Contact Plus Precautions are necessary to prevent the spread of *C. auris*

Candida auris (*C. auris*) is a yeast that often does not respond to commonly used antifungal drugs. *C. auris* can cause many different types of infection, including bloodstream infections, wound and ear infections. The symptoms of *C. auris* depend on the part of the body affected.

For more information from the CDC, see <https://www.cdc.gov/fungal/candida-auris/index.html>

Note: Contact Plus Isolation should not be ordered until Positive Status is resulted.

Candida auris Screening

Subsequent Admissions and Transfers Between NM Facilities

- Patients who have been screened for *C. auris* but transfer between NM campuses with a test in process will not need to be rescreened at the receiving NM facility.

CRITICAL STEP: When patients have a positive *Candida auris* result, the isolation flag will remain at the patient level on the chart. Contact Plus Isolation would be initiated upon admission. The patient with the positive *Candida auris* history would not need re-screening questions or culture testing on subsequent admissions.



Candida auris Screening – Basics

Things to consider when that screening is missed:

- Patient satisfaction as some patients really may not like the extra swabbing
- Ring surveillance caused from a patient who likely had this organism on admission is just another thing for nursing to do
- *Why all this work if our patients are colonized?* Important to note patient risk factors that can lead to infection (associated with high morbidity and mortality) such as indwelling medical devices, surgery, immunosuppression, etc.

Thank you
Questions?

Appendix

Candida auris Screening SBAR



SITUATION

Resurgence of *Candida auris* in skilled nursing, acute rehab and long term acute care facilities is driving the need for screening of patients admitted from these facilities. Nosocomial cases have been identified in facilities, including Northwestern Memorial Hospital.

BACKGROUND

Patients colonized with *C. auris* can transmit *C. auris* to other patients within healthcare facilities and may be at risk for invasive *C. auris* infections.

ASSESSMENT

Screening this patient population at the time of admit will provide timely isolation requirements and mitigation of transmission.

RECOMMENDATION

A Best Practice Alert (BPA) screening order will trigger for patients 18 or older who have recently been admitted to a skilled nursing facility, long term acute care hospital or acute rehab hospital in the past 6 months.

If a patient qualifies for screening, it is important to collect cultures to identify colonized patients. The screening order will indicate lab collections for axilla/groin and nares (& endotracheal aspirate if patient has a trach). Swabbing guidance will display for each required specimen source.

Contact Plus Precautions should not be ordered until positive status is resulted.

C. auris screening has been added into the Admission Navigator as required documentation for patients 18 and older. Please share with staff, as needed.



Candida auris
Screening.pdf



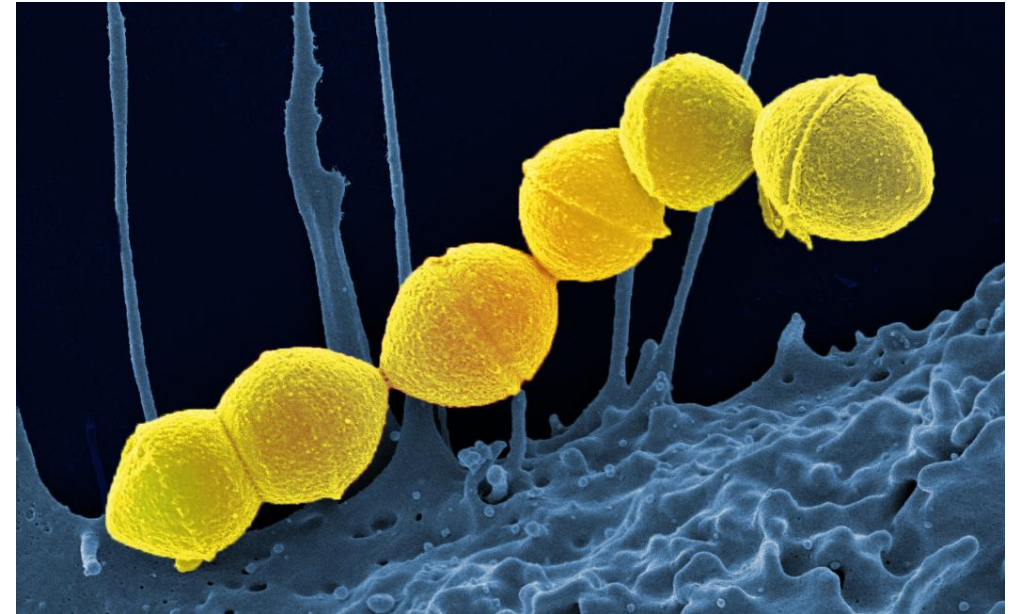
Invasive group A Streptococcal case burden, Fall/Winter 2022

