"MDRO Tiers in Nebraska: Spotlight on Tier 2 Screening“
NE APIC Conference, Oct 11, 2024

Ishrat Kamal-Ahmed, PhD.,MSc.,

Senior Epidemiologist III

Healthcare-associated Infections and Antimicrobial Resistance Program(HAI/AR)
Nebraska Department of Health and Human Services (NEDHHS)

NEBRASKA
Good Life. Great Mission.
DEPT. OF HEALTH AND HUMAN SERVICES

DIVISION OF PUBLIC HEALTH

Today's Presentation

- MDRO
- DEFINITIONS
- MDRO TIERS in NEBRASKA
- COLONIZATION SCREENING
- CASE STUDY

NEBRASKA
Good Life. Great Mission.

DIVISION OF
PUBLIC HEALTH

Multi-Drug-Resistant-Organisms or MDROs are defined as microorganism, predominantly bacteria, that are resistant to one or more classes of antimicrobial agents

Inappropriate prescribing and use of antibiotics contribute to this growing problem along with other things

https://www.cdc.gov/infection-control/hcp/mdro-management/background.html

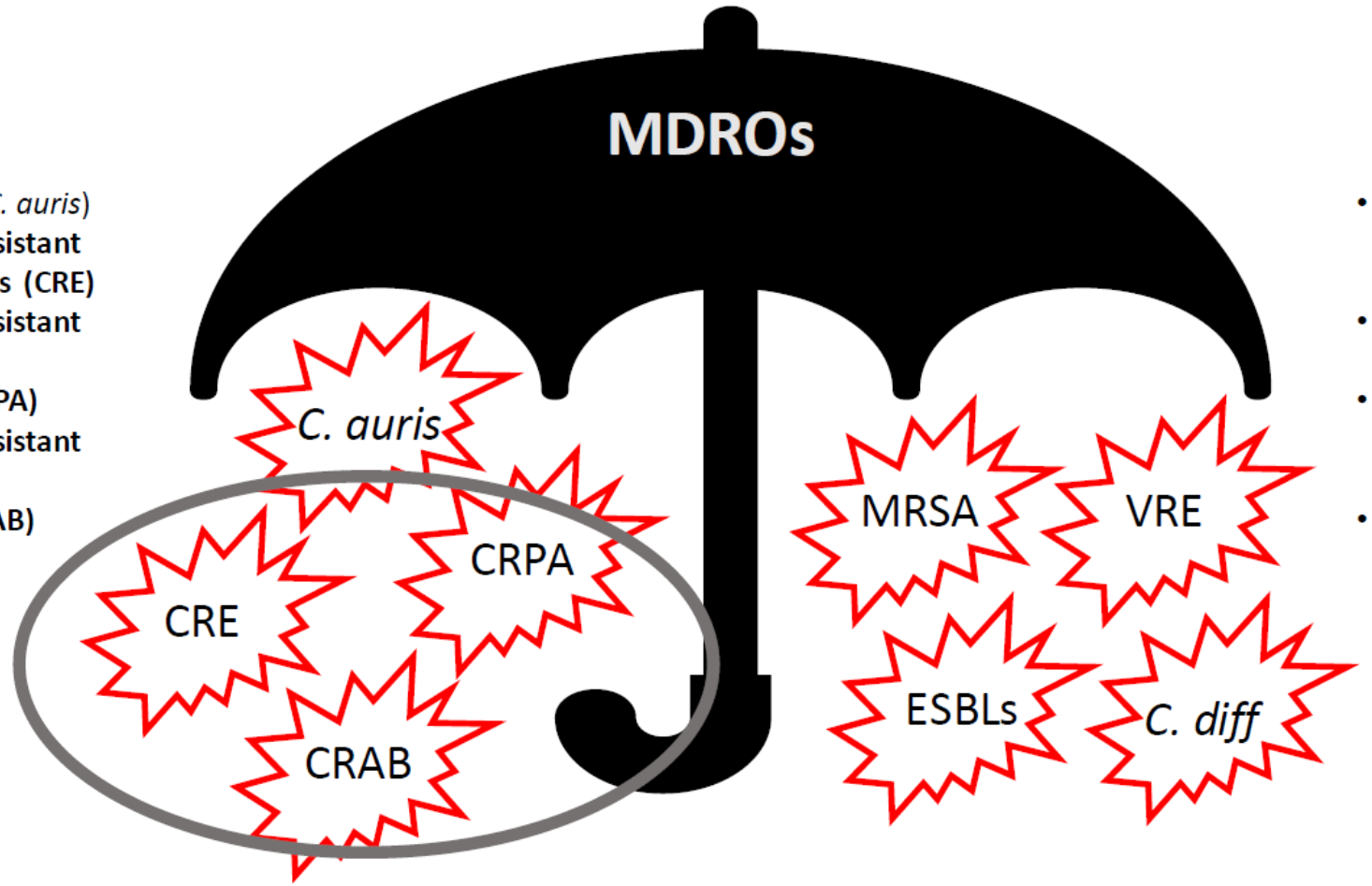
Importance of MDROs: Prevention and Control is a National Priority

- MDROs like MRSA, VRE, and certain gram-negative bacteria have significant infection control implications
- MDRO transmission is common in acute care but affects all healthcare settings ranging from ranging from long-term care to specialized units like ICUs and NICUs
- Severity and disease extent vary by population and institution, requiring tailored prevention strategies
- Successful prevention requires administrative and scientific leadership, financial/human resources, and ongoing evaluation

https://www.cdc.gov/infection-control/hcp/mdro-management/introduction.html

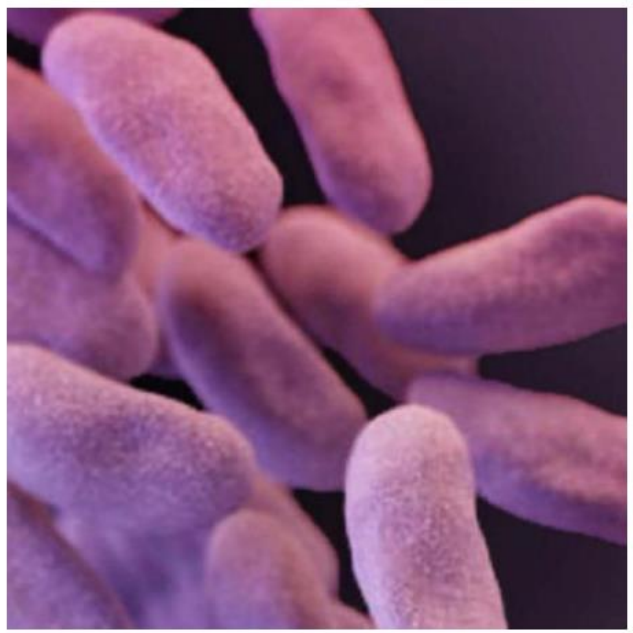
Multidrug-resistant organisms

- Candida auris (*C. auris*)
- **Carbapenem-resistant Enterobacterales (CRE)**
- **Carbapenem-resistant *Pseudomonas aeruginosa* (CRPA)**
- **Carbapenem-resistant *Acinetobacter baumannii* (CRAB)**

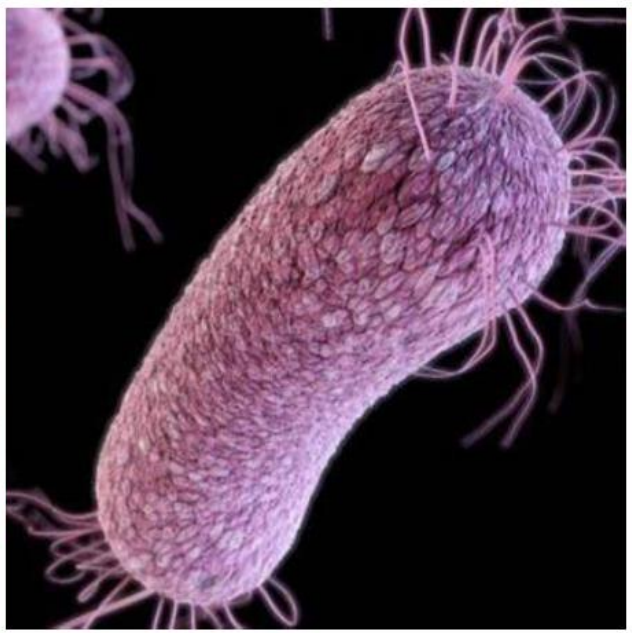


- Methicillin-resistant *Staphylococcus aureus* (MRSA)
- Vancomycin-resistant Enterococci (VRE)
- extended-spectrum beta-lactamases (ESBLs)
- *Clostridioides difficile* (*C. diff*)

