

Standard & Transmission-Based Precautions

**STANDARD PRECAUTIONS
AND TRANSMISSION-BASED
ISOLATION**

Infection Prevention & Control
Boot Camp For Long-Term Care Facility
Infection Preventionists

OBJECTIVES

At the conclusion of this presentation, participants will be able to:

- Describe the components of Standard Precautions
- Identify one Transmission-Based Isolation Precaution commonly used in long-term care facilities
- Understand when Standard Precautions are followed
- Discuss when Transmission-Based Isolation Precautions should be initiated
- Understand how and when to utilize Standard Precautions and the various Transmission-Based Isolation Precautions systems
- Explain how to cohort isolation residents
- Describe the necessary process measures to assure infection control practices are followed

CHAIN OF INFECTION

Infectious agent

Susceptible host

Reservoirs

Portal of entry

Portal of exit

Means of transmission



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3 TIERS TO INFECTION CONTROL MANAGEMENT⁹

- Standard Precautions
- Transmission-Based Isolation Systems
- Enhanced Standard Precautions

9. Schwoen S, Burdall D, Greene D, et al. 2013 APIC Infection Preventionist's guide to long-term care; Chapter 5 pp 72-91

STANDARD PRECAUTIONS

- **Tier 1 – Standard Precautions (SP)⁹**
 - Combination of universal precautions and body substance isolation
 - Presumes all blood, body fluids, secretions, excretions (except sweat), non-intact skin, and mucous membranes are potentially infectious
 - SP should be applied to all residents whether infection status is suspected or confirmed
 - SP includes: Hand hygiene (HH), use of gloves, gown, mask, eye protection or face shield depending on **anticipated** exposure
 - Safe injection practices included

TRANSMISSION-BASED ISOLATION

- **Tier 2 – Transmission-Based Precautions (TBP)⁹**
- TBP is considered when a significant pathogen (e.g., MDRO) is **suspected or known**, where route of transmission is identified
 - Categories of TBP (Isolation)
 - **Contact:** to be used upon entering the room of an isolated resident or when having direct contact with isolated resident. Equipment to use: HH, gloves, gown
 - **Droplet:** to be used upon entering isolated resident's room. Equipment: HH, mask
 - **Airborne (aka respiratory):** Most nursing homes are not equipped to isolate residents who require airborne isolation



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AIRBORNE INFECTION ISOLATION (AII)⁹

- This type of isolation requires:
 - A negative pressure room with door kept closed (air should flow under the door and into the room)
 - Air to be exhausted to the outside, not throughout the facility
 - Air exchanges at 8-12 exchanges of air flow per hour
 - N95 respirator is needed for healthcare workers (HCW)
 - Conditions that require AII: tuberculosis, disseminated shingles, measles, chickenpox

ENHANCED STANDARD PRECAUTIONS (ESP)¹⁰

- This guideline was released in 2010 in California and Utah
- CDC utilizes these “enhanced measures” for outbreak management in long-term care facilities¹

10. CAHII, CC, Joint infection prevention and control guidelines, enhanced standard precautions (ESP), California Long-Term Care Facilities, 2010.

ENHANCED STANDARD PRECAUTIONS

- **Tier 3 – Intensified Interventions¹⁰**
- This next level of interventions are used when:
 - An unusual infectious agent is identified, or
 - Common infectious agent with unusual resistance pattern identified, or
 - New cases of specific agent is either increasing or fails to decrease despite adherence to standard infection prevention procedures



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WHAT ARE INTENSIFIED INTERVENTIONS?¹⁰

- Active Surveillance testing (AST)
- Cohorting affected residents and staff
- Restricting new admissions
- Enhanced environmental sanitation



TO ISOLATE OR NOT TO ISOLATE?

- When symptoms are present and you suspect certain infections like *Clostridium difficile* infection (CDI) or scabies—ISOLATE!⁹
- When symptomatic resident has positive results for an MDRO- ISOLATE!⁹
- When *Clostridium difficile* resident has active diarrhea—ISOLATE!⁹



CDI KEY ISSUES

- Implement isolation practices when you suspect CDI⁵
 - Consider cohorting or assessing roommate for appropriateness (avoid roommate with invasive devices or wounds)⁶
 - Provide separate toileting facilities⁶
 - Reinforce proper hygiene with staff⁶
 - In-service staff and **monitor adherence** to proper hand hygiene (HH)⁶
 - Remind staff to use soap and water in lieu of alcohol-based hand rubs when CDI is present⁶
- Proper use of PPE⁶

6. APIC Implementation Guide: Guide to Preventing Clostridium difficile Infections



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WHO CAN START ISOLATION?

- The licensed nurse, IP, Director of Nursing (DON) or a physician can establish the need for isolation⁹
- Isolation is appropriate for residents with active signs and symptoms of infection caused by a significant pathogen⁹
 - At times, when infection is suspected, before lab confirmation, isolation can be started (i.e., for CDI, Scabies or norovirus)⁹
- Discontinuance of isolation can be ordered by IP, DON or physician (according to facility policy)⁹

WHO ARE WE PROTECTING?

- Standard Precautions
 - Protection of healthcare worker (HCW)¹¹
- Transmission-Based Isolation Precautions
 - Protection of other residents in facility who may not be infected with a significant pathogen¹¹

11.2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings. <http://www.cdc.gov/nugc/2007/07/isolation-precautions.html>

RESIDENT ROOM PLACEMENT

- Private room **NOT REQUIRED** for colonized or infected resident with MDRO in LTC, but may be an option if available¹⁰
 - Prioritize private room for residents that have “conditions that facilitate transmission,” regardless of lab test result¹⁰
- Cohort residents with the same microorganisms^{9,10}
 - Sites may differ but organisms must be the same⁹
- May cohort MDRO colonized/infected resident with others with intact skin, those who are immunocompetent, and without invasive devices^{9,10}



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RESIDENT ROOM PLACEMENT (CONTINUED)

- Consider behaviors and personal hygiene of both residents to be cohorted⁹
- Residents with infected secretions or drainage that cannot be contained, use SP and Contact Isolation Precautions⁹
- Residents with controlled secretions or excretions, allow ambulation and socialization^{9,10}
- Close assessment of each case—ONE SIZE DOES NOT FIT ALL!¹⁰



WHEN DO WE TERMINATE ISOLATION?

