Communicable Disease Service
Regional Epidemiology Program
Communicable Disease Forum
03-22-2022

https://www.nj.gov/health/cd/reporting/

1

Continuing Education Disclosure

New Jersey State Nurses Association Accreditation Statement
NJHA-HRET is an approved provider of continuing nursing education by the New Jersey State Nurses Association, an accredited provider by the American Nurses Credentialing Center's Commission on Accreditation.

Provisional Provider Number P-131-3/2022.
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2

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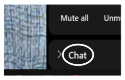
https://www.surveymonkey.com/r/LVV66H5

3

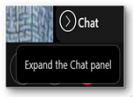
Accessing Chat in Webex

Accessing Chat

- If you don't see the Chat function on the right side of your webinar screen, look for the word **Chat** on the bottom right of your screen.



- Click on the little chevron pointing right to the left of the word Chat. This will expand the **Chat** panel.



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Vaccine Preventable Disease Case Investigation Updates

Elizabeth F. Zaremski, MPH
Surveillance Coordinator
Vaccine Preventable Disease Program
March 22, 2022

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NJ Disease Reporting Requirements

https://www.nj.gov/health/cd/reporting/

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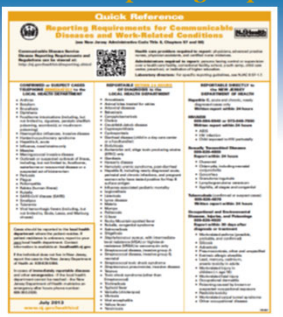
NJ Disease Reporting Requirements


Quick Reference

Reporting Requirements for Communicable Diseases and Work-Related Conditions

https://www.nj.gov/health/cd/documents/reportable_disease_magnet.pdf

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Case Investigation

- **Case assessment**
  - Review the laboratory result
  - Clarify verbal report
  - Is case reportable? Does it require public health response?
- **Become familiar with disease and available resources**
  - CDRSS disease module
  - NJDOH disease-specific websites, chapters, toolkits
- **Interview**
  - Provider – reason case was reported (or test was ordered), clinical assessment/management
  - Case (or parent/guardian) – extremely important for most diseases; often differs from provider's account
  - Family/friends, where appropriate
- **Public Health Response**
  - NJDOH may request additional information to make a determination
  - Exclusion/isolation, when appropriate
  - Identification/assessment of close contacts
  - Exposure notifications
  - Post-exposure prophylaxis, when appropriate
  - Follow-up at end of incubation period

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Tips

- **Collaborations**
  - Establish relationships with school nurses, local providers, facilities
  - Reach out to REP/SME
- **Interviewing**
  - Understand HIPAA
  - Inform provider you will be contacting the case for an interview
    - Verify case contact info, obtain an additional phone # or parent name
  - Case interviews are an integral part of public health, be thorough
    - Inform case their provider is aware of public health call
    - Use open-ended questions, ask clarifying questions ("Please tell me more about how the rash looked, where you noticed it first? Where did it go next? How does it look now?)
    - Use a calendar & prompts ("Do you recall if your cough started around the holiday or birthday?")
    - Leave a way for case to contact you if they have questions
    - Inform case you may need to speak again for additional info or at the end of an incubation period ("I'll give you a quick call again the week of March 28th. Is this the best # to reach you?")
  - Unreachable?
    - NJIIS, internet search, provider

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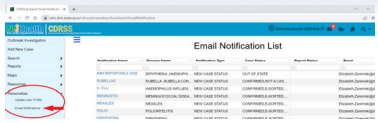
Tips (continued)

- **Exposure notifications**
  - Verify an exposure actually occurred
  - Determine exposure dates and incubation period
  - Entities should inform you of notifications and provide a copy
    - Check for inaccuracies
    - Inform NJDOH
  - "One voice, one message"
  - Some diseases have templates available from NJDOH
- **CDRSS Email notifications**



- **NJDOH Disease Prioritization for Investigation and Response Guidance document**
  - Outlines timelines for gathering/documenting case investigation information
  - Assist with prioritization

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CDRSS Data Entry and Case Closure

- **Document investigation progress**
  - Communication to NJDOH case is being investigated
  - Clear & concise comments
- **Finalize CDRSS data entry**
  - Illness onset date (really important!)
  - Demographics
  - Signs/symptoms
  - Pregnancy status
  - Risk factors
  - Hospital admission/discharge dates
  - Mortality
  - Immunizations (disease-specific immunizations only)
  - Treatment
  - Disease specific questionnaire (aka DSQ), if applicable
  - Assessment/prophylaxis of close contacts

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CDRSS Data Entry and Case Closure
(a few more notes)

