

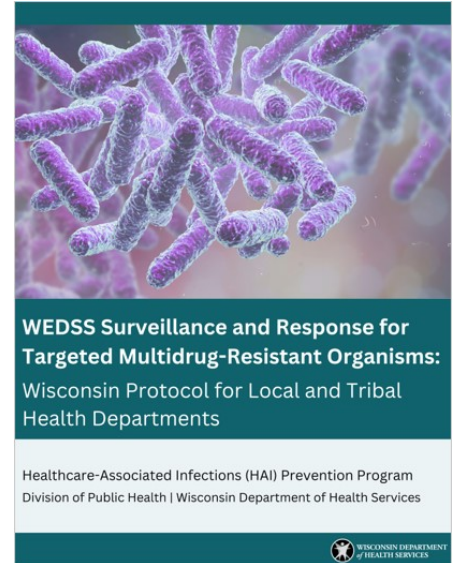
Reportable MDRO Follow-Up

Reference Guide for Local and Tribal Health Departments

Background

Conducting surveillance and case investigations for targeted multidrug-resistant organisms (MDROs) is important for identifying the source of the organism and preventing further transmission. Utilizing surveillance tools, such as the Wisconsin Electronic Disease Surveillance System (WEDSS), to identify, record, and track patient or resident demographics and information allows health care facilities to identify a patient or resident's MDRO status and ensure appropriate infection control precautions are followed during the patient's health care encounters.

This short reference guide is intended to provide local and Tribal health departments (LTHDs) with a brief overview of reportable MDROs as well as quick tips for interpreting lab results and determining appropriate follow-up. Information included in this guide was adapted from the [WEDSS Surveillance and Response for Targeted Multidrug-Resistant Organisms: Wisconsin Protocol for Local and Tribal Health Departments](#).



Bacterial MDROs

i Key terms

Carbapenem antibiotics: Include doripenem, ertapenem, imipenem, and meropenem

Enterobacterales: A large order of bacteria, common species include those from the genera *Klebsiella*, *Enterobacter*, *Citrobacter*, and *E. coli*

Carbapenemase: An enzyme that makes bacteria resistant to antibiotics, including carbapenems (such as IMP, KPC, NDM, OXA, VIM)

Results that merit further testing at the Wisconsin State Laboratory of Hygiene (WLSH) (cases that don't meet these criteria are considered "not a case"):

- ✓ Enterobacterales species isolate resistant to at least one carbapenem
- ✓ *Acinetobacter baumannii* isolates resistant to at least one carbapenem
- ✓ *Pseudomonas aeruginosa* isolates resistant to at least one carbapenem **and** non-susceptible to cefepime and/or ceftazidime

Test results for a confirmed case of a carbapenemase-producing organism (CPO):

- ✓ Testing that detects a carbapenemase (such as KPC, IMP, NDM, OXA, VIM), usually through PCR
- ✓ Testing that detects a carbapenemase through phenotypic testing, but doesn't specify which gene



Fungal MDROs

The following types of *Candida* isolates should be submitted to WSLH for surveillance of emerging resistance:

- ✓ *Candida auris* (**reportable in Wisconsin**)
- ✓ *Candida haemulonii*
- ✓ Invasive *Candida glabrata*
- ✓ Unusual or hard to identify *Candida*

Case classification

CPO and *Candida auris* cases enter staging in the Wisconsin Electronic Disease Surveillance System (WEDSS) as “unspecified.” Based on specimen type, cases are sorted as either “**clinical**” or “**screening**.”


Clinical specimens

- Collected from an individual for the purpose of diagnosing disease in the normal course of clinical care
- Specimen may be collected from any body site (for example, urine, blood, or a wound)

Screening specimens

- Collected from an individual without clinically compatible illness for the purpose of detection of colonization with the organisms
- Common specimen sites are skin (such as axilla or groin), rectal, nares, or other external body sites

Steps for completing investigation in WEDSS

 **Note:** Calling the client is not required or necessary. If information cannot be found mark “unknown” where appropriate.