- Assess resident
- When signs and symptoms have resolved (include time frame in your policy i.e., after 48 hours) and charting reflects resident's asymptomatic state⁶
- Not necessary to wait until the completion of antibiotic⁹
- Consider 48 hours of charting that resident is symptom free⁶
- Retesting for clearance or test-for-cure is **not recommended**^{9,10}



ISOLATION: WHEN AND IF?⁸

- Isolation may be indicated when a resident is suspected of having Clostridium difficile infection diarrhea or suspected of having scabies
- Isolation may be indicated if resident has an infection caused by a significant pathogen (e.g. an MDRO, influenza, scabies)⁸





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WHAT DOES ISOLATION LOOK LIKE?⁸

- Proper isolation signs out side of resident's room⁸
- Cart set up outside of the room for close PPE access before entering the room
- Private room, if available, otherwise cohort wisely^{8,9}
- Dedicate non-critical care items to isolated resident (Blood pressure cuff, stethoscope, gait belt etc.)^{8,9}
- Educate all healthcare workers (HCW) entering the isolation room that they must don PPE according to the type of isolation in place (Contact or Droplet)
- Educate visitors and families they must perform HH before and after visiting and don PPE to visit isolation resident
- Review with housekeeping staff the appropriate disinfectants needed and their contact time⁹
- Review with dietary department any special needs in handling trays^{8,9}

WHEN AND HOW TO DISCONTINUE ISOLATION

- Isolation may be discontinued when there is adequate documentation that the symptoms have resolved⁸
 - Be sure your policy correlates with your practices
- Assess the resident to evaluate risks versus benefits of discontinuing isolation precautions, before deciding to discontinue isolation practices
 - Provide the "least restrictive environment" for residents to allow for adequate psycho-social interactions⁹
 - At the same time, assess and ensure the other residents are protected by your isolation practices
 - Whatever you decide, DOCUMENT your rationale!
 - Remember, ONE SIZE DOES NOT FIT ALL!

THINGS TO CONSIDER FOR ISOLATION RESIDENTS

- Signage (in compliance with CMS F Tag 241, section 483.15(a), respect for resident's dignity and individuality)⁹
- Isolation PPE provided close at hand (cart outside the door of isolated resident)⁹
- Dedicate non-critical care equipment^{6,9,10}
- Educate resident, families and the staff on importance of hand hygiene^{6,10}
- Review with environmental services the need for disinfecting the environment often and with proper tools and products^{6,9,10}



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PROCESS MEASURES⁹

- Admission assessment
- Hand hygiene
- Use of PPE
- Environmental sanitation



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TAKE AWAY POINTS

- MDROs are transmitted through contact with residents harboring these organisms and through contact with their environment
- MDROs can develop through over-utilization of antibiotics as well as through contaminated environments
- Remember to consider Transmission-Based Isolation Precautions for residents with MDRO infection
- Standard Precautions are to be used for **ALL** resident contacts if exposure to blood, body fluids and open skin areas or mucous membranes is anticipated by the HCW

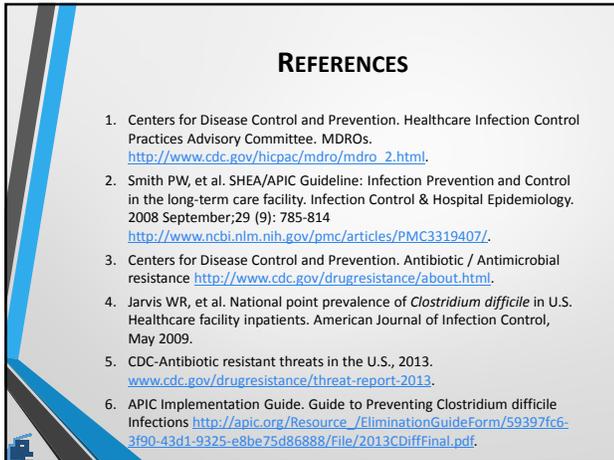
TAKE AWAY POINTS

- Remember to assess residents for possibility of increased risk factors before cohorting residents (i.e., personal hygiene, behaviors, presence of invasive devices etc.)
- Utilize process measures to audit aspects of your infection prevention and control program
- Remember, you cannot **EXPECT** what you do not **INSPECT!**

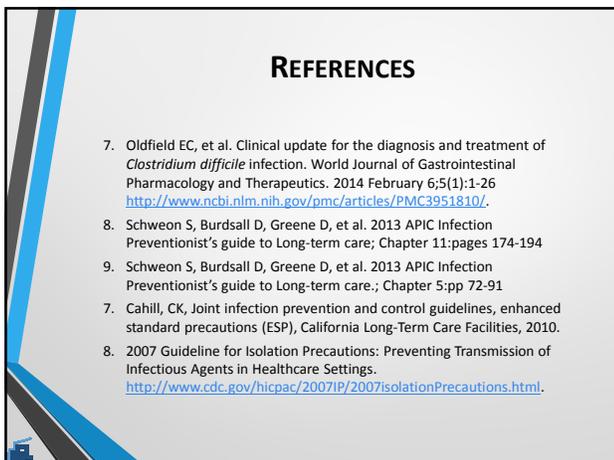


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