- **Finalize CDRSS data entry**
  - Illness onset date
    - Determines infectious period
  - Demographics
    - Verify name, DOB, address, phone numbers
    - Obtain race/ethnicity
  - Signs/symptoms
    - Onset/resolution dates
    - Used to determine if meets case definition
    - Add S/S not in list
    - Use of "asymptomatic" is helpful
      - Document reason test was ordered
    - Attributes (e.g., temp, # of lesions, duration of cough)
  - Pregnancy status (important for many diseases)
  - Risk factors (additional information may be requested by NJDOH)
  - Hospital admission/discharge dates
  - Mortality
  - Immunizations (disease-specific immunizations only)
    - Obtain from NJIIS, provider, case, parent/guardian
  - Treatment (document treatment administered specific to case w/ dates)
    - Determines infectious period (duration)
  - Disease specific questionnaire (aka DSQ), if applicable
  - Assessment/prophylaxis of close contacts

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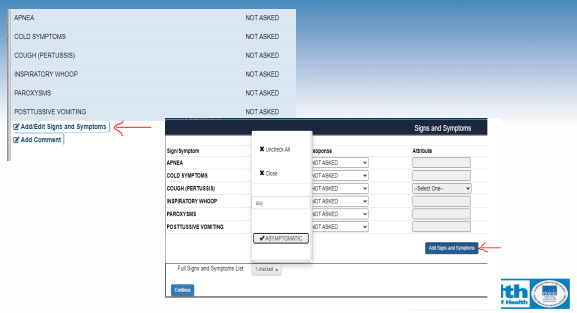
Adding Signs/Symptoms



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CDRSS Data Entry and Case Closure

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  - Demographics
  - Signs/symptoms (including onset dates)
  - Pregnancy status (important for many diseases)
  - Risk factors (additional information may be requested by NJDOH)
  - Hospital admission/discharge dates
  - Mortality
  - Immunizations (disease-specific immunizations only)
  - Treatment (treatment administered specific to case w/ dates)
  - Disease specific questionnaire (aka DSQ), if applicable
  - Assessment/prophylaxis of close contacts
- **Assign appropriate case classification**
  - VPDP follows the CSTE/CDC case definitions
- **Change Report Status to "LHD Closed" when case investigation is complete**

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Laboratory Considerations

- **Public Health and Environmental Laboratories (PHEL)**
  - https://www.nj.gov/health/phel/
  - Isolates
    - § 8:57-1.7 Reporting of positive laboratory results denoting diseases
    - § 8:57-1.7 **(e)** A clinical laboratory director shall submit within three days of identification…
      - E.g., *N. men, H. flu*
  - Reference laboratory testing
    - Requires SME, PHEL, and receiving lab approval PRIOR to submission
    - PCR for measles, diphtheria toxin testing, H. flu/N. men serogrouping by PCR
    - CDC, Wadsworth, Wisconsin
- **Reporting issues**
  - Reference range changes
  - Negative result
  - See something, say something

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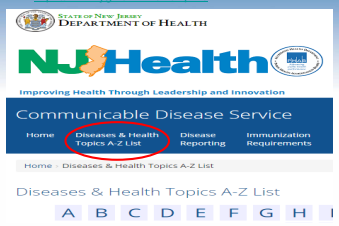
Resources

- **NJDOH Communicable Disease Service**
  - https://www.nj.gov/health/cd/topics/



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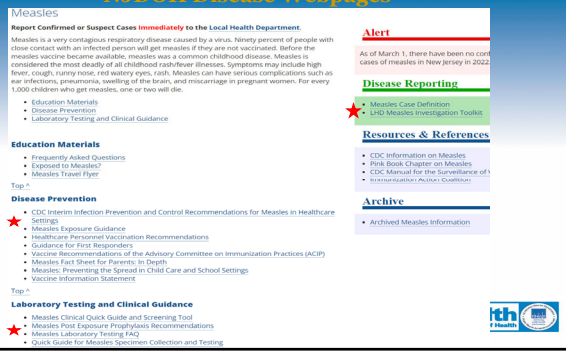
NJDOH Disease Webpages



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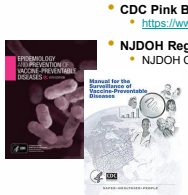
Resources

- **NJDOH Communicable Disease Service**
  - https://www.nj.gov/health/cd/topics/
- **AAP Red Book, 2021-2024, 32nd Edition**
  - https://publications.aap.org/redbook
- **CDC Manual for the Surveillance of VPDs**
  - https://www.cdc.gov/vaccines/pubs/surv-manual/index.html
- **CDC Pink Book**
  - https://www.cdc.gov/vaccines/pubs/pinkbook/index.html
- **NJDOH Regional Epidemiologists and Subject Matter Experts**
  - NJDOH CDS (609) 826-5964



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QUESTIONS?

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Hepatitis A: Update on NJ Outbreak and Case Investigations

COMMUNICABLE DISEASE FORUM- MARCH 2022

NJDOH | CDS | IZDP
DARBY MCDERMOTT, STATE PUBLIC HEALTH VETERINARIAN | DARBY.MCDERMOTT@DOH.NJ.GOV
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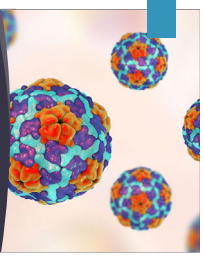
Hepatitis A

- **Immediately reportable disease**
- Infectious disease of the liver caused by Hepatitis A Virus
- Hepatitis A virus is found in the stool of infected people. People can become infected by ingesting the virus
- Common signs and symptoms: fever, fatigue, stomach pain, poor appetite, diarrhea, vomiting, dark yellow urine, yellow skin or eyes (jaundice)
- There is a highly effective vaccine to prevent Hepatitis A
- No specific medication to treat Hepatitis A; some may need to be hospitalized for supportive care



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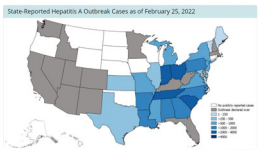
Person-to-person outbreaks across the U.S.

