

Virginia Department of Health (VDH) Prevention Recommendations For Multidrug-Resistant Organism (MDRO)

Table of Contents

Introduction	2
Definitions	2
MDRO Prevention Activity Summary	3
1. Attend Education Opportunities	3
2. Improve IPC Practices	3
3. Detect Colonized Individuals	4
4. Facilitate Communication	5
MDRO Prevention Checklist for Influential Facilities	6
MDRO Prevention Checklist for Highly Connected Facilities.....	7

Introduction

The Virginia Department of Health (VDH) recommends following the [Centers for Disease Control and Prevention \(CDC\) Prevention Strategy Guidance](#) to prevent the spread of novel and targeted multidrug-resistant organisms (MDROs) like *Candida auris* (*C. auris*) and carbapenemase-producing bacteria. Prevention strategies aim to reduce MDRO transmission at all stages of spread. This includes before a targeted MDRO is identified in a region to after a targeted MDRO becomes endemic. The following strategies are based on published evidence from CDC and include specific information for Virginia.

Definitions

Targeted MDROs: Bacteria that have the potential to spread widely and are resistant to most or all available drugs. Examples include carbapenemase-producing Enterobacterales (CP-CRE), carbapenemase-producing *Pseudomonas* spp. (CP-CRPA), carbapenemase-producing *Acinetobacter baumannii* (CP-CRAB), and *Candida auris*. Intensive public health actions are required to slow the spread of targeted MDROs.

Focus MDROs: A subset of targeted MDROs. Public health has identified these bacteria as the most important to focus on to reduce their spread. In Virginia, this includes NDM-producing Enterobacterales and *Candida auris*. Depending on resources, healthcare facility interest, and regional epidemiology, this might include other targeted MDROs like NDM-producing *Acinetobacter baumannii* or KPC-producing *Klebsiella pneumoniae*. The health department will work with your facility to determine the focus MDROs.

Influential facilities: Facilities at highest risk of MDRO importation and transmission. Facilities are usually placed in this category because they care for patients/residents with high acuity and long lengths of stay. This includes all long-term acute care hospitals (LTACHs) and ventilator-capable skilled nursing facilities (vSNFs). In addition, a facility that is not a vSNF or LTACH but has substantial transmission of a focus MDRO is considered an influential facility.

Highly connected facilities: Acute care hospitals and skilled nursing facilities (SNFs) that often receive patients from influential facilities and are likely to admit patients/residents with MDROs.

Other facilities: Healthcare facilities that are not influential nor highly connected but can still benefit from prevention activities such as education.

MDRO Prevention Activity Summary

This section describes four MDRO prevention strategies and explains why they are important. The key MDRO prevention strategies are: (1) attending education opportunities; (2) improving general infection prevention and control (IPC) practices; (3) detecting colonized individuals; and (4) facilitating communication.

1. Attend Education Opportunities

Education helps increase engagement and adherence to recommended interventions. VDH offers education for healthcare personnel on strategies detecting and preventing the spread of MDROs, MDRO transmission, infection prevention and control (IPC) basics, and about novel or targeted MDROs in their region and the state.

- Visit the [Virginia Infection Prevention and Control Training Alliance \(VIPTA\)](#) website to see training events, featured educational resources, guidance updates, and more.
- [Sign up](#) for the HAI and AR Navigator Newsletter to receive information about educational offerings from VDH.
- Attend [Cuppa Tea with an IP](#) weekly every Wednesday at 2 PM to chat live with a VDH Infection Preventionists, subject matter experts (SMEs), and peers about your IPC questions.
- Obtain education tailored to your needs from the [VDH Regional Infection Preventionists](#) during [onsite IPC assessments](#). Learn more about these assessments [below](#).

2. Improve IPC Practices

Core IPC practices like hand hygiene, personal protective equipment (PPE) use, and environmental cleaning are essential to limit MDRO transmission to patients and residents at all healthcare facilities.

VDH wants to work with your healthcare facility to help strengthen IPC. This can help enhance the safety of patients/residents and healthcare personnel. Visits are consultative, non-regulatory, non-punitive, and free. During a visit, VDH will use a structured tool to assess IPC practices.

- An onsite visit is recommended annually for influential facilities. Visits to highly connected facilities are recommended as needed.
- Facilities may schedule an infection prevention assessment on the [VDH website](#).

3. Detect Colonized Individuals

Individuals with clinical MDRO infections are only a small amount of the total individuals with a targeted MDRO. Many more are colonized and can be a source of transmission. This occurs if colonization status is unknown and IPC measures are not used.

Combining colonization screening with good adherence to core IPC practices will have a larger impact on limiting MDRO transmission than either strategy alone. Prevention-driven point prevalence surveys (PPSs) and admission screening are two screening strategies that can be used to detect colonized individuals. Work with your local health department to come up with the best screening plan for your facility.

- **Prevention-driven PPSs** are colonization screenings performed unit- or facility-wide to identify colonized individuals so IPC measures can be applied. The screenings are also used to regularly assess epidemiology of MDROs at the facility.
 - These surveys are different than colonization screening performed in response to a new MDRO case or an outbreak.
 - Recurring prevention PPSs are recommended for influential facilities at a predetermined frequency (e.g., quarterly).
 - Facilities may schedule a free prevention PPS through your local health department.
- **Admission screening** is the use of colonization screening to identify a patient/resident with an MDRO at the time of admission. This can be to a new healthcare facility or unit within the same facility. Identifying colonization on admission allows for timely IPC actions (e.g., use of Contact Precautions, room placement).
 - When performed with repeat PPSs, admission screening can help a facility show how well infection prevention measures are working. This means being able to identify whether MDRO cases were brought in from the outside or transmission is occurring in the facility. It can also help identify facilities with high MDRO prevalence.
 - Admission screening requires a facility to develop procedures to ensure screening is performed promptly for all admitted patients/residents. It also requires coordination between the facility and the laboratory doing the testing.
 - The benefit of admission screening depends on good adherence to IPC practices in the facility. Without good IPC practices, admission screening is not expected to reduce facility and regional MDRO transmission.

