

# Carbapenem-Resistant *Pseudomonas aeruginosa* Fact Sheet for Health Care Settings



*Pseudomonas* is a type of bacteria commonly found in the environment, including in soil and water. One species of this bacteria, *Pseudomonas aeruginosa*, can cause infections in humans including pneumonia, bloodstream infections and surgical site infections. Some *Pseudomonas aeruginosa* bacteria are resistant to antibiotics, and those that are resistant to a group of antibiotics called carbapenems are especially concerning. Carbapenems are considered the last line of defense to treat multidrug-resistant bacterial infections, so infections caused by carbapenem-resistant *Pseudomonas aeruginosa* (CRPA) can be very difficult to treat.

## How is CRPA spread?



CRPA can be spread person-to-person in health care settings through direct contact with patients and residents who are colonized or infected with CRPA, via health care workers' hands following care of those individuals, or from contaminated surfaces in the patient's or resident's environment.

## Who is at risk for CRPA?



- ▶ **Healthy individuals do not usually get CRPA infections.** Individuals with longer hospital or long-term care facility stays, open wounds, or invasive devices like ventilators or urinary catheters are at risk for infection with CRPA.
- ▶ Individuals with weakened immune systems or chronic lung disease also at risk for infection.

## How are CRPA infections treated?



- ▶ The most commonly prescribed antibiotics are not effective against CRPA infections. Treatment decisions should be made on a case-by-case basis by a health care provider.
- ▶ Colonized individuals who do not show active signs of infection do not need to be treated or decolonized.

## Why is CRPA prevention important?



- ▶ Infections caused by CRPA are difficult to treat and are associated with increased mortality and high health care costs.
- ▶ Some type of this organism (carbapenemase-producing CRPA) can pass on their resistance to carbapenem antibiotics to other bacteria and can lead to widespread antibiotic resistance.



## What can health care facilities do to prevent the spread of CRPA?

Careful attention to infection prevention measures, such as hand hygiene, the proper use of gowns and gloves, thorough environmental cleaning, and the use of dedicated equipment and supplies can help reduce the risk of transmission within facilities.



- ▶ **Practice consistent hand hygiene with alcohol-based hand sanitizer (ABHS) or soap and water.**
  - ▶ Staff should perform hand hygiene **before and after** changing dressings, providing patient or resident care (such as bathing, dressing, or changing linen), and accessing indwelling devices. Staff should also perform hand hygiene before preparing or eating food, and after using the bathroom.
  - ▶ Patient and residents should be encouraged to perform hand hygiene often.



- ▶ **Increase the frequency of environmental cleaning and disinfection, especially for high-touch surfaces.**
- ▶ **Whenever possible, use single-use, disposable, non-critical equipment or dedicate equipment to one patient or resident.**

Thoroughly clean and disinfect all patient and resident care equipment after use.



- ▶ **Follow appropriate precautions and ensure personal protective equipment (PPE) is used properly.**
  - ▶ The type of precautions that should be used with patients and residents will depend on a number of factors including whether an individual is colonized or infected with a targeted MDRO or has indwelling medical devices or wounds.
  - ▶ Health care personnel must understand what type of precautions should be followed, and have access to the appropriate PPE to keep themselves and others safe.
  - ▶ Using appropriate precautions may also involve placing patient or residents who are infected or colonized with a targeted MDRO in a private room.
  - ▶ For more information on the type of precautions that should be used see the appropriate below resources:
    - ◆ [CDC Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. Appendix A](#)
    - ◆ [CDC Information on Enhanced Barrier Precautions in Nursing Homes](#)



- ▶ **Facilities should clearly communicate a patient's or resident's MDRO status when individuals are transferred to or receive care at another health care facility.**

When an individual who is colonized or infected with an MDRO is transferred to another health care facility, leaves the facility for an outpatient clinic visit, or receives other ancillary services, the receiving facility must be informed of the individual's MDRO status, so that proper precautions can be taken in those settings.

For more information, visit the [Wisconsin Healthcare-Associated Infections Prevention Program's webpage](#).

