North Carolina SPICE
Statewide Program for Infection Control & Epidemiology

RECOMMENDED PRACTICES TO INTERRUPT TRANSMISSION OF INFECTIOUS AGENTS IN LONG-TERM CARE FACILITIES

Evelyn Cook, RN, CIC
Associate Director

OBJECTIVES

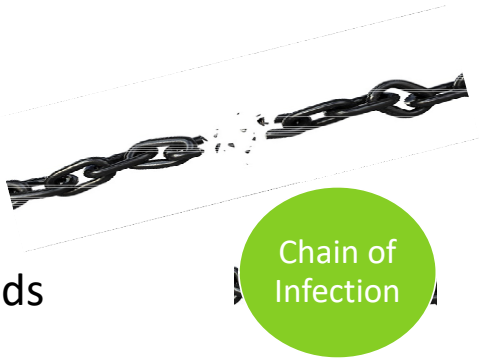
- Review CDC Guidance Documents
- Review Standard and Transmission-based Precautions-SPICE signage
- Discuss Precautions specific to SARS-CoV-2 (COVID-19)
- Discuss Management of Multi-drug Resistant Organisms (MDROs)
  - Discuss Enhanced Barrier Precautions

GUIDANCE DOCUMENTS

- 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings
- Management of Multi-drug resistant organisms (2006)
- Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic
- Discontinuation of Transmission-Based Precautions and Disposition of residents with COVID-19 in Healthcare Settings (Interim Guidance)
- Interim Infection Prevention and Control Recommendations to Prevent SARS-CoV-2 Spread in Nursing Homes

KEY CONCEPTS

- Risk of transmission of infectious agents occurs in all settings
- Infections are transmitted from resident-to-resident via HCPs hands or medical equipment/devices
- Unidentified residents who are colonized or infected may represent risk to other residents
- Isolation precautions are only part of a comprehensive IP program



FUNDAMENTAL ELEMENTS -

- Administrative support
- **Adequate Infection Prevention staffing**
- Good communication with clinical microbiology lab and environmental services
- A comprehensive educational program for HCPs, residents, and visitors
- **Infrastructure support** for surveillance, outbreak tracking, and data management

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CONTROLLING TRANSMISSION OF INFECTION

If there is a **means of transmission**, infection will spread to others.

Standard Precautions

Transmission-Based Precautions

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STANDARD PRECAUTIONS

STOP

STANDARD PRECAUTIONS

PRECAUCIONES ESTÁNDAR

ALTO

Standard Precautions must always be used in any healthcare setting for all patient/resident care.

Las precauciones estándar siempre deben usarse en cualquier entorno de atención médica para los cuidados de todos los pacientes/residentes.

Everyone must:

Clean hands before entering and when leaving room.

Todos deben:

Lavarse las manos antes de entrar y al salir de la habitación.

Cover your mouth and nose with elbow or tissue when coughing or sneezing.

Cubrirse la boca y la nariz con el codo o con un pañuelo de papel al toser o estornudar.

Wear appropriate mask, gown, and/or gloves, if contact with blood or body fluids is expected.

Usar mascarilla, bata y guantes adecuados si hay posibilidad de tener contacto con sangre y líquidos corporales.

All Healthcare Personnel must:

Properly handle, clean, and disinfect medical equipment and devices. Handle laundry and textiles carefully.

Todo el personal de atención médica debe:

Utilizar, limpiar y desinfectar de manera adecuada el equipo y dispositivos médicos. Manejar con cuidado la ropa y los textiles sucios.

Follow safe injection practices.

Siga las prácticas seguras de inyección.

REVISED DATE: 12/1/2021

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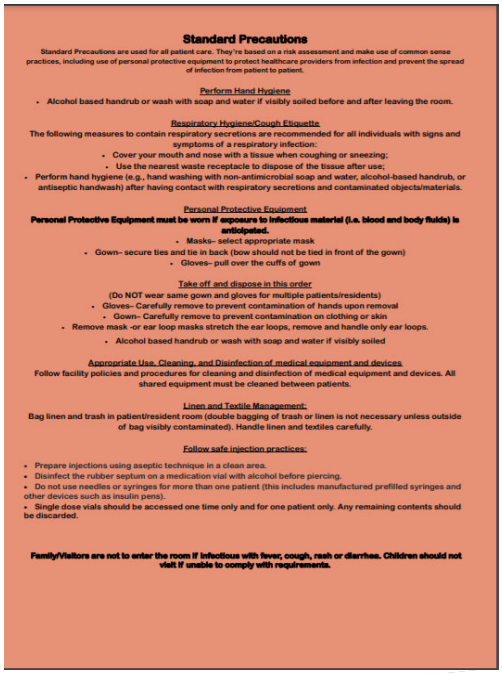

Standard Precautions

Standard Precautions are used for all patient care. They're based on a risk assessment and make use of common sense practices, including use of personal protective equipment to protect healthcare providers from infection and prevent the spread of infection from patient to patient.

Perform Hand Hygiene

- Alcohol based handrub or wash with soap and water if visibly soiled before and after leaving the room.

Respiratory Hygiene/Cough Etiquette

The following measures to contain respiratory secretions are recommended for all individuals with signs and symptoms of a respiratory infection:

- Cover your mouth and nose with a tissue when coughing or sneezing;
- Use the nearest waste receptacle to dispose of the tissue after use;
- Perform hand hygiene (e.g., hand washing with non-antimicrobial soap and water, alcohol-based handrub, or antiseptic handwash) after having contact with respiratory secretions and contaminated objects/materials.

Personal Protective Equipment

Personal Protective Equipment must be worn if exposure to infectious material (i.e. blood and body fluids) is anticipated.

- Masks- select appropriate mask
- Gown- secure ties and tie in back (bow should not be tied in front of the gown)
- Gloves- pull over the cuffs of gown

Take off and dispose in this order

(Do NOT wear same gown and gloves for multiple patients/residents)

- Gloves- Carefully remove to prevent contamination of hands upon removal
- Gown- Carefully remove to prevent contamination on clothing or skin
- Remove mask -or ear loop masks stretch the ear loops, remove and handle only ear loops.
- Alcohol based handrub or wash with soap and water if visibly soiled

Appropriate Use, Cleaning, and Disinfection of medical equipment and devices

Follow facility policies and procedures for cleaning and disinfection of medical equipment and devices. All shared equipment must be cleaned between patients.

Linen and Textile Management:

Bag linen and trash in patient/resident room (double bagging of trash or linen is not necessary unless outside of bag visibly contaminated). Handle linen and textiles carefully.

Follow safe injection practices:

- Prepare injections using aseptic technique in a clean area.
- Disinfect the rubber septum on a medication vial with alcohol before piercing.
- Do not use needles or syringes for more than one patient (this includes manufactured prefilled syringes and other devices such as insulin pens).
- Single dose vials should be accessed one time only and for one patient only. Any remaining contents should be discarded.

Family/Visitors are not to enter the room if infectious with fever, cough, rash or diarrhea. Children should not visit if unable to comply with requirements.

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2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

Jane D. Siegel, MD; Emily Rhinehart, RN MPH CIC; Marguerite Jackson, PhD; Linda Chiarello, RN MS; the Healthcare Infection Control Practices Advisory Committee

Acknowledgement: The authors and HICPAC gratefully acknowledge Dr. Larry Strausbaugh for his many contributions and valued guidance in the preparation of this guideline.

Suggested citation: Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee, 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings
http://www.cdc.gov/ncidod/dhqp/pdf/isolation2007.pdf

Implementation of Standard Precautions constitutes the primary strategy for the prevention of healthcare-associated transmission of infectious agents among residents and healthcare personnel

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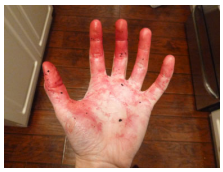
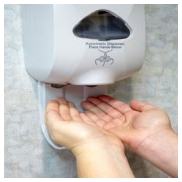
HAND HYGIENE

- After touching blood, body fluids, secretions, excretions, contaminated items; immediately after removing gloves; between resident contacts.

➢ ***When hands are visibly dirty or contaminated with proteinaceous material or are visibly soiled with blood or other body fluids, wash hands with either a nonantimicrobial soap and water or an antimicrobial soap and water***



ALCOHOL BASED HAND RUB



- Put alcohol-based hand sanitizer with 60-95% alcohol in every resident room (ideally both inside and outside of the room) and other resident care and common areas (e.g., outside dining hall, in therapy gym).
- ***Unless hands are visibly soiled, an alcohol-based hand sanitizer is preferred over soap and water in most clinical situations.***

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HAND HYGIENE PROGRAM

ADDITIONAL ELEMENTS

CDC GUIDELINE FOR HAND HYGIENE IN HEALTHCARE SETTING

- Involve staff in evaluation and selection of hand hygiene products
- Provide employees with hand lotions/creams compatible with soap and/or ABHRs
- Do not wear artificial nails when providing direct clinical care
- Provide hand hygiene education to staff
- *Monitor staff adherence to recommended HH practices*

STANDARD PRECAUTIONS

Component	Recommendation
Personal Protective Equipment (PPE)	
Gloves 	For touching blood, body fluids, secretions, excretions, contaminated items; for touching mucous membranes and non-intact skin
Gown 	During procedures and resident-care activities when contact of clothing/exposed skin with blood/body fluids, secretions, and excretions is anticipated
Mask, eye protection 	During procedures and resident-care activities likely to generate splashes or sprays of blood, body fluids, secretions, especially suctioning, endotracheal intubation

USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)

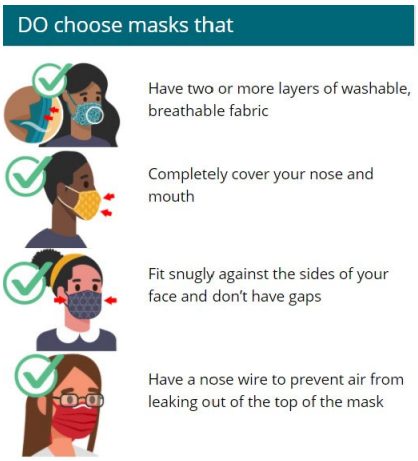
- Perform and maintain an inventory of PPE – monitor daily PPE use (PPE burn rate calculator)
- Make necessary PPE available where resident care is provided
- Position trash can near the exit inside the room for disposal
- Implement strategies to optimize current PPE supply – even before shortages occur

USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)

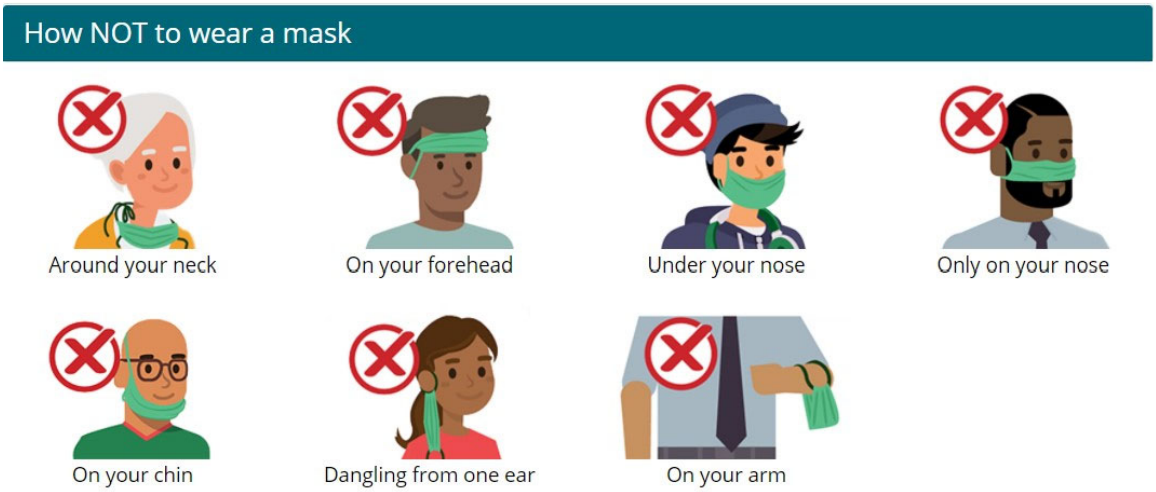
- Three overriding principals related to personal protective equipment (PPE)
  - Wear PPE when the nature of the anticipated resident interaction indicates that contact with blood or body fluids may occur
  - Prevent contamination of clothing and skin during the process of removing PPE
  - ***Before leaving the resident's room, remove and discard PPE –respirators removed after leaving***

UNIVERSAL SOURCE CONTROL (*NOT PPE*)

- Residents/family members wear their own well-fitting form of source control upon arrival and through out their stay
- Residents may remove while in their rooms but wear when around others or leaving their room
- Healthcare personnel should **ALWAYS** wear well-fitting source control while they are in the facility, including breakrooms or other spaces where they might encounter co-workers



https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html



https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/about-face-coverings.html

UNIVERSAL USE OF PERSONAL PROTECTIVE EQUIPMENT

Understanding the Difference

HCP working in facilities in communities with **substantial to high transmission:**

- N95 used for aerosol generating procedures (AGP)
- Source control
  - N95
  - A well-fitting facemask (e.g., selection of a facemask with a nose wire to help the facemask conform to the face; selection of a facemask with ties rather than ear loops; use of a mask fitter; tying the facemask's ear loops and tucking in the side pleats; fastening the facemask's ear loops behind the wearer's headexternal icon; use of a cloth mask over the facemask to help it conform to the wearer's face)
- **Eye protection for resident/resident encounters**

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RESPIRATORS

- Healthcare providers who are in close contact with an LTCF resident with suspected or confirmed SARS-CoV-2 infection must use a NIOSH-approved N95 FFR or equivalent or higher-level respirator (29 CFR 1910.134)
  - This guidance is designed specifically for nursing homes, assisted living facilities and other LTCF (group homes with nursing care)
- Whenever respirators are required, employers must implement a written, worksite-specific respiratory protection program (RPP), including medical evaluation, fit testing, training, and other elements, as specified in OSHA's Respiratory Protection standard (29 CFR 1910.134).

https://www.osha.gov/sites/default/files/respiratory-protection-covid19-long-term-care.pdf

https://www.osha.gov/sites/default/files/respiratory-protection-covid19-compliance.pdf

SAFE WORK PRACTICES (PPE USE)

- ✓ Keep hands away from face
- ✓ Work from clean to dirty
- ✓ Limit surfaces touched
- ✓ Change when torn or heavily contaminated
- ✓ Perform hand hygiene

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Component	Recommendation
Soiled equipment	Handle in a manner that prevents transfer of microorganisms to others and to the environment; wear gloves if visibly contaminated; perform hand hygiene
Environmental Control	Develop procedures for routine care, cleaning, and disinfection of environmental surfaces, especially frequently touched surfaces in resident-care areas
Laundry	Handle in a manner that prevents transfer of microorganisms to others and to the environment
Needles and sharps	Do not recap, bend, break, or hand-manipulate used needles; if recapping is required, use a one-handed scoop technique only; use safety features when available; place used sharps in puncture-resistant container
resident Resuscitation	Use mouthpiece, resuscitation bag, other ventilation devices to prevent contact with mouth and oral secretions

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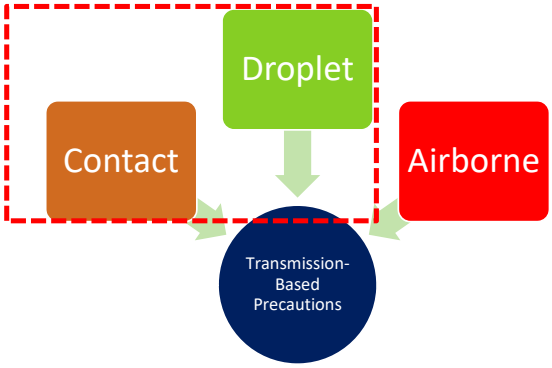
Component	Recommendation
resident placement	Prioritize for single-resident room if resident is at ***increased risk of transmission, is likely to contaminate the environment, does not maintain appropriate hygiene, or is at increased risk of acquiring infection or developing adverse outcome following infection*.**
Respiratory hygiene/cough etiquette (source containment of infectious respiratory secretions in symptomatic residents, beginning at initial point of encounter)	Instruct symptomatic persons to cover mouth/nose when sneezing/coughing; use tissues and dispose in no-touch receptacle; observe hand hygiene after soiling of hands with respiratory secretions; wear surgical mask if tolerated or maintain spatial separation, >3 feet if possible.

Component	Recommendation
Safe Injection Practices	Apply to the use of needles, cannulas that replace needles, and, where applicable intravenous delivery systems • Use aseptic technique • Needles, cannulae and syringes are sterile, single-use items • Use single-dose vials for parenteral medications whenever possible • Do not administer medications form single-dose vials or ampules to multiple residents • Do not keep multidose vials in the immediate resident treatment area • Do not use bags or bottles of IV solution as a common source of supply for multiple residents
Special Lumbar Procedures	Wear a surgical mask when placing a catheter or injecting material into the spinal canal or subdural space

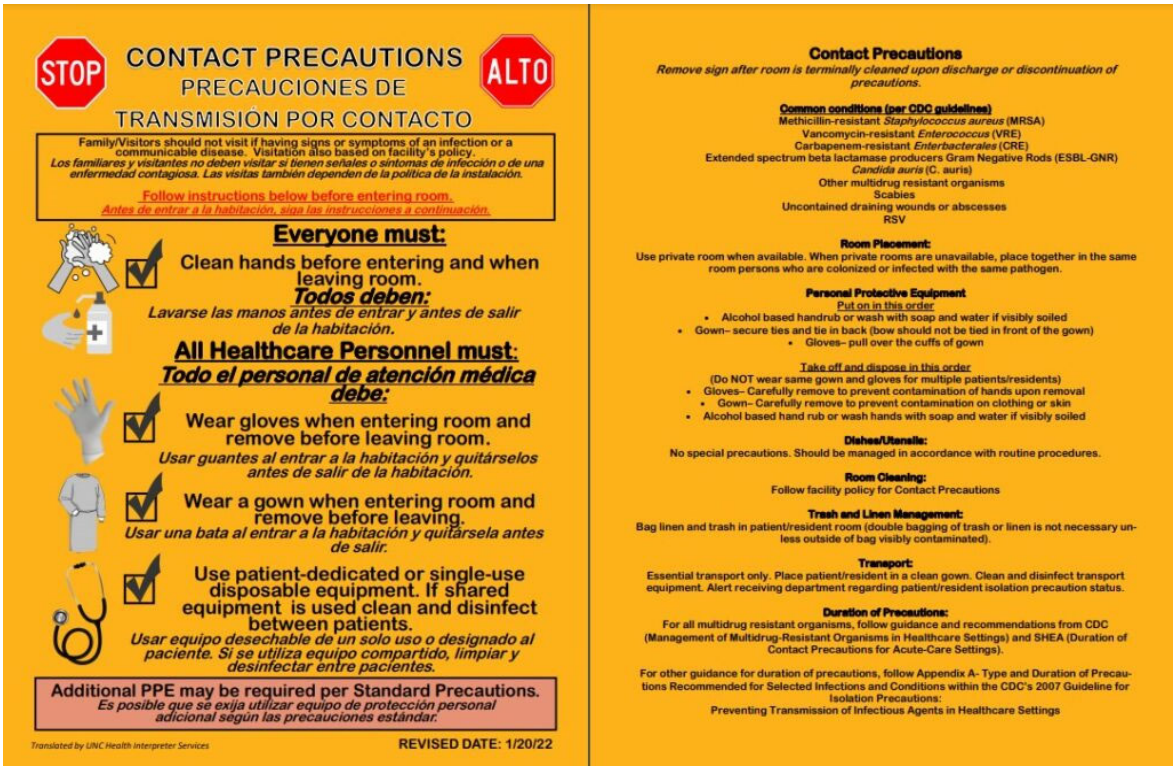
TRANSMISSION BASED PRECAUTIONS

Transmission-Based Precautions are for residents who are known or suspected to be infected or colonized with infectious agents, including certain epidemiologically important pathogens, and are used when the route(s) of transmission are not completely interrupted using Standard Precautions alone.