- Ongoing outbreaks of Hepatitis A across the United States, first identified in late 2016
- Certain groups at a greater risk of being infected in these outbreaks:
  - Persons who use drugs (both injection and non-injection)
  - Persons experiencing homelessness or unstable housing
  - Men who have sex with men (MSM)
  - Persons who have been or are currently incarcerated
  - Persons with liver disease



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NJ Hepatitis A Outbreak

- A statewide outbreak of Hepatitis A was identified in NJ in February 2019
- Outbreak declared over June 15, 2021 after three consecutive four-week periods below case threshold level
- Cases began to increase above threshold level in September 2021, putting NJ back into active outbreak status
  - Considered continuation of previous outbreak

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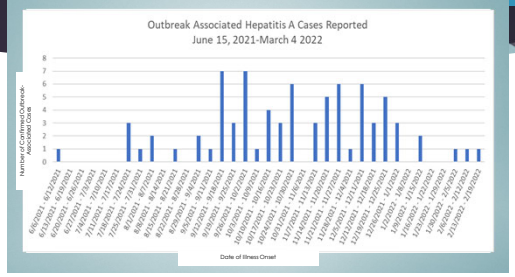

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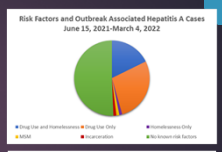
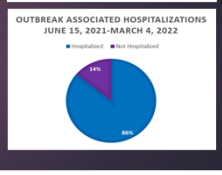
OUTBREAK ASSOCIATED CASES 6/15/21-3/4/22	
ATLANTIC	4
BERGEN	3
BURLINGTON	15
CAMDEN	18
CAPE MAY	1
CUMBERLAND	2
ESSEX	5
GLOUCESTER	6
HUDSON	1
MERCER	4
MIDDLESEX	3
MONMOUTH	3
OCEAN	4
PASSAIC	3
SALEM	5
UNION	2
TOTAL	79





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Hepatitis A Case Investigation

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Hepatitis A: Overview

- Incubation period: 15-50 days (average 30 days)
- Infectious period: 2 weeks before to 1 week after symptom onset
- Does not result in chronic infection
- Resolves within ~2 months of infection
- Severe complications are rare but may occur
- Antibodies by vaccination or natural infection provide long-term immunity & prevent against reinfection

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Diagnosis

- Based on clinical symptoms and lab results
- IgM anti-HAV
- Liver function tests (LFTs)
  - ALT
  - Bilirubin
- Total HAV antibodies not acceptable

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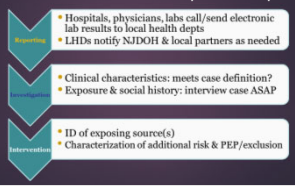
Robust Surveillance = Rapid Response



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Clinical case definition

- An acute illness with a discrete onset of any sign or symptom consistent with viral hepatitis

AND

- A)jaundice or elevated total bilirubin levels > 3.0mg/dL, OR
- B)elevated serum alanine aminotransferase (ALT) > 200IU/L

AND

C) the absence of a more likely diagnosis

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Case Classification

- A case that meets the clinical criteria and is IgM anti-HAV positive
  OR
- A case that has hepatitis A virus RNA detected by NAAT (such as PCR)

OR

- A case that meets the clinical criteria and occurs in a person who had contact with a laboratory confirmed hepatitis A case 2-6 weeks prior to illness onset

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Identification of Close Contacts for Post-exposure prophylaxis

- Individuals are infectious two weeks prior to symptom onset, up until one week after

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					14	15
16	17	18	19	20	21	22
23	24	25	26	27	28 *	29
30	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

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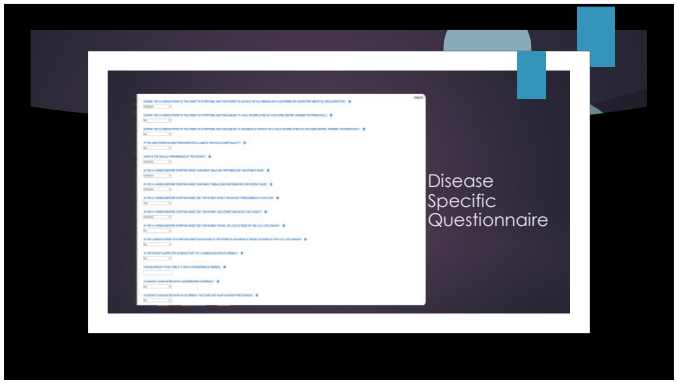

