



Module 3 - Prevention

Occupational Health & Safety ~ Infection Prevention ~ Pressure Injury

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What is covered in this module:

- **WHAT:** Key strategies for preventing harm and promoting health & safety in LTC facilities; OSHA regulations; CDC guidelines; CMS requirements for long-term care
- **WHY:** Protect the health & safety for employees, residents, and visitors in long-term care facilities; comply with state and federal regulations
- **WHO:** Important regulatory & advisory agencies
 - OSHA, CMS, CDC, APIC, EPA, NPUAP
- **HOW:** Tools & resources will be shared throughout the presentation

LTC Survey

- F-tag citations (short for “federal tag”)

This list references the new F-Tags

- F880: Infection Prevention and Control
 - Isolation
 - Employees with communicable disease
 - Handwashing
 - Linen handling, linens are clean and in good condition
- F881: Antibiotic Stewardship Program
- F883: Influenza and Pneumococcal Immunizations
- F584: Safe/Clean/Comfortable/Homelike Environment
- F921: Safe/Functional/Sanitary/Comfortable Environment
- F657: Care Plan Timing and Revision

CMS Requirements for LTC Facilities

Centers for Medicare & Medicaid Services

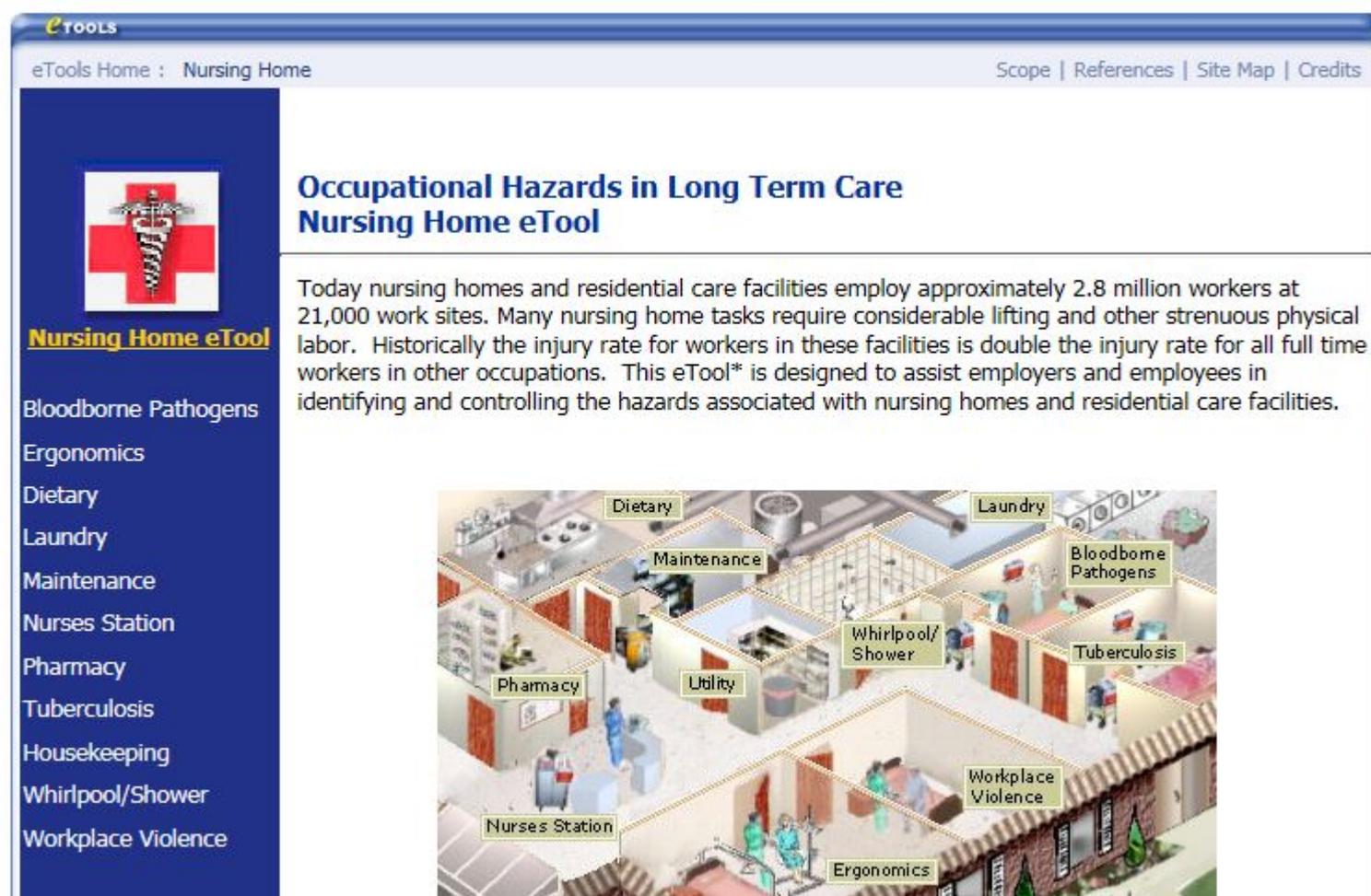
- **Infection control requirements:**
 - LTC facilities must have a system for preventing, identifying, surveillance, investigating, and controlling infections and communicable diseases for residents, staff, volunteers, visitors, and other individuals providing services based upon facility and resident assessments as reviewed and updated annually; including an antibiotic stewardship program.
 - Federal Tag 880: Infection Prevention and Control
- www.cms.gov