CONTACT PRECAUTIONS

- Common conditions:
  - MRSA,
  - VRE,
  - CRE,
  - ESBL-GNR,
  - Candida auris,
  - Scabies,
  - Uncontained draining wounds or abscesses
- Private room if available
- Don gown and gloves
- Disposable or dedicated equipment
- Transport residents in a fresh gown



CONTACT PRECAUTIONS
PRECAUCIONES DE
TRANSMISIÓN POR CONTACTO

STOP ALTO

Family/Visitors should not visit if having signs or symptoms of an infection or a communicable disease. Visitation also based on facility's policy.
Los familiares y visitantes no deben visitar si tienen señales o síntomas de infección o de una enfermedad contagiosa. Las visitas también dependen de la política de la instalación.

Follow instructions below before entering room.
Antes de entrar a la habitación, siga las instrucciones a continuación.

Everyone must:

Clean hands before entering and when leaving room.
Todos deben:
Lavarse las manos antes de entrar y antes de salir de la habitación.

All Healthcare Personnel must:
Todo el personal de atención médica debe:

Wear gloves when entering room and remove before leaving room.
Usar guantes al entrar a la habitación y quitárselos antes de salir de la habitación.

Wear a gown when entering room and remove before leaving.
Usar una bata al entrar a la habitación y quitársela antes de salir.

Use patient-dedicated or single-use disposable equipment. If shared equipment is used clean and disinfect between patients.
Usar equipo desechable de un solo uso o designado al paciente. Si se utiliza equipo compartido, limpiar y desinfectar entre pacientes.

Additional PPE may be required per Standard Precautions.
Es posible que se exija utilizar equipo de protección personal adicional según las precauciones estándar.

Translated by UNC Health Interpreter Services

REVISED DATE: 1/20/22

Contact Precautions

Remove sign after room is terminally cleaned upon discharge or discontinuation of precautions.

Common conditions (per CDC guidelines)
Methicillin-resistant *Staphylococcus aureus* (MRSA)
Vancomycin-resistant *Enterococcus* (VRE)
Carbapenem-resistant *Enterbacterales* (CRE)
Extended spectrum beta lactamase producers Gram Negative Rods (ESBL-GNR)
Candida auris (C. auris)
Other multidrug resistant organisms
Scabies
Uncontained draining wounds or abscesses
RSV

Room Placement:
Use private room when available. When private rooms are unavailable, place together in the same room persons who are colonized or infected with the same pathogen.

Personal Protective Equipment
Put on in this order
- Alcohol based handrub or wash with soap and water if visibly soiled
- Gown– secure ties and tie in back (bow should not be tied in front of the gown)
- Gloves– pull over the cuffs of gown

Take off and dispose in this order
(Do NOT wear same gown and gloves for multiple patients/residents)
- Gloves– Carefully remove to prevent contamination of hands upon removal
- Gown– Carefully remove to prevent contamination on clothing or skin
- Alcohol based hand rub or wash hands with soap and water if visibly soiled

Dishes/Utensils:
No special precautions. Should be managed in accordance with routine procedures.

Room Cleaning:
Follow facility policy for Contact Precautions

Trash and Linen Management:
Bag linen and trash in patient/resident room (double bagging of trash or linen is not necessary unless outside of bag visibly contaminated).

Transport:
Essential transport only. Place patient/resident in a clean gown. Clean and disinfect transport equipment. Alert receiving department regarding patient/resident isolation precaution status.

Duration of Precautions:
For all multidrug resistant organisms, follow guidance and recommendations from CDC (Management of Multidrug-Resistant Organisms in Healthcare Settings) and SHEA (Duration of Contact Precautions for Acute-Care Settings).

For other guidance for duration of precautions, follow Appendix A- Type and Duration of Precautions Recommended for Selected Infections and Conditions within the CDC's 2007 Guideline for Isolation Precautions:
Preventing Transmission of Infectious Agents in Healthcare Settings

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ENTERIC PRECAUTIONS

- Common conditions:
  - Clostridioides difficile,
  - Norovirus,
  - Rotovirus
- USE ABHR for routine care.
- During an outbreak, HCP should consider using soap & water routinely
- Private room if possible
- Gown and gloves
- Disposable or dedicated equipment
- Use EPA agent from the K list of disinfectants: Dilute Bleach , sporicidal disinfectants.

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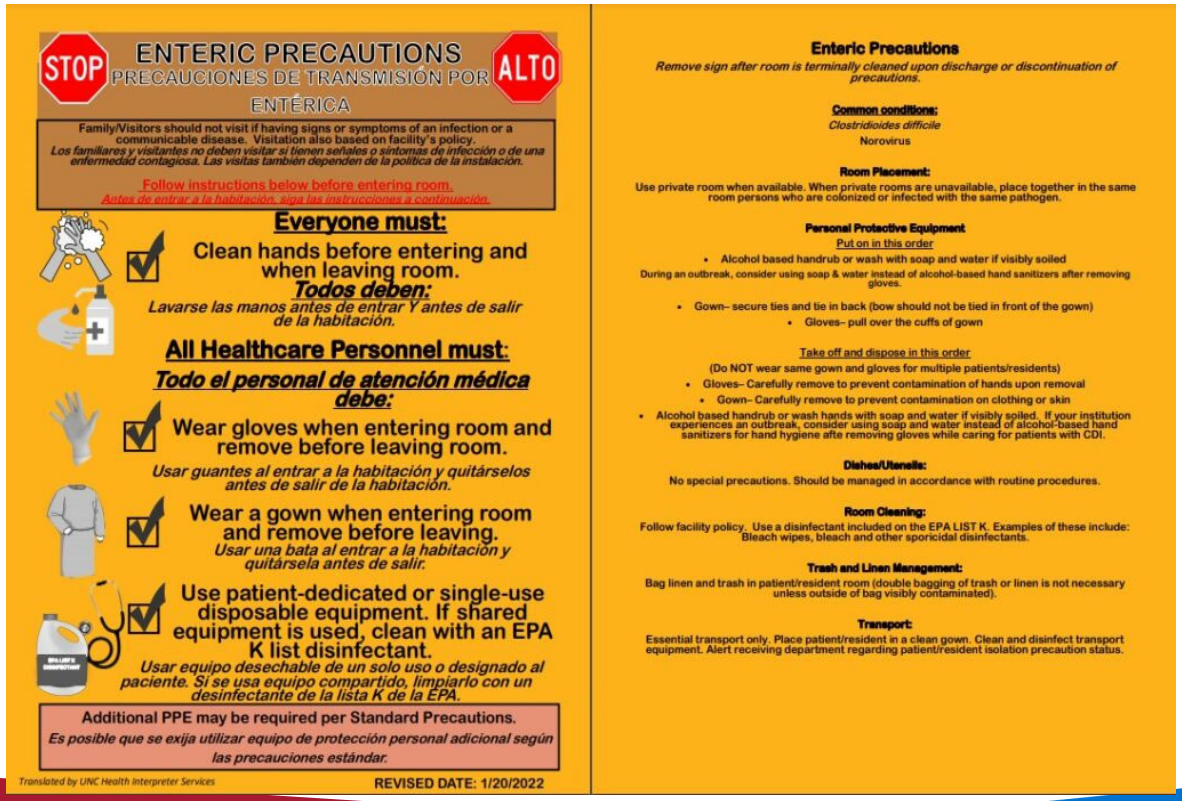

ENTERIC PRECAUTIONS
PRECAUCIONES DE TRANSMISIÓN POR ENTÉRICA

STOP ALTO

Family/Visitors should not visit if having signs or symptoms of an infection or a communicable disease. Visitation also based on facility's policy.
Los familiares y visitantes no deben visitar si tienen señales o síntomas de infección o de una enfermedad contagiosa. Las visitas también dependen de la política de la instalación.

Follow instructions below before entering room.
Antes de entrar a la habitación, siga las instrucciones a continuación.

Everyone must:

Clean hands before entering and when leaving room.

Todos deben:

Lavarse las manos antes de entrar Y antes de salir de la habitación.

All Healthcare Personnel must:

Todo el personal de atención médica debe:

Wear gloves when entering room and remove before leaving room.

Usar guantes al entrar a la habitación y quitárselos antes de salir de la habitación.

Wear a gown when entering room and remove before leaving.

Usar una bata al entrar a la habitación y quitársela antes de salir.

Use patient-dedicated or single-use disposable equipment. If shared equipment is used, clean with an EPA K list disinfectant.

Usar equipo desechable de un solo uso o designado al paciente. Si se usa equipo compartido, limpiarlo con un desinfectante de la lista K de la EPA.

Additional PPE may be required per Standard Precautions.
Es posible que se exija utilizar equipo de protección personal adicional según las precauciones estándar.

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REVISED DATE: 1/20/2022

Enteric Precautions

Remove sign after room is terminally cleaned upon discharge or discontinuation of precautions.

Common conditions:

Clostridioides difficile

Norovirus

Room Placement:

Use private room when available. When private rooms are unavailable, place together in the same room persons who are colonized or infected with the same pathogen.

Personal Protective Equipment

Put on in this order

- Alcohol based handrub or wash with soap and water if visibly soiled

During an outbreak, consider using soap & water instead of alcohol-based hand sanitizers after removing gloves.

- Gown– secure ties and tie in back (bow should not be tied in front of the gown)
- Gloves– pull over the cuffs of gown

Take off and dispose in this order

(Do NOT wear same gown and gloves for multiple patients/residents)

- Gloves– Carefully remove to prevent contamination of hands upon removal
- Gown– Carefully remove to prevent contamination on clothing or skin
- Alcohol based handrub or wash hands with soap and water if visibly soiled. If your institution experiences an outbreak, consider using soap and water instead of alcohol-based hand sanitizers for hand hygiene afte removing gloves while caring for patients with CDI.

Dishes/Utensils:

No special precautions. Should be managed in accordance with routine procedures.

Room Cleaning:

Follow facility policy. Use a disinfectant included on the EPA LIST K. Examples of these include: Bleach wipes, bleach and other sporicidal disinfectants.

Trash and Linen Management:

Bag linen and trash in patient/resident room (double bagging of trash or linen is not necessary unless outside of bag visibly contaminated).

