



**APIC**

**CONSULTING SERVICES, INC.**

# Enrolling in the XDRO Registry and it's Benefits to Long Term Care

July 17, 2018

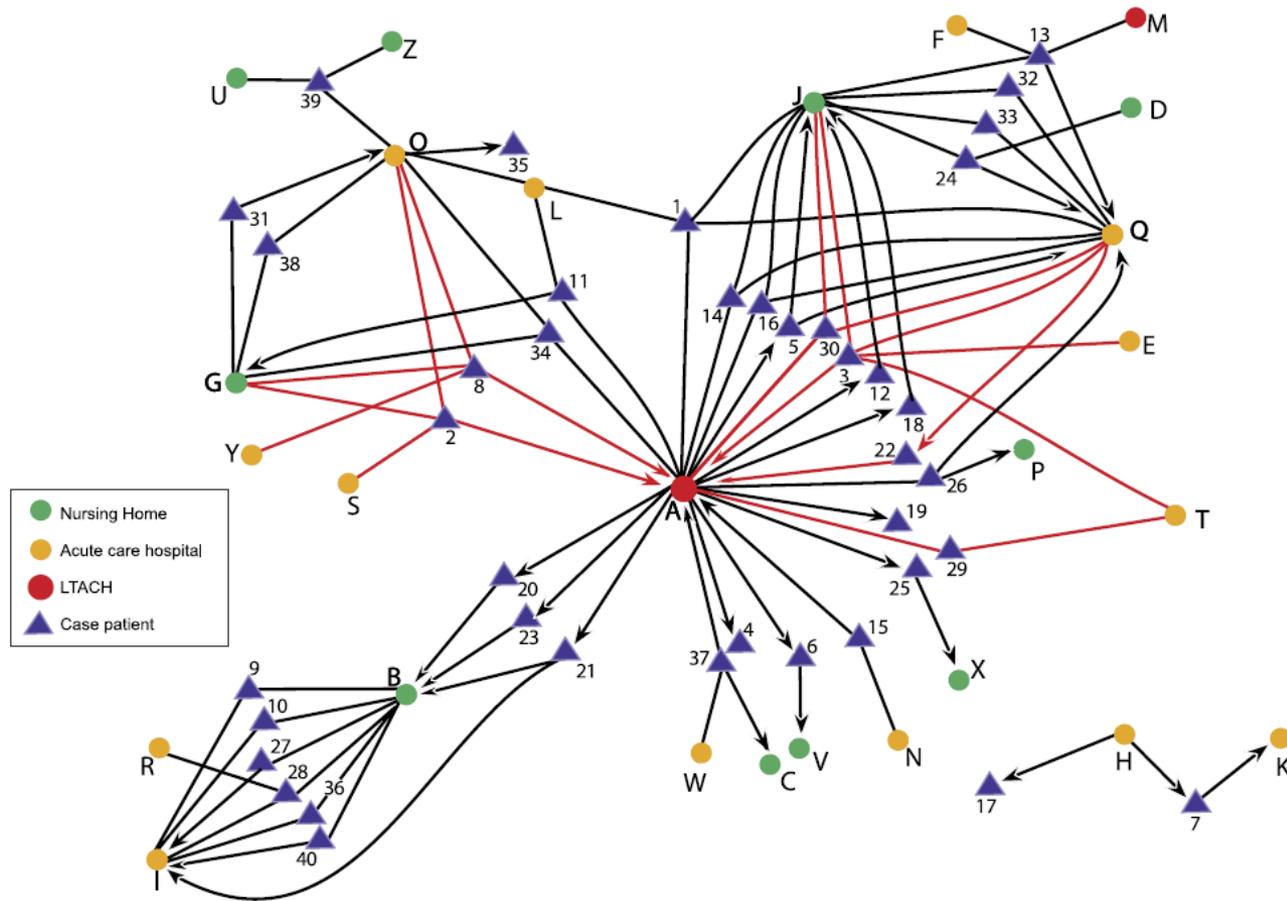
Mary Alice Lavin, RN, MJ, CIC, FAPIC  
APIC Consulting Services, LLC

No disclosures.

# Objectives

- Discuss the steps required for registering for and accessing the Illinois Extensively Drug Resistant Organism (XDRO) Registry.
- Describe how use of the XDRO Registry can be integrated into the admission process.
- State the value the XDRO Registry adds to control of extensively drug resistant organisms.

# Emergence and Rapid Regional Spread of KPC Chicago Area, 2008



Won SY et al. CID 2011: 53:532

## Original Investigation

# New Delhi Metallo- $\beta$ -Lactamase-Producing Carbapenem-Resistant *Escherichia coli* Associated With Exposure to Duodenoscopes

Lauren Epstein, MD, MSc; Jennifer C. Hunter, DrPH; M. Allison Arwady, MD; Victoria Tsai, MPH; Linda Stein, MPH; Marguerite Gribogiannis, MPA; Mabel Frias, MPH; Alice Y. Guh, MD; Alison S. Laufer, PhD; Stephanie Black, MD; Massimo Pacilli, MS; Heather Moulton-Meissner, PhD; J. Kamile Rasheed, PhD; Johannetsy J. Avillan, BS; Brandon Kitchel, MS; Brandi M. Limbago, PhD; Duncan MacCannell, PhD; David Lonsway, PhD; Judith Noble-Wang, PhD; Judith Conway, RN; Craig Conover, MD; Michael Vernon, DrPH; Alexander J. Kallen, MD

**IMPORTANCE** Carbapenem-resistant Enterobacteriaceae (CRE) producing the New Delhi metallo- $\beta$ -lactamase (NDM) are rare in the United States, but have the potential to add to the increasing CRE burden. Previous NDM-producing CRE clusters have been attributed to person-to-person transmission in health care facilities.

**OBJECTIVE** To identify a source for, and interrupt transmission of, NDM-producing CRE in a northeastern Illinois hospital.

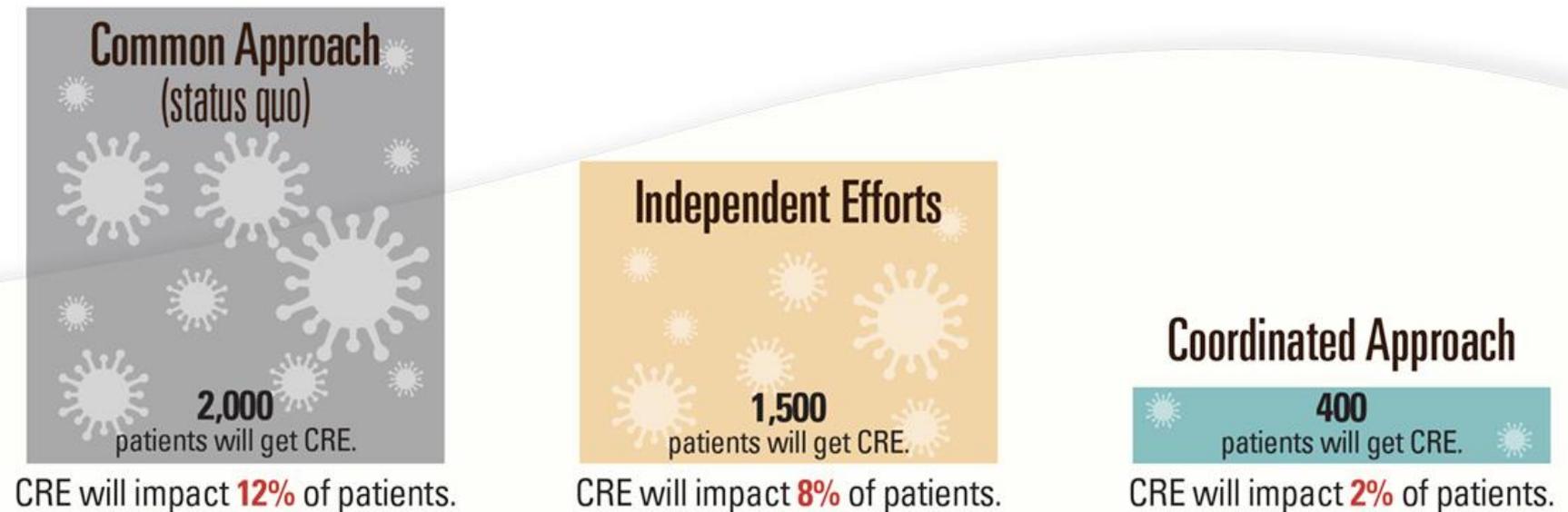
**DESIGN, SETTING, AND PARTICIPANTS** Outbreak investigation among 39 case patients at a tertiary care hospital in northeastern Illinois, including a case-control study, infection control assessment, and collection of environmental and device cultures; patient and environmental isolate relatedness was evaluated with pulsed-field gel electrophoresis (PFGE). Following identification of a likely source, targeted patient notification and CRE screening cultures were performed.

**MAIN OUTCOMES AND MEASURES** Association between exposure and acquisition of NDM-producing CRE; results of environmental cultures and organism typing.

# A Coordinated Approach to Control

## More patients get infections when facilities do not work together.

(Example: 5 years after CRE enters 10 facilities in an area sharing patients)



SOURCE: CDC Vital Signs, August 2015.

# Facilities work together to protect patients.

## Common Approach *(Not enough)*

- Patients can be transferred back and forth from facilities for treatment without all the communication and necessary infection control actions in place.

## Independent Efforts *(Still not enough)*

- Some facilities work independently to enhance infection control but are not often alerted to antibiotic-resistant or *C. difficile* germs coming from other facilities or outbreaks in the area.
- Lack of shared information from other facilities means that necessary infection control actions are not always taken and germs are spread to other patients.