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Foodservice
Healthcare
Education & Childcare
Evaluating Transmission Risk

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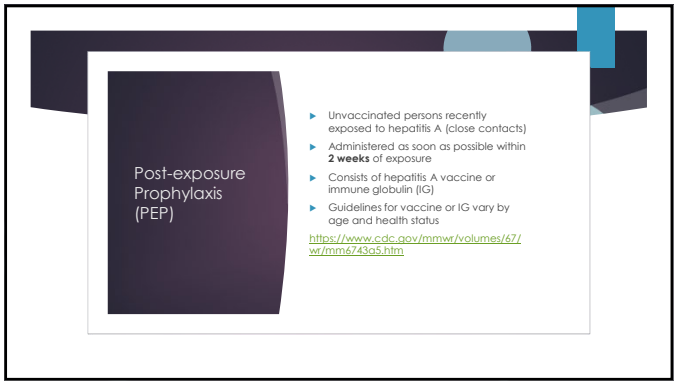
Post-exposure Prophylaxis (PEP)
Unvaccinated persons recently exposed to hepatitis A (close contacts)
Administered as soon as possible within 2 weeks of exposure
Consists of hepatitis A vaccine or immune globulin (IG)
Guidelines for vaccine or IG vary by age and health status
https://www.cdc.gov/mmwr/volumes/67/wr/mm6743a5.htm

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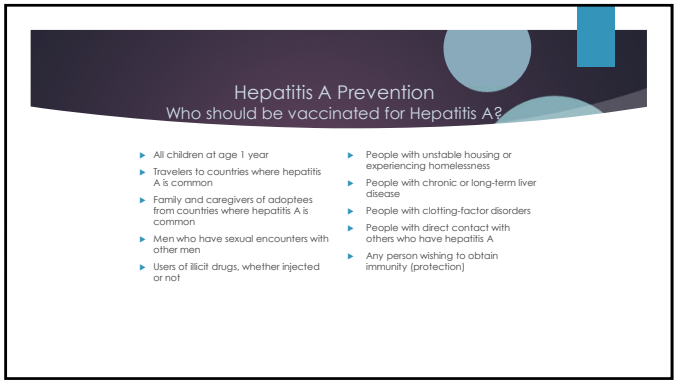
Hepatitis A Prevention
Who should be vaccinated for Hepatitis A?
All children at age 1 year
Travelers to countries where hepatitis A is common
Family and caregivers of adoptees from countries where hepatitis A is common
Men who have sexual encounters with other men
Users of illicit drugs, whether injected or not
People with unstable housing or experiencing homelessness
People with chronic or long-term liver disease
People with clotting-factor disorders
People with direct contact with others who have hepatitis A
Any person wishing to obtain immunity (protection)

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Resources

- NJDOH Hepatitis A
  - https://www.nj.gov/health/cd/topics/hepatitisa.shtml
- CDC Hepatitis A
  - https://www.cdc.gov/hepatitis/hav/index.htm
  - https://www.cdc.gov/hepatitis/outbreaks/2017March-HepatitisA.htm
- Local Health Department Directory
  - https://www.localhealth.nj.gov

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Epidemiology and Investigation of Multidrug-Resistant Organisms (MDROs) in the State of New Jersey

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HEALTHCARE-ASSOCIATED INFECTIONS AND ANTIMICROBIAL RESISTANCE EPIDEMIOLOGIST
COMMUNICABLE DISEASE SERVICE
NEW JERSEY DEPARTMENT OF HEALTH

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Agenda

- Introduction
- Multidrug-resistant organisms overview
- *Candida auris* overview
- Investigation and containment of multidrug-resistant organisms
- Available antimicrobial resistance testing resources
- Q&A

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Multidrug-resistant Organisms and Antimicrobial Resistance

What are Multi-drug resistant organisms (MDROs)?

- Pathogens or "germs" that are strong enough and smart enough to make treatment with antibiotics (or antifungals) difficult or impossible
- Many MDROs can cause large yet silent outbreaks in healthcare facilities
- May exhibit genetic mechanisms (e.g., NDM, KPC, OXA-) that enhance their antibiotic resistance
  - Genes may be shared between germs through horizontal gene transfer
- Colonization with MDROs pose very little risk to healthy people, but may cause illness in very sick patients, requiring hospitalization
- Highest risk patients include:
  - Hospitalized patients, particularly those with prolonged stays or compromised immune systems
  - Patients/residents with open wounds
  - Patients/residents with invasive devices, such as indwelling catheters, central lines, tracheostomies, and mechanical ventilation

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MDROs by Organism Type

Fungal MDROs

- *e.g., Candida auris (NOT aureus)*
- Infections treated with antifungals and develop antimicrobial resistance (AR)