Emerging Carbapenem-Resistant Organisms



Carbapenem-Resistant Enterobacterales



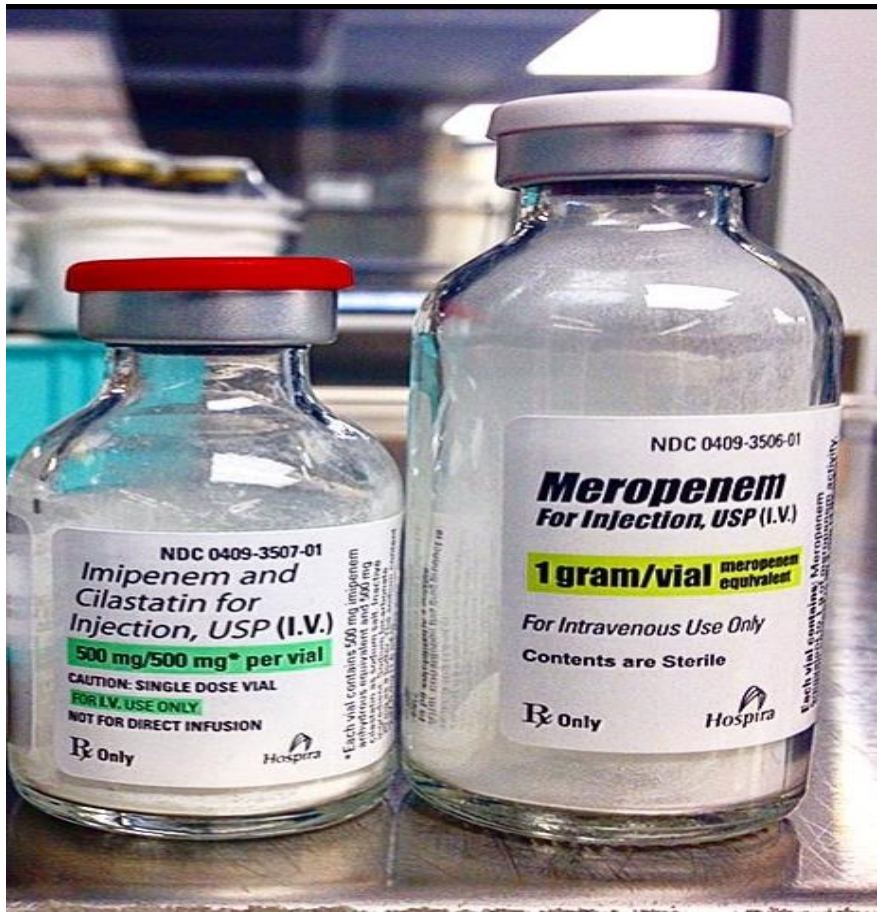
Multidrug-Resistant *Pseudomonas aeruginosa*

Carbapenem-Resistant *Acinetobacter*

https://www.cdc.gov/drugresistance/pdf/threats-report/2019-ar-threats-report-508.pdf

DEFINITIONS

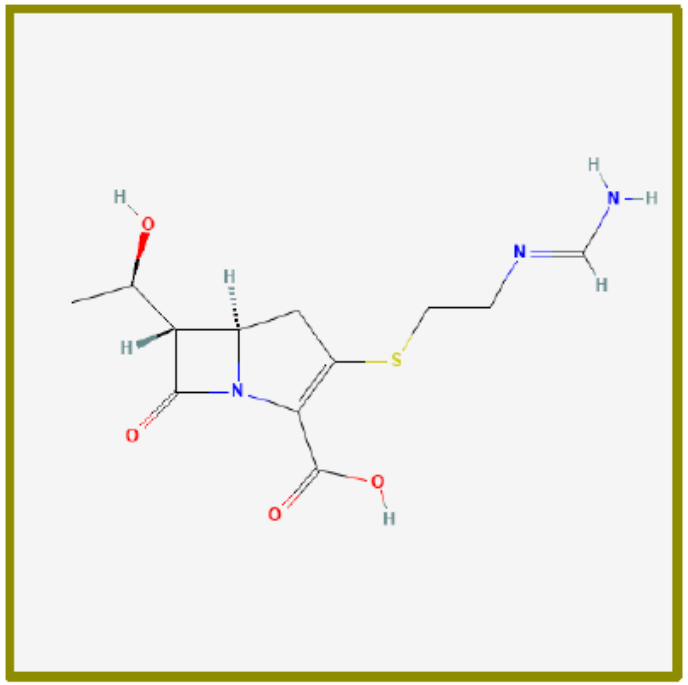
C-R-E?



- **"C" is for CARBAPENEM**
- The Carbapenem antibiotics
  - Doripenem
  - Ertapenem
  - Imipenem
  - Meropenem

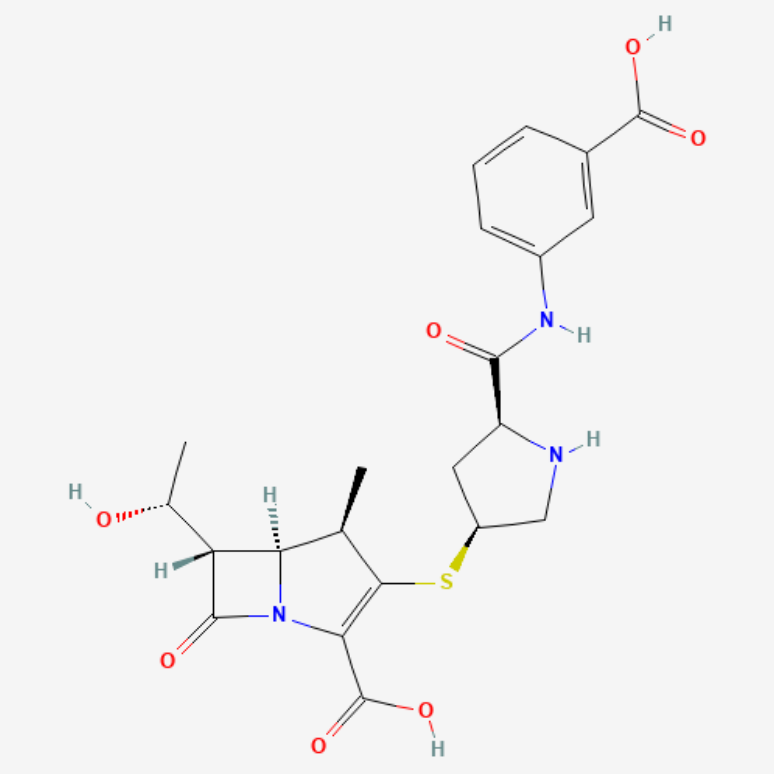
Carbapenem Place in Therapy

- Antibacterial agents with a broad range of antimicrobial activity and a critical place in therapy
- Active against many organisms that are resistant to other β-lactam antibiotics
- Increasingly important due to increase in resistance to other antibiotics
- Relied on to treat sickest patients and most resistant bacteria for over 20 years



The carbapenem antibiotic imipenem

Carbapenem Place in Therapy



The Carbapenem antibiotic ertapenem

Utilized for different infections (usually)

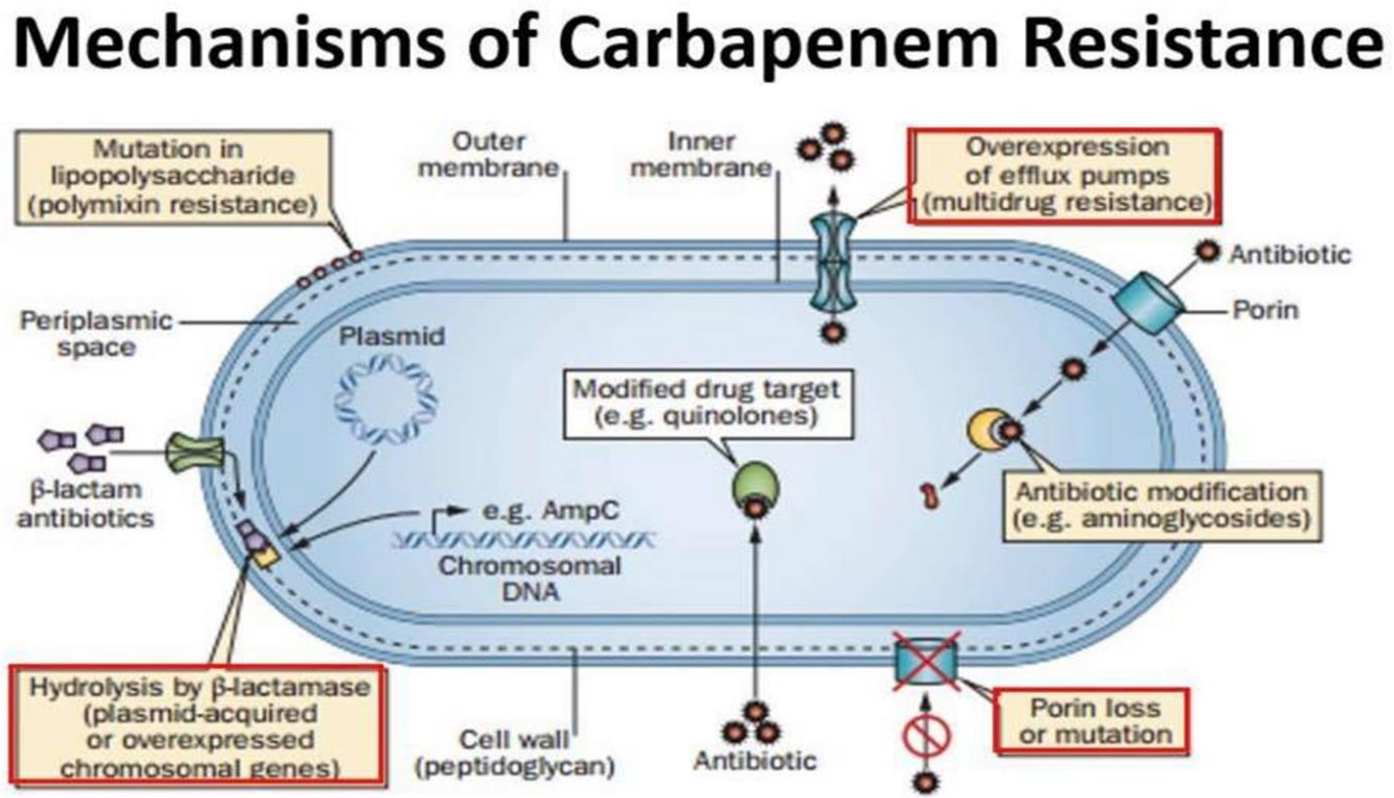
- Pneumonia
- Intra-abdominal infection
- Urinary tract infections
- Meningitis
- Skin and soft tissue infections