## Coordinated Approach *(Needed)*

- Public health departments track and **alert** health care facilities to antibiotic-resistant or *C. difficile* germs coming from other facilities and outbreaks in the area.
- Facilities and public health authorities share information and implement shared infection control actions to stop spread of germs from facility to facility.



<https://www.cdc.gov/vitalsigns/stop-spread/index.html>



Pat Quinn, Governor  
LaMar Hasbrouck, MD, MPH, Director

122 S. Michigan Ave., Suite 700 • Chicago, IL 60603-6119 • www.idph.state.il.us

#### MEMORANDUM

To: Hospital Chief Executive Officer, Long Term Acute Care Hospital Executive Officer, Long Term Care Facility Executive Officer, Long Term Care Director of Nursing or Designate, Hospital-affiliated Clinical Laboratory Director, Independent or Free-standing Laboratory Director

CC: Facility Medical Director, Facility Infection Preventionist, Facility Laboratory Director, Facility Microbiologist, Facility Quality Director, Medical Director of the Illinois Department of Public Health (IDPH), Regional Offices of IDPH, IDPH Office of Health Care Regulation, Local Health Departments, Telligon, Illinois Hospital Association, Illinois Critical Access Hospital Network, Metropolitan Chicago Healthcare Council, Illinois APIC chapters, Life Services Network, Illinois Council on Long Term Care, Illinois Health Care Association.

From: Mary Driscoll, RN, MPH  
Chief, Division of Patient Safety and Quality

Erica Abu-Ghallow, MSN, MPH, RN  
HAI Prevention Coordinator, Division of Patient Safety and Quality

Date: September 4, 2013

Subject: XDRO registry

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Carbapenem-resistant Enterobacteriaceae (CRE) are considered extensively drug resistant organisms (XDROs) that have few antibiotic treatment options and high mortality rates. CRE are increasingly detected among patients in Illinois, including acute and long term care healthcare facilities.

**In response to the CRE public health threat, the Illinois Department of Public Health (IDPH) has amended the Control of Communicable Diseases Code (77 Ill. Adm. Code 690) Rules (see addendum) to require reporting of CREs to IDPH.**

All hospitals hospital-affiliated clinical laboratories independent or free-standing laboratories

# Extensively Drug Resistant Organism Registry

## Reporting Rule

Starting November 1, 2013, the **first CRE-positive culture per patient stay** must be reported to the XDRO registry.

## CRE definition

Enterobacteriaceae (e.g., *E. coli*, *Klebsiella* species, *Enterobacter* species, *Proteus* species, *Citrobacter* species, *Serratia* species, *Morganella* species, or *Providentia* species) with one of the following laboratory test results:

1. Molecular test (e.g., polymerase chain reaction [PCR]) specific for carbapenemase;
2. Phenotypic test (e.g., Modified Hodge) specific for carbapenemase production;
3. For ***E. coli*** and ***Klebsiella*** species only: non-susceptible (intermediate or resistant) to ONE of the following carbapenems (doripenem, meropenem, or imipenem) AND resistant to ALL of the following third generation cephalosporins tested (ceftriaxone, cefotaxime, and ceftazidime). *Note: ignore ertapenem for this definition.*

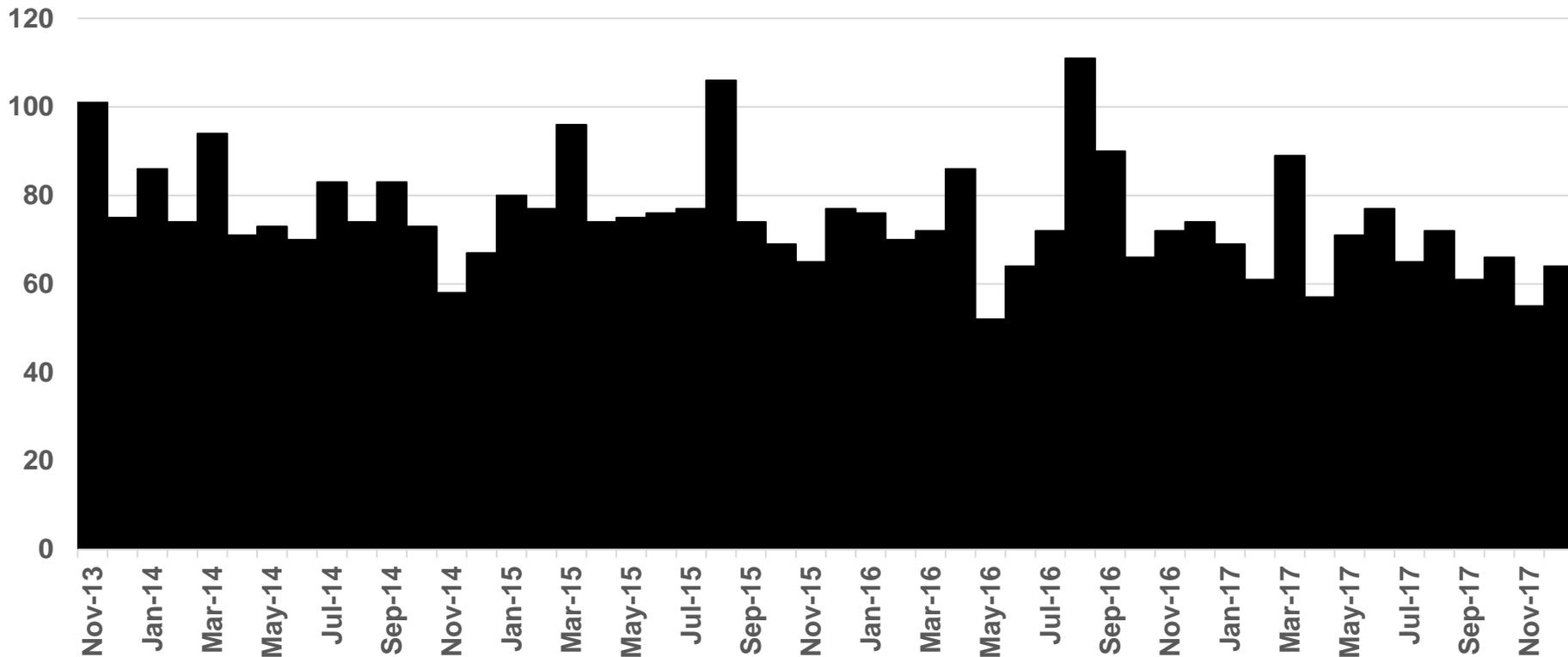
Consult with your microbiology laboratory regarding which CRE tests are available. For some laboratories, only #3 will be available.

<https://www.xdro.org/reporting-rule.html>

# Purpose of the XDRO Registry

- Improve CRE surveillance
- Improve inter-facility communication

# Unique CRE cases reported to XDRO registry by month of first clinical culture, 11/1/13 - 12/31/17 (N=3740)



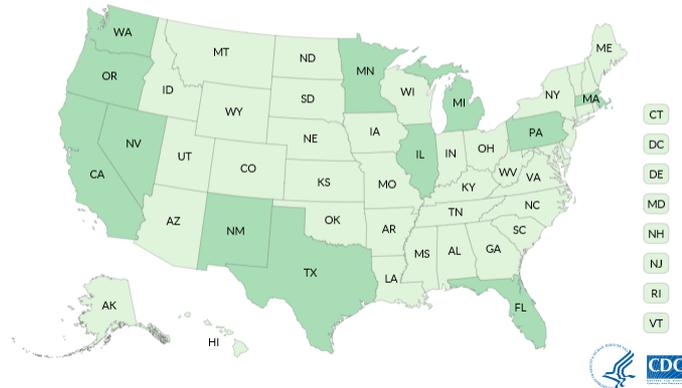
Slide courtesy of Angela Tang.

# Registry Expanded to Include *Pseudomonas Aeruginosa*

Patients with VIM-producing Carbapenem-resistant *Pseudomonas aeruginosa* (CRPA) reported to the Centers for Disease Control and Prevention (CDC) as of December 2017, by state

VIM enzyme

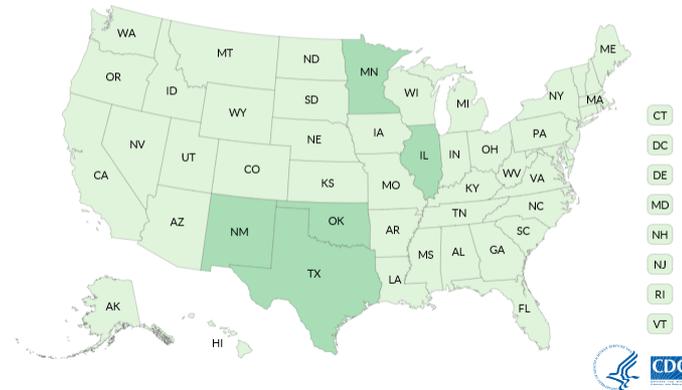
- None
- Reported



Patients with IMP-producing Carbapenem-resistant *Pseudomonas aeruginosa* (CRPA) reported to the Centers for Disease Control and Prevention (CDC) as of December 2017, by state