Bacterial MDROs

- *e.g.,* Methicillin-resistant *Staphylococcus aureus* (MRSA), Carbapenem-resistant *Pseudomonas aeruginosa* (CRPA), Vancomycin-resistant *Enterococci* (VRE), etc.
- Infections treated with antibiotics and develop AR
- Includes **Carbapenemase-Producing Organisms (CPOs)**
  - **CPOs**: Types of bacteria with inherent and acquired antimicrobial resistance
  - Produce enzymes that breakdown carbapenem antibiotics called "carbapenemases"
  - Carbapenemases enable bacteria to become resistant to a class of antibiotics called "Carbapenems" (e.g., Doripenem, Ertapenem, Imipenem, Meropenem) and other β-lactam antibiotics (e.g., Penicillins)
  - Carry resistance genes (KPC, NDM, VIM, IMP, OXA-48, OXA-23, etc.) on mobile genetic elements, which can be easily spread to other bacteria
  - Cause invasive infections associated with high rates of mortality

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Colonization vs. Infection

- **Colonization:** occurs when patients carry a microorganism in and/or on their body, but without interaction between host and organism (i.e., no symptoms, no immune response)
  - Colonized patients are *still capable of spreading the microorganism* to others and the environment despite absence of symptoms
  - Colonized patients can drive silent outbreaks
  - People can remain colonized *indefinitely*, and no decolonization method has been demonstrated to be effective
- **Infection:** occurs when a microorganism's presence and replication results in interaction between the host and the microorganism (i.e., immune response, clinical expression), either after colonization or from a new introduction, and the body may respond by presenting with signs and symptoms of infection
  - Bloodstream infections
  - Wound infections
  - Respiratory infections
  - Urinary tract infections

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Challenges with preventing and detecting MDROs

- Lack of adherence to Standard Precautions for all patient care encounters
- Clinical cultures alone underestimate the true prevalence of MDROs
  - Do not capture colonized cases
- Most healthcare facilities do not perform active surveillance to identify colonized patients/residents that are asymptomatic
  - PCR testing for *C. auris* is not widely available through clinical or commercial labs
  - Laboratory testing for resistance genes is similarly not widely available through clinical or commercial labs
- Inconsistent and unreliable communication regarding patients' MDRO status or risk factors for MDROs during transfers between healthcare facilities
  - Lapses in communication during intra-facility and inter-facility transfers contribute to introduction and transmission of MDROs in a region

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MDRO Prevention Strategies

- Hand hygiene
- Personal protective equipment
- Transmission-based precautions
- Cleaning/disinfection of shared equipment
- Environmental cleaning/disinfection
- Improved inter-facility communication
- Antibiotic stewardship

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Transmission-Based Precautions for MDROs in Acute Care Facilities (includes Long Term Acute Care)

- Immediately implement Contact Precautions for patients suspected or confirmed to have *C. auris* or other novel/targeted MDROs
  - Use of gown and gloves upon entry to the patient room for all contact with the patient or their environment
  - Should also be implemented during the period that test results are pending (e.g., from specimen collection until negative PCR/culture results return)
- Place patient in a single room *when possible*
- Continue appropriate transmission-based precautions for the entire duration of the patient's inpatient stay and **all subsequent healthcare admissions**
  - Repeat testing for the purposes of clearing an individual from transmission-based precautions is **NOT** recommended
  - Once an individual is identified as being positive, they should be cared for using Contact Precautions for all inpatient acute care encounters

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Transmission-based Precautions for MDROs in Long Term Care Facilities

- Long-term Care Facilities that provide care for residents colonized or infected with MDROs (including *C. auris*) should implement either Contact Precautions or Enhanced Barrier Precautions (EBP)
- EBP requires the use of gown and gloves for certain residents during **high-contact care activities**.
- EBP should be implemented for all residents that meet the following criteria:
  - Residents colonized/infected with a novel or targeted MDRO (e.g., *C. auris*, CPOs) and do not otherwise require Contact Precautions (i.e., presence of secretions or excretions that are unable to be contained, and/or documented or suspected transmission)
  - Residents admitted to the same unit or wing of the facility as the resident with novel or targeted MDROs and have wounds or indwelling devices (e.g., central line, urinary catheter, feeding tube, tracheostomy, ventilator)

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Enhanced Barrier Precautions for Long Term Care Facilities

- **High-contact care activities** create opportunities for transfer of MDROs to staff and thus require the use of gown and gloves
  - Includes rehabilitation services (physical therapy, occupational therapy, speech therapy)
- Facilities are encouraged to bundle high-contact care activities to conserve PPE and reduce foot traffic in and out of affected resident rooms
- Residents on EBP are not restricted to their rooms and participation in group activities are acceptable
- Contact Precautions should be used in place of EBP if:
  - (1) A patient's secretions or excretions are unable to be contained
  - (2) There is suspected or documented transmission within the facility
  - (3) If a resident has an infection or other medical condition that, under normal facility policy, would require Contact Precautions
- If Contact Precautions are exercised for all residents with select MDROs, other high-risk individuals still require EBP

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Agenda

- Introduction ✓
- Multidrug-resistant organisms overview ✓
- ***Candida auris* overview**
- Investigation and containment of multidrug-resistant organisms
- Available antimicrobial resistance testing resources
- Q&A

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Candida auris (C. auris)

- Fungal (yeast) organism with inherent antimicrobial resistance
- Primarily healthcare-associated
- Increasingly common in the United States (U.S.)
  - First identified in the U.S. in 2016 and has spread across the country
- *C. auris* can be misidentified as other types of yeasts with common laboratory methods
- Capable of colonizing and causing a variety of clinical infections including bloodstream, respiratory, wound and urinary tract infections
  - High attributable mortality (40-60%)
- No known incubation period
- Environmentally hardy pathogen
  - Resistant to many common cleaning and disinfectant products
  - Contaminates medical equipment and environmental surfaces
  - Survives on surfaces for weeks if not properly cleaned and disinfected with an **EPA-registered List P product**

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Why is C. auris concerning?