Karrie-Ann Toews, MPH

CDC Career Epidemiology Field Officer

★ Group A Streptococcus and disease

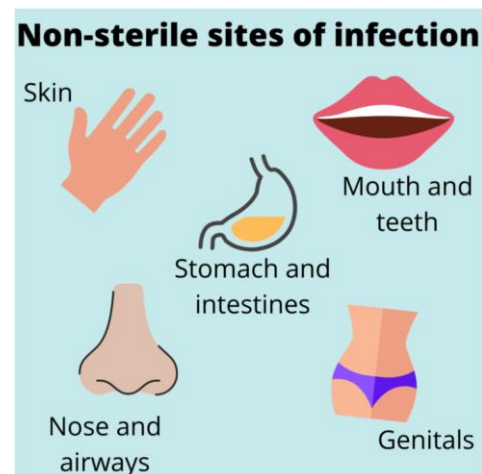
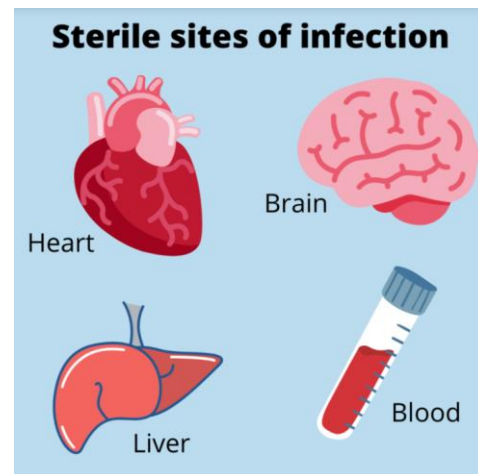
- Typically found on throat and skin- persons may carry GAS in their throat and not become ill (colonized, not infected)
- Spread by discharge from nose and throat of colonized or infected persons (respiratory droplet transmission) or contact with infected wounds and sores



★ Case definition of Invasive group A Streptococcal disease

- Isolation of GAS from any **sterile** site
 - Blood, CSF, pleural fluid, pericardial fluid, bone, joint fluid, lymph node, brain, heart, liver, spleen, vitreous fluid, kidney, pancreas, ovary, prostate gland, muscle or tissue biopsy that is surgically obtained
- OR**
- Isolation of GAS from any of the above or a non-sterile site when accompanied by toxic shock or necrotizing fasciitis