Transport:

Essential transport only. Place patient/resident in a clean gown. Clean and disinfect transport equipment. Alert receiving department regarding patient/resident isolation precaution status.

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DROPLET PRECAUTIONS

CDC added eye protection during flu season

- Common conditions:
  - Pertussis,
  - Influenza,
  - Rhinovirus,
  - Neisseria meningitides,
  - Mumps,
  - Rubella,
  - Parvovirus B19

- Surgical or procedure mask upon entering the room
- Private room when available
- Transport resident in a medical grade mask.

https://www.cdc.gov/flu/professionals/diagnosis/testing-management-considerations-nursinghomes.htm

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STOP

DROPLET CONTACT PRECAUTIONS

ALTO

PRECAUCIONES DE TRANSMISIÓN POR GOTAS Y POR CONTACTO

Family/Visitors should not visit if having signs or symptoms of an infection or a communicable disease. Visitation also based on facility's policy.
Los familiares y visitantes no deben visitar si tienen señales o síntomas de infección o de una enfermedad contagiosa. Las visitas también dependen de la política de la instalación.

Follow instructions below before entering room.
Antes de entrar a la habitación, siga las instrucciones a continuación.

Everyone must:
Todos deben:

Clean hands before entering and when leaving room.
Lavarse las manos antes de entrar y antes de salir de la habitación.

Wear a gown when entering room and remove before leaving.
Usar una bata al entrar a la habitación y quitársela antes de salir.

Wear surgical/procedure mask when entering the room. Remove immediately before leaving room.
Usar una mascarilla quirúrgica o para procedimientos al entrar a la habitación. Quitársela justo antes de salir de la habitación.

Wear gloves when entering room. Perform hand hygiene after removing gloves.
Usar guantes al entrar a la habitación. Llevar a cabo la higiene de manos después de quitarse los guantes.

Additional PPE may be required per Standard Precautions.
Es posible que se exija utilizar equipo de protección personal adicional según las precauciones estándar.

Translated by UNC Health Interpreter Services

REVISED DATE: 1/20/2022

Droplet Contact Precautions

Remove sign after room is terminally cleaned upon discharge or discontinuation of precautions.

Common conditions (per CDC guidelines)
Rhinovirus if associated with copious secretions
Invasive group A streptococcal infection associated with soft tissue involvement
Adenovirus pneumonia

Room Placement
Use private room when available. When private rooms are unavailable, place together in the same room persons who are colonized or infected with the same pathogen.
Spatial separation of ≥3 feet and drawing the curtain between patient/resident beds is especially important for patients/residents in multi-bed rooms with infections transmitted by the droplet route.

Personal Protective Equipment
Put on in this order
- Alcohol based handrub or wash with soap and water if visibly soiled
- Gown
- Surgical/procedure mask– Cover nose, mouth, and chin. If wearing a mask with ties, all ties must be secured.
- Gloves

Take off and dispose in this order
- Gloves– perform hand hygiene after removing gloves
- Gown- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties. Pull gown away from neck and shoulders, touching inside of gown only.
- Surgical/procedure mask– Do NOT grasp front of the mask when removing. Grasp bottom ties then the ties at top and pull away from face. For ear loop masks stretch the ear loops, remove, and handle only ear loops.
- Alcohol based handrub or wash hands with soap and water if visibly soiled.

Dishes/Utensils:
No special precautions. Should be managed in accordance with routine procedures.

Room and Equipment Cleaning:
Follow facility policy for Droplet Contact Precautions for room cleaning. Use patient-dedicated or single-use disposable equipment. If shared equipment is used, clean and disinfect between patients.

Trash and Linen Management:
Bag linen and trash in patient/resident room (double bagging of trash or linen is not necessary unless outside of bag visibly contaminated).

Transport:
Essential transport only. Place patient/resident in a medical grade mask. Clean and disinfect transport equipment. Alert receiving department regarding patient/resident isolation precaution status.

Duration of Precautions:
For guidance for duration of precautions, follow Appendix A- Type and Duration of Precautions Recommended for Selected Infections and Conditions within the CDC's 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

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AIRBORNE PRECAUTIONS

- Common conditions:
  - Tuberculosis,
  - Measles

Private room only

Room requires Negative airflow pressure

Doors must remain closed

Everyone must wear an N-95 respirator

Limit the movement and transport of the Resident

Hand hygiene before and after

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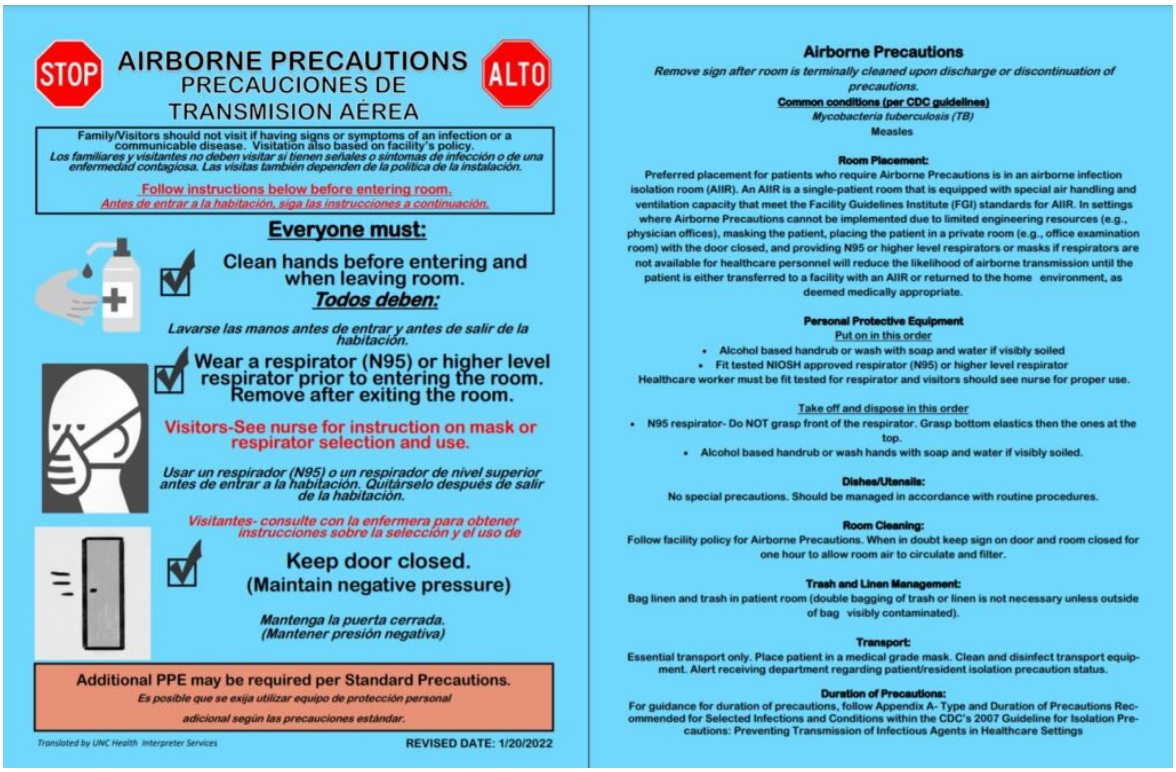
TUBERCULOSIS

Facility does not have a dedicated negative pressure room:

- Transfer resident to a facility capable of managing and evaluating resident
- Be sure policy is included in your plan

Facility does have negative pressure room:

- Follow Airborne Precautions



STOP

AIRBORNE PRECAUTIONS
PRECAUCIONES DE TRANSMISION AÉREA

ALTO

Family/Visitors should not visit if having signs or symptoms of an infection or a communicable disease. Visitation also based on facility's policy.
Los familiares y visitantes no deben visitar si tienen señales o síntomas de infección o de una enfermedad contagiosa. Las visitas también dependen de la política de la instalación.

Follow instructions below before entering room.
Antes de entrar a la habitación, siga las instrucciones a continuación.

Everyone must:

Clean hands before entering and when leaving room.
Todos deben:

Lavarse las manos antes de entrar y antes de salir de la habitación.

Wear a respirator (N95) or higher level respirator prior to entering the room. Remove after exiting the room.

Visitors-See nurse for instruction on mask or respirator selection and use.

Usar un respirador (N95) o un respirador de nivel superior antes de entrar a la habitación. Quitárselo después de salir de la habitación.

Visitantes- consulte con la enfermera para obtener instrucciones sobre la selección y el uso de

Keep door closed.
(Maintain negative pressure)

Mantenga la puerta cerrada.
(Mantener presión negativa)

Additional PPE may be required per Standard Precautions.
Es posible que se exija utilizar equipo de protección personal adicional según las precauciones estándar.

Translated by UNC Health Interpreter Services

REVISED DATE: 1/20/2022

Airborne Precautions

Remove sign after room is terminally cleaned upon discharge or discontinuation of precautions.

Common conditions (per CDC guidelines)
Mycobacteria tuberculosis (TB)
Measles

Room Placement:
Preferred placement for patients who require Airborne Precautions is in an airborne infection isolation room (AIIR). An AIIR is a single-patient room that is equipped with special air handling and ventilation capacity that meet the Facility Guidelines Institute (FGI) standards for AIIR. In settings where Airborne Precautions cannot be implemented due to limited engineering resources (e.g., physician offices), masking the patient, placing the patient in a private room (e.g., office examination room) with the door closed, and providing N95 or higher level respirators or masks if respirators are not available for healthcare personnel will reduce the likelihood of airborne transmission until the patient is either transferred to a facility with an AIIR or returned to the home environment, as deemed medically appropriate.

Personal Protective Equipment
Put on in this order
- Alcohol based handrub or wash with soap and water if visibly soiled
- Fit tested NIOSH approved respirator (N95) or higher level respirator

Healthcare worker must be fit tested for respirator and visitors should see nurse for proper use.

Take off and dispose in this order
- N95 respirator- Do NOT grasp front of the respirator. Grasp bottom elastics then the ones at the top.
- Alcohol based handrub or wash hands with soap and water if visibly soiled.

Dishes/Utensils:
No special precautions. Should be managed in accordance with routine procedures.

Room Cleaning:
Follow facility policy for Airborne Precautions. When in doubt keep sign on door and room closed for one hour to allow room air to circulate and filter.