- Often multidrug-resistant
- Patients can become colonized and develop invasive infections
- Can spread and cause outbreaks in healthcare settings

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Risk Factors for *C. auris* Colonization and Infection*

- Prolonged admissions and residence at healthcare facilities
- Prior admissions and residence at healthcare facilities located in states or counties with significant *C. auris* burden
- Close contact and prolonged exposure to *C. auris* positive individuals (e.g., roommates, patients with shared bathrooms, patients overlapping on the same unit as the case without appropriate transmission-based precautions).
- Invasive mechanical ventilation or tracheostomy
- Indwelling devices (e.g., central lines, peripheral lines, indwelling catheters, dialysis ports)
- Immunocompromising conditions or other serious health conditions
- Recent treatment using broad-spectrum antibiotics or antifungals
- Documented colonization or active infection with other MDRO(s)
- Recent healthcare rendered outside of the United States
- *NOTE: Presence of multiple risk factors increases an individual's risk for infection

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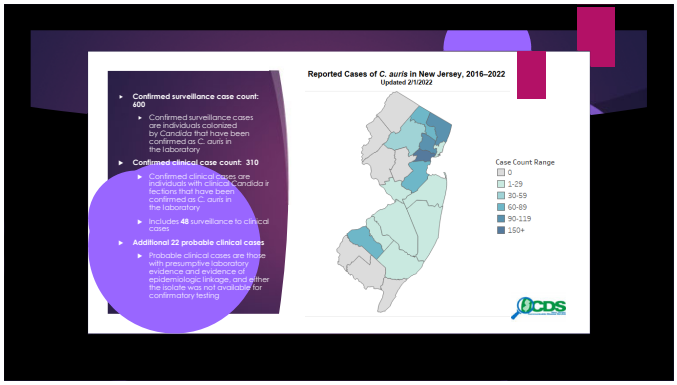
Confirmed surveillance case count: 600
Confirmed surveillance cases are individuals colonized by Candida that have been confirmed as C. auris in the laboratory
Confirmed clinical case count: 310
Confirmed clinical cases are individuals with clinical Candida infections that have been confirmed as C. auris in the laboratory
Includes 48 surveillance to clinical cases
Additional 22 probable clinical cases
Probable clinical cases are those with presumptive laboratory evidence and evidence of epidemiologic linkage, and either the isolate was not available for confirmatory testing
Reported Cases of C. auris in New Jersey, 2016–2022
Updated 2/1/2022
Case Count Range
0
1-29
30-59
60-89
90-119
150+
CDS

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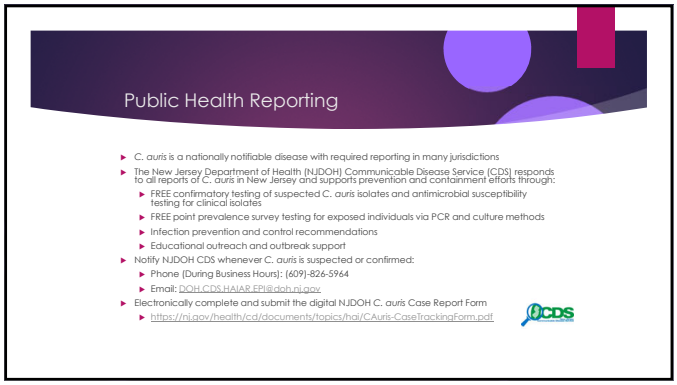
Public Health Reporting
C. auris is a nationally notifiable disease with required reporting in many jurisdictions
The New Jersey Department of Health (NJDOH) Communicable Disease Service (CDS) responds to all reports of C. auris in New Jersey and supports prevention and containment efforts through:
FREE confirmatory testing of suspected C. auris isolates and antimicrobial susceptibility testing for clinical isolates
FREE point prevalence survey testing for exposed individuals via PCR and culture methods
Infection prevention and control recommendations
Educational outreach and outbreak support
Notify NJDOH CDS whenever C. auris is suspected or confirmed:
Phone (During Business Hours): (609)-826-5964
Email: DOH.CDS.HAIAR.EPI@doh.nj.gov
Electronically complete and submit the digital NJDOH C. auris Case Report Form
https://nj.gov/health/cd/documents/topics/hai/CAuris-CaseTrackingForm.pdf
CDS

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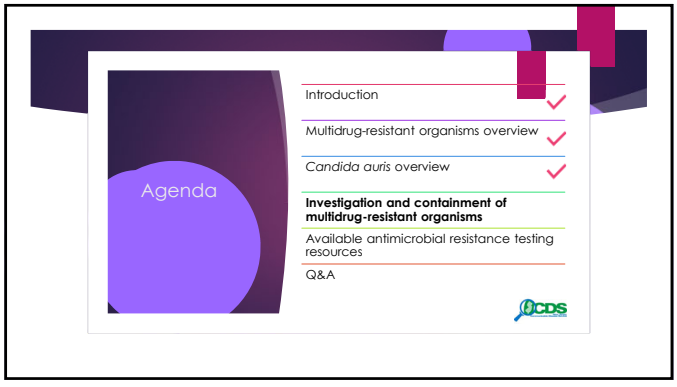
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Novel or targeted MDRO Containment Response

What are Novel or Targeted MDROs?