Deep within the body

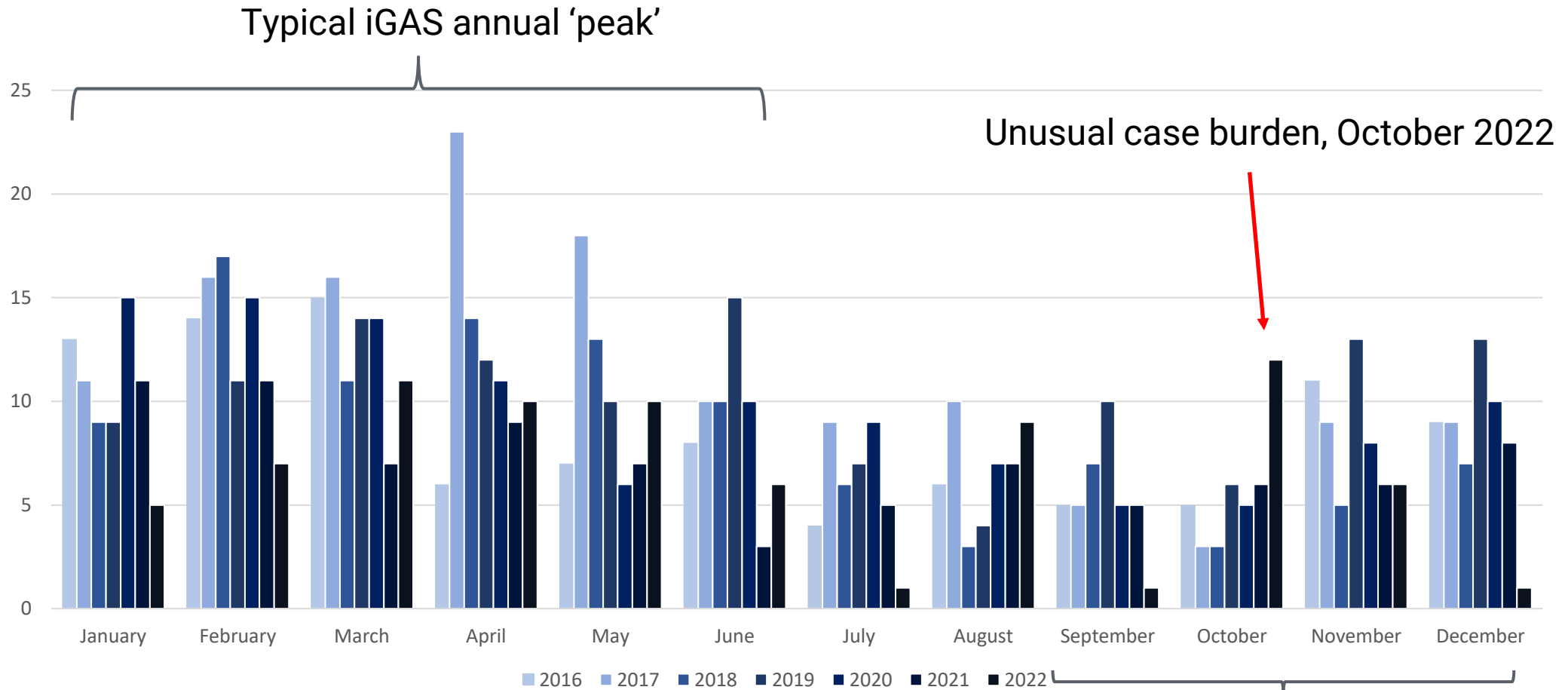


More accessible to the environment

Recent increases in pediatric case burden

- Increased rates of iGAS and scarlet fever in Ireland, France, Netherlands, North Ireland, Sweden and UK since fall
- Concerns about antibiotic supply for treatment in Scotland (media reports)
- WHO: increase reported in children 1-10 years following lower period of incidence in 2020 and 2021
 - Increases likely reflect and early increase in circulation of GAS following period of reduced incidence during pandemic
 - Reported cases not caused by newly circulating *emm* type
 - Diverse range of *emm* types: *emm* 1 (30%), *emm* 12 (17%), *emm* 89 (7%), *emm* 108 (4%) and *emm* 33 (4%)
 - No reports of increased antibiotic resistance
- Reports of increased GAS infection in Australia, including 2 pediatric deaths
 - Concern over antibiotic supply
- Increased rates and 2 pediatric iGAS deaths in CO and MI
- Higher rates being reported by children's hospitals in AZ, TX, WV and WA
- CDC monitoring possible increase in iGAS nationally

