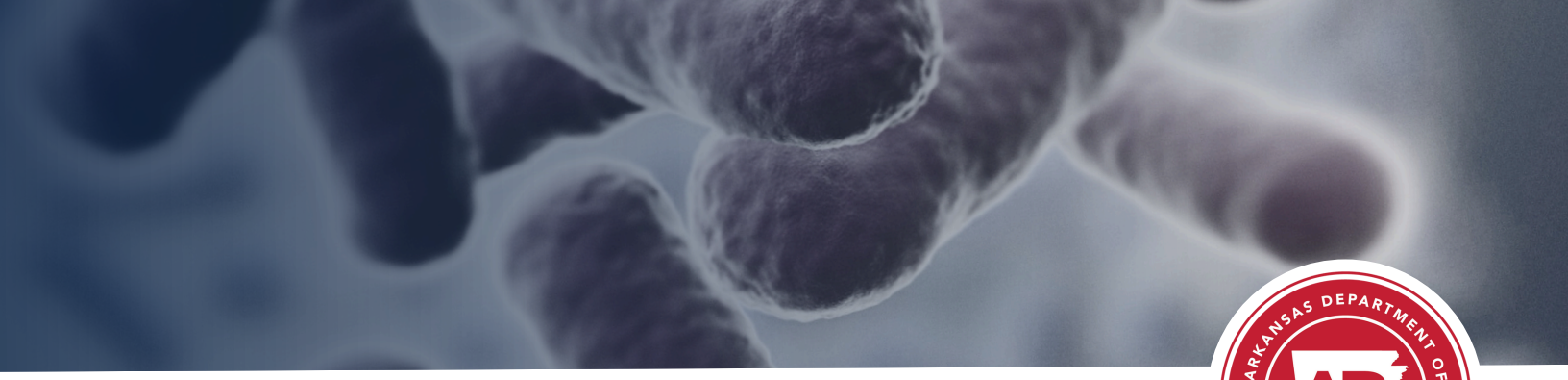

Carbapenemase-Producing Organisms (CPOs)

What Are CPOs?

Carbapenemase-producing organisms (**CPOs**) are a group of antibiotic-resistant bacteria that:

- **Produce carbapenemase enzymes**, making infections difficult to treat.
- **Spread easily in healthcare settings**, such as hospital and long- term care facilities.
- **Cause serious complications** such as **sepsis**, **pneumonia**, **bloodstream infections**, and **urinary tract infections** (UTIs).

Who Is at Risk?

Patients at the highest risk for CPO infections include:

- Those with **prolonged healthcare stays** or **frequent healthcare visits**.
- Patients who are on **ventilators**, have **catheters**, or use **feeding tubes**.
- Individuals with **weakened immune systems** due to chronic illnesses or prior antibiotic use.

How Do CPOs Spread?

CPOs can spread through:

- **Direct person-to-person contact**, especially in hospitals and long-term care facilities.
  - **Healthcare workers' hands** if proper infection control measures are not followed.
- **Contaminated surfaces**, including medical equipment, bed rails, and shared devices. (e.g., sterile medical devices).
- **Invasive devices** (e.g., catheters, ventilators)
- **Invasive procedures** (e.g., bronchoscopy, endoscopy, colonoscopy, wound care).

Symptoms of CPO Infections

Infections caused by CPOs present **similar to all other infections**. However, the antibiotic options for CPOs are limited. They can present as:

- **Pneumonia**: dyspnea, cough, fever
- **UTI**: dysuria, fever, chills
- **Bacteremia**: fever, chills, altered mental status, hypotension
- **Skin and soft tissue infection**: erythema, swelling, purulence

Designed for Healthcare Facilities: Please print and post this flyer in staff break rooms, nursing stations, and clinical areas. Share with your team.

HEALTHY.ARKANSAS.GOV

Carbapenemase-Producing Organisms

Prevention, Pathogen Tiers, and Contact Information

Infection Control Measures

- Strict **hand hygiene** compliance.
- **Contact precautions** (gloves, gowns, dedicated equipment).
- **Environmental cleaning** and disinfection (appropriate dwell times).
- **Prompt removal** of unnecessary invasive medical devices.
- **Patient isolation** and cohorting when necessary.

SCAN HERE TO LEARN MORE

Arkansas Pathogens by Tier

Tier	Description	Pathogens Included
1	Pathogens/resistance mechanisms never or very rarely detected in the USA (novel MDROs)	• Novel organism and/or resistance mechanism • Pan-resistant gram-negative organism
2	Pathogens/resistance mechanisms not commonly detected in Arkansas (targeted MDROs)	• *Candida auris (C. auris)* • Carbapenemase-producing Enterobacterales • Carbapenemase-producing *Acinetobacter baumannii* • Carbapenemase-producing *Pseudomonas aeruginosa* • Vancomycin-resistant *Staphylococcus aureus* • Pan-non-susceptible gram-negative organism
3	Pathogens/resistance mechanisms commonly detected in Arkansas but not endemic	• Carbapenem-resistant Enterobacterales (CRE) • Carbapenem-resistant *Acinetobacter baumannii* (CRAB) • Carbapenem-resistant *Pseudomonas aeruginosa* (CRPA)
4	Pathogens/resistance mechanisms endemic in Arkansas and/or less epidemiologically concerning	• Other MDROs not previously listed

- **ADH offers free carbapenemase mechanism testing** for CREs, CRPAs, and CRABs through the **State Public Health Laboratory** and the Antimicrobial Resistance **Laboratory Network**.
  - To sign up for a free account visit: *https://prod.labwebportal.com/ar/#/auth/registration*

- **Common Enterobacterales**: *Escherichia coli* (*E. coli*), Klebsiella spp., Enterobacter spp., Citrobacter spp., Proteus spp., Morganella spp.

CONTACT THE ADH HEALTHCARE-ASSOCIATED INFECTIONS (HAI)/ANTIMICROBIAL RESISTANCE (AR) PROGRAM: ADH.HAI@ARKANSAS.GOV

Learn more at healthyar.info/ipc25