IMP enzyme

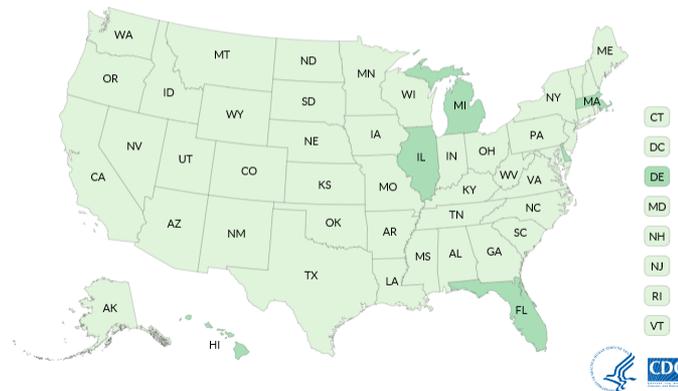
- None
- Reported



Patients with KPC-producing Carbapenem-resistant *Pseudomonas aeruginosa* (CRPA) reported to the Centers for Disease Control and Prevention (CDC) as of December 2017, by state

KPC enzyme

- None
- Reported



<https://www.cdc.gov/hai/organisms/pseudomonas/tracking.html>

# Registry Expanded to Include *Candida auris*



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525-535 West Jefferson Street • Springfield, Illinois 62761-0001 • [www.dph.illinois.gov](http://www.dph.illinois.gov)

## MEMORANDUM

TO: Local Health Departments, Infectious Disease Physicians, Hospital Emergency Departments, Infection Control Preventionists, Health Care Providers, Long Term Care Facilities, and Laboratories

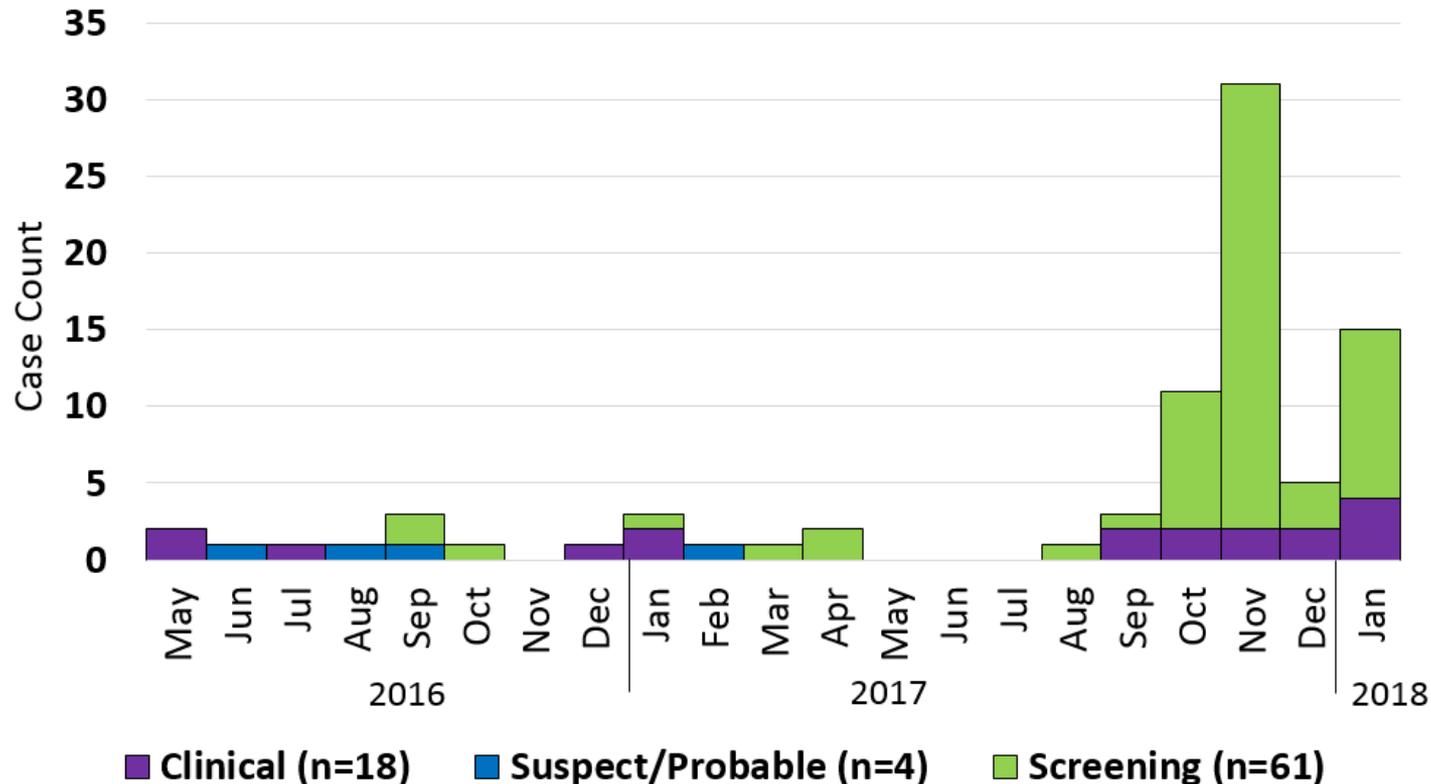
FROM: Division of Patient Safety and Quality and Communicable Disease Control Section

DATE: January 24, 2018

SUBJECT: Increase in the number of *Candida auris* cases in the Chicago-metropolitan region

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# C. auris Cases (n = 83) — Illinois, May 2016–January 25, 2018

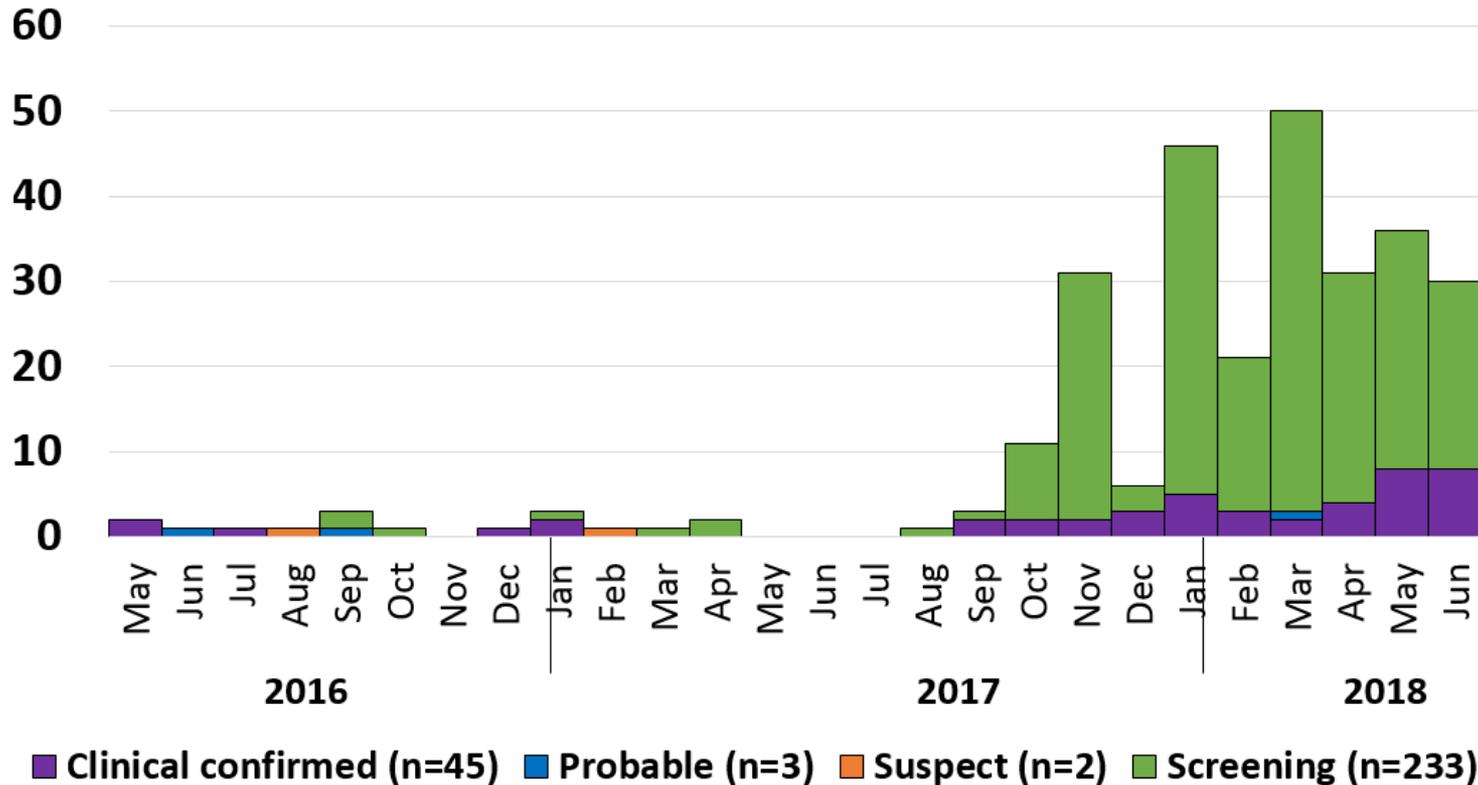


- Confirmed: Laboratory evidence of *C. auris* from clinical culture.
- Probable: Laboratory evidence of *C. haemulonii* from clinical culture & epidemiologic linkage to confirmed case.
- Suspect: Laboratory evidence of *C. haemulonii* from clinical culture & no epi link.
- Screening: Laboratory evidence of *C. auris* from screening or surveillance culture.



Slide courtesy of Angela Tang.