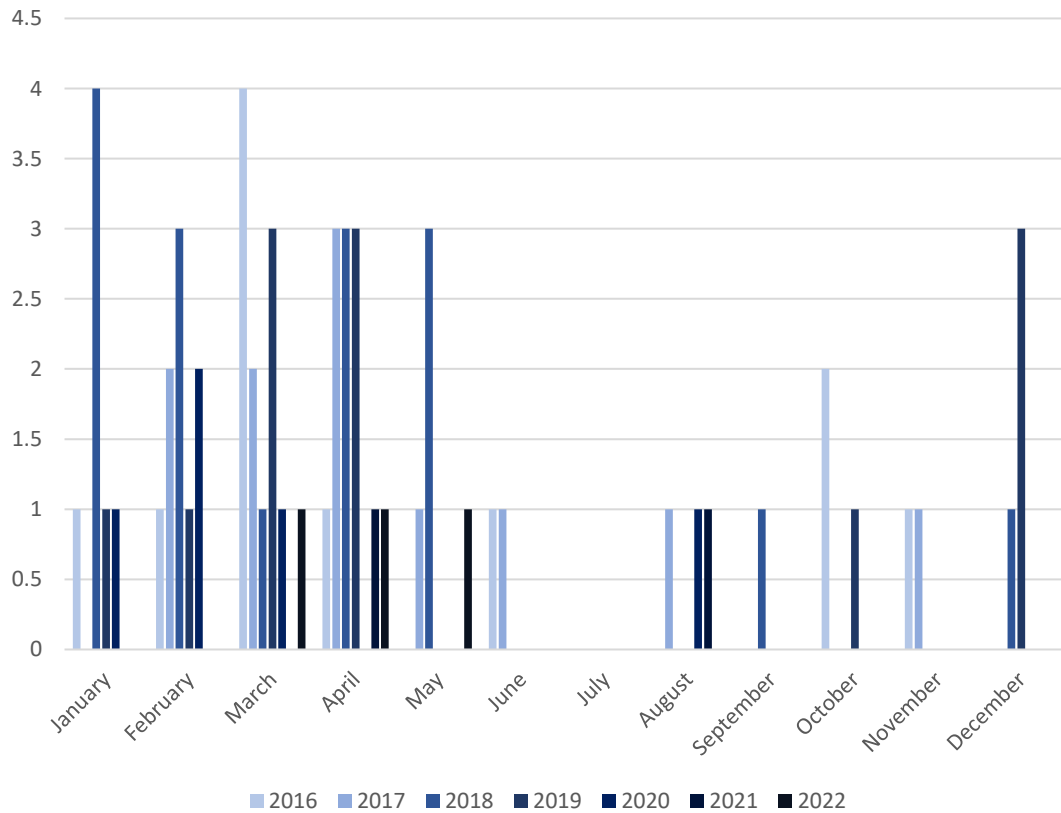
Invasive group A strep cases, Chicago, 2016-2022



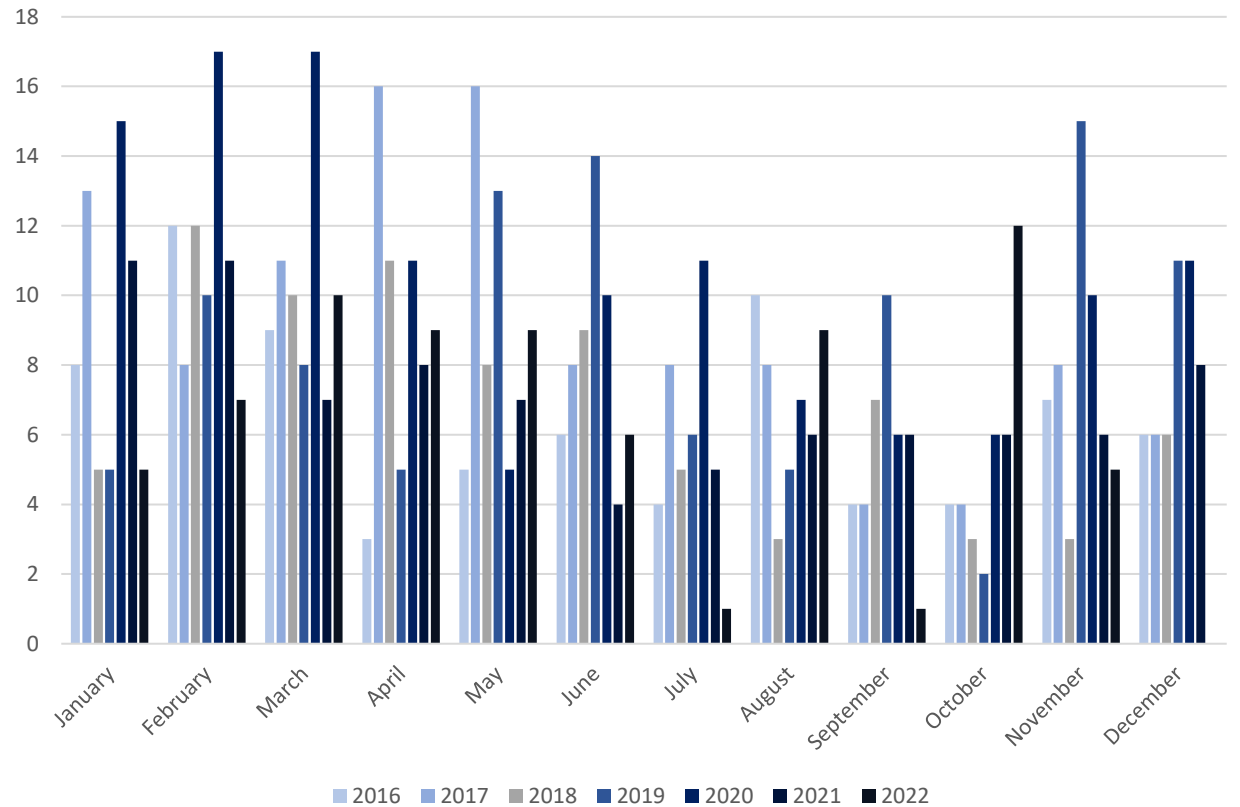
UK iGAS pediatric deaths, Sept- Dec 2022



