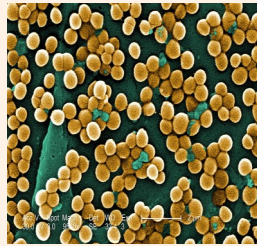




# Multidrug-Resistant Organisms (MDROs)

## What are MDROs?

- MDROs are microorganisms resistant to multiple agents in one or more classes of antibiotics.
- MDROs are highly resistant bacteria including, but not limited to: methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin-resistant enterococci (VRE), and multidrug-resistant Gram-negative bacilli (GNB) which may include *Escherichia coli*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, and *Pseudomonas aeruginosa*.
- Resistance can occur by multiple mechanisms depending on the type of organism.



## What is the clinical impact of MDROs?

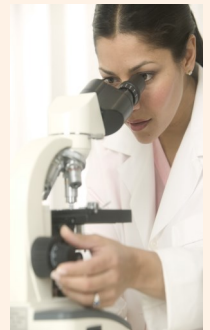
- MDROs can be easily transferred among patients.
- Many MDROs can be difficult to treat.
- Patients with MDROs are at a greater risk of developing poor health outcomes.

## Who is at risk?

- Patients receiving prolonged or repeated courses of antibiotics, and the risk is particularly unwarranted when antibiotic use is inappropriate, excessive, or incorrectly administered.
- Patients with prolonged medical care.
- Immunocompromised patients.
- Patients with in-dwelling medical devices such as urinary catheters, endotracheal tubes or central venous catheters.

## What is being done to identify patients with infections caused by MDROs?

- The Microbiology department performs cultures to identify organisms and susceptibilities as necessary.
- If an organism is confirmed as a MDRO the patient's healthcare givers are notified.
- An alert should be placed in the patient's record to indicate recent/current infection or colonization with MDROs.
- Patients identified with an MDRO may need to be placed in isolation precautions according to the facility's guidelines.
- An appropriate [transfer tool](#) should be employed to communicate infections across healthcare facilities.



## What can be done to prevent the spread of MDROs?

- Strict hand hygiene and appropriate isolation precautions are key to prevent the spread of MDROs.
- Development and implementation of an antimicrobial stewardship program (ASP).
- Practice environmental infection prevention, which includes providing adequate disinfectant contact time and monitoring room cleaning.
- Provide patient education about MDROs.
- For more information on steps to MDROs prevention and control, check out the CDC's [Management of Multidrug-resistant Organisms in Healthcare Settings, 2006](#).

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