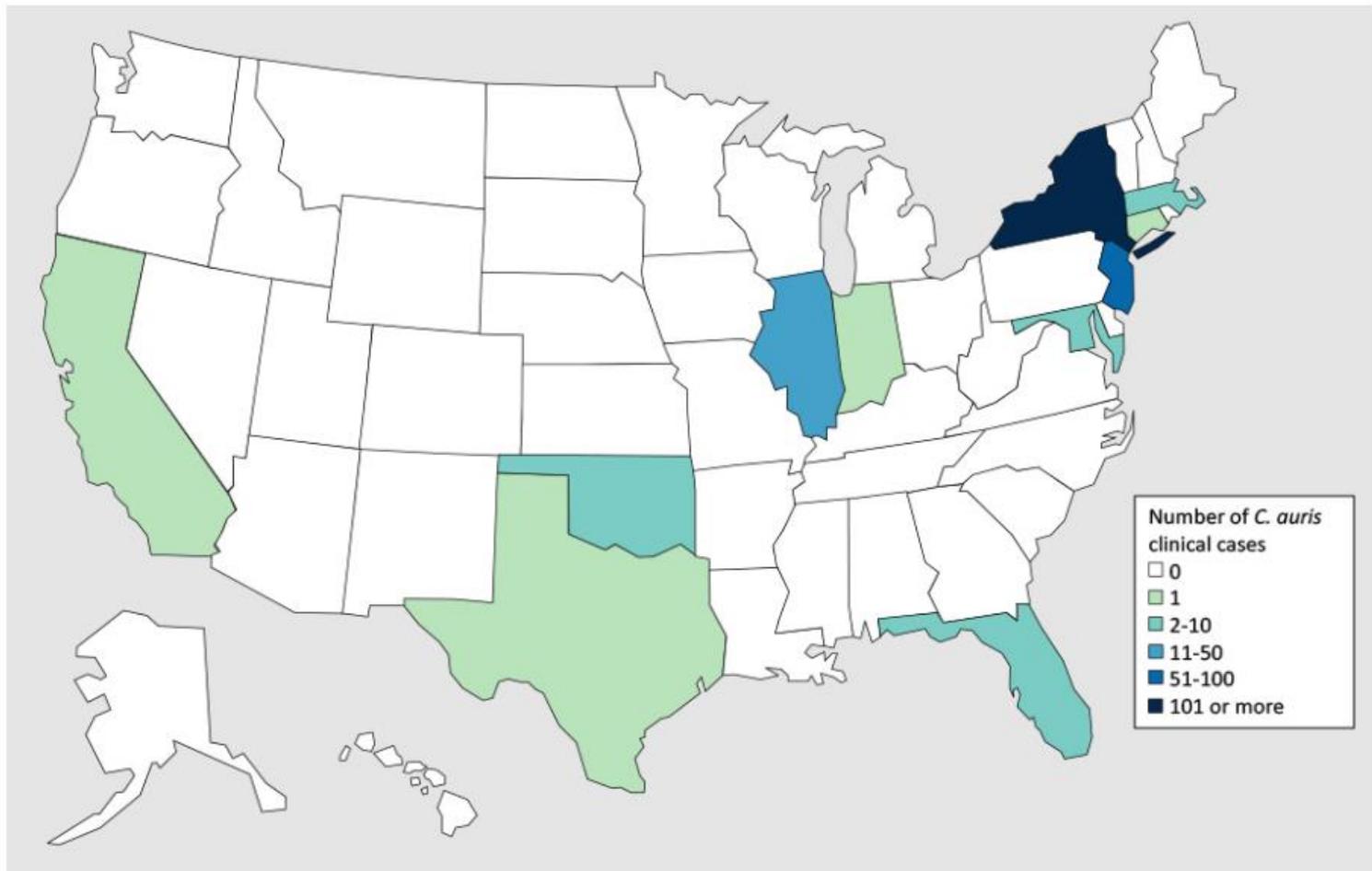
# Illinois *C. auris* cases (n=283) by culture date, as of 6/28/18



- Confirmed: Laboratory evidence of *C. auris* from clinical culture.
- Probable: Laboratory evidence of *C. haemulonii* from clinical culture & epidemiologic linkage to confirmed case.
- Suspect: Laboratory evidence of *C. haemulonii* from clinical culture & no epi link.
- Screening: Laboratory evidence of *C. auris* from screening or surveillance culture.



Slide courtesy of Angela Tang.



Cases are categorized by the state where the specimen was collected. Most [probable cases](#) were identified when laboratories with current cases of *C. auris* reviewed past microbiology records for *C. auris*. Isolates were not available for confirmation. Early detection of *C. auris* is essential for containing its spread in healthcare facilities.

<https://www.cdc.gov/fungal/candida-auris/tracking-c-auris.html>

# State Health Department Response

- Weekly State of the State calls
  - Participation from involved jurisdictions
  - Case count update
  - Point prevalence survey results
  - APIC Consulting update
    - Facility engagement/interaction
    - Infection Control Assessment and Response Status
  - Lab capacity and inventory update
    - Point prevalence surveys
    - Environmental cultures
  - Action items for the week

# Chicago PROTECT

(Providing Regional Organizations with TEchniques to ConTrol MDROs)

- An Intervention Bundle
  - Uses data to predict high risk facilities
  - Alerting system
  - Targeted interventions
    - Point prevalence screening
    - Contact Precautions and cohorting
    - Chlorhexidine bathing
    - Healthcare worker education
- Measure control efforts over time



<https://www.cdc.gov/hai/research/cdc-mdro-project.html>

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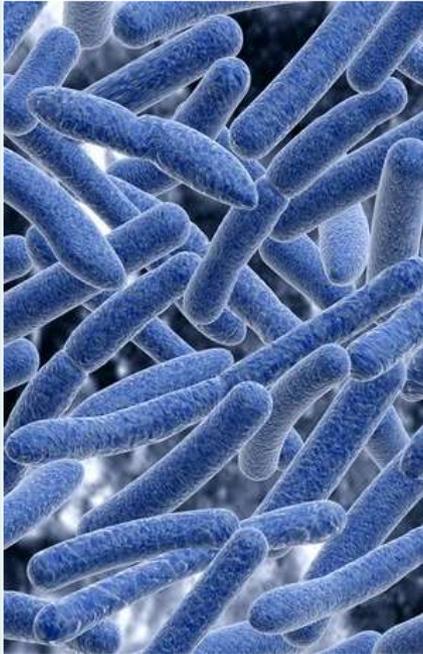
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<https://www.cdc.gov/vitalsigns/stop-spread/index.html>



The XDRO registry is a product of collaboration between IDPH, Medical Research Analytics and Informatics Alliance (MRAIA), and the Chicago CDC Prevention Epicenter.

## To report CRE, please log-in through [IDPH portal](#) and access the XDRO registry under 'product application'

**New users (who do not have access to the IDPH web portal):** You must register for access to the IDPH web portal. Fill out the form to create a new username, and select the box to access the application "INEDSS (Disease Surveillance) System/XDRO registry (extensively drug resistant organism)." This may take several weeks to process.

**Users who have access to the IDPH web portal, but not the INEDSS/XDRO application:** If you already have a username and access to the IDPH web portal, **do not fill out a new registration form.** Please have your facility Portal Registration Authority (PRA)\* send an email to [DPH.Security@illinois.gov](mailto:DPH.Security@illinois.gov) requesting for you to have access to the additional application "INEDSS (Disease Surveillance) System/XDRO registry (extensively drug resistant organism)." Make sure your PRA includes your full name and User ID.

**Existing INEDSS users:** Your existing IDPH log-in will automatically give you access to the XDRO registry. For log-in issues, please call the Central Management Services customer service center at 217-524-3648 or 312-814-3648.

\* If you do not know the PRA for your facility, please [Click here](#) to find your PRA. If you still cannot find your PRA after scrolling through the list, please email [DPH.Security@illinois.gov](mailto:DPH.Security@illinois.gov) to find out who your PRA is

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<https://www.xdro.org/login.html>



### Web Portal User Agreement

**USER MUST READ THIS WEB PORTAL USER AGREEMENT BEFORE APPLYING FOR, ACCEPTING, OR USING A USER ACCOUNT TO ACCESS THE ILLINOIS DEPARTMENT OF PUBLIC HEALTH (IDPH) WEB PORTAL. IF THE USER DOES NOT AGREE TO THE TERMS AND CONDITIONS OF THIS WEB PORTAL USER AGREEMENT, AN ACCOUNT WILL NOT BE ISSUED IN HIS/HER NAME.**

This Agreement will become effective on the date the facility employee (User) submits the user registration application form to the designated Portal Registration Authority (PRA) at his/her Facility. By submitting the registration application form, the User is expressing his/her agreement to the terms of the Web Portal User Agreement (Agreement).

**The Web Portal User agrees to:**

1. Make true representation regarding information to be used in his/her profile for identification and authentication purposes;
2. Upon issuance of a Web Portal User account, the applicant as the user will review the associated profile to ensure that all user information included is accurate;
3. Make use of the portal resources solely for legal and authorized State and Public Health business, consistent with applicable local, state and federal laws, mandates and regulations;
4. Take reasonable precautions to prevent any compromise, modification, loss, disclosure, or unauthorized use of his/her user account and associated privileges;
5. Protect his/her associated user password by following the required guidelines for password definition and maintenance;
6. Immediately inform the Portal Registration Authority or the IDPH Security Administrator (SA) of a suspected compromise of the user account;
7. Review and follow changes and updates to policies for using the Web Portal posted on this web site.