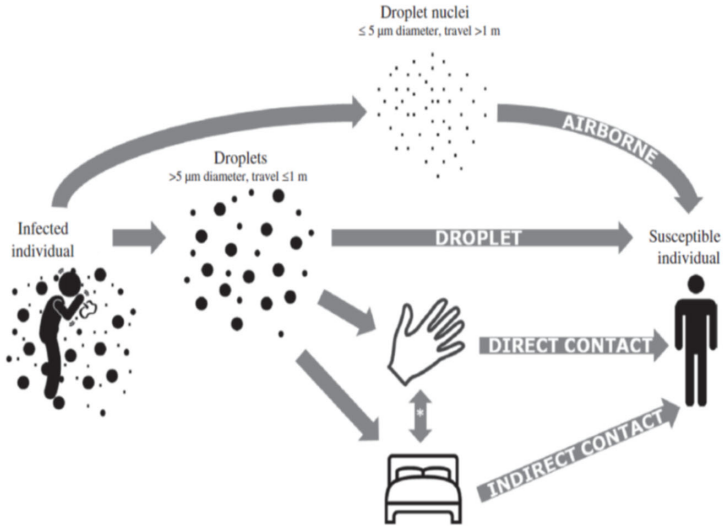
Trash and Linen Management:
Bag linen and trash in patient room (double bagging of trash or linen is not necessary unless outside of bag visibly contaminated).

Transport:
Essential transport only. Place patient in a medical grade mask. Clean and disinfect transport equipment. Alert receiving department regarding patient/resident isolation precaution status.

Duration of Precautions:
For guidance for duration of precautions, follow Appendix A- Type and Duration of Precautions Recommended for Selected Infections and Conditions within the CDC's 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

TRANSMISSION-BASED PRECAUTIONS

- Combinations of precautions may be necessary based on the pathogen:
  - **Contact plus Droplet**
  - **Contact plus Airborne**



* Transmission routes involving a combination of hand & surface = indirect contact.

1Proceianoy RS, et al. J Pediatr (Rio J) 2002;11 April; 2 Almendros A, et al. Vet Rec 2020;4; 3Chin AWH, et al David Weber: Associate Chief Medical Officer, UNC Hospitals; Medical Director, Hospital Epidemiology: COVID-19 (SARS Co-V-2) Update

SPICE

AIRBORNE CONTACT PRECAUTIONS

- Common conditions:
  - Chicken Pox
  - Disseminated Shingles
  - Smallpox
  - Monkey pox
  - Extrapulmonary tuberculosis (draining lesions)
- AIIR- single-resident room with special air handling and ventilation capacity that meet the Facility Guidelines Institute (FGI) standards.
- N95 or higher respirator
- Essential transport only with resident-resident wearing a medical grade mask
- Upon discharge allow at least one hour for air to circulate

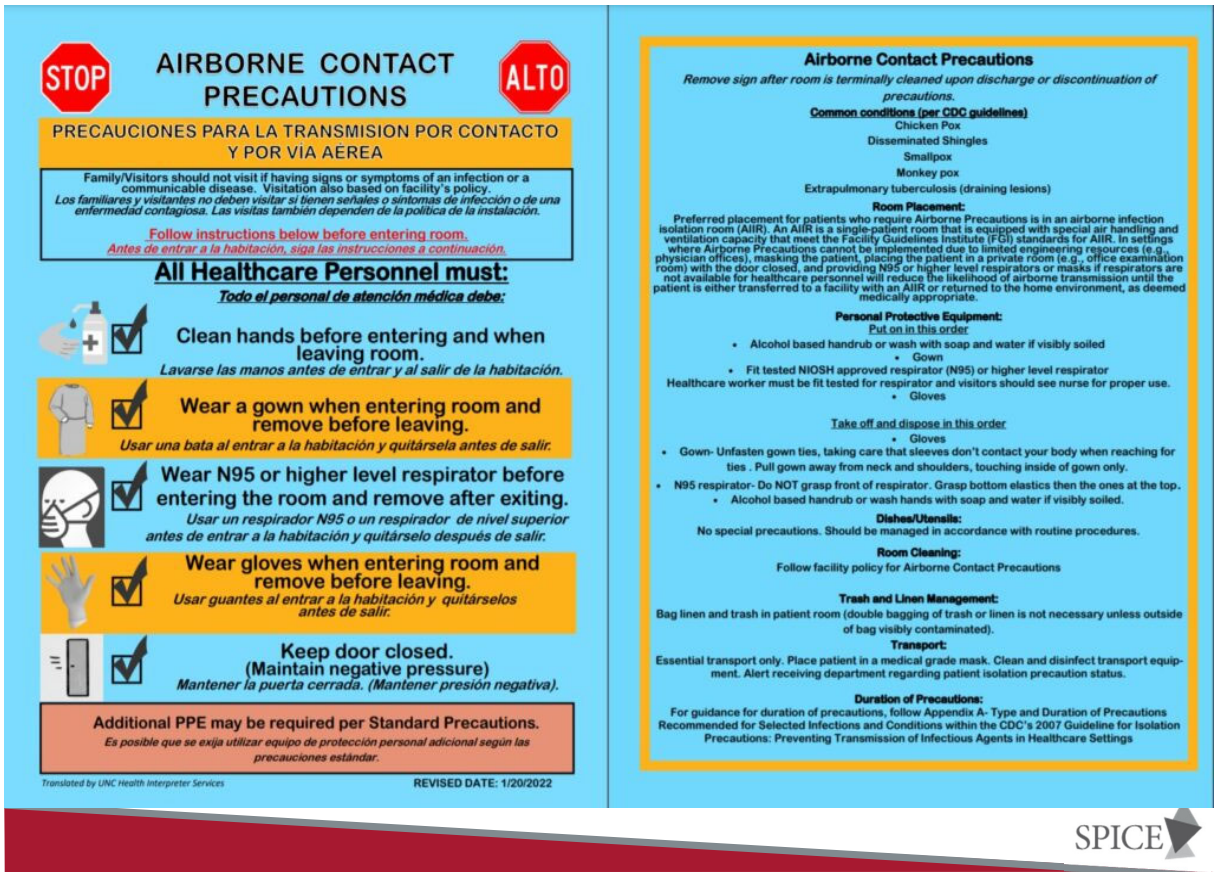
SPICE

CHICKENPOX AND SHINGLES

Disease/Condition	Type and Duration of Isolation
Chickenpox (varicella)	Airborne and Contact until lesions are dry and crusted
Shingles (Herpes zoster. Varicella zoster)	
Localize in resident with intact immune system with lesions that can be contained/covered	Standard Precautions
Disseminated disease in any resident	Airborne and Contact precautions for duration of illness
Localized disease in immunocompromised resident until disseminated infection ruled out	Airborne and Contact precautions for duration of illness

Non-immune healthcare personnel should not care for residents with Chickenpox or Shingles

SPICE



STOP

AIRBORNE CONTACT PRECAUTIONS

ALTO

PRECAUCIONES PARA LA TRANSMISION POR CONTACTO Y POR VIA AEREA

Family/Visitors should not visit if having signs or symptoms of an infection or a communicable disease. Visitation also based on facility's policy.
Los familiares y visitantes no deben visitar si tienen señales o síntomas de infección o de una enfermedad contagiosa. Las visitas también dependen de la política de la instalación.

Follow instructions below before entering room.
Antes de entrar a la habitación, siga las instrucciones a continuación.

All Healthcare Personnel must:

Todo el personal de atención médica debe:

Clean hands before entering and when leaving room.
Lavarse las manos antes de entrar y al salir de la habitación.

Wear a gown when entering room and remove before leaving.
Usar una bata al entrar a la habitación y quitársela antes de salir.

Wear N95 or higher level respirator before entering the room and remove after exiting.
Usar un respirador N95 o un respirador de nivel superior antes de entrar a la habitación y quitárselo después de salir.

Wear gloves when entering room and remove before leaving.
Usar guantes al entrar a la habitación y quitárselos antes de salir.

Keep door closed.
(Maintain negative pressure)
Mantener la puerta cerrada. (Mantener presión negativa).

Additional PPE may be required per Standard Precautions.
Es posible que se exija utilizar equipo de protección personal adicional según las precauciones estándar.

Translated by UNC Health Interpreter Services

REVISED DATE: 1/20/2022

Airborne Contact Precautions

Remove sign after room is terminally cleaned upon discharge or discontinuation of precautions.

Common conditions (per CDC guidelines)

Chicken Pox
Disseminated Shingles
Smallpox
Monkey pox
Extrapulmonary tuberculosis (draining lesions)

Room Placement:

Preferred placement for patients who require Airborne Precautions is in an airborne infection isolation room (AIIR). An AIIR is a single-patient room that is equipped with special air handling and ventilation capacity that meet the Facility Guidelines Institute (FGI) standards for AIIR. In settings where Airborne Precautions cannot be implemented due to limited engineering resources (e.g., physician offices), masking the patient, placing the patient in a private room (e.g., office examination room) with the door closed, and providing N95 or higher level respirators or masks if respirators are not available for healthcare personnel will reduce the likelihood of airborne transmission until the patient is either transferred to a facility with an AIIR or returned to the home environment, as deemed medically appropriate.

Personal Protective Equipment:

Put on in this order

- Alcohol based handrub or wash with soap and water if visibly soiled
- Gown
- Fit tested NIOSH approved respirator (N95) or higher level respirator

Healthcare worker must be fit tested for respirator and visitors should see nurse for proper use.

- Gloves

Take off and dispose in this order

- Gloves
- Gown- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties . Pull gown away from neck and shoulders, touching inside of gown only.
- N95 respirator- Do NOT grasp front of respirator. Grasp bottom elastics then the ones at the top.
- Alcohol based handrub or wash hands with soap and water if visibly soiled.

Dishes/Utensils:

No special precautions. Should be managed in accordance with routine procedures.

Room Cleaning:

Follow facility policy for Airborne Contact Precautions

Trash and Linen Management:

Bag linen and trash in patient room (double bagging of trash or linen is not necessary unless outside of bag visibly contaminated).

Transport:

Essential transport only. Place patient in a medical grade mask. Clean and disinfect transport equipment. Alert receiving department regarding patient isolation precaution status.