Off-label use

- Most other sites of infection

C-R-E?

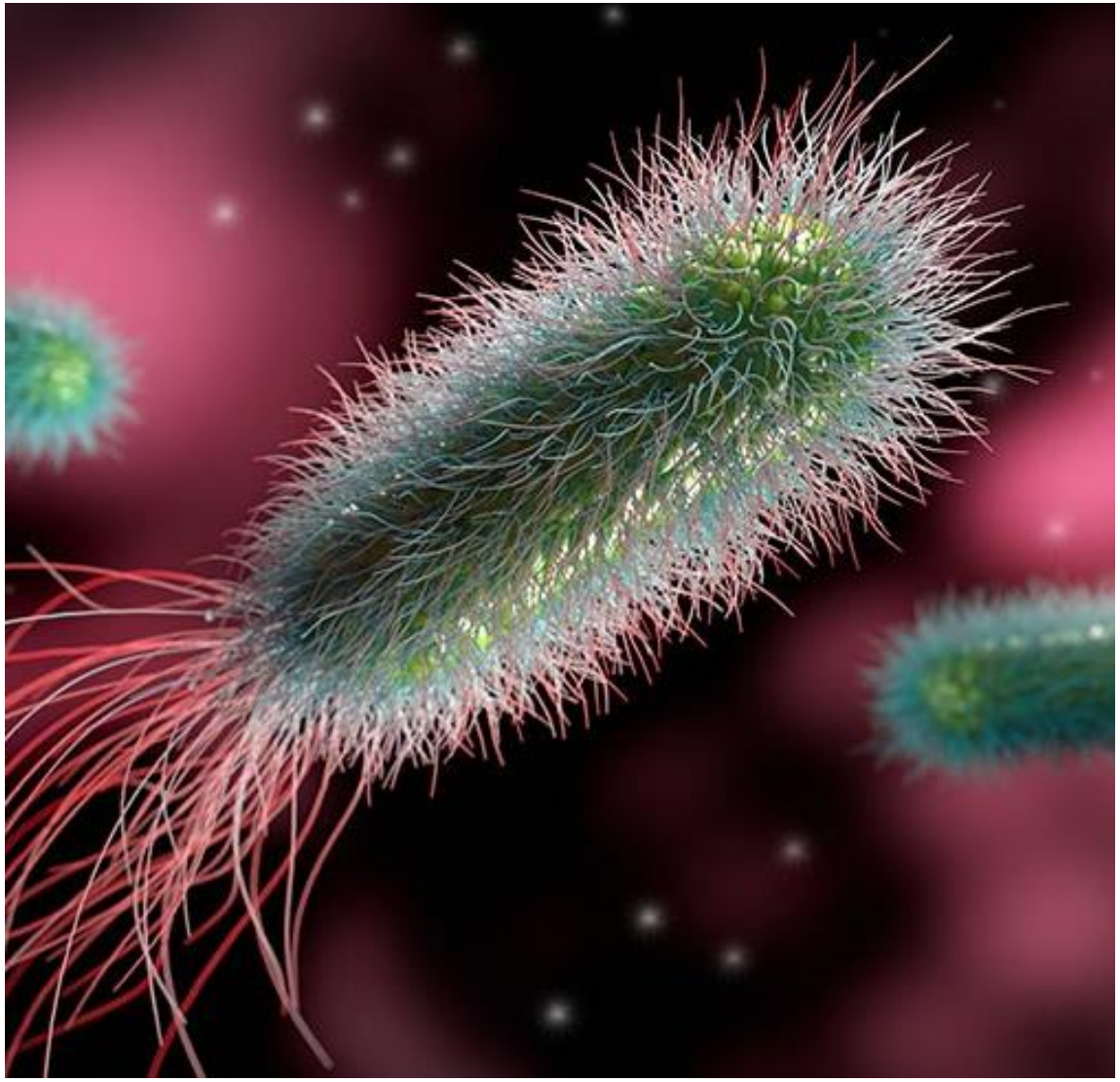
- **"R" is for RESISTANCE**
- Expanded use of Carbapenem has resulted in some Carbapenem resistance in some *Gram*-negative organisms such as Enterobacterales and *Pseudomonas*



Zowawi HM, et al. Nat Rev Urol 2015;12:570-84.

C-R-E?

- "E" is for ENTEROBACTERALES
  - Gram-negative bacteria
  - Found in gastrointestinal tract
  - Cause infection in both healthcare and community settings
- Common Enterobacterales: Klebsiella, Citrobacter, *Escherichia coli,* Proteus, Enterobacter



What is CP-CRE?

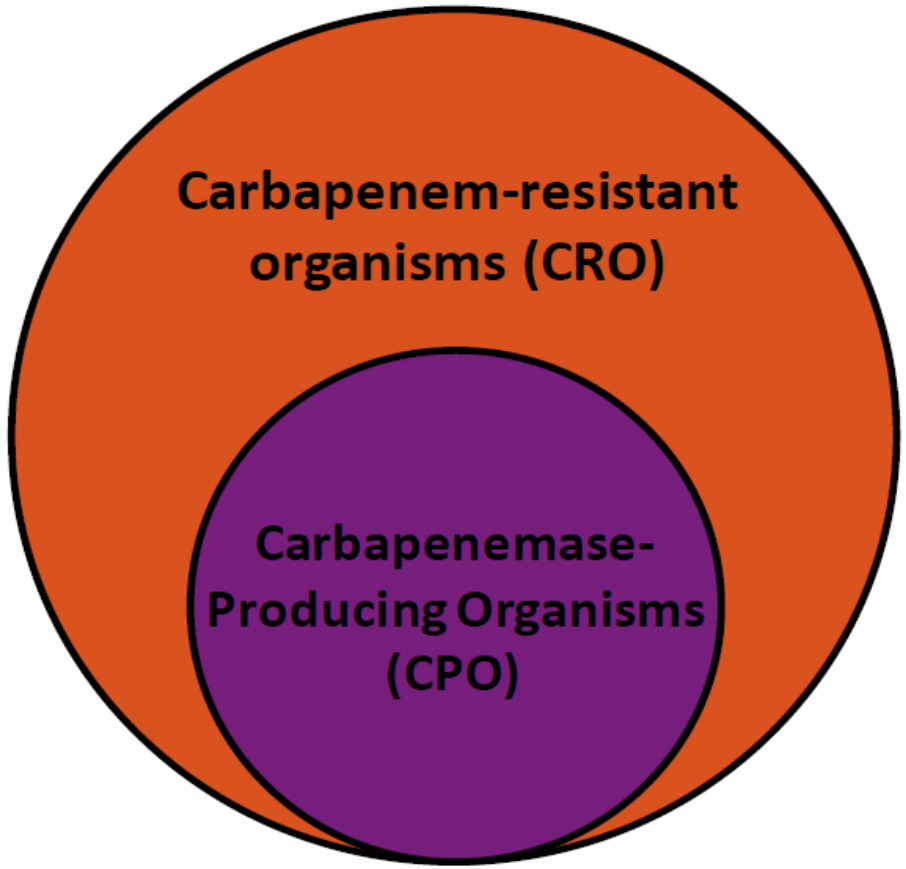
- Carbapenemase-producing bacteria are more likely to spread their resistance to other bacteria

- "CP" is for CARBAPENEMASE PRODUCING
- CarbapenemASE : Enzymes that break down carbapenems and related antimicrobials making carbapenems ineffective
- The enterobacterales themselves produce this enzyme

CRO versus CPO

- **CRO: Carbapenem-Resistant Organism**
  - Any organism resistant to carbapenem antibiotics
  - Not dependent on a carbapenemase