- As of July 2019, the Centers for Disease Control and Prevention (CDC) has defined the following as Novel or Targeted MDROs:
  - Pan-resistant/non-susceptible organisms
  - Carbapenemase-producing Enterobacterales
  - Carbapenemase-producing *Pseudomonas* species
  - Carbapenemase-producing *Acinetobacter baumannii*
  - *Candida auris*

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Endemic or Near-Endemic Organisms in NJ

Based on local epidemiology, the following organisms are considered endemic, or nearly endemic. Response to individual cases is not expected **unless transmission is suspected.**

- Carbapenem-resistant Enterobacterales (CRE), Carbapenem-resistant *Pseudomonas aeruginosa* (CRPA), and Carbapenem-resistant *Acinetobacter baumannii* (CRAB) *excluding those with Carbapenemase genes listed elsewhere*
- *Clostridioides difficile (C. difficile)*
- Extended spectrum β-lactamase producing Enterobacterales (ESBLs)
- Klebsiella pneumoniae carbapenemase (KPC) – producing organisms
- Methicillin-resistant *Staphylococcus aureus* (MRSA)
- OXA-23 Carbapenem-resistant *Acinetobacter baumannii* (CRAB)
- Vancomycin-intermediate *Staphylococcus aureus* (VISA)
- Vancomycin-resistant Enterobacterales (VRE)

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MDRO Containment Strategy

Systematic public health response to slow the spread of emerging AR

Detection
Often responding to a single case

Infection Control
Remote or onsite assessment of infection prevention and control policies and practices

Contact Screening
Case traceback and colonization screening of potentially exposed contacts

Regular infection control assessments and screening (point prevalence surveys) until transmission stops

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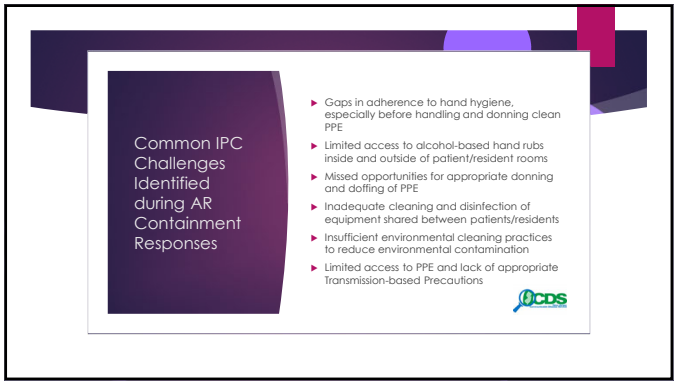
Common IPC Challenges Identified during AR Containment Responses
Gaps in adherence to hand hygiene, especially before handling and donning clean PPE
Limited access to alcohol-based hand rubs inside and outside of patient/resident rooms
Missed opportunities for appropriate donning and doffing of PPE
Inadequate cleaning and disinfection of equipment shared between patients/residents
Insufficient environmental cleaning practices to reduce environmental contamination
Limited access to PPE and lack of appropriate Transmission-based Precautions
CDS

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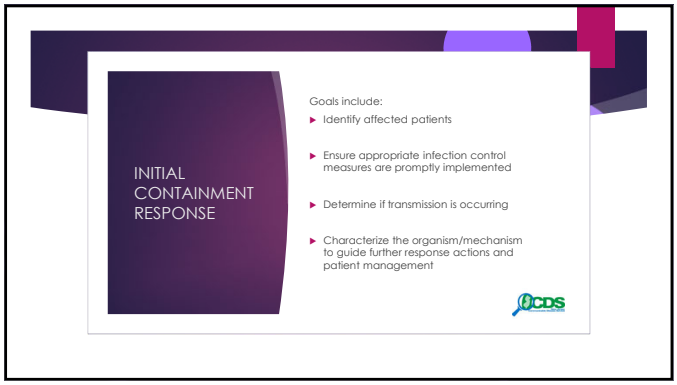
INITIAL CONTAINMENT RESPONSE
Goals include:
Identify affected patients
Ensure appropriate infection control measures are promptly implemented
Determine if transmission is occurring
Characterize the organism/mechanism to guide further response actions and patient management
CDS