**The Web Portal User agrees to adhere to the Password Guidelines as follows:**

1. Not easily guessed and no common words or names.
2. A combination of letters and numbers
3. A minimum of eight characters
4. Changed at least every 90 days and whenever it is suspected someone knows the current password
5. Unique within a 12 month period - passwords not reused or repeated.

**The Web Portal User agrees to adhere to Confidentiality Requirements as follows:**

1. The User shall secure his/her password to the Web Portal.
2. The User shall not use, divulge, or otherwise compromise the integrity of his/her user account and password
3. To access the Web Portal only in the course of his/her official duties as an employee of the Facility
4. To maintain confidentiality of all data, documents, memoranda and any other materials accessed from the Web Portal
5. In the event User needs to share materials obtained from the Web Portal with other individuals, the User will only provide such materials to authorized employees at the Facility, and the User will ensure those authorized employees agree to adhere to the requirements contained in this agreement
6. That the information and materials the User may access at the Web Portal contains confidential and proprietary information of the Illinois Department of Public Health
7. To not disclose orally, nor prepare any writings, reports, publications, etc., or disseminate in any other manner materials contained in or obtained from the Web Portal for release to third parties, except as specifically required by or with the written permission of the Illinois Department of Public Health
8. If the User receives a request for information from the Web Portal link, the User will notify the Department of Public Health immediately. A request for information includes a subpoena, court order, Freedom of Information Act request or a request from a researcher. Any issue whether information is to be released shall be resolved by the Department
9. In the event the User fails to adhere to the provisions contained within the agreement, the User shall be subject to any or all of the following: termination from access to the Web Portal, discipline, and termination from employment
10. All other information required to be kept confidential in accordance with Confidentiality/Privacy Policies enforced by IDPH.

**The User agrees to Termination as follows:**

1. Violation of this agreement or of the trust relationship with IDPH may result in IDPH terminating the User agreement and revoking User privileges.
2. The User acknowledges that a violation of this agreement will result in irreparable harm, and hereby accepts responsibility for his/her actions.
3. Misuse of information technology resources may also subject the User to penalties under state and federal law not limited to the Computer Crime Prevention Law (720 ILCS 5/16D).

**Disclaimer of Liability**

Neither the Illinois Department of Public Health nor any of its employees shall be held liable for any improper or incorrect use of the information described and/or contained in the Web Portal and assumes no responsibility for anyone's use of the information. In no event shall the IDPH web site, web portal, or its employees be liable for any direct, indirect, incidental, special, exemplary, or consequential damages (including, but not limited to, procurement or substitute goods or services; loss of use, data, or profits; or business interruption) however caused and on any theory of liability, whether in contract, strict liability, or tort (including negligence or otherwise) arising in any way out of the use of this system, even if advised of the possibility of such damage. This disclaimer of liability applies to any damages or injury, including but not limited to those caused by any failure of performance, error, omission, interruption, deletion, defect, delay in operation or transmission, computer virus, communication line failure, theft or destruction or unauthorized access to, alteration of, or use of record, whether for breach of contract, tortious behavior, negligence or under any other cause of action.

[IDPH Web Portal](#)

This form should be used **only** to register to create a new username for the IDPH Web Portal. If you already have a username, please exit and have your facility PRA send an email to DPH Security requesting the additional application access needed. Please enter the following information. \* denotes a required field.

A username will be created automatically upon submission of your registration request and a copy of the request will be sent to you via email.

First name: \*

Last name: \*

Password must be a mix of letters and numbers, with a minimum of one capital letter and eight characters in length.

Password: \*

Confirm password: \*

Title: \*

Organization: \*

Department: \*

Work address: \*

City: \*

State: \*

ZIP code: \*

E-mail: \*

Confirm E-mail: \*

Work phone #: \*

Cell phone #: \*

Pager #: \*

FAX #: \*

Supervisor's name: \*

Purpose for registration: \*

Please check the appropriate box(es) below to request access to restricted applications.

- Beach Monitoring System
- Blood Lead Billing System (MoveIT)
- Cancer Registry System
- EMS Licensing System
- Environmental Health Licensing System
- Genetic Counseling System
- Health Care Worker Background Check System (Fax any and all documentation regarding the HCWBC system to 217-558-3836 or email to [dph.hcwr.pra@illinois.gov](mailto:dph.hcwr.pra@illinois.gov))
- Healthy Homes and Lead Poisoning Surveillance System
- I-CARE/Immunization Registry (click here to select the [KeyMaster's e-mail:](#) )
- I-CARE/SFTP (MoveIT) HL7 File Transfer
- I-CARE/HTTPS (Web Services) HL7 File Transfer
- INEDSS (Disease Surveillance) System/XDRO registry (extensively drug resistant organism)
- LHPG Performance Indicators
- MoveIt File Transfer
- Newborn Screening eReports (enter IDPR or Professional License #: )
- Perinatal HIV Reporting System
- Portal Community (please specify the name in the Purpose for registration field above)
- Refugee Health Assessment Program in Illinois (ReHAPI)
- Smoke-Free Illinois Enforcement System
- Trauma/HSVI Registry System
- West Nile Virus System
- Other (please specify in the Purpose for registration field above)

PRA E-mail: \* select from the [Portal Registration Authority](#) list:

Submit Cancel

PRA List - Internet Explorer

https://wpur.dph.illinois.gov/WPUR/selectPRA

### Portal Registration Authority List

Enter a keyword to search for your organization:

Note: if no keyword is entered, a large list of organizations will be retrieved which may take several minutes. **If you can't find your organization, you can search idph and then select IDPH / DPH SECURITY.** IDPH/DPH Security is not a Portal Registration Authority (PRA). DPH Security will work with you to establish a PRA for your organization.

Form\_NEW.jsp

IDPH Web Portal Registrati...

IC Consulting Services

Please check the appropriate box(es) below to request access to restricted applications.

- Monitoring System
- Lead Billing System (MoveIT)
- Registry System
- Licensing System
- Environmental Health Licensing System
- Genetic Counseling System
- Health Care Worker Background Check System (Fax any and all documentation regarding the HCWBC system to 217-558-3836 or email to [dph.hcwr.pra@illinois.gov](mailto:dph.hcwr.pra@illinois.gov))
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Enter a keyword to search within the table below:

	Organization	Name	Phone
<input type="radio"/>	Glenview Terrace Nursing Center	Bradley Bartels	847-832-4630

Form\_NEW.jsp

IDPH Web Portal Registrati...

IC Consulting Services

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PRA E-mail: \* select from the [Portal Registration Authority](#) list:

Work address: \*

City: \*

State: \*

ZIP code: \*

E-mail: \*

Confirm E-mail: \*

Work phone #: \*

Cell phone #: \*

Pager #: \*

FAX #: \*

Supervisor's name: \*

Purpose for registration:

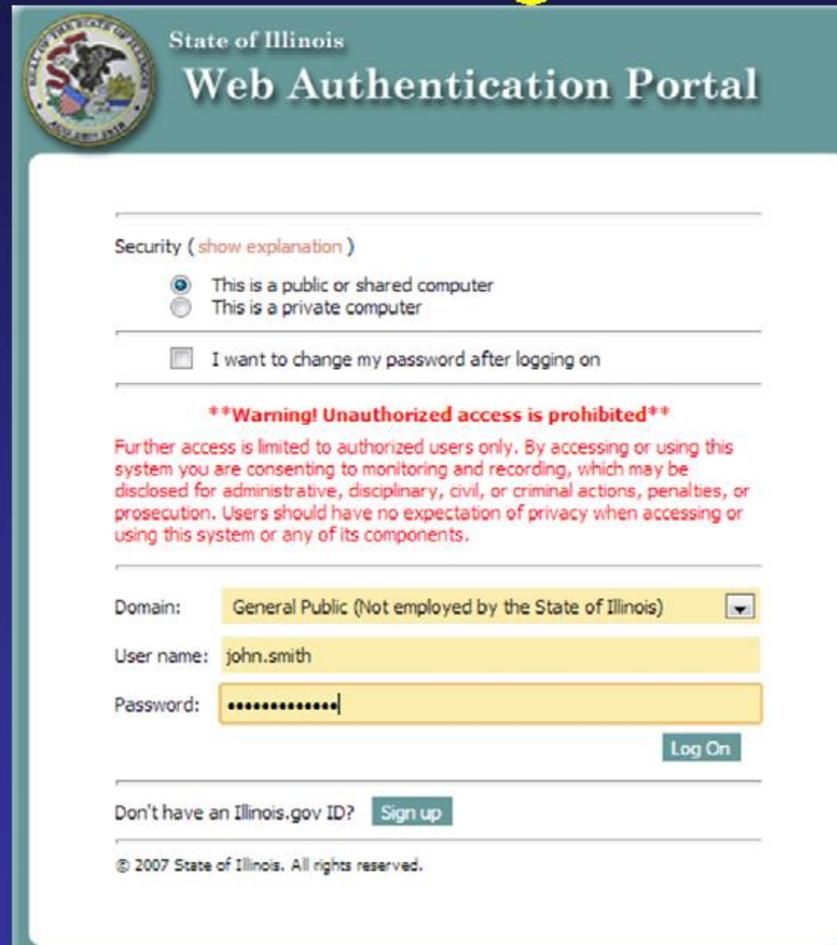
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# User Sign-In



The screenshot shows the State of Illinois Web Authentication Portal. At the top left is the State of Illinois seal. The title is "State of Illinois Web Authentication Portal". Below the title is a "Security" section with two radio buttons: "This is a public or shared computer" (selected) and "This is a private computer". There is also a checkbox for "I want to change my password after logging on". A red warning message states: "\*\*Warning! Unauthorized access is prohibited\*\*". Below the warning is a paragraph of text: "Further access is limited to authorized users only. By accessing or using this system you are consenting to monitoring and recording, which may be disclosed for administrative, disciplinary, civil, or criminal actions, penalties, or prosecution. Users should have no expectation of privacy when accessing or using this system or any of its components." The sign-in form includes a "Domain" dropdown menu set to "General Public (Not employed by the State of Illinois)", a "User name" field with "john.smith", and a "Password" field with masked characters. There is a "Log On" button. Below the form is a "Sign up" button for users without an Illinois.gov ID. At the bottom, it says "© 2007 State of Illinois. All rights reserved."