1. **If medical records are not in the filing cabinet**, contact the health care facility’s infection preventionist or director of nursing to request records, focusing on:
 - History and physical (H&P).
 - Admission and discharge notes.
 - Social work and case management notes.
 - Any information regarding congregate living setting stays (such as skilled nursing facilities, assisted living facilities, and long-term acute care hospitals) and ancillary services (such as physical or occupational therapy, home health care, wound care or dialysis).
 - Recent surgeries or medical procedures.
 - Names and locations of facilities where the client resides and receives services.
2. From information available, complete the following tabs: “**Lab/Clinical**,” “**Risk**,” and “**Investigation**.”
 - “**Lab/Clinical**” **tab:** Complete laboratory information, type of infection, medical section (especially underlying health conditions and discharge location, if available).
 - “**Risk**” **tab:** Prioritize completing the top section, but try to complete as much as possible. Focus on ancillary services and movement between facilities.
 - “**Investigation**” **tab:** Complete checkboxes about hospitalization and death; location of hospitalization; admission and discharge dates, if applicable. Summarize case in “Notes” including any information that didn’t fit into other sections.



3. **If a patient lives in a long-term care facility within your jurisdiction**, complete follow-up with the facility to ensure they are aware of the diagnosis, appropriate precautions, where to find additional resources and guidance (see “MDRO Resources” below). This will depend on the facility’s familiarity with MDROs.
4. **If the patient resides outside of your jurisdiction**, change the jurisdiction in WEDSS and notify the LTHD of transfer of the case. Remove your name as investigator prior to the jurisdiction transfer.
5. When investigation is completed, set “**Process Status**” to “**Sent to State**” (or follow your jurisdiction’s policy for completed cases).



For questions or assistance completing an MDRO investigation, please contact the Wisconsin Healthcare-Associated Infections (HAI) Prevention Program by phone at 608-267-7711 or email DHSWIHAIPreventionprogram@dhs.wisconsin.gov.

MDRO Resources

Resources for health care facilities

- [Implementation of Personal Protective Equipment Use in Nursing Homes to Prevent the Spread of Multidrug-Resistant Organisms, CDC](#): This webpage contains information on how to implement personal protective equipment use in nursing homes to prevent the spread of MDROs (enhanced barrier precautions). Answers to frequently asked questions and door signs are also available.
- [Recommendations for Prevention and Control of Targeted Multidrug-Resistant Organism \(MDRO\) in Wisconsin Nursing Homes, DHS](#): The recommendations included in this document are intended to support a nursing home’s response to the identification of single case of a targeted MDRO within the facility, reduce the risk of spread of the targeted MDRO within the facility, and help contain outbreaks.
- [Recommendations for Prevention and Control of Targeted Multidrug-Resistant Organisms for Assisted Living Facilities, DHS](#): This document was developed recognizing the wide range of housing arrangements, services, and levels of resident independence that unique to the assisted living setting.

General resources

- [Reportable MDROs, DHS](#): This webpage lists the MDROs that are currently reportable in Wisconsin as well as prevention, surveillance, testing, and reporting resources for health care facilities and local and Tribal health departments.
- [Guidelines for Prevention and Control of Multidrug-Resistant Organisms for Health Care Settings, DHS](#): This guidance is designed to aid health care facilities in the prevention and control of MDROs across the continuum of care.
- [Disinfectant Considerations for MDROs, DHS](#): This reference sheet can help facilities determine which disinfectants are effective against MDROs present in their facility.
- [MDRO Fact Sheet for Residents and Families, DHS](#): This fact sheet reviews basic information on MDROs, including preventative actions patients and residents can take to protect themselves.
- [MDRO Fact Sheet for Health Care Personnel, DHS](#): This fact sheet reviews basic information on MDROs for health care personnel, including steps they can take to prevent spread within health care facilities.