- **CPO: Carbapenemase-Producing Organism**
  - Any organism that produces a carbapenemase
  - A special subset of Carbapenem-Resistant Organisms



CRO versus CPO

- **Carbapenem-Resistant Organisms (CRO)**
  - **CRAB**: Carbapenem-resistant *Acinetobacter baumannii*
  - **CRPA**: Carbapenem-resistant *Pseudomonas aeruginosa*
  - **CRE**: Carbapenem-resistant Enterobacterales

- **Carbapenemase Producing Organisms (CPO)**
  - **CP-CRAB**: Carbapenemase-Producing Carbapenem-resistant *Acinetobacter baumannii*
  - **CP-CRPA**: Carbapenemase-Producing Carbapenem-resistant *Pseudomonas aeruginosa*
  - **CP-CRE**: Carbapenemase-Producing Carbapenem-resistant

The Big FIVE Carbapenemase Genes

- **KPC**: *Klebsiella pneumonia* carbapenemase
- **NDM**: New-Delhi Metallo-beta-lactamase
- **VIM**: Verona Integron-Encoded Metallo-beta-lactamase
- **IMP**: Active-on-imipenem Metallo-beta-lactamase
- **OXA**: Oxacilinase

MDRO TIERS

CDC's Containment Guidelines

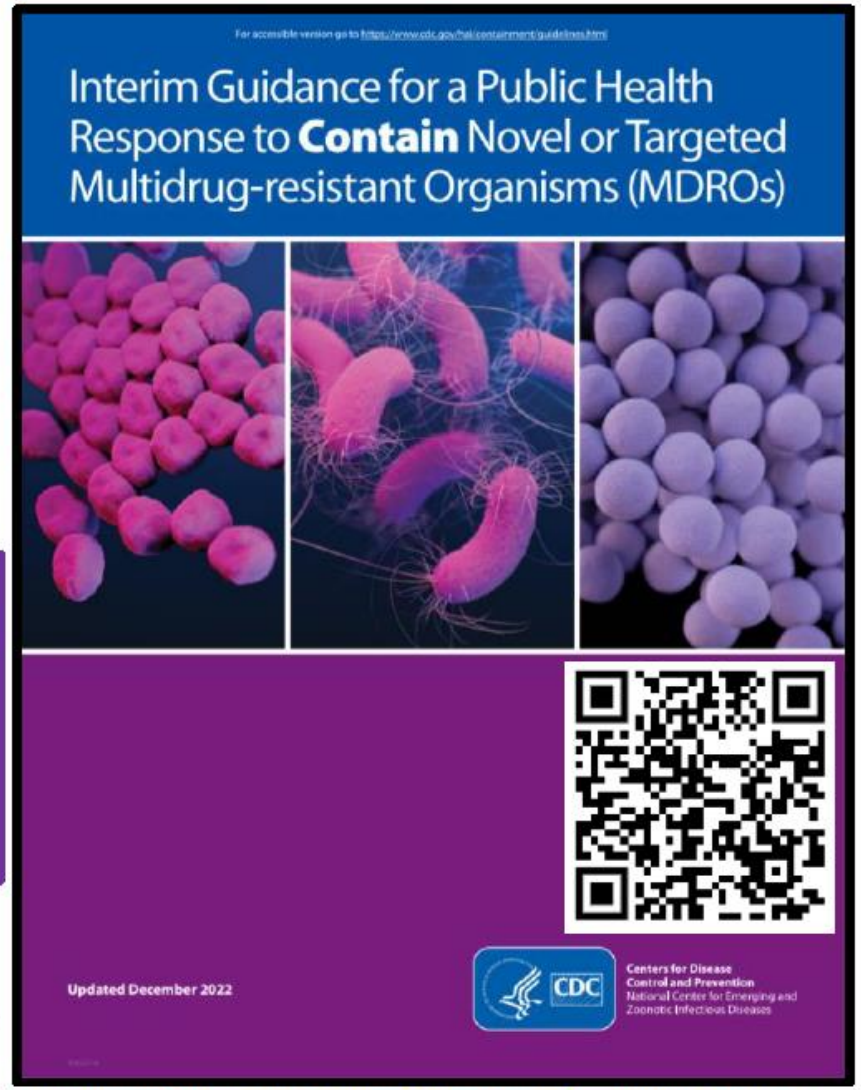
Tier 4 — **Endemic** MDROs in a region and have been targeted by public health for their clinical significance and potential to rapidly spread

Tier 3 — **Non-endemic** MDROs targeted by facility/region for epidemiologic importance

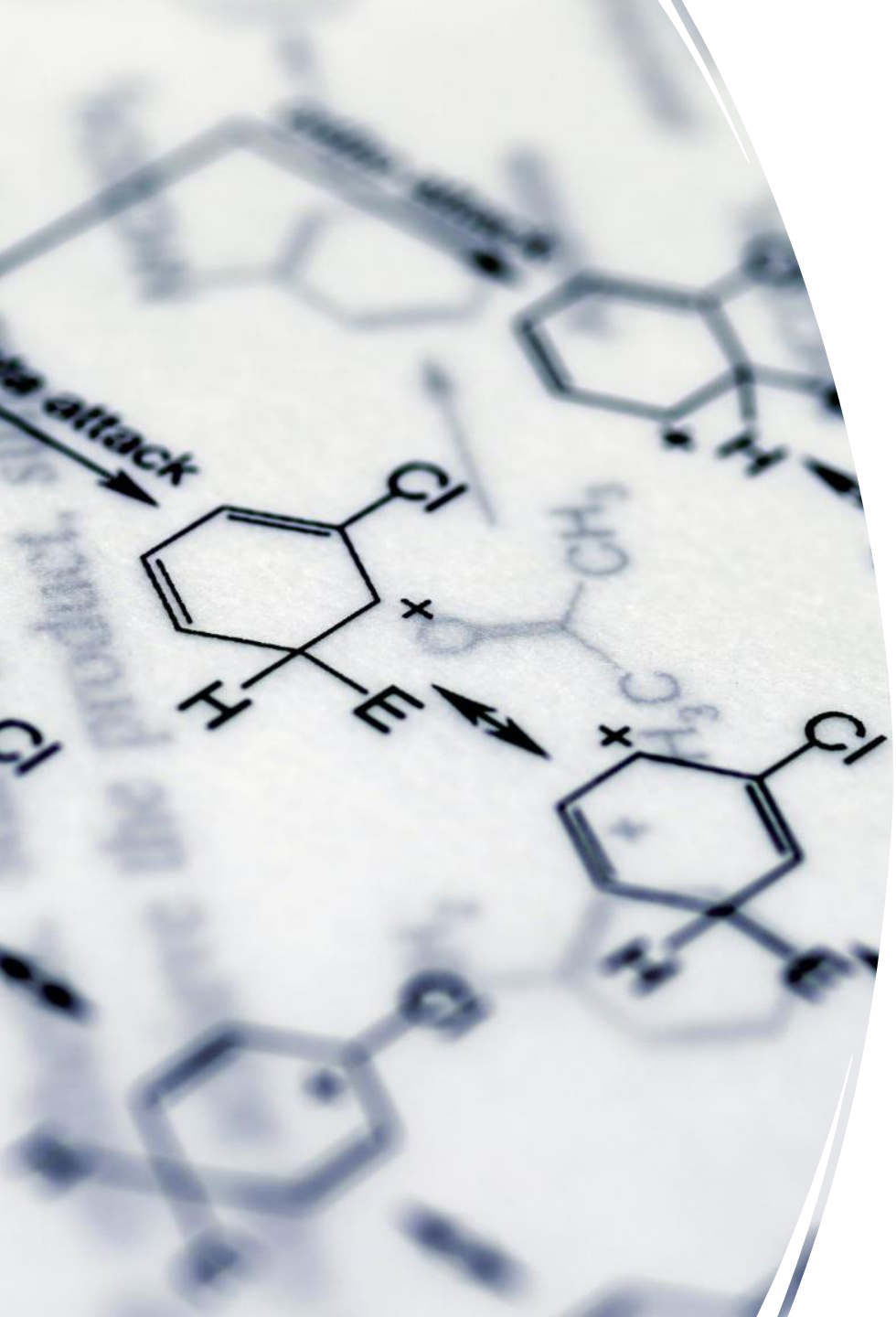
Tier 2 — MDROs identified in healthcare settings, but **not regularly** identified in the region; and organisms for which **no current treatment** exists

Majority of CPO & *Candida auris* Responses

Tier 1 — Novel mechanisms that have **never** (**or very rarely**) been identified in the United States and for which experience is extremely limited



Source: Interim Guidance for a Public Health Response to Contain Novel or Targeted Multidrug-resistant Organisms (MDROs): Updated December 2022 (cdc.gov)