Seasonality of disease is similar between adults and children



≤ 18 years



> 18 years

★ Chicago not experiencing increase in pediatric iGAS

| Year | Total cases | Pediatric cases | Sept-Dec (%) | Adult cases | Sept-Dec (%) |
|-------|-------------|-----------------|--------------|-------------|--------------|
| 2016 | 103 | 11 | 3 (27) | 92 | 27 (29) |
| 2017 | 139 | 11 | 1 (9) | 128 | 25 (20) |
| 2018 | 105 | 16 | 2 (13) | 89 | 20 (22) |
| 2019 | 124 | 12 | 4 (33) | 112 | 38 (34) |
| 2020 | 115 | 5 | 0 (0) | 110 | 28 (25) |
| 2021 | 85 | 2 | 0 (0) | 83 | 25 (30) |
| 2022* | 88 | 3 | 0 (0) | 85 | 29 (34) |

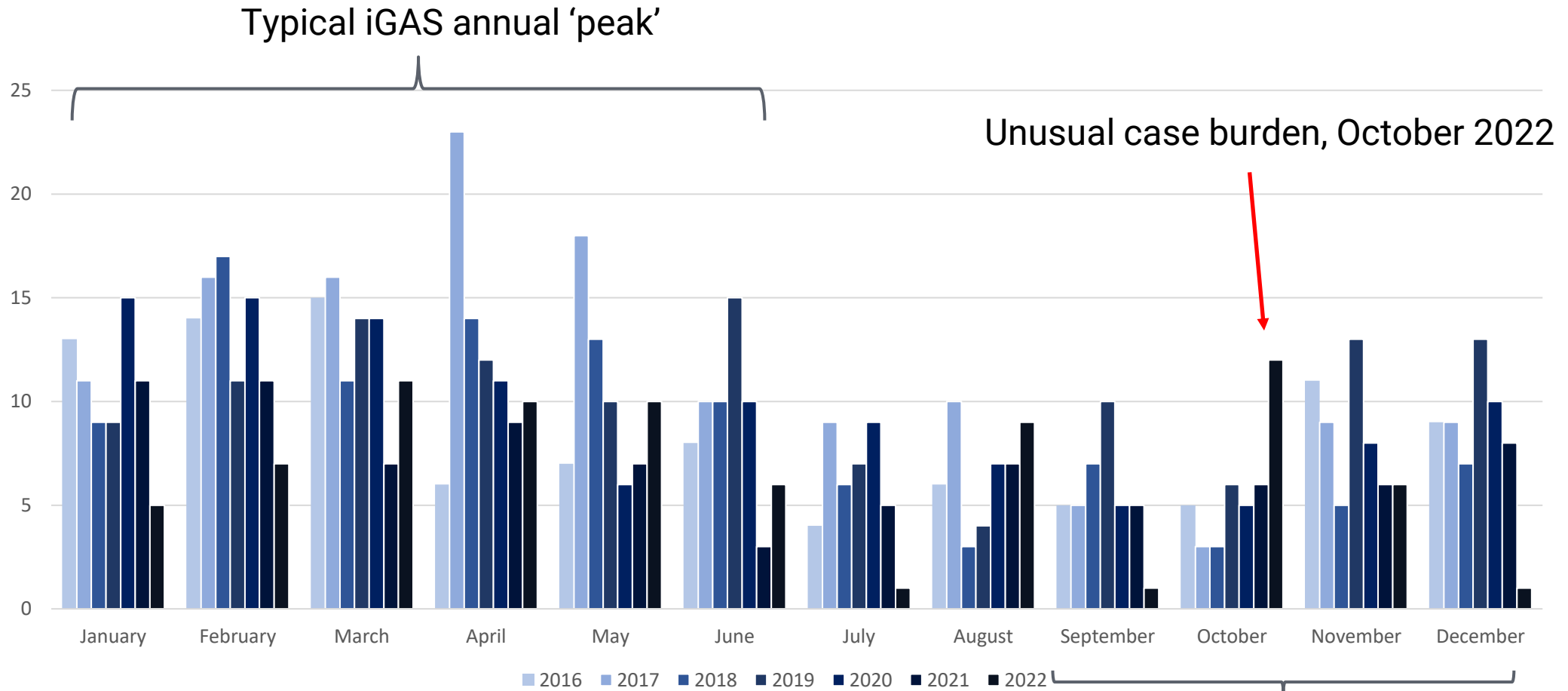
* INEDSS as of 1/13/2023

★ IL is experiencing an increase in pediatric iGAS

| Year | Total cases | Pediatric cases | Sept-Dec (%) | Adult cases | Sept-Dec (%) |
|-------|-------------|-----------------|--------------|-------------|--------------|
| 2016 | 447 | 38 | 7 (18) | 409 | 114 (28) |
| 2017 | 457 | 42 | 6 (14) | 415 | 98 (24) |
| 2018 | 490 | 58 | 11 (19) | 432 | 112 (26) |
| 2019 | 490 | 43 | 11 (26) | 447 | 139 (31) |
| 2020 | 405 | 25 | 3 (12) | 380 | 77 (20) |
| 2021 | 258 | 6 | 2 (33) | 252 | 80 (32) |
| 2022* | 374 | 20 | 14 (70) | 354 | 138 (39) |

* INEDSS as of 1/13/2023

★ Invasive group A strep cases, Chicago, 2016–2022



UK iGAS pediatric deaths, Sept- Dec 2022



Confirmed cases included (N=28 w/onset after October 1, 2022)

- Streptococcal disease invasive Group A (n=27)
- Streptococcal disease invasive Group A with Necrotizing Fasciitis (n=0)
- Streptococcal Toxic Shock Syndrome (n=1)
