Prevention of Multi-Drug Resistant Organisms (MDRO)

National Patient Safety Goal;
Prevention of Healthcare Associated Infection

Corporate MDRO Prevention Team
Target Audience: All healthcare workers.
Course Navigation

Advance through the course using the navigation bar on the bottom of the screen.

Just click the forward button *(shown below)*
Objectives

- Define healthcare associated infections and multi drug resistant organism (MDRO) infections
- List risk factors for MDROs.
- Identify isolation precautions for patients with MDROs.
- Review strategies for prevention of MDROs.
What are Healthcare Associated Infections and Multi-Drug Resistance Organisms? (MDROs)

- Healthcare associated infection (HAI): Infections acquired in hospital by a patient who was admitted for a reason other than that infection. This infection was not present /incubating at the time of admission.

- Multi-drug resistant bacteria (MDRO) are bacteria that are resistant to one or more classes of antibiotics

- Healthcare associated infections (HAI) account for over 1 million infections each year leading to over 90,000 deaths.
Organisms identified as MDROs at Novant Health Facilities

- MRSA (Methicillin resistant *Staph aureus*)
- VRE (Vancomycin resistant *Enterococcus*)
- *Clostridium difficile* (*C. diff*)
- *Burkholderia* species. (*highly resistant strains*)
- *Acinetobacter* species. (*highly resistant strains*)
- *Pseudomonas* species. (*highly resistant strains*)
- Organisms labeled as ESBL (Extended Spectrum Beta-Lactamase) or CR (Carbapenem-resistant)
Patients at Risk for MDROs

- Immunocompromised
- Elderly patients
- Higher severity of illness
- Chronic conditions - hemodialysis
- Extended hospital stay
- Intensive Care Unit stay
- Prior antibiotic use
- Transfers from other acute/chronic care facilities
- Poor compliance with Infection Prevention practices
Contact Precautions

Recommended method of hand hygiene: Alcohol based hand sanitizers or soap & water (when hands are visibly soiled) GOWNS & GLOVES upon entry to the room. Every Person, Every Time
Contact Precautions

**CONTACT PRECAUTIONS**

Visitors must report to Nursing Station before entering.

- ☑ Perform hand hygiene before entering and before leaving room.
- ☑ Wear gloves when entering room or cubicle, and/or when touching patient’s intact skin, surfaces, or articles in close proximity.
- ☑ Wear gown when entering room or patient cubicle or if clothing will touch patient items.
- ☑ Use patient-dedicated or single-use disposable shared equipment or clean and disinfect shared equipment (BP cuff, thermometers) between patients.

**PRECAUCIONES DE CONTACTO**

Los visitantes deben presentarse primero al puesto de enfermería antes de entrar. Lávese las manos. Póngase guantes al entrar al cuarto.

Refer to Isolation Precautions Policy for specific recommendations for each precaution category.
Contact Enteric Precautions for C. difficile

Refer to Isolation Precautions Policy for specific recommendations for each precaution category.
Ambulating the Patient with MDROs

- Patients without draining wounds, diarrhea or uncontrolled secretions may ambulate.
- Patient must wash their hands and wear clean gown or clothing.
- Patient may ambulate in assigned nursing unit and / or therapeutic session area ONLY (patients are not allowed into other patient rooms).
- Clean PPE should be worn by staff while ambulating patients.
- PPE is ONLY allowed in hallways if needed for care of the patient and is an extension of direct patient care (i.e., Rehab/PT care, etc.)

Refer to NH Isolation Policy
Prevention Strategies for MDROs

- Hand Hygiene
- Isolation Precautions: *Gown and Gloves, Every Person Every Time*
- Equipment/ Environmental cleaning
- Surveillance screening – PPP (Patient Problem Pathogen: refer to NH PPP Policy)
- Identification of MDRO patient and isolation when re-admitted (flagging medical record)
- Education
  - Staff, Patients and Visitors
Hand Hygiene

- Sanitize hands before donning PPE (Personal Protective Equipment)
- Sanitize after contact with the patient or their environment
- Wash hands with soap and water when visibly soiled or when leaving a Contact Enteric Precaution room
- Refer to NH Hand Hygiene Policy
Equipment Cleaning

- All reusable equipment must be cleaned between patient use
  - Blood pressure cuffs
  - Stethoscopes
  - Pulse oximeters

- Comprehensive equipment cleaning policy can be found at: [Cleaning and Disinfection of Non Critical Medical Devices](#)
Surveillance Screening: Patient Problem Pathogen (PPP) policy – MRSA & VRE Only

Early screening to decrease risk of transmission by identification and isolation of patients infected or colonized MRSA and VRE only.

Who is screened?

- Patients admitted from long term care facilities
- Admission and readmissions to critical care units
- Chronic hemodialysis patients
- Patients hospitalized >10 days are screened on day 10 and every 10 days thereafter.
- Patients with positive MRSA/ VRE results greater than six months will be re-screened.
Alert Notification and Flagging of MDROs

- Laboratory will verbally alert unit of MDRO lab results
- Laboratory report generated to indicate MDRO and organisms (i.e. MDRO: MRSA)
- Electronic medical record will be flagged with MDRO designation for future readmissions.
- Early identification insures prompt isolation
- Nursing to initiate appropriate isolation protocol per NH Isolation Precaution policy.
Patient Education

- General MDRO handout
- Organism specific handouts
- Can be found on Intranet under
  - Clinical Resources > Infection Prevention Education Modules >

- Visitor education
  - Signage on door
  - Handouts per request


CONGRATULATIONS!

You have now completed
Prevention of MDROs

Please continue to the test instructions on the next slide
1. Which of the following organisms are considered a MDRO?
   a. MRSA
   b. *Acinetobacter* sp. c.
   C. C diff.
   d. all the above.

2. Extended healthcare length of stay and prior antibiotic use are risk factors for acquiring a MDRO. *(Circle one)*
   True or False.

3. What isolation precaution is used for the MDRO C. diff?
   a. Contact
   b. Droplet
   c. Airborne
   d. Contact Enteric

4. Hand hygiene, equipment cleaning, alert notification and education are strategies to prevent the spread of MDROs and HAIs? *(Circle one)*
   True or False
Answer Key

1. D
2. True
3. D
4. True
Certificate of Completion is hereby granted to __________________ to certify that he/she has completed Prevention of Multi-Drug Resistant Organisms (MDRO)