Definitions: Epidemiologic Stages

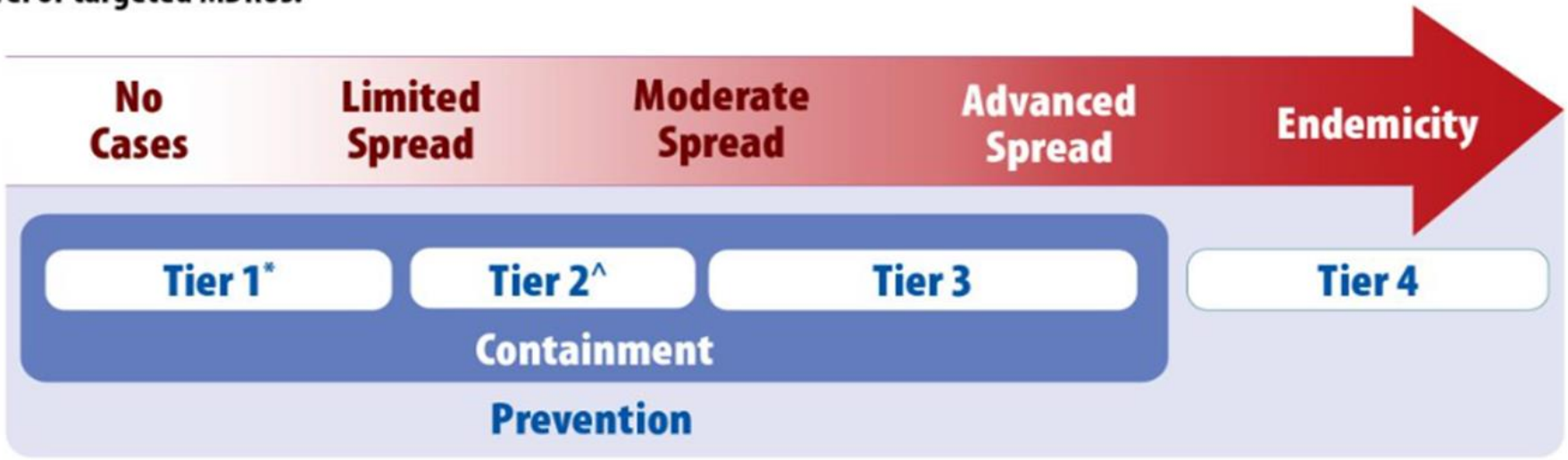
The general pattern of MDRO emergence and spread throughout a geographic area:

- *No cases identified*
- *Limited spread*: sporadic cases or sporadic clusters of epi linked cases
- *Moderate spread*: cluster or clusters of epi-linked cases
- *Advanced spread*: Clusters of cases across facilities in different pt. transfer networks
- *Endemicity*: cases are regularly identified in healthcare facilities across the region

Relationship between Prevention and Response Activities

CDC Interim Guidance for a Public Health Response to **Contain** Novel or Targeted MDROs

Figure 1. Relationship between epidemic stages, response tiers, containment response, and prevention activities for novel or targeted MDROs.



Organism or resistant mechanism that have

*Never (or very rarely) been identified **in the United States** and for which experience is extremely limited are Tier 1.

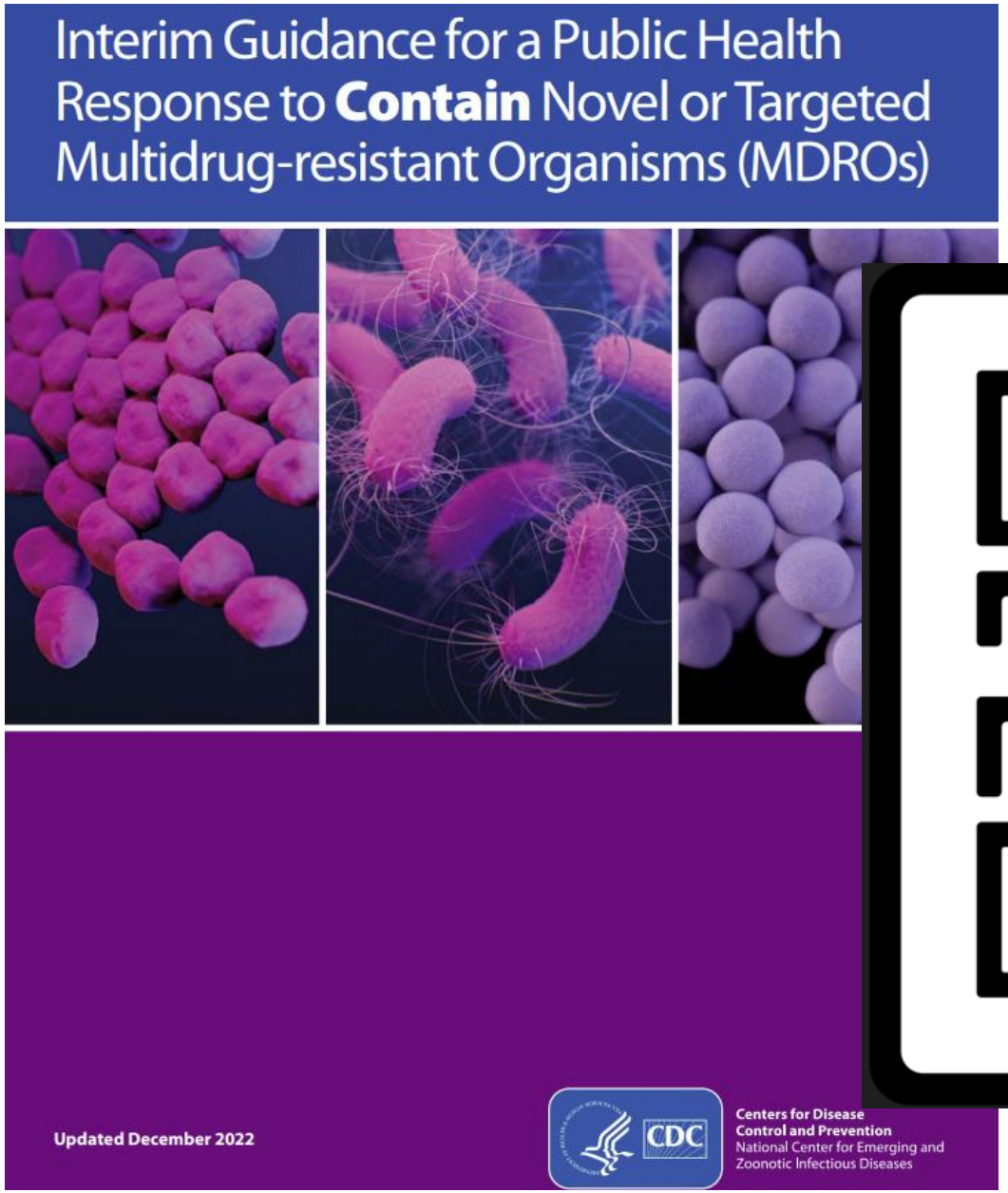
^Never (or very rarely) been identified **in a public health jurisdisction but are more common in other parts of the U.S.** are Tier 2.

Multidrug-Resistant Organisms (MDRO) Tiers for Nebraska

Tier	Definition of Included Organisms and Mechanisms	Examples (not all inclusive) of organisms/mechanisms for Nebraska	Transmission-Based Precautions Recommendations
Tier 1	Never (or very rarely) been identified in the United States and for which experience is extremely limited	Novel Carbapenemases	Contact precautions until otherwise recommended by HAI/AR team
Tier 2	**Primarily associated with healthcare settings and are not commonly identified in the region (i.e., not been previously identified in the region or have been limited to sporadic cases or small outbreaks), corresponding to "not detected" or "limited to moderate spread" epidemiologic stages.** **No current treatment options exist (pan not-susceptible) and potential to spread more widely.**	**Pan-resistant organisms*** ***Candida auris*** **Carbapenemase (e.g., KPC, NDM, OXA-48, VIM, IMP) producing organisms (CPO)** • **Enterobacterales** • ***Pseudomonas aeruginosa*** • ***Acinetobacter Baumannii***	**Contact Precautions** ***Long-term Care Facilities (LTCF):*** **Enhanced barrier precautions (EBP) recommended for colonized resident(s)****
Tier 3	Include MDROs targeted by the facility or region for epidemiologic importance that have been identified frequently across a region, indicating advanced spread, but are not considered endemic	• Extended spectrum beta-lactamase (ESBL) producing organisms • Carbapenem-resistant *Enterobacterales* (CRE) • Carbapenem-resistant *Pseudomonas aeruginosa* (CRPA) • Carbapenem-resistant *Acinetobacter Baumannii* (CRAB)	Contact Precautions *Long-term Care Facilities (LTCF):* Enhanced barrier precautions (EBP) considered for colonized resident(s)**
Tier 4	Endemic in a region and have been targeted by public health for their clinical significance and potential to spread rapidly	• Methicillin-resistant Staphylococcus aureus (MRSA) • Vancomycin-resistant Enterococci (VRE)	Contact precautions per facility risk assessment *Long-term Care Facilities (LTCF):* Enhanced barrier precautions (EBP) considered for colonized resident(s)**

* Contact tracing and colonization screening may not be indicated for these organisms
**Contact precautions for acute/active infections or uncontained drainage/secretions

Updated 5.29.2024 https://dhhs.ne.gov/HAI%20Documents/Nebraska%20MDRO%20Tiers.pdf



Resource to bookmark!