- Streptococcal Toxic Shock Syndrome with Necrotizing Fasciitis (n=0)



Case Characteristics

| Age group | Case count (%) |
|---------------|-----------------|
| 0-17 | 0 (0) |
| 18-39 | 3 (11) |
| 40-64 | 15 (53) |
| 65+ | 10 (35) |
| Total | 28 (100) |
| Race | |
| Black | 13 (46) |
| White | 12 (43) |
| Other/Missing | 3 (11) |

| Ethnicity | |
|---------------|---------|
| Non Hispanic | 25 (89) |
| Hispanic | 2 (7) |
| Other/Missing | 1 (4) |
| Sex | |
| Male | 18 (64) |
| Female | 10 (36) |

★ Most common risk factors are drug use and wounds

| | Case count (%) |
|---|----------------|
| IVDU/polysubstance drug use* | 8 (29) |
| Wounds* <ul style="list-style-type: none">• Drains from chronic GSW, diabetic ulcers, chronic venous stasis | 5 (18) |
| SNF resident** | 2 (7) |
| Person experiencing homelessness* | 2 (7) |
| Post-surgery/post-partum | 0 (0) |



Not mutually exclusive

* Extracted from epi and reporter comments

** Two cases associated with SNFs:

★ Assisting with iGAS epidemiology and risk factors

- Helpful reporter comments in INEDSS

XXX undomiciled with h/o IVDU, CHF with normal EF, MRSA bacteremia (c/b L CFA mycotic aneurysm, hx possible mitral endocarditis, hx paraspinal abscess, hx L4-5 septic arthritis), left common femoral artery aneurysm (status post excision and femoral to SFA bypass graft) on Eliquis, LLE DVT, known persistent occlusion of L CFA with distal reconstitution, and multiple recent admissions for chronic wounds, now presenting with L groin abscess over previous vascular surgery site.