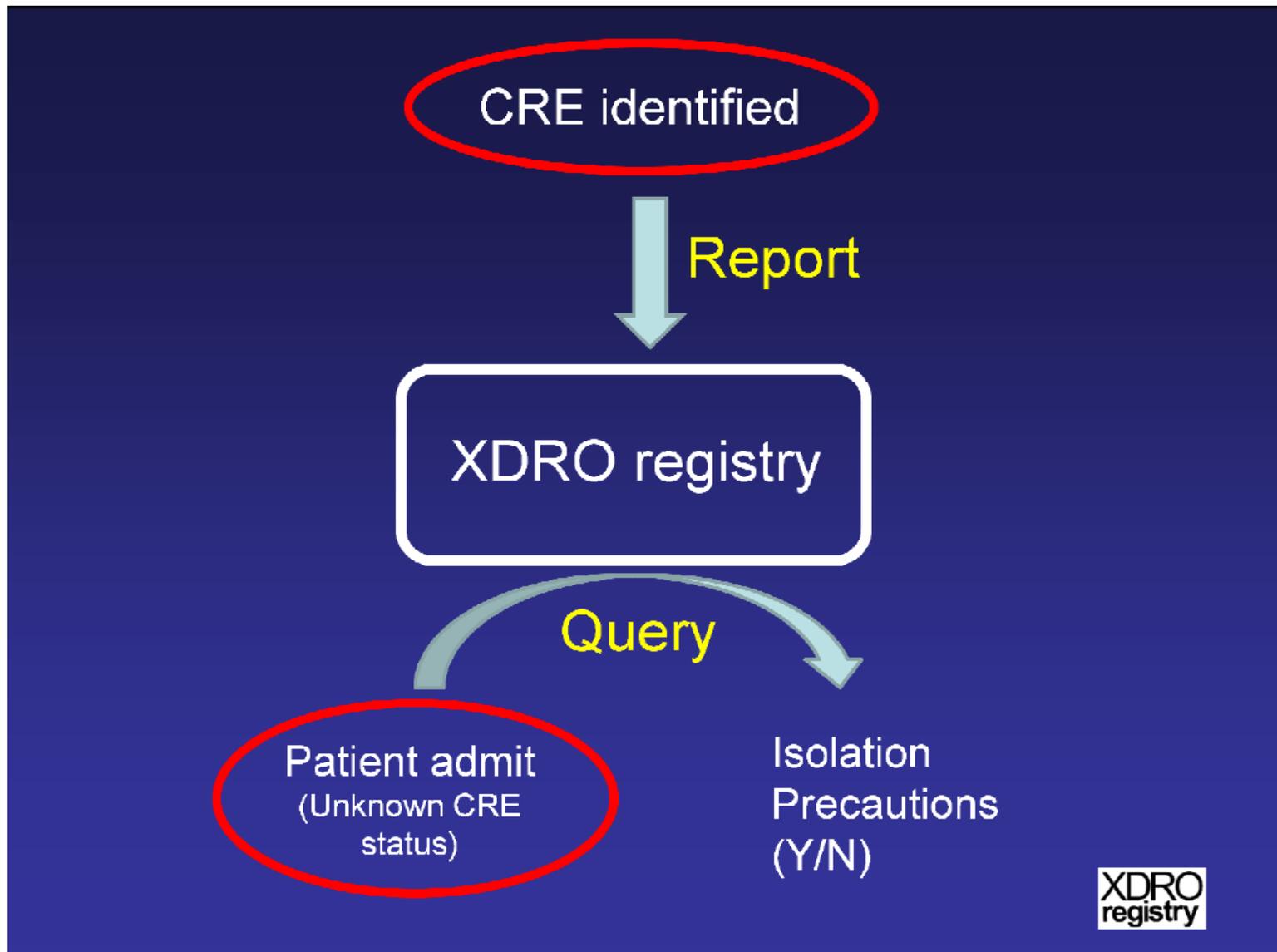


Source: [https://www.xdro.org/XDRO\\_registry\\_webinar.pdf](https://www.xdro.org/XDRO_registry_webinar.pdf)

The screenshot shows a web browser window with the URL <https://dph.partner.illinois.gov/Pages/AppTest.aspx>. The page header includes navigation links: Most Visited, Getting Started, Latest Headlines, Customize Links, Free Hotmail, and http. The main content area features the IDPH Web Portal logo and the text "IDPH Web Portal Applications, Alerting & Resources" and "DPH Partner". A navigation menu includes "DPH Partner", "Applications", "Communities", and "Discussion Board". The "Applications" menu is open, showing "Production Apps", "Test Apps", and "Development Apps". The "Test Applications" section lists three items: "Business Objects 3.1 - NEW VERSION (Test)", "Extensively Drug-Resistant Organisms (XDRO)", and "I-NEDSS Provider Reporting Test". A sidebar on the left contains sections for "Documents", "Lists" (Local Health Departments, Portal Registration Authorities), and "Communities" (Communicable Disease, Division of Laboratories, Environmental Health).



Source: [https://www.xdro.org/XDRO\\_registry\\_webinar.pdf](https://www.xdro.org/XDRO_registry_webinar.pdf)



Source: [https://www.xdro.org/XDR0\\_registry\\_webinar.pdf](https://www.xdro.org/XDR0_registry_webinar.pdf)

**Submit Report**

**Search Registry**

**Facility Submission History**

**Facility Alert History**

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Source: [https://www.xdro.org/XDRO\\_registry\\_webinar.pdf](https://www.xdro.org/XDRO_registry_webinar.pdf)

**XDRO Report**

**Facility information**

<b>Facility name</b> Rush-presb-st Lukes Medical Center	<b>* Patient MRN</b> <input type="text"/>	<b>* Date of admission</b> mm / dd / yyyy
--	--	--

**Patient demographics**

<b>* First name</b> <input type="text"/>	<b>* Last name</b> <input type="text"/>	<b>Maiden name(if applicable)</b> <input type="text"/>
<b>* Gender</b> <input type="radio"/> Male <input type="radio"/> Female	<b>* Date of birth(mm/dd/yyyy)</b> mm / dd / yyyy	<b>Social Security Number(last4)</b> <input type="text"/>
<b>Race</b> Please Select One: <input type="text"/>	<b>Ethnicity</b> <input type="radio"/> Hispanic or Latino <input type="radio"/> Not Hispanic or Latino	
<b>* Street address</b> <input type="text"/>	<b>* City</b> Chicago <b>* County</b> Cook	<b>* State</b> Illinois <b>* Zip code</b> <input type="text"/>

**XDRO culture information**

<b>* Organism name(genus/species)</b> Please Select Organism: <input type="text"/>	<b>* Date (culture acquisition)</b> mm / dd / yyyy	<b>XDRO criteria</b> <input type="checkbox"/> <b>Molecular test</b> (e.g. PCR) specific for carbapenemase <input type="checkbox"/> <b>Phenotypic test</b> (e.g. Modified Hodge) specific for carbapenemase production <input type="checkbox"/> <b>For E. coli and Klebsiella spp. only</b> Resistant to all 3rd generation cephalosporin antibiotics tested and resistant to a carbapenem antibiotic
<b>Specimen source</b> Please Select Specimen: <input type="text"/>	<b>Mechanism of resistance, if known</b> Please Select Mechanism: <input type="text"/>	

**Comments**

Source: [https://www.xdro.org/XDRO\\_registry\\_webinar.pdf](https://www.xdro.org/XDRO_registry_webinar.pdf)

**XDRO Report**

**Facility information**

**Facility name**  
Rush-presb-st Lukes Medical Center

**\* Patient MRN**

**\* Date of admission**  
mm / dd / yyyy

**Patient demographics**

**\* First name**

**\* Last name**

**Maiden name(if applicable)**

**\* Gender**  
 Male  Female

**\* Date of birth(mm/dd/yyyy)**  
mm / dd / yyyy

**Social Security Number(last4)**

**Race**  
Please Select One:

**Ethnicity**  
 Hispanic or Latino  
 Not Hispanic or Latino

**\* Street address**

**\* City** **\* County**  
Chicago Cook

**\* State** **\* Zip code**  
Illinois

**XDRO culture information**

**\* Organism name(genus/species)**

- Please Select Organism
- Please Select Organism
- Citrobacter freundii
- Citrobacter koseri
- Citrobacter spp.
- Enterobacter aerogenes
- Enterobacter cloacae
- Enterobacter spp.
- Escherichia coli
- Klebsiella oxytoca
- Klebsiella pneumoniae
- Klebsiella spp.
- Morganella morganii
- Pantoea agglomerans
- Proteus mirabilis
- Proteus spp.
- Providencia stuartii
- Providencia spp.
- Salmonella spp.
- Serratia marcescens
- Serratia spp.