4. Facilitate Communication

Healthcare facilities must communicate effectively with other healthcare facilities that they share patients with. Communication is also important with public health. Communication maximizes the impact of the other prevention strategies.

Communicating when transferring a patient/resident with an MDRO infection or colonization helps ensure appropriate IPC actions. This decreases the risk of MDROs spreading to others and in your facility. Gaps in communication may lead to preventable transmission of MDROs. This can result in infections, death, and an increased burden on stretched healthcare resources.

- Communicate the type of MDRO and the necessary infection control actions to take (e.g., use of Transmission-Based or Enhanced Barrier Precautions) at minimum.
 - An example transfer communication template is available from [CDC](#).
- A tool to help improve communication and response to prevent the spread of MDROs in Virginia is the [Emergency Department Care Coordination \(EDCC\) program](#).
 - EDCC is operated by Virginia Health Information (VHI) with support from its technology partner, PointClickCare (formerly Collective Medical). All facilities should participate in the EDCC program and turn on the MDRO flag notifications.

MDRO Prevention Checklist for Influential Facilities

Influential facilities are vSNFs, LTACHs, and certain inpatient facilities.

Strategy	Recommended Action	Additional Information
Participate in Education Opportunities	<input type="checkbox"/> Visit the Virginia Infection Prevention and Control Training Alliance (VIPTA) website. VIPTA is your one-stop shop for all MDRO resources and IPC needs.	Find training events, educational resources, guidance updates, and more. Sign-up for the monthly Vitamin IPC Bulletin to receive monthly updates on new resources.
Participate in Education Opportunities	<input type="checkbox"/> Attend (IP representative) Cuppa Tea with an IP weekly every Wednesday at 2 PM.	Cuppa Tea is a weekly chance to chat live about IPC with VDH IPs, subject matter experts (SMEs), and peers. Register once and attend whenever you have questions or need a little IP peer boost.
Participate in Education Opportunities	<input type="checkbox"/> Sign up for the HAI and AR Navigator Newsletter to receive information about educational offerings from VDH.	The HAI and AR Navigator is published on a bimonthly basis. Check out previous issues.
Improve IPC Practices & Participate in Education	<input type="checkbox"/> Schedule an onsite IPC assessment.	Annual assessments are recommended. Tailored education can also be provided. Learn more about IPC assessments.
Detect Colonized Individuals	<input type="checkbox"/> Schedule a prevention colonization screening.	A quarterly PPS to detect focus MDROs is recommended. Admission screenings might be recommended if there is higher MDRO prevalence and good adherence to IPC practices. Reach out to your local health department to schedule a colonization screening.
Facilitate Communication	<input type="checkbox"/> Participate in the EDCC and turn on the MDRO flags.	Information about the EDCC MDRO flags.
Facilitate Communication	<input type="checkbox"/> Review your facility's transfer process to ensure it contains needed MDRO information.	Understand when, what, and how MDRO information is communicated. See the CDC's example transfer form .

MDRO Prevention Checklist for Highly Connected Facilities

Highly connected facilities are acute care hospitals and skilled nursing facilities that most frequently receive patients from influential facilities (e.g., vSNFs or LTACHs).

Strategy	Recommended Action	Additional Information
Participate in Education Opportunities	<input type="checkbox"/> Visit the Virginia Infection Prevention and Control Training Alliance (VIPTA) . VIPTA is your one-stop shop for all MDRO resources and IPC needs.	Find training events, educational resources, guidance updates, and more. Sign-up for the monthly Vitamin IPC Bulletin to receive monthly updates on new resources.
Participate in Education Opportunities	<input type="checkbox"/> Attend (IP representative) Cuppa Tea with an IP weekly every Wednesday at 2 PM.	Cuppa Tea is a weekly chance to chat live about IPC with a VDH IP and subject matter experts (SMEs), and peers. Register once and attend whenever you have questions or need a little IP peer boost.
Participate in Education Opportunities	<input type="checkbox"/> Sign up for the HAI and AR Navigator Newsletter to receive information about educational offerings from VDH.	The HAI and AR Navigator is published on a bimonthly basis. Check out previous issues.
Improve IPC Practices & Participate in Education	<input type="checkbox"/> Schedule an onsite IPC assessment.	Assessments are recommended on an as needed basis. Tailored education can also be provided. Learn more about IPC assessments.
Detect Colonized Individuals	<input type="checkbox"/> Schedule a prevention colonization screening.	A quarterly PPS to detect focus MDROs is recommended. Admission screenings might be recommended if there is higher MDRO prevalence and good adherence to IPC practices. Reach out to your local health department to schedule a colonization screening.
Facilitate Communication	<input type="checkbox"/> Participate in the EDCC and turn on the MDRO flags	Information about the EDCC MDRO flags.
Facilitate Communication	<input type="checkbox"/> Review your facility's transfer process to ensure it contains needed MDRO information.	Understand when, what, and how MDRO information is communicated. See the CDC's example transfer form .