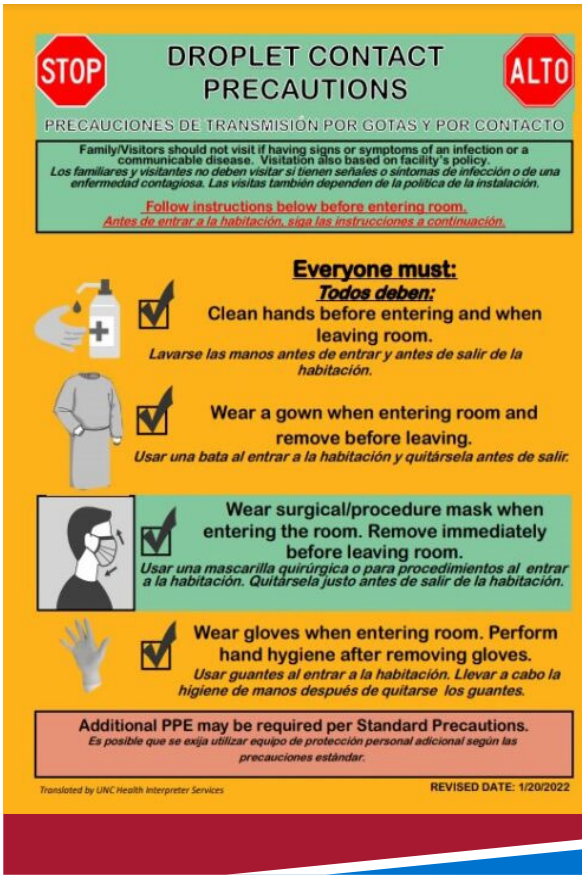
Duration of Precautions:

For guidance for duration of precautions, follow Appendix A- Type and Duration of Precautions Recommended for Selected Infections and Conditions within the CDC's 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

SPICE

DROPLET CONTACT PRECAUTIONS

- Common conditions:
  - Rhinovirus if associated with copious secretions,
  - Invasive group A streptococcal infection associated with soft tissue involvement
  - Certain coronaviruses
  - RSV (infants and young children)
- Private room when available or keep >3 spatial separation
- Surgical or procedure mask when entering room
- Gown and gloves on room entry and remove when leaving room
- Essential transport with resident/resident in a medical grade mask and clean gown



Droplet Contact Precautions

Remove sign after room is terminally cleaned upon discharge or discontinuation of precautions.

Common conditions (per CDC guidelines)

Rhinovirus if associated with copious secretions
Invasive group A streptococcal infection associated with soft tissue involvement
Adenovirus pneumonia

Room Placement

Use private room when available. When private rooms are unavailable, place together in the same room persons who are colonized or infected with the same pathogen.
Spatial separation of ≥3 feet and drawing the curtain between patient/resident beds is especially important for patients/residents in multi-bed rooms with infections transmitted by the droplet route.

Personal Protective Equipment

Put on in this order

- Alcohol based handrub or wash with soap and water if visibly soiled
- Gown
- Surgical/procedure mask– Cover nose, mouth, and chin. If wearing a mask with ties, all ties must be secured.
- Gloves

Take off and dispose in this order

- Gloves– perform hand hygiene after removing gloves
- Gown- Unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties. Pull gown away from neck and shoulders, touching inside of gown only.
- Surgical/procedure mask– Do NOT grasp front of the mask when removing. Grasp bottom ties then the ties at top and pull away from face. For ear loop masks stretch the ear loops, remove, and handle only ear loops.
- Alcohol based handrub or wash hands with soap and water if visibly soiled.

Dishes/Utensils:

No special precautions. Should be managed in accordance with routine procedures.

Room and Equipment Cleaning:

Follow facility policy for Droplet Contact Precautions for room cleaning. Use patient-dedicated or single-use disposable equipment. If shared equipment is used, clean and disinfect between patients.

Trash and Linen Management:

Bag linen and trash in patient/resident room (double bagging of trash or linen is not necessary unless outside of bag visibly contaminated).

Transport:

Essential transport only. Place patient/resident in a medical grade mask. Clean and disinfect transport equipment. Alert receiving department regarding patient/resident isolation precaution status.

Duration of Precautions:

For guidance for duration of precautions, follow Appendix A- Type and Duration of Precautions Recommended for Selected Infections and Conditions within the CDC's 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

SPECIAL DROPLET CONTACT PRECAUTIONS

- Common conditions:
  - SARS,
  - SAR-CoV-2 (COVID-19)
- Private room with door closed unless fall risk.
- AIIR- single-resident room with special air handling and ventilation capacity that meet the Facility Guidelines Institute (FGI) standards when performing AGPS
- Fit tested N95 or higher respirator
- Protective eyewear
- Gown and gloves
- Essential transport only with resident-resident wearing a medical grade mask

WHEN TO DISCONTINUE TBP PRECAUTIONS

- Resume Standard Precautions once high-risk exposures or active symptoms have discontinued
  - Refer to ***Appendix A in the 2007 Isolation Guidelines-updated 2018***

Type and Duration of Precautions Recommended for Selected Infections and Conditions[1]

Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007)

Appendix A Updates [September 2018]

Changes: Updates and clarifications made to the table in Appendix A: Type and Duration of Precautions Recommended for Selected Infections and Conditions.

A B C D E F G H I J K L M N O P Q R S T U V W Y Z

A

Infection/Condition	Type of Precaution	Duration of Precaution	Precautions/Comments
Abscess Draining, major	Contact + Standard	Duration of illness	Until drainage stops or can be contained by dressing.

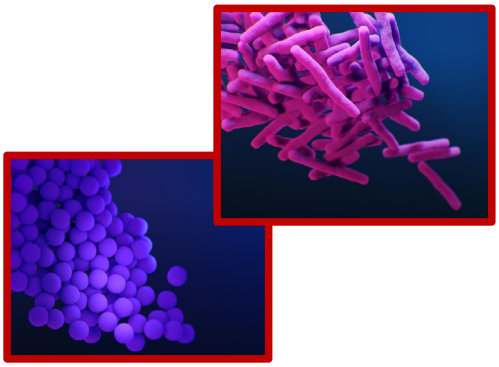
Multi-drug Resistant Organisms (MDROs)

Slide Acknowledgment:-Ashley Jackson, SPICE

MULTIDRUG RESISTANT ORGANISMS

- MDRO- Organisms that develop resistance to one or more classes of antibiotics. This may result in typical antibiotic regimens not working or becoming less effective.

- Cause infections and/or colonization
- Infections caused by MDROs are:
  - More difficult to treat
  - Require more toxic antibiotics to treat
  - Often have poor resident outcomes
  - Are easily transmitted in healthcare settings



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RISK FACTORS FOR DEVELOPING A MDRO

- Duration of hospitalization
- High rates of transfer in and between hospitals
- Local institution risk factors
- **<u>Long term care facilities</u>**
- Intensive care units
- High rate of device utilization
- Colonization
- Prior antibiotic use

"Age, comorbid illnesses, invasive medical devices, frequent antibiotic exposure, and dependence on healthcare workers, in the setting of communal living, all serve to increase the risk of nursing home residents becoming colonized or infected with healthcare-acquired bacterial pathogens. "
(Dumyati, et. Al., 2017)

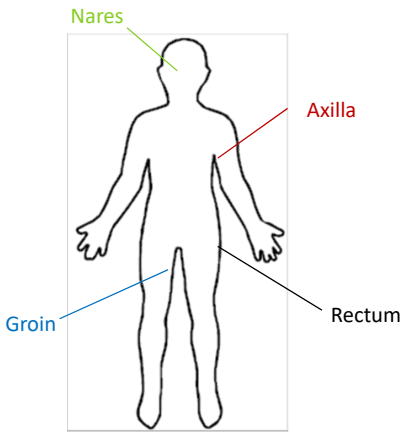
SPICE

MULTIDRUG RESISTANT ORGANISMS

- Cause infections
  - More difficult to treat
  - Require more toxic antibiotics to treat
  - Often have poor resident outcomes
  - Are easily transmitted in healthcare settings
- Colonization
  - Colonization means organisms live on or in the body without having an active infection.
  - CDC notes up to 50% of nursing home residents are colonized with MDROs.
  - MDRO colonization can increase the individual's risk for developing an infection.
  - ** MDRO-colonized residents serve as a source of transmission to others ***

COLONIZATION VS INFECTION

- MDRO colonization can persist for long periods of time (e.g., months) and result in silent transmission.
- Common colonization sites for MDROs include:
  - Nares
  - Axilla
  - Groin
  - Rectum



Slide Acknowledgment:-Ashley Jackson, SPICE

MDROS SPREAD IN HEALTHCARE SETTINGS

- Resident to resident transmission via healthcare provider's hands
- Environmental/equipment contamination

X marks the location where VRE was isolated in the room

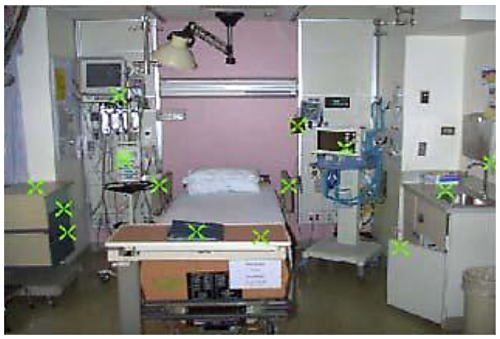


Image from Abstract: The risk of hand and glove contamination after contact with a VRE + resident environment. Hayden M, ICAAC, 2001, Chicago, Il.

KEY MDRO PREVENTION STRATEGIES

- Assessing hand hygiene practices
- Quickly reporting MDRO lab results
- Implementing Contact Precautions
- Recognizing previously colonized residents
- Strategically place residents based on MDRO risk factors
- Careful device utilization
- Antibiotic stewardship
- Inter-facility communication

PRECAUTIONS IN LTCF
CDC SAYS…

V.A.5.c.ii.1 "For relatively healthy residents (e.g., mainly independent) follow Standard Precautions making sure that gloves and gowns are used for contact with uncontrolled secretions, pressure ulcers, draining wound, stool incontinence, and ostomy tubes/bags."