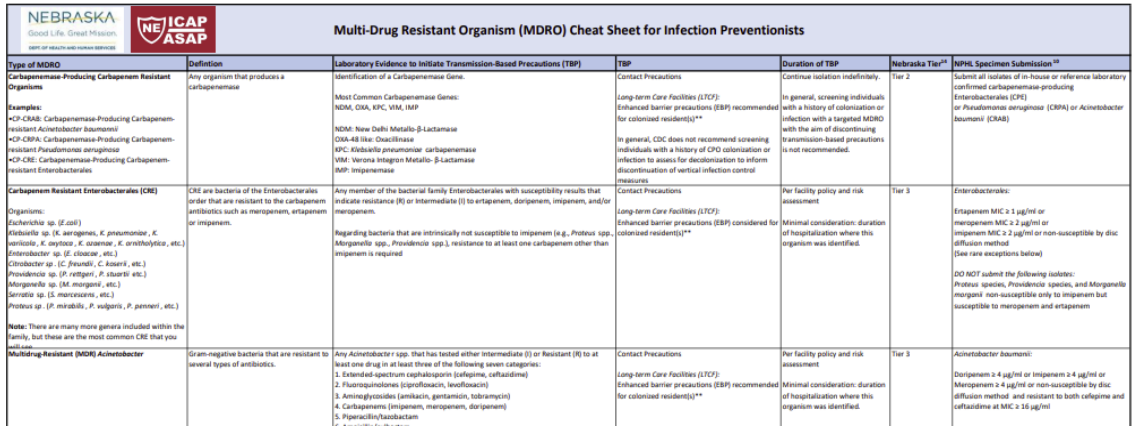
Resource to bookmark!

MDRO Tiers for Nebraska (QR Code)

- Resource to bookmark!

MDRO Cheat Sheet for IPs

- [Multi-Drug Resistant Organism (MDRO) Cheat Sheet for Infection Preventionists]



NEBRASKA Good Life. Great Mission. DEPT. OF HEALTH AND HUMAN SERVICES

NE ICAP ASAP

Multi-Drug Resistant Organism (MDRO) Cheat Sheet for Infection Preventionists

Type of MDRO	Definition	Laboratory Evidence to Initiate Transmission-Based Precautions (TBP)	TBP	Duration of TBP	Nebraska Tier[24]	NPHL Specimen Submission[28]
Carbapenemase-Producing Carbapenem Resistant Organisms **Examples:** •CP-CRAB: Carbapenemase-Producing Carbapenem-resistant *Acinetobacter baumannii* •CP-CRPA: Carbapenemase-Producing Carbapenem-resistant *Pseudomonas aeruginosa* •CP-CRE: Carbapenemase-Producing Carbapenem-resistant Enterobacterales	Any organism that produces a carbapenemase	Identification of a Carbapenemase Gene. Most Common Carbapenemase Genes: NDM, OXA, KPC, VIM, IMP NDM: New Delhi Metallo-β-Lactamase OXA-48 like: Oxacillinase KPC: *Klebsiella pneumoniae* carbapenemase VIM: Verona Integron Metallo- β-Lactamase IMP: Imipenemase	Contact Precautions *Long-term Care Facilities (LTCF):* Enhanced barrier precautions (EBP) recommended for colonized resident(s)** In general, CDC does not recommend screening individuals with a history of CPO colonization or infection to assess for decolonization to inform discontinuation of vertical infection control measures	Continue isolation indefinitely. In general, screening individuals with a history of colonization or infection with a targeted MDRO with the aim of discontinuing transmission-based precautions is not recommended.	Tier 2	Submit all isolates of in-house or reference laboratory confirmed carbapenemase-producing Enterobacterales (CPE) or *Pseudomonas aeruginosa* (CRPA) or *Acinetobacter baumanii* (CRAB)
Carbapenem Resistant Enterobacterales (CRE) Organisms: *Escherichia* sp. (*E.coli*) *Klebsiella* sp. (*K. aerogenes, K. pneumoniae , K. variicola , K. oxytoca , K. ozaenae , K. ornithalytica* , etc.) *Enterobacter* sp. (*E. cloacae* , etc.) *Citrobacter* sp . (*C. freundii , C. koseri* , etc.) *Providencia* sp. (*P. rettgeri , P. stuartii* etc.) *Morganella* sp. (*M. morganii* , etc.) *Serratia* sp. (*S. marcescens* , etc.) *Proteus* sp . (*P. mirabilis , P. vulgaris , P. penneri* , etc.) **Note:** There are many more genera included within the family, but these are the most common CRE that you will see.	CRE are bacteria of the Enterobacterales order that are resistant to the carbapenem antibiotics such as meropenem, ertapenem or imipenem.	Any member of the bacterial family Enterobacterales with susceptibility results that indicate resistance (R) or Intermediate (I) to ertapenem, doripenem, imipenem, and/or meropenem. Regarding bacteria that are intrinsically not susceptible to imipenem (e.g., *Proteus* spp., *Morganella* spp., *Providencia* spp.), resistance to at least one carbapenem other than imipenem is required	Contact Precautions *Long-term Care Facilities (LTCF):* Enhanced barrier precautions (EBP) considered for colonized resident(s)**	Per facility policy and risk assessment Minimal consideration: duration of hospitalization where this organism was identified.	Tier 3	*Enterobacterales:* Ertapenem MIC ≥ 1 µg/ml or meropenem MIC ≥ 2 µg/ml or imipenem MIC ≥ 2 µg/ml or non-susceptible by disc diffusion method (See rare exceptions below) *DO NOT submit the following isolates:* *Proteus* species, *Providencia* species, and *Morganella morganii* non-susceptible only to imipenem but susceptible to meropenem and ertapenem
Multidrug-Resistant (MDR) *Acinetobacter*	Gram-negative bacteria that are resistant to several types of antibiotics.	Any *Acinetobacter* spp. that has tested either Intermediate (I) or Resistant (R) to at least one drug in at least three of the following seven categories: 1. Extended-spectrum cephalosporin (cefepime, ceftazidime) 2. Fluoroquinolones (ciprofloxacin, levofloxacin) 3. Aminoglycosides (amikacin, gentamicin, tobramycin) 4. Carbapenems (imipenem, meropenem, doripenem) 5. Piperacillin/tazobactam	Contact Precautions *Long-term Care Facilities (LTCF):* Enhanced barrier precautions (EBP) recommended for colonized resident(s)**	Per facility policy and risk assessment Minimal consideration: duration of hospitalization where this organism was identified.	Tier 3	*Acinetobacter baumanii:* Doripenem ≥ 4 µg/ml or Imipenem ≥ 4 µg/ml or Meropenem ≥ 4 µg/ml or non-susceptible by disc diffusion method and resistant to both cefepime and ceftazidime at MIC ≥ 16 µg/ml

Frequently Used Terms

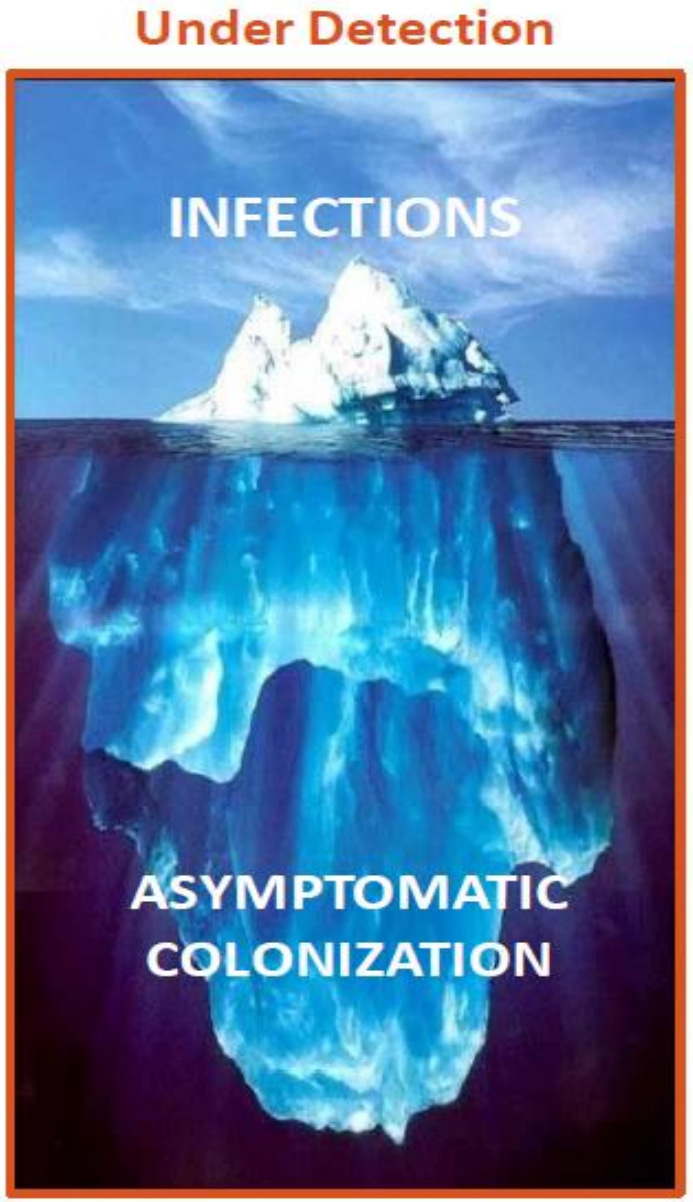
Clinical vs. Colonization

Clinical

When organisms cause clinically manifested infections

Colonization

Acquisition and harboring of organisms by individuals who do not show any signs of infections but are at risk of developing infections.