**\* Date (culture acquisition)**  
mm / dd / yyyy

**Mechanism of resistance, if known**  
Please Select Mechanism:

**XDRO criteria**

- Molecular test** (e.g. PCR) specific for carbapenemase
- Phenotypic test** (e.g. Modified Hodge specific for carbapenemase production)
- For E. coli and Klebsiella spp. only:** Resistant to all 3rd generation cephalosporin antibiotics tested and resistant to a carbapenem antibiotic

Source: [https://www.xdro.org/XDRO\\_registry\\_webinar.pdf](https://www.xdro.org/XDRO_registry_webinar.pdf)

**XDRO registry** Rush-presb-st Lukes Medical Center [change facility](#)

Test1 Test [Home](#) [Help](#) [Go Back](#) [Logout](#)

### XDRO Report

**Facility information**

Facility name:  \* Patient MRN:  \* Date of admission:  /  /

---

**Patient demographics**

\* First name:  \* Last name:  Maiden name(if applicable):   
 \* Gender:  Male  Female \* Date of birth(mm/dd/yyyy):  /  /  Social Security Number(last4):   
 Race:  Ethnicity:  Hispanic or Latino  Not Hispanic or Latino  
 \* Street address:  \* City:  \* County:  \* State:  \* Zip code:

---

**XDRO culture information**

\* Organism name(genus/species):  \* Date (culture acquisition):  /  /   
 Specimen source:  Mechanism of resistance, if known:   
 Please Select Mechanism:  
 KPC (Klebsiella pneumoniae carbapenemase)  
 NDM-1 (New Delhi Metallo-β-lactamase)  
 OXA  
 Other  
 Unknown

**XDRO criteria**

- Molecular test (e.g. PCR) specific for carbapenemase
- Phenotypic test (e.g. Modified Hodge) specific for carbapenemase production
- For E. coli and Klebsiella spp. only Resistant to all 3rd generation cephalosporin antibiotics tested and resistant to a carbapenem antibiotic

**Comments**



Source: [https://www.xdro.org/XDRO\\_registry\\_webinar.pdf](https://www.xdro.org/XDRO_registry_webinar.pdf)

## XDRO Report - Rush-presb-st Lukes Medical Center

### Patient information

<b>Patient name:</b> J, J	<b>MRN:</b> 1234567	<b>Admission date:</b> 01/01/1993
<b>Date of birth:</b> 01/01/1975	<b>SSN (last 4):</b>	<b>Race:</b> Other
<b>Address:</b> 1234, Chicago, IL 12345		

### XDRO culture information

<b>Organism:</b> Klebsiella pneumoniae	<b>Culture date:</b> 01/04/1993
<b>XDRO criterion:</b> For E. coli and Klebsiella spp. only	<b>Specimen source:</b> Blood
<b>Mechanism of resistance:</b> KPC	

### Comments:

Submitted by Test1 Test, 10/11/2013, Rush-presb-st Lukes Medical Center

[Go Back](#) [Edit](#) [Delete](#) [Print](#)

Source: [https://www.xdro.org/XDRO\\_registry\\_webinar.pdf](https://www.xdro.org/XDRO_registry_webinar.pdf)

**Submit Report**

**Search Registry**

**Facility Submission History**

**Facility Alert History**

Source: [https://www.xdro.org/XDRO\\_registry\\_webinar.pdf](https://www.xdro.org/XDRO_registry_webinar.pdf)

## Search Patient

\* Last name

\* Date of birth

 /  / 

First name

### Search Instruction

#### a. Available fields:

Last name (required), first name (optional), DOB (required).

#### b. Search algorithm:

- i. If you enters all 3 fields, then attempt to match (exact; case insensitive) on all 3 fields.
- ii. If no match returns on 3 fields, then attempt to match (exact; case insensitive) on last name and DOB (ignore first name completely)

#### c. Results display

- i. In general, the results should give the you feedback on exactly how the search was made, and what the results are (including NULL result)

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Source: [https://www.xdro.org/XDRO\\_registry\\_webinar.pdf](https://www.xdro.org/XDRO_registry_webinar.pdf)

### Search Patient

\* Last name  \* Date of birth  /  /  First name

Showing results for J, DOB 10/10/1999 (FIRST NAME IGNORED):

Name	Date of Birth	SSN	Organism	Culture Date	Last Transaction	Facility
J,J	10/10/1999		Other Enterobacteriaceae	10/10/2012	submitted,10/10/2013	Rush-presb-st L..

Disclaimer: A match on name and date of birth only may not be 100% accurate. We recommend that you verify XDRO status with the patient or by contacting the facility that entered the result.

Source: [https://www.xdro.org/XDRO\\_registry\\_webinar.pdf](https://www.xdro.org/XDRO_registry_webinar.pdf)

## **XDRO Report - Rush-presb-st Lukes Medical Center**

### [Patient information](#)

**Patient name:** J, J

**MRN:**

**Admission date:** 10/10/2012

**Date of birth:** 10/10/1999

**SSN (last 4):**

**Race:** Black/African American

**Address:** 2200, Chicago, IL 60612

### [XDRO culture information](#)

**Organism:** Other Enterobacteriaceae

**Culture date:** 10/10/2012

**XDRO criterion:**

**Specimen source:** Blood

**Mechanism of resistance:**

**Comments:**

Submitted by Vicky G, 10/10/2013, Rush-presb-st Lukes Medical Center

[Go Back](#)

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Source: [https://www.xdro.org/XDRO\\_registry\\_webinar.pdf](https://www.xdro.org/XDRO_registry_webinar.pdf)

So, how is all of this relevant to long term care facilities?



# Knowledge is Key to Interrupting Transmission

- Routine query of the Registry for each admission
  - Can plan for resident placement ahead of time
  - Doesn't rely on communication from the transferring facility
  - Allows for timely initiation of precautions
  - May result in fewer resident room changes
- Can assist if cohorting is necessary
  - Identifies the mechanisms of resistance

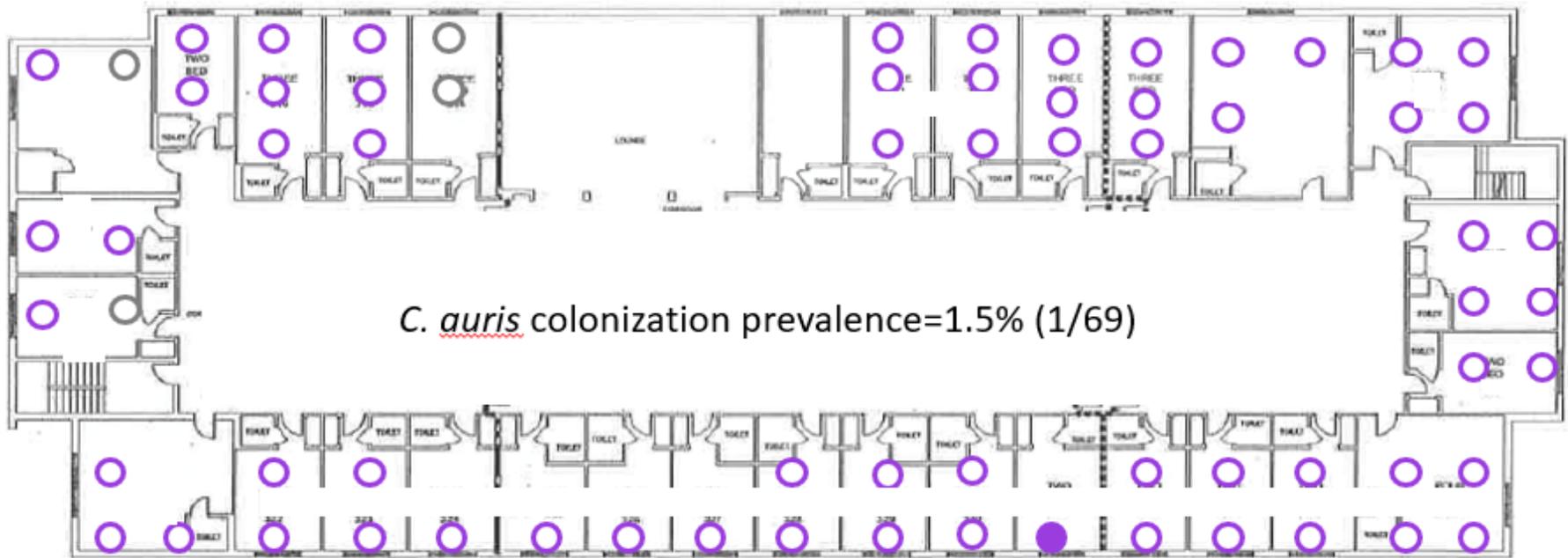
# Who Should Have Access?