Outcomes

| | Case count (%) |
|-----------------|----------------|
| Hospitalization | 25 (89) |
| Death* | 3 (11) |
| Amputation* | 1 (4) |
| Debridement* | 1 (4) |

Deaths: Two SNF residents

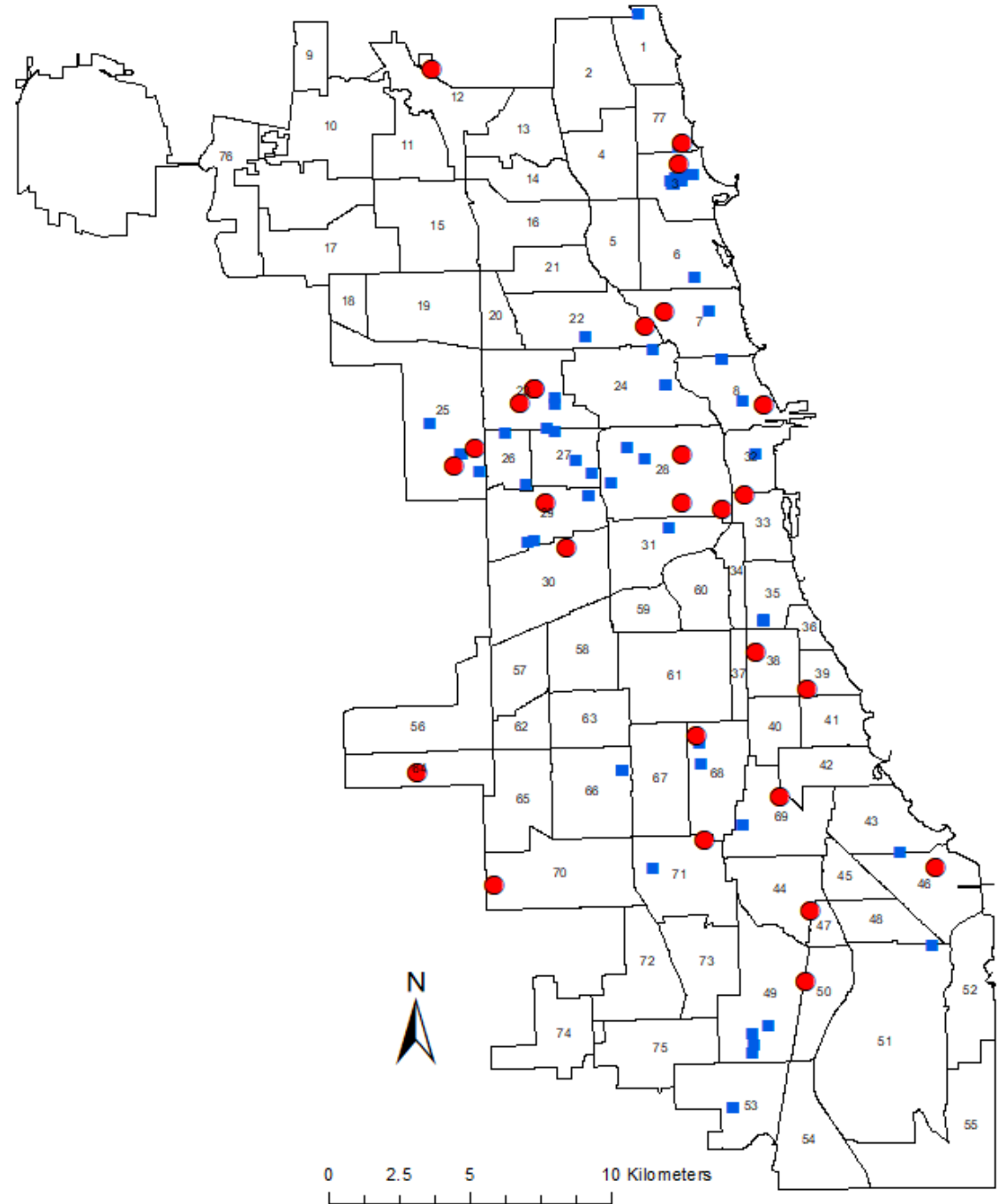
Length of stay: Median: 5 days Range: 1-11 days*

* Potential for missing data entry esp. discharge date (n=23) and possibly death due to limited follow-up post investigation



Shelter locations in Chicago vs iGAS cases after 10/1/2022

- iGAS case residence (n=28)
- Shelter (n=69)



