

MULTIDRUG-RESISTANT ORGANISMS (MDROs)

Multidrug-resistant organisms (MDROs) are microorganisms resistant to one or more classes of antimicrobial agents. Although the names of certain MDROs describe resistance to only one agent (e.g., MRSA, VRE), these pathogens are frequently resistant to most available antimicrobial agents. Options for treating patients/residents with MDRO infections are often extremely limited.

COMMON MDROs INCLUDE:

- MRSA** - Methicillin-resistant Staphylococcus aureus
- VRE** - Vancomycin-resistant Enterococci species
- CRE** - Carbapenemase-producing Enterobacterales
- ESBL** - Gram-negative bacteria that produce extended spectrum beta-lactamase

HOW ARE MDROs SPREAD?

Most MDRO infections are spread by direct contact with an infected person's bodily fluids, such as blood, drainage from a wound, urine, stool, or sputum. They can also be spread by contact with contaminated equipment or surfaces in the environment.



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WHAT ARE THE SYMPTOMS OF MDROs?

Some people carry MDRO bacteria in their bodies without any symptoms. This is called being "colonized." A person might be colonized for a long time before getting sick, or may never get sick.

Symptoms depend on infection location. Skin infections are the most common, and can cause redness, warmth, pus, and/or a wound that does not heal.

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WHO IS AT RISK

- Immune-suppressed and other medically vulnerable individuals (such as preterm infants, organ transplant recipients, or those with cancer or HIV)
- Individuals who have frequent healthcare exposure
- Individuals who have received multiple antibiotics

PREVENTION STRATEGIES

Infection prevention and control practices are designed to reduce transmission and infections among patients/residents across the continuum of care. Control of MDROs involves a combination of interventions:

- Judicious use of antimicrobials
- Hand hygiene
- Source control measures such as:
 - Standard and transmission-based precautions
 - Enhanced barrier precautions for LTC facilities
- Chlorhexidine bathing
- Active surveillance testing (AST) to identify MDRO-colonized and MDRO-infected patients/residents (especially if other control measures have been ineffective)
- Environmental cleaning and disinfection strategies, with a focus on high touch surfaces
- Limiting exposure to invasive devices and reducing device-associated infection risks
- Communication of MDRO status when patients/residents are transferred to another department, unit or facility



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Daily Bathing with Chlorhexidine-based Soap and the Prevention of Staphylococcus aureus Transmission and Infection | CDC



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