Infection Prevention and Control

- Infection Prevention and Control Officer (IPCO) will oversee the facility's Infection Prevention and Control Program (IPCP).
 - Develop a formal system for preventing, identifying, reporting, investigating, and controlling infections and communicable diseases for all residents, staff, volunteers, visitors, and other individuals.
- IPCO should be someone who can devote his/her full focus to infection prevention
 - This role requires specialized education and training
 - Core competencies defined by APIC and the Certification Board of Infection Control and Epidemiology (CBIC)
 - Ongoing training is necessary to stay up-to-date in this evolving field
 - Education also available through CDC, SHEA, IDSA

Occupational Safety & Health



The screenshot shows a web browser window with the title "eTOOLS" and the URL "eTools Home : Nursing Home". The page features a navigation menu on the left with a red cross icon and the text "Nursing Home eTool". The main content area is titled "Occupational Hazards in Long Term Care Nursing Home eTool" and contains a paragraph of text. Below the text is a 3D cutaway diagram of a nursing home building with various rooms labeled with occupational hazards: Dietary, Laundry, Maintenance, Bloodborne Pathogens, Whirlpool/Shower, Tuberculosis, Pharmacy, Utility, Workplace Violence, Nurses Station, and Ergonomics.

Occupational Hazards in Long Term Care Nursing Home eTool

Today nursing homes and residential care facilities employ approximately 2.8 million workers at 21,000 work sites. Many nursing home tasks require considerable lifting and other strenuous physical labor. Historically the injury rate for workers in these facilities is double the injury rate for all full time workers in other occupations. This eTool* is designed to assist employers and employees in identifying and controlling the hazards associated with nursing homes and residential care facilities.

Nursing Home eTool

- Bloodborne Pathogens
- Ergonomics
- Dietary
- Laundry
- Maintenance
- Nurses Station
- Pharmacy
- Tuberculosis
- Housekeeping
- Whirlpool/Shower
- Workplace Violence

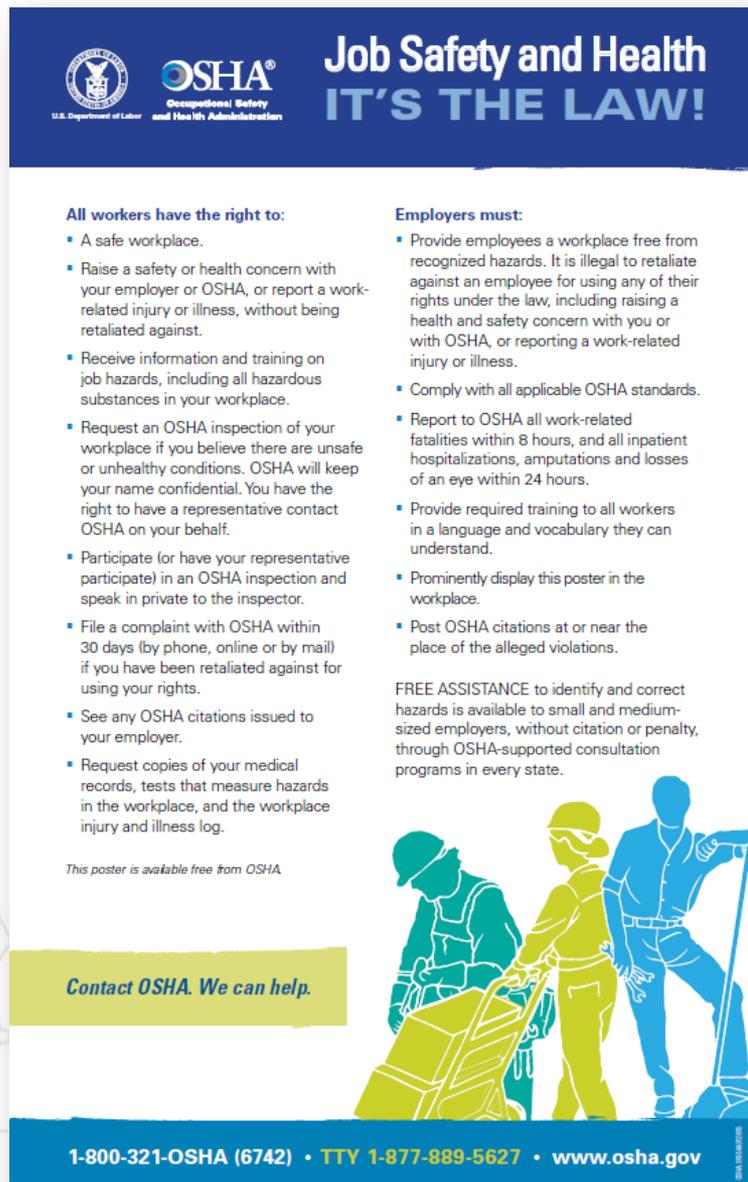
Labels in diagram: Dietary, Laundry, Maintenance, Bloodborne Pathogens, Whirlpool/Shower, Tuberculosis, Pharmacy, Utility, Workplace Violence, Nurses Station, Ergonomics