- Admissions coordinators
- DON and/or ADON
- Infection preventionist
- Others involved in the admission process

# Ignorance is not bliss



# vSNF A Ventilator/Trach Floor March 2017 *C. auris* PPS Results

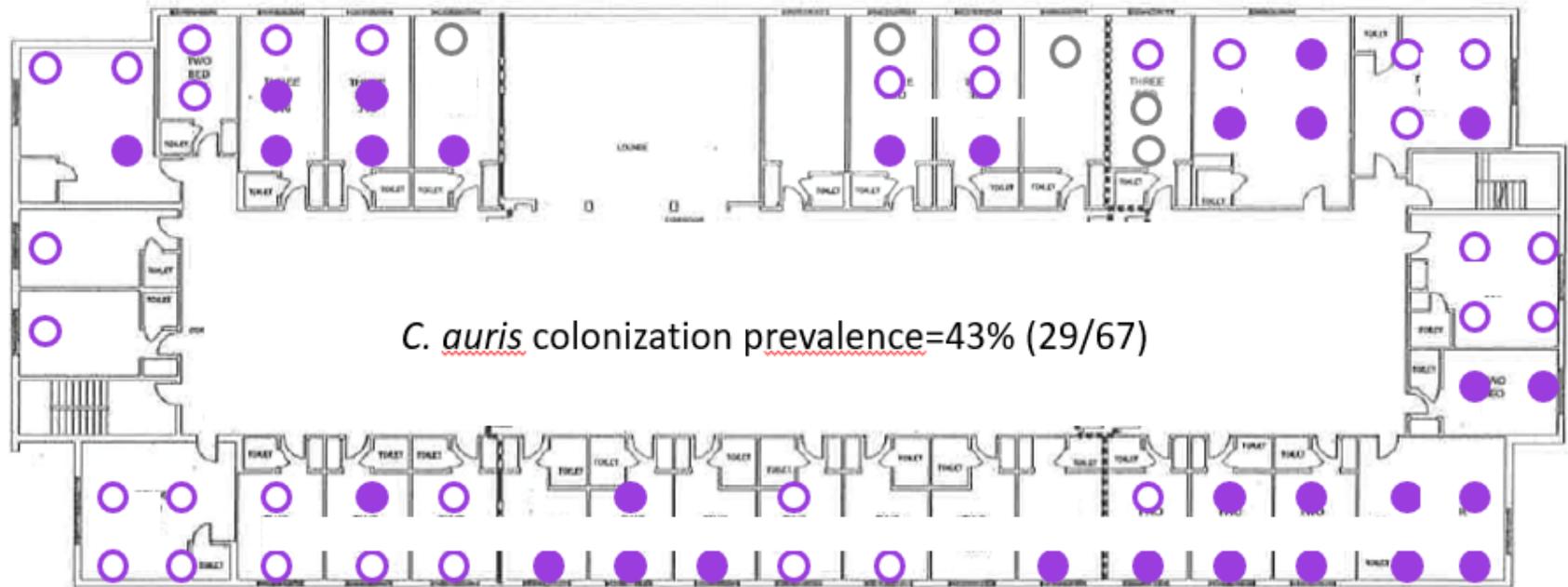


*C. auris* colonization prevalence=1.5% (1/69)

- *C. auris* positive
- Screened negative for *C. auris*
- Not tested for *C. auris* (refused or not in room)

Slide courtesy of Chicago Department of Public Health.

# vSNF A Ventilator/Trach Floor January 2018 *C. auris* PPS Results

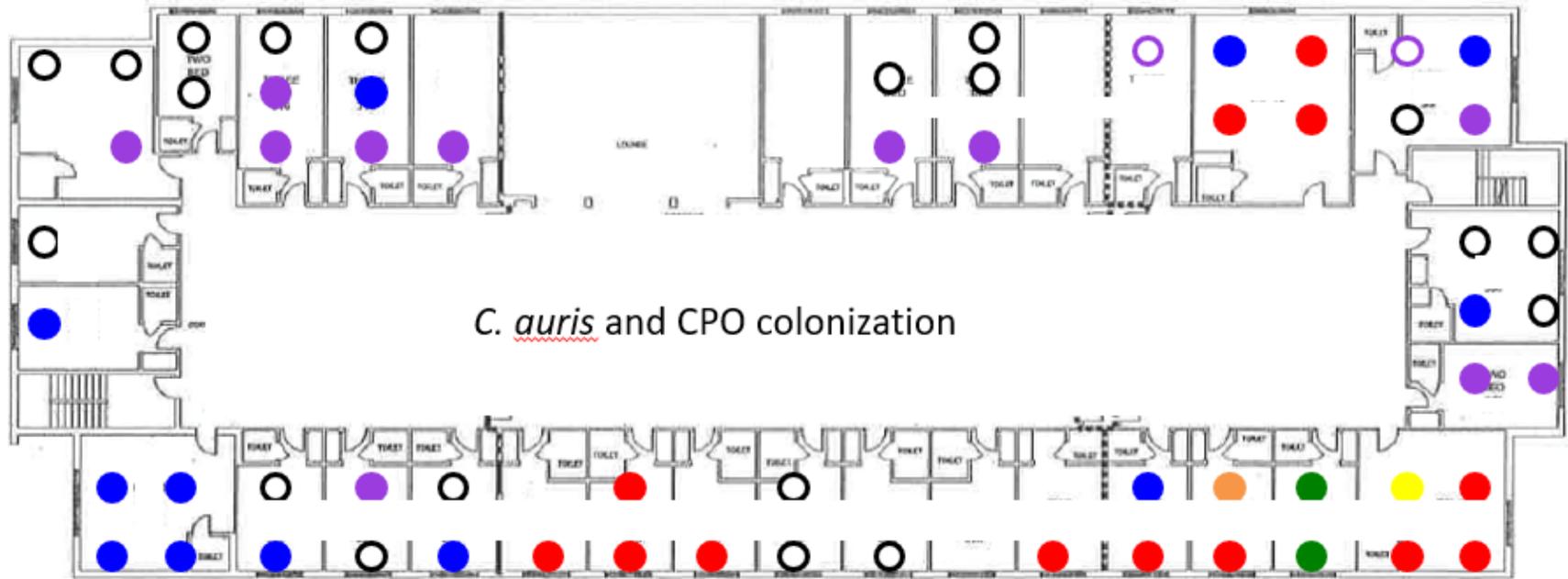


*C. auris* colonization prevalence=43% (29/67)

- *C. auris* positive
- Screened negative for *C. auris*
- Not tested for *C. auris* (refused or not in room)

Slide courtesy of Chicago Department of Public Health.

# vSNF A Ventilator/Trach Floor January 2018 CPO and *C. auris* PPS Results

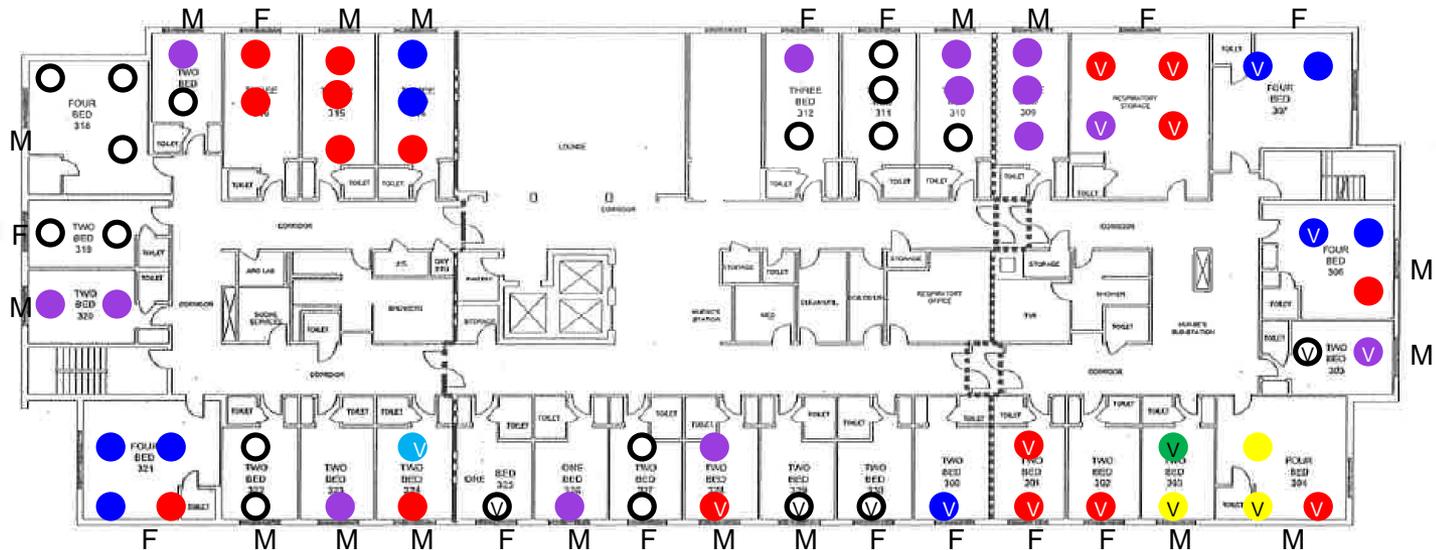


- *C. auris*
- *C. auris* and KPC
- KPC or CRE with unknown mechanism of resistance
- *C. auris*, KPC, and NDM
- *C. auris*, VIM-CRPA, and KPC
- *C. auris* and KPC-CRPA
- Screened negative for *C. auris*, but not tested for CRE
- Screened negative for CRE and *C. auris*

Slide courtesy of Chicago Department of Public Health.

# vSNF A Ventilator/Trach Floor

## March 2018 CPO and *C. auris* PPS Results



- *C. auris*
- *C. auris* and KPC CRE
- KPC CRE or CRE with unknown mechanism of resistance
- *C. auris*, KPC, and NDM
- *C. auris*, VIM-CRPA, and KPC
- *C. auris* and KPC-CRPA
- VIM-CRPA and KPC
- No known CRE or *C. auris*
- Bed held for hospitalized resident?

Slide courtesy of Chicago Department of Public Health.



SOURCE: AR Investment Map: [www.cdc.gov/ARinvestments](http://www.cdc.gov/ARinvestments)

# Conclusions

- Confirm that identified cases are reported
- Build a bench of team players who have XDRO Registry access
- Hardwire the process of checking the XDRO Registry with each admission
- Use the XDRO Registry to help inform resident placement
- Ensure environmental cleaning/disinfection and hand hygiene basics are implemented

# Discussion and Questions

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