Reporting Invasive group A Streptococcal disease

- Should be reported to public health within 24 hours of identification
- Ideally, should be reported via INEDSS
 - If INEDSS unavailable, please call **312-746-7425** to report
 - Someone will take your contact information and will call back to collect case information

★ Optimizing iGAS Public Health Response

- Notice of any iGAS case associated with a facility (overnight dwelling) that is not a private residence
 - Healthcare -> Engage healthcare colleagues for facility response and prevention guidance
 - Shelter or any indication of being undomiciled
 - In-house drug treatment
- Engage special populations unit for facility response
- Send prevention guidance to facility
 - Engage support with primary care providers already providing services



Infection Prevention and Control Recommendations

| Infection | Type of Precaution | Duration of Precaution | Comments |
|---|-----------------------------------|--|--|
| Streptococcal disease (group A <i>Streptococcus</i>) Skin, wound, or burn Major | Contact+ Droplet + Standard | Until 24 hours after initiation of effective therapy | Until drainage stops or can be contained by dressing |
| Streptococcal disease (group A <i>Streptococcus</i>) Pharyngitis in infants and young children | Droplet + Standard | Until 24 hours after initiation of effective therapy | Until drainage stops or can be contained by dressing |
| Streptococcal disease (group A <i>Streptococcus</i>) Pneumonia | Droplet + Standard | Until 24 hours after initiation of effective therapy | |
| Streptococcal disease (group A <i>Streptococcus</i>) Scarlet fever in infants and young children | Droplet + Standard | Until 24 hours after initiation of effective therapy | |
| Streptococcal disease (group A <i>Streptococcus</i>) Serious invasive disease | Droplet + Standard | Until 24 hours after initiation of effective therapy | Outbreaks of serious invasive disease have occurred secondary to transmission among patients and healthcare personnel [162, 972, 1096-1098]. Contact Precautions for draining wound as above; follow recommendations for antimicrobial prophylaxis in selected conditions [160]. |

Thank You!

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[Chicago.gov/Health](https://www.chicago.gov/Health)



HealthyChicago@cityofchicago.org



[@ChicagoPublicHealth](https://www.facebook.com/ChicagoPublicHealth)



[@ChiPublicHealth](https://twitter.com/ChiPublicHealth)



Ongoing outbreak of significance

- Extensively Drug-resistant *Pseudomonas aeruginosa* Associated with Artificial Tears
 - VIM-GES-carbapenem-resistant *Pseudomonas aeruginosa* (CRPA)
 - EzriCare or Delsam Pharma's Artificial Tears
- As of February 21, 2023, 58 patients in 13 states (1 in IL) have been identified
 - Thirty-five patients were linked to 4 healthcare facility clusters
 - One person has died and there have been 5 reports of vision loss
- To report suspected case(s) in Chicago residents (e.g., ocular infection due to CRPA with specimen collection dates since May 1, 2022), please call 312-744-1100. For questions, please email doyoung.kim@cityofchicago.org
- Ask your clinical laboratories to save these isolates for further characterization at public health laboratories
- Outbreak information: [CDC](#) and [Chicago HAN](#)





What do I do if I have a cluster at my facility?

- Cluster definitions vary by pathogen. When in doubt call us!
- For any cluster reporting or guidance please call 312-744-1100 **AND** email cdphaiar@cityofchicago.org
- For reporting COVID-19 clusters: <https://redcap.dph.illinois.gov/surveys/?s=FR7MAJAY84>



Challenges for Facilities and Public Health



- Identification of clusters
- When to report to CDPH
- How to report to CDPH
- What happens after IP reports
- EMR not able to capture important information:
 - Previous healthcare encounters
 - Unknown patient location/residence
 - ?



Upcoming CDPH Training Dates

- Space is limited. Our training room can accommodate up to 40 participant
- If interested in attending, email Kim at: Kimberly.Goitia@CityofChicago.org
- Bring your own laptop (this is a hands-on training)
- Upcoming training dates:
 - February 28th: XDRO reporting
 - March 21-23rd : no on-site CDPH training but recommend attending NHSN Annual Training Webinar <https://www.cdc.gov/nhsn/training/annualtraining.html>
 - April 25th : NHSN surveillance and reporting Q&A





Thank you for participating!
Next Roundtable: **3/31/2023**





Open Forum for Questions and Comments

- Our general number: 312-744-1100
- cdphaiar@cityofchicago.org