Definition: Colonization Screening

- The use of laboratory testing to *identify colonized individuals* by testing for the presence of novel or targeted MDROs on or in the body of an individual.
- When an emerging MDRO is identified, colonization screening is *recommended* by CDC as an essential component of the public health response.
- Colonization screening identifies *unrecognized* carriers so that infection prevention and control measures can be targeted to prevent the spread of antimicrobial resistance.

- CDC Interim Guidance for a Public Health Response to **Contain** Novel or Targeted MDROs

Definitions: Point Prevalence survey (PPS)

- Colonization screening performed unit- or facility-wide following the identification of a patient or resident with a novel or targeted MDRO
- The goal of these surveys is to identify colonized individuals and initiate transmission-based precautions
  - Serve as both an assessment tool (for possible transmission) and an intervention (facilitating identification of colonized individuals for implementation of appropriate precautions)

- CDC Interim Guidance for a Public Health Response to **Contain** Novel or Targeted MDROs

NEBRASKA Good Life. Great Mission. DIVISION OF PUBLIC HEALTH

CPO and *C. auris* Screening – Key to Strategies for Stopping Spread

	Response (Containment)	Prevention

Screening	• Identification of an **uncommon** novel MDRO in a region
	• **Suspected or confirmed transmission** of a novel MDRO in a healthcare facility (i.e., an outbreak)
		• Based on facility characteristics and local epidemiology, **NOT** on case or epi links to known case
		  • **Recurring basis** at influential facilities
		  • **Ad hoc basis** at facilities with unknown epidemiology (typically long-term care)

Timing	Not predictable (happens when detections occur)	Predictable (screening should be scheduled far in advance)
Follow-up screening (*if cases detected*)	Continues until transmission **controlled** (**stopped or reduced**)	Generally, should adhere to fixed schedule (i.e., should not trigger multiple follow up rounds of screening)

Contact Isolations: A set of infection control practices recommended by the **CDC** to prevent the spread of infectious agents, particularly those transmitted through direct or indirect contact with an infected individual or contaminated surfaces.

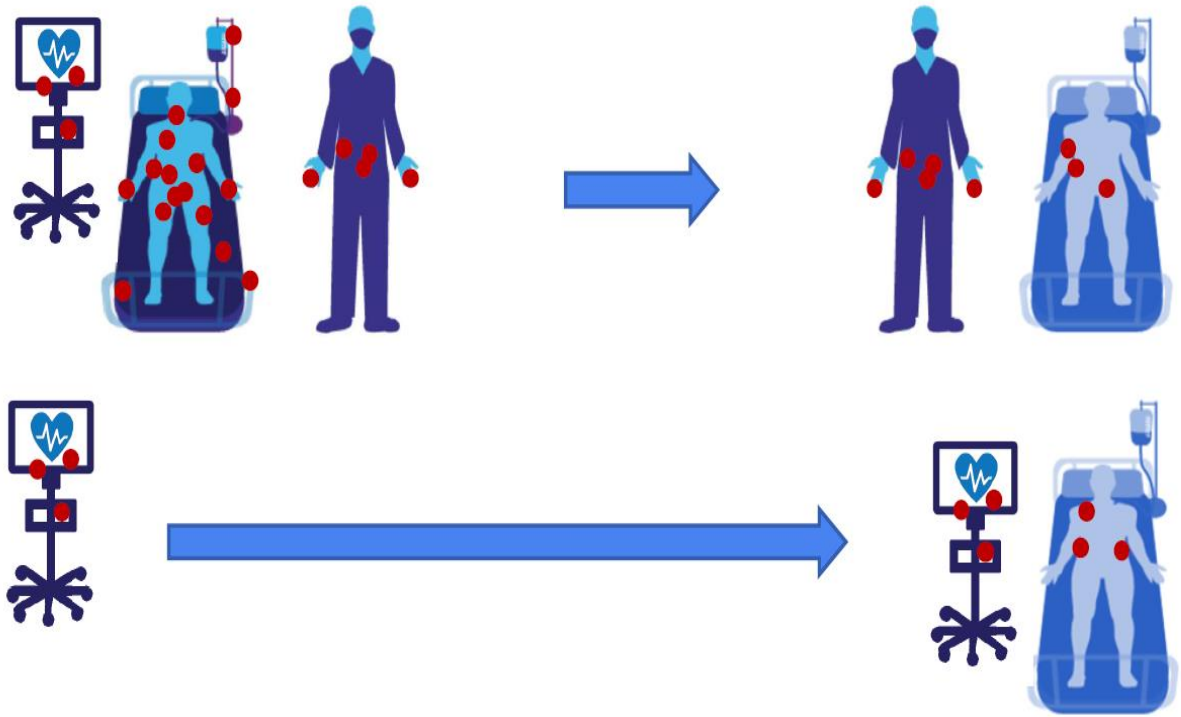
Enhanced Barrier Precautions

An infection control designed to reduce transmission of multidrug-resistant organisms (MDROs) in nursing homes*

Involve gown and glove use during high-contact resident care activities for residents known to be colonized or infected with a MDRO as well as those at increased risk of MDRO acquisition (e.g., residents with wounds or indwelling medical devices).

*Individuals may not have known MDRO but may still be in EBP precautions because of indwelling device, chronic wound etc.

CPO Transmission in Healthcare Facilities



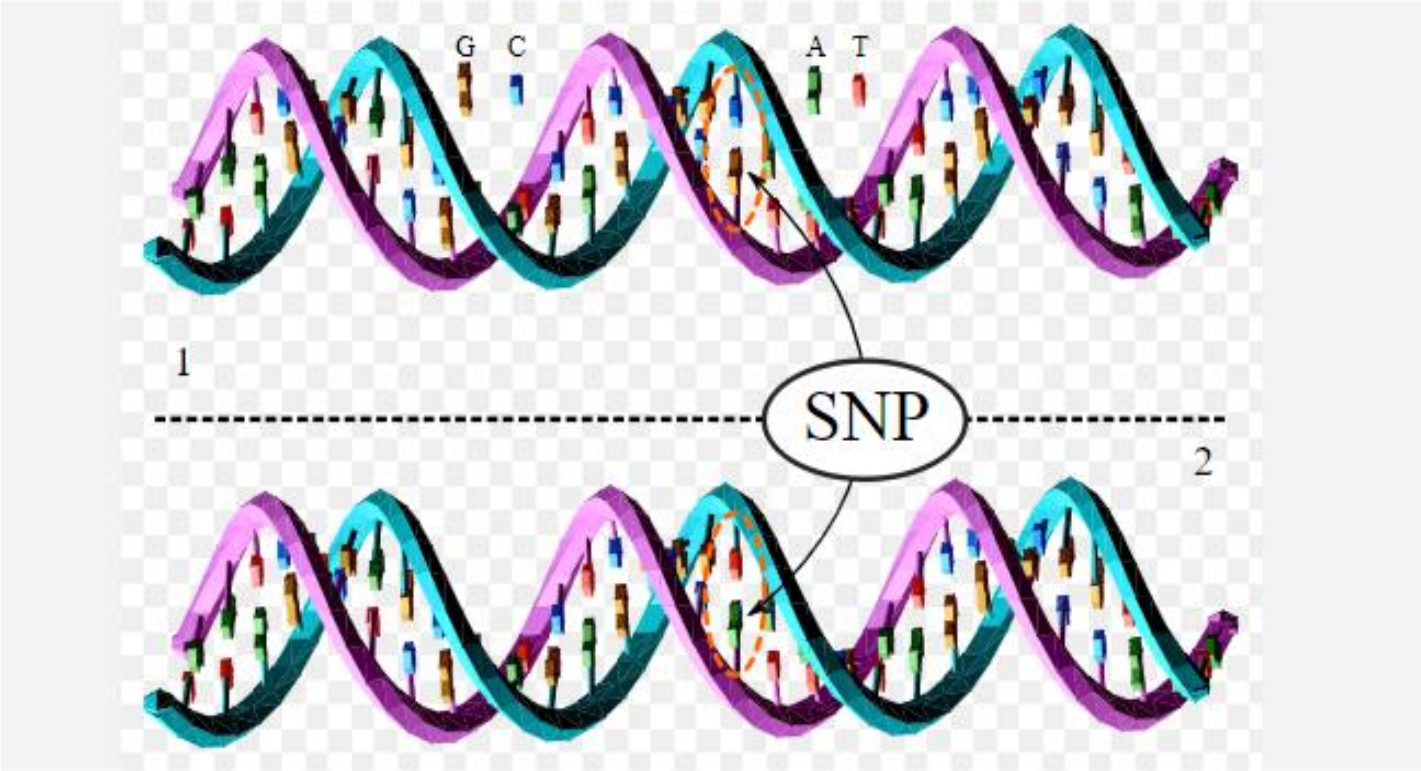
Transmission:
When a pathogen moves from one host to another

Whole Genome Sequencing (WGS)

The information encoded in the genomes of disease-causing bacteria, viruses, and fungi represent unique genetic fingerprints.