V.A.5.c.ii.2. For ill residents (e.g., those totally dependent upon healthcare personnel for healthcare and activities of daily living…) and for those residents whose infected secretions or drainage cannot be contained, use Contact Precautions, in addition to Standard Precautions."

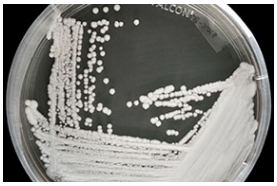
V.A.5.c.iii. For MDRO colonized or infected patients without draining wounds, diarrhea, or uncontrolled secretions, establish ranges of permitted ambulation, socialization, and use of common areas based on their risk to other patients and on the ability of the colonized or infected patients to observe proper hand hygiene and other recommended precautions to contain secretions and excretions.

HICPAC, Management of MDROs in healthcare settings, 2006

CONTACT PRECAUTIONS IN LTCF
WHAT WE KNOW

- Contact precautions creates challenges for nursing homes trying to balance the use of PPE and room restriction with residents' quality of life
- Contact precautions implemented only when residents are infected with an MDRO
- MDRO colonization can persist for long periods of time (e.g., months) and result in silent transmission
- Organisms that are pan-resistant or have novel mechanisms of resistance are emerging

Colonization VS Infection?



SPICE RECOMMENDATIONS

RESIDENT CHARACTERISTICS

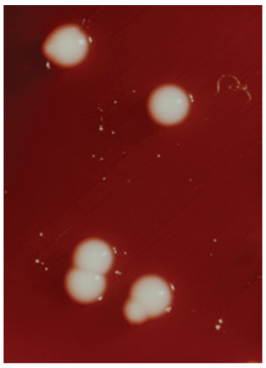
Component	Recommendation
Personal Protective Equipment (PPE)	
Gloves	For touching blood, body fluids, secretions, excretions, contaminated items; for touching mucous membranes and non-intact skin
Gown	During procedures and resident-care activities when contact of clothing/exposed skin with blood/body fluids, secretions, and excretions is anticipated
Mask, eye protection	During procedures and resident-care activities likely to generate splashes or sprays of blood, body fluids, secretions, especially suctioning, endotracheal intubation

- Five C's
  - Cognitive function (understands directions)
  - Cooperative (willing and able to follow directions)
  - Continent (of urine or stool)
  - Contained (secretions, excretions, or wounds)
  - Cleanliness (capacity for personal hygiene)

Kellar M. APIC Infection Connection. Fall 2010 ed.

WHAT ABOUT CARBAPENEM-RESISTANT *ENTEROBACTERALES* (CRE)?

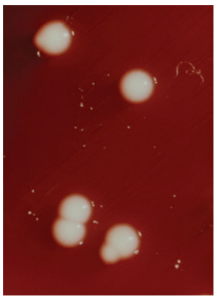
- In lower-acuity post-acute care settings (e.g., non-ventilator units of skilled nursing facilities, rehabilitation facilities), the use of Contact Precautions is more challenging and should be guided by the potential risk that residents will serve as a source for additional transmission based on their functional and clinical status and the type of care activity that is being performed.



Facility Guidance for Control of Carbapenem-resistant Enterobacteriaceae (CRE): November 2015 Update-CRE Toolkit; CDC

WHAT ABOUT CARBAPENEM-RESISTANT *ENTEROBACTERALES* (CRE)?

- Examples of when gowns and/or gloves might be used include the following:
  - Bathing residents
  - Assisting residents with toileting
  - Changing residents' briefs
  - Changing a wound dressing
  - Manipulating resident devices (e.g., urinary catheter)



Facility Guidance for Control of Carbapenem-resistant Enterobacteriaceae (CRE): November 2015 Update-CRE Toolkit; CDC

SPICE

Implementation of Personal Protective Equipment (PPE) in Nursing Homes to Prevent Spread of Novel or Targeted Multidrug-resistant Organisms (MDROs)

- "Focusing only on residents with active infection fails to address the continued risk of transmission from residents with MDRO colonization, which can persist for long periods of time (e.g., months), and result in the silent spread of MDROs".
- "With the need for an effective response to the detection of serious antibiotic resistance threats, there is growing evidence that current implementation of Contact precautions in nursing homes is not adequate for prevention of MDRO transmission".

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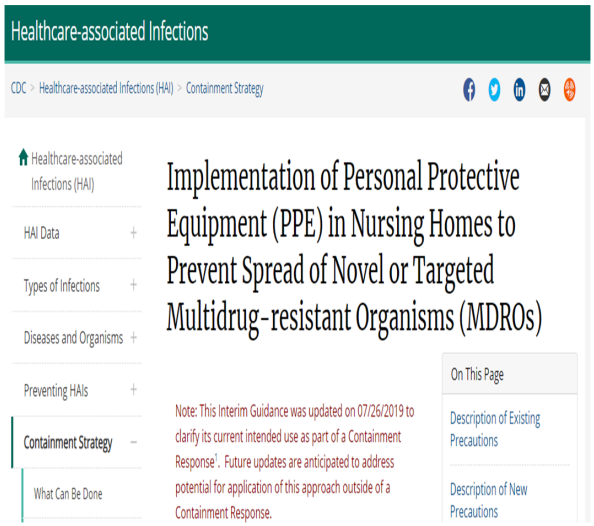


- **What this guidance DOES NOT do:**
  - Does not replace existing guidance regarding use of contact precautions for other pathogens (e.g., *Clostridioides difficile*, norovirus)
  - Does not provide guidance for acute care or long-term acute care (LTACs)
- **What this guidance DOES do:**
  - Does provide guidance for PPE use and room restriction in nursing homes for preventing transmission of novel or targeted MDROs, including as part of a public health containment response

NOVEL OR TARGETED MDROS ARE DEFINED AS:

JULY 2019

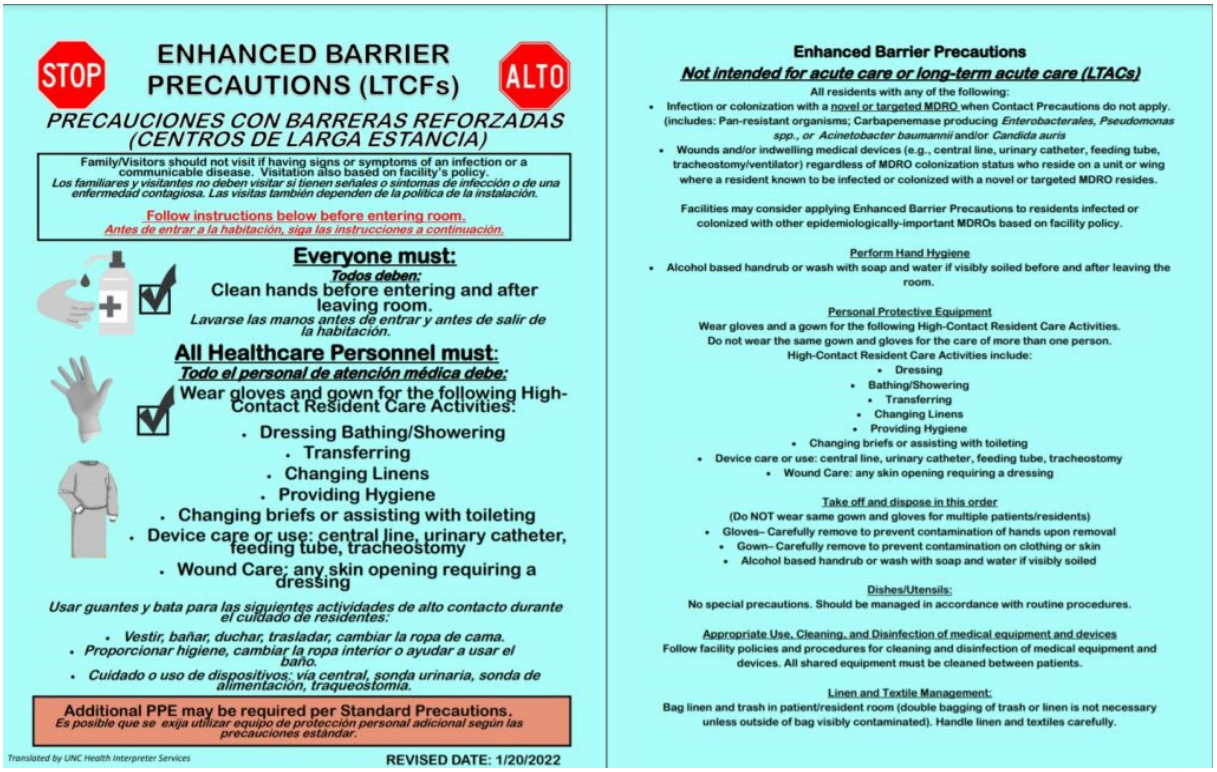
- Pan-resistant organisms:
  - Resistant to all current antibacterial agents *Acinetobacter, Klebsiella pneumonia, pseudomonas aeruginosa*
- Carbapenemase-producing Enterobacteriaceae
- Carbapenemase-producing *Pseudomonas* spp.
- Carbapenemase-producing *Acinetobacter baumannii* and
- *Candida auris*

ENHANCED BARRIER PRECAUTIONS

- Applies to ***ALL*** residents with ***ANY of the following:***
  - Wounds and/or indwelling medical devices (e.g., central lines, urinary catheter, feeding tube, tracheostomy/ventilator) **REGARDLESS** of MDRO colonization status (*when a novel or targeted MDRO has been identified on the unit)*
  - Infection **OR** colonization with a novel or targeted MDRO when *Contact Precautions do not apply*
  - Facilities may consider applying EBP to residents infected or colonized with other epidemiologically-important MDROs based on facility policy (MRSA, VRE for example)
- Gown and gloves prior to the high contact care activity (cannot reuse gown and change between residents)
- No room restriction

ENHANCED BARRIER PRECAUTIONS

- Examples of high-contact resident care activities requiring gown and glove use:
  - Dressing
  - Bathing/showering
  - Transferring
  - Providing hygiene (focused on am and pm care)
  - Changing linens
  - Changing briefs or assisting with toileting
  - Device care or use; central line, urinary catheter, feeding tube, tracheostomy/ventilator
  - Wound care: any skin opening requiring a dressing



ENHANCED BARRIER PRECAUTIONS (LTCFs)

STOP ALTO

PRECAUCIONES CON BARRERAS REFORZADAS (CENTROS DE LARGA ESTANCIA)

Family/Visitors should not visit if having signs or symptoms of an infection or a communicable disease. Visitation also based on facility's policy.
Los familiares y visitantes no deben visitar si tienen señales o síntomas de infección o de una enfermedad contagiosa. Las visitas también dependen de la política de la instalación.