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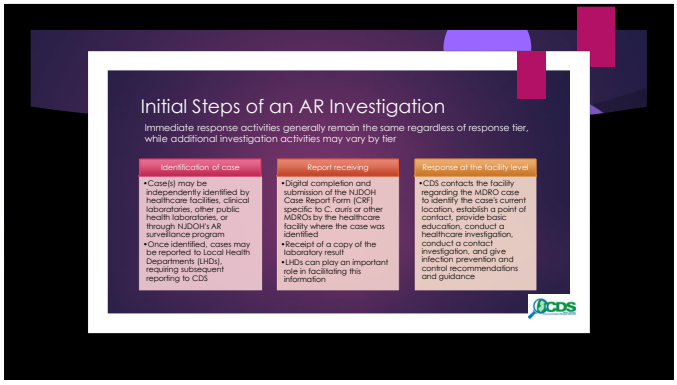
Initial Steps of an AR Investigation
Immediate response activities generally remain the same regardless of response tier, while additional investigation activities may vary by tier
Identification of case
•Case(s) may be independently identified by healthcare facilities, clinical laboratories, other public health laboratories, or through NJDOH's AR surveillance program
•Once identified, cases may be reported to Local Health Departments (LHDs), requiring subsequent reporting to CDS
Report receiving
•Digital completion and submission of the NJDOH Case Report Form (CRF) specific to C. auris or other MDROs by the healthcare facility where the case was identified
•Receipt of a copy of the laboratory result
•LHDs can play an important role in facilitating this information
Response at the facility level
•CDS contacts the facility regarding the MDRO case to identify the case's current location, establish a point of contact, provide basic education, conduct a healthcare investigation, conduct a contact investigation, and give infection prevention and control recommendations and guidance
CDS

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Overview of Tier-Specific Response Activities
I. Healthcare Investigation
II. Contact Investigation
III. Prospective and Retrospective Laboratory Surveillance
IV. Infection Control Measures

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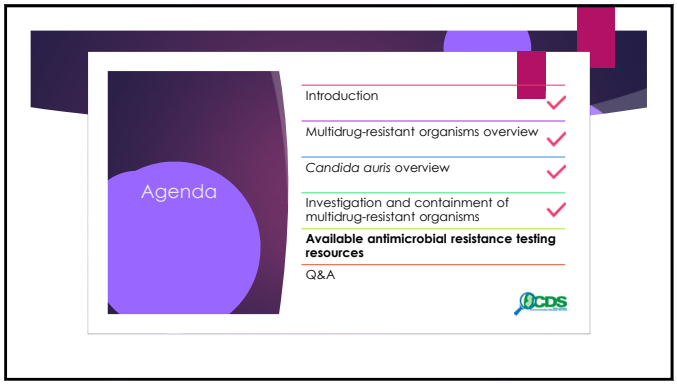
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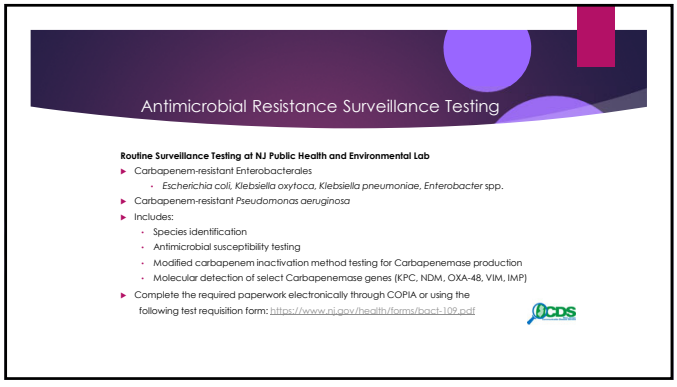
Antimicrobial Resistance Surveillance Testing
Routine Surveillance Testing at NJ Public Health and Environmental Lab
Carbapenem-resistant Enterobacterales
Escherichia coli, Klebsiella oxytoca, Klebsiella pneumoniae, Enterobacter spp.
Carbapenem-resistant Pseudomonas aeruginosa
Includes:
Species identification
Antimicrobial susceptibility testing
Modified carbapenem inactivation method testing for Carbapenemase production
Molecular detection of select Carbapenemase genes (KPC, NDM, OXA-48, VIM, IMP)
Complete the required paperwork electronically through COPIA or using the following test requisition form: https://www.nj.gov/health/forms/bact-109.pdf

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Antimicrobial Resistance Surveillance Testing

Emerging Resistance Surveillance Testing through NJDOH CDS and CDC's Antimicrobial Resistance Lab Network (ARLN)

- Carbapenem-Resistant *Acinetobacter* spp.
  - Includes:
    - Species identification
    - Antimicrobial susceptibility testing
    - Molecular detection of select resistance genes (KPC, NDM, OXA-48, VIM, IMP, OXA-23, OXA-24/40, OXA-58)
- Colonization Screening:
  - *Candida auris*
  - Carbapenemase-Producing Organisms
- Contact DOH.CDS.HAIAR.EPI@doh.nj.gov for required specimen paperwork

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Contact Us

NJDOH Communicable Disease Service HAI/AR Team:

- Email: DOH.CDS.HAIAR.EPI@doh.nj.gov
- Phone (During Business Hours): (609) 826-5964

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