Whole Genome sequencing (WGS) is a laboratory procedure that determines the order of all, or most, of the nucleotides in the genome of these disease-causing microbes.

A nucleotide polymorphism, or SNP (pronounced "snip"), is a variation at a single position in a DNA sequence among individuals



Spotlight: Colonization Screening

Screening of Healthcare Contacts

In general, the recommendations apply to all inpatient healthcare exposures of the index patient in the ***30 days prior*** to the identification of the target organism to the present.

Depending on the type of exposure and organism, contact investigations may sometimes include healthcare facilities where the patient received care but did not stay overnight

- outpatient clinics
- community contacts

If the index patient had recent inpatient healthcare exposure, screen epidemiologically linked patients.

Screening should occur even if the index patient was being managed with Contact Precautions or Enhanced Barrier Precautions

Interim Guidance for a Public Health Response to Contain Novel or Targeted Multidrug-resistant Organisms (MDROs)

Tier-2 Containment Response Elements for Infection Preventionists

Response Elements	Tier 2
Contact Investigation (Typical review period: 30 days prior to culture collection to present)	
Screening of healthcare contacts (i.e., residents and patients)	ALWAYS
Household contact screening	RARELY
Healthcare personnel screening	RARELY
Additional Actions if Transmission Identified in Healthcare	
Recurring response-driven point prevalence surveys[3]	ALWAYS
Evaluate potential spread to healthcare facilities that regularly share patients with the index healthcare facility[4]	USUALLY
Clinical Laboratory Surveillance	
Retrospective lab surveillance[6]	ALWAYS
Prospective lab surveillance[5]	ALWAYS
Environmental Cultures	
Environmental sampling	RARELY
Infection Control Measures	
Notify healthcare providers; promptly implement appropriate transmission-based precautions	ALWAYS
Infection control assessment with observations of practice	ALWAYS
Clear communication of patient status with transferring facilities	ALWAYS

Screening of Healthcare Contacts

- Roommates and patients who shared a bathroom with the index patient. Screen these contacts even if they have been discharged from the facility to another inpatient setting.
- If discharged to home, consider notifying the contact and offering screening or ***flagging the chart to facilitate*** preemptive Contact Precautions and *admission screening if they are readmitted in the next six months.*
- Screen the patient currently admitted to room(s) and bed spaces where the index patient stayed at least one night in healthcare facilities identified during the healthcare investigation
- If these individuals have been discharged to high-acuity post-acute care, health departments should consider screening these individuals

Interim Guidance for a Public Health Response to Contain Novel or Targeted Multidrug-resistant Organisms (MDROs)

In most situations, **Broader screening using point prevalence surveys (PPS) is preferred.**

Alternatively, broader screening may initially target contacts who are at higher risk of MDRO aquation :

Overlap on the same ward as the index patient
Bedbound,
High levels of care,
Receipt of antimicrobials, or
Mechanical ventilation), and
Who are still admitted

Considerations – When deciding whether to use a risk-factor-based approach, PPS, or both strategies in combination, consider individual facility characteristics, local epidemiology, characteristics of index patient, feasibility of identifying contacts, and laboratory capacity.

If it will take several days to identify higher risk contacts or if most higher risk contacts have been discharged from a facility, perform a unit-wide point prevalence survey promptly.

Screening of Healthcare Contacts continued

NEBRASKA
Good Life. Great Mission.
DIVISION OF PUBLIC HEALTH

Ongoing Transmission: How is it different?

[Interim Guidance for a Public Health Response to Contain Novel or Targeted Multidrug-resistant Organisms (MDROs)]

- When transmission is identified for Tier 2, periodic (e.g., every two weeks) PPS are recommended until transmission is controlled
- Control of transmission
    - Two consecutive PPS with no new MDRO cases identified
    - Substantially decreased transmission when colonization pressure is high
- If transmission does NOT decrease across multiple point prevalence surveys
    - Consider pausing or increasing the interval between PPS (e.g., 4-6 weeks)
    - Reassess and implement measure to improve infection control
- Implement measures to prevent outbreaks at downstream facilities

Why is colonization screening important

- If we identified one CP-CRE in our facility, how many more do we have?
- Why do we need to know it?

In the next few slides, we will explore a hypothetical scenario to understand this better

- Benefit of knowing (“are there more CP CREs in our facility?”) for facilities and patients,
- Benefit of NOT knowing (“are there more CP CREs in our facility?”) for facilities and patients

Case Study/Scenario

- Ms. Blanch, an 80-year-old nursing home resident, can do all her daily activities on her own, walks with a walker, dines and plays bingo with others in her nursing home and goes to her physical therapy on a regular basis.
- She lived in the nursing home named "Road to Eden"
- She developed UTI symptoms a couple of days ago, visited an outpatient and her urine culture tested positive for *E coli* having a resistant Carbapenemase gene (NDM). She was then admitted to a hospital, not returning to her nursing home.
- The lab notified the state HAI/AR program, the program notified both nursing homes and discussed response components including colonization screening
- **Note: Ms. Blanch lived in the Road to Eden in the last 30 days prior to her positive culture**

Scenario continues…..

GOAL of the COLONIZATION SCREENING is to DISCOVER/IDENTIFY the UNKNOWN COLONIZED CASES

One unknown fact

The same nursing home has a second patient with exactly the same *E coli*-NDM:

Mr. T is colonized (not infected) but his colonization status is unknown to all

Mr. T was in the Bingo Team with Ms. Blanch

Title: MDRO Transmission Investigation at Nursing Home: The Story of Mr. T

MDRO Transmission at Nursing Home: The Story of Mr. T

Initial Screening: Limited Action. Screened 1 roommate and bingo partner, both tested (-)

Week 2: Mr. T's positive status is unknown, he and his buddies are practicing Taekwondo

1st month: E. Coli NDM in Mr. T, hospitalized

Screened 10, 4 tested positive, PPS for all 35 started

Outbreak identified: WGS Confirms Transmission

2 more positives (total 7 are in EBP), 2 more rounds of PPS

2nd month: 2 nd PPS (-), 3rd PPS 1 (+), (total 8 + in EBP), 2 more PPS to go and continues until 2 consecutive negatives

3rd month: Continued Screening and New Positive Cases

Escalation to Hospital: Since Mr. T's MDRO status was unknown, when hospitalized, no contact precautions, exposed other patients, screening at ACH

Outcome: 2 facilities, multiple patients

Conclusion: Importance of Timely Screening

Take Aways

INTIMAL AND TIMELY DECISION ABOUT COLONIZATION SCREENING MADE ALL THE DIFFERENCES

LEADERSHIP IS IMPORTANT

NEBRASKA
Good Life. Great Mission.
DIVISION OF PUBLIC HEALTH

Other screening: Screening process in Nebraska

- Admission screening
- Discharge screening (optional)
- Baseline (Prevention based PPS)

NEBRASKA
Good Life. Great Mission.
DIVISION OF PUBLIC HEALTH

Process of Colonization Screening in Nebraska

Select patients to screen

Members of HAI Team and the IP at the facility will identify appropriate epidemiologic contacts for screening based on above guidance.

Order supplies

MN ARLN (Regional CDC laboratory in MN)

NPHL (Nebraska State Public Health Lab in Omaha)

Actual screening

Facility will screen their patient following the instruction

Mail back for testing

Receive results

Healthcare and Household Screening

- Healthcare personnel screening:
  - In the absence of known or suspected transmission from HCP or other strong epidemiologic links, HCP screening is not recommended.
- Household contact screening:
  - Screen household contacts who have extensive contact (e.g., share a bed or assist with personal care) with the index patient if the household contact has frequent inpatient healthcare exposure to determine if transmission-based precautions are necessary for their subsequent admissions.
  - Consider screening other household contacts if household transmission is suspected.
  - If household contacts are HCP, prior to pursuing screening consider what actions will be taken if they are colonized (e.g., work restrictions and rescreening).

Interim Guidance for a Public Health Response to Contain Novel or Targeted Multidrug-resistant Organisms (MDROs)

QUESTIONS?

NEBRASKA
Good Life. Great Mission.

DIVISION OF
PUBLIC HEALTH

THANK YOU

DIVISION OF PUBLIC HEALTH

NEBRASKA
Good Life. Great Mission.
DEPT. OF HEALTH AND HUMAN SERVICES

Ishrat.kamal-ahmed@nebraska.gov

-

531-207-4053