Follow instructions below before entering room.
Antes de entrar a la habitación, siga las instrucciones a continuación.

Everyone must:
Todos deben:
Clean hands before entering and after leaving room.
Lavarse las manos antes de entrar y antes de salir de la habitación.

All Healthcare Personnel must:
Todo el personal de atención médica debe:
Wear gloves and gown for the following High-Contact Resident Care Activities:

- Dressing Bathing/Showering
- Transferring
- Changing Linens
- Providing Hygiene
- Changing briefs or assisting with toileting
- Device care or use: central line, urinary catheter, feeding tube, tracheostomy
- Wound Care: any skin opening requiring a dressing

Usar guantes y bata para las siguientes actividades de alto contacto durante el cuidado de residentes:

- *Vestir, bañar, duchar, trasladar, cambiar la ropa de cama.*
- *Proporcionar higiene, cambiar la ropa interior o ayudar a usar el baño.*
- *Cuidado o uso de dispositivos: vía central, sonda urinaria, sonda de alimentación, traqueostomía.*

Additional PPE may be required per Standard Precautions.
Es posible que se exija utilizar equipo de protección personal adicional según las precauciones estándar.

Translated by UNC Health Interpreter Services

REVISED DATE: 1/20/2022

Enhanced Barrier Precautions

Not intended for acute care or long-term acute care (LTACs)

All residents with any of the following:

- Infection or colonization with a novel or targeted MDRO when Contact Precautions do not apply. (includes: Pan-resistant organisms; Carbapenemase producing *Enterobacterales, Pseudomonas spp., or Acinetobacter baumannii* and/or *Candida auris*
- Wounds and/or indwelling medical devices (e.g., central line, urinary catheter, feeding tube, tracheostomy/ventilator) regardless of MDRO colonization status who reside on a unit or wing where a resident known to be infected or colonized with a novel or targeted MDRO resides.

Facilities may consider applying Enhanced Barrier Precautions to residents infected or colonized with other epidemiologically-important MDROs based on facility policy.

Perform Hand Hygiene

- Alcohol based handrub or wash with soap and water if visibly soiled before and after leaving the room.

Personal Protective Equipment

Wear gloves and a gown for the following High-Contact Resident Care Activities.
Do not wear the same gown and gloves for the care of more than one person.
High-Contact Resident Care Activities include:

- Dressing
- Bathing/Showering
- Transferring
- Changing Linens
- Providing Hygiene
- Changing briefs or assisting with toileting
- Device care or use: central line, urinary catheter, feeding tube, tracheostomy
- Wound Care: any skin opening requiring a dressing

Take off and dispose in this order

(Do NOT wear same gown and gloves for multiple patients/residents)

- Gloves– Carefully remove to prevent contamination of hands upon removal
- Gown– Carefully remove to prevent contamination on clothing or skin
- Alcohol based handrub or wash with soap and water if visibly soiled

Dishes/Utensils:

No special precautions. Should be managed in accordance with routine procedures.

Appropriate Use, Cleaning, and Disinfection of medical equipment and devices

Follow facility policies and procedures for cleaning and disinfection of medical equipment and devices. All shared equipment must be cleaned between patients.

Linen and Textile Management:

Bag linen and trash in patient/resident room (double bagging of trash or linen is not necessary unless outside of bag visibly contaminated). Handle linen and textiles carefully.

SPICE

IMPLEMENTATION QUESTIONS

- How long should EBP be maintained on units with AR colonized or at-risk residents?
  - EBP was intended to be a long-term strategy for gown/glove use during care of residents to be followed for the duration of a resident's stay in a facility given the prolonged, potentially life-long risk of remaining colonized with certain AR pathogens
  - A transition back to Standard Precautions might be appropriate for residents placed in EBP solely because of the presence of a wound or indwelling medical device if/when those exposures are gone
- Should nursing homes apply EBP for MDROs like MRSA, VRE or ESBL?
  - The decision to use EBP for these organisms should be based on the prevalence of the MDRO in the facility/region. CDC will be working with HICPAC and nursing home partners to understand the application of EBP outside of AR Containment

CONTACT PRECAUTIONS

- Contact Precautions:
  - All residents with an MDRO when there is acute diarrhea, draining wounds or other sites of secretions/excretions that cannot be contained or covered
  - On units or in facilities where ongoing transmission is documented or suspected
  - C. *difficile* infection
  - Norovirus
  - Shingles when resident is immunocompromised, and vesicles cannot be covered
  - Other conditions as noted in Appendix A- Type and Duration of Precautions Recommended For Selected Infections and Conditions
- Gown and gloves upon ANY room entry
- Room restriction except for medically necessary care

RESIDENT PLACEMENT

COHORTING

- When single resident rooms are available assign priority for these rooms to individuals with known or suspected MDRO colonization or infection
- When not available, cohort residents with the same MDRO in the same room
- When cohorting (residents with the same MDRO) is not possible, place MDRO residents in rooms with ones who are at low risk for acquisition of MDROs and associated adverse outcomes from infection and are likely to have short length of stay

CDC: Management of MDROs in Healthcare Settings, 2006

PLACEMENT OF RESIDENTS BASED ON RISK FACTORS

- Avoid placing 2 high-risk residents together
- Safer to cohort low-risk and high-risk residents
- Don't change stable room assignments based on culture results unless it poses new risk
  - Long-term Roommates have already shared organisms in the past (even if you just learned about it)

NEUTROPENIC PRECAUTIONS

- Absolute neutrophil count (ANC) < 1500 or AMC expected to decrease to <500 over next 48 hours
- Private room if available
- Routine room cleaning
- Avoid raw or undercooked fruits, eggs, vegetables, or shellfish or cracked pepper
- No live flowers or plants
- No entry if ill
- Surgical mask if leaving room

STOP

NEUTROPENIC PRECAUTIONS

ALTO

Not included in CDC's Guidelines for Isolation Precautions

PRECAUCIONES NEUTROPÉNICAS

Family/Visitors should not visit if having signs or symptoms of an infection or a communicable disease. Visitation also based on facility's policy.
Los familiares y visitantes no deben visitar si tienen señales o síntomas de infección o de una enfermedad contagiosa. Las visitas también dependen de la política de la instalación.

Follow instructions below before entering room.
Antes de entrar a la habitación, siga las instrucciones a continuación.

Everyone must:

Todos deben:

Clean hands before entering and when leaving room.
Lavarse las manos antes de entrar y antes de salir de la habitación.

Avoid raw or under cooked fruits or vegetables; raw or undercooked eggs or shellfish
Evitar las frutas y verduras crudas o poco cocidas; los huevos o mariscos crudos o poco cocidos.

No live flowers or plants.
No se permiten flores ni plantas vivas.

Do not enter if feeling unwell.
No entre si está enfermo.

Additional PPE may be required per Standard Precautions.
Es posible que se exija utilizar equipo de protección personal adicional según las precauciones estándar.

Translated by UNC Health Interpreter Services

REVISED DATE: 1/20/2022

Neutropenic Precautions

Neutropenia — The definition of neutropenia varies from institution to institution, but neutropenia is usually defined as an absolute neutrophil count (ANC) <1500 or 1000 cells/microL and severe neutropenia as an ANC <500 cells/microL or an ANC that is expected to decrease to <500 cells/microL over the next 48 hours [2,3]. Profound neutropenia is defined as an ANC <100 cells/microL. The risk of clinically important infection rises as the neutrophil count falls below 500 cells/microL and is higher in those with a prolonged duration of neutropenia (>7 days).

Room Placement:
Use private room when available.

Personal Protective Equipment
Per Standard Precautions

Dishes/Utensils:
No special precautions. Should be managed in accordance with routine procedures.

Room Cleaning:
Follow facility policy for Neutropenic Precautions

Trash and Linen Management:
Bag linen and trash in patient/resident room (double bagging of trash or linen is not necessary unless outside of bag visibly contaminated).

Transport:
Essential transport only. Place patient/resident in a medical grade mask. Clean and disinfect transport equipment. Alert receiving department regarding patient/resident isolation precaution status.

Other Special Precautions:
- No live flowers or plants.
- Do not enter if feeling unwell.
- Avoid fresh uncooked fruits and vegetables (cooked fruits and vegetables are okay), raw or undercooked eggs or shellfish. Only use desiccated pepper.

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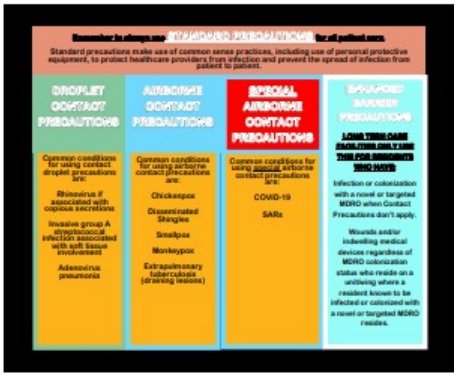
FRONT/BACK POCKET CARD: (PRINTS A 2-PAGE DOCUMENT TO BE TRIMMED/LAMINATED)

HTTPS://SPICE.UNC.EDU/RESOURCES/NC-STANDARDIZED-ISOLATION-SIGNAGE/



SPICE

SUMMARY

- Standard precautions are the primary strategy to interrupt transmission of infectious agents in healthcare facilities
  - HH,PPE, Respiratory Hygiene, Cleaning of Equipment and Environment
- Transmission-based precautions may also need to be implemented based on the type of infection and how it is transmitted
  - Contact, Droplet, Airborne and a combination of these
- CDC Guidance specific to multi-drug resistant organisms
  - 2006-Management of MDROs
  - Enhanced Barrier Precautions
- CDC Guidance available for emerging pathogens:
  - SARS-CoV-2