<https://www.osha.gov/SLTC/etools/nursinghome/index.html>

Worker Rights

- A safe and healthful workplace
- Know about hazardous chemicals
- Information about injuries and illnesses in your workplace
- Complain or request hazard correction from employer
- Hazard exposure and medical records
- File a complaint with OSHA
- Participate in an OSHA inspection
- Be free from retaliation for exercising safety and health rights

Does this look familiar?



The image shows a poster from the Occupational Safety and Health Administration (OSHA). The top of the poster features the OSHA logo and the text "Job Safety and Health IT'S THE LAW!". Below this, the poster is divided into two main sections: "All workers have the right to:" and "Employers must:". The "All workers have the right to:" section lists 10 rights, including a safe workplace, the right to raise concerns, receive training, request inspections, participate in inspections, file complaints, see citations, and request medical records. The "Employers must:" section lists 6 requirements, including providing a hazard-free workplace, complying with standards, reporting fatalities and hospitalizations, providing training, displaying the poster, and posting citations. At the bottom of the poster, there is a green box with the text "Contact OSHA. We can help." and a blue box with the contact information "1-800-321-OSHA (6742) • TTY 1-877-889-5627 • www.osha.gov". An illustration of three workers in safety gear is at the bottom right of the poster.

OSHA
Occupational Safety and Health Administration
U.S. Department of Labor

Job Safety and Health IT'S THE LAW!

All workers have the right to:

- A safe workplace.
- Raise a safety or health concern with your employer or OSHA, or report a work-related injury or illness, without being retaliated against.
- Receive information and training on job hazards, including all hazardous substances in your workplace.
- Request an OSHA inspection of your workplace if you believe there are unsafe or unhealthy conditions. OSHA will keep your name confidential. You have the right to have a representative contact OSHA on your behalf.
- Participate (or have your representative participate) in an OSHA inspection and speak in private to the inspector.
- File a complaint with OSHA within 30 days (by phone, online or by mail) if you have been retaliated against for using your rights.
- See any OSHA citations issued to your employer.
- Request copies of your medical records, tests that measure hazards in the workplace, and the workplace injury and illness log.

This poster is available free from OSHA

Contact OSHA. We can help.

Employers must:

- Provide employees a workplace free from recognized hazards. It is illegal to retaliate against an employee for using any of their rights under the law, including raising a health and safety concern with you or with OSHA, or reporting a work-related injury or illness.
- Comply with all applicable OSHA standards.
- Report to OSHA all work-related fatalities within 8 hours, and all inpatient hospitalizations, amputations and losses of an eye within 24 hours.
- Provide required training to all workers in a language and vocabulary they can understand.
- Prominently display this poster in the workplace.
- Post OSHA citations at or near the place of the alleged violations.

FREE ASSISTANCE to identify and correct hazards is available to small and medium-sized employers, without citation or penalty, through OSHA-supported consultation programs in every state.

1-800-321-OSHA (6742) • TTY 1-877-889-5627 • www.osha.gov

- This poster is required to be posted in all worksites.

- The phone number to contact OSHA is:

1-800-321-OSHA

Common Workplace Hazards

- Bloodborne pathogens
- Injuries due to resident handling
 - Lifting, transferring, repositioning
- Exposure to infectious diseases
- Exposure to hazardous substances (i.e. chemicals)
- Slips, trips, and falls
- Workplace violence
- Fire

Bloodborne Pathogens

- Workers exposed to **bloodborne pathogens** are at risk for serious or life-threatening illnesses.
- **Bloodborne pathogens** are infectious microorganisms present in blood that can cause disease in humans. These pathogens include, but are not limited to:
 - Hepatitis B virus (HBV)
 - Hepatitis C virus (HCV)
 - Human Immunodeficiency Virus (HIV), the virus that causes AIDS
 - Ebola and Zika virus



OSHA Bloodborne Pathogens Standard

- Establish an exposure control plan, update the plan each year
- Implement universal (Standard) precautions for all blood/body fluid
- Identify and use **engineering controls** (sharps containers, safety needles)
- Identify and ensure the use of **work practice controls** (handling and disposing of contaminated sharps, handling specimens, handling laundry, cleaning contaminated surfaces and items)
- Provide personal protective equipment (**PPE**) at no cost to the worker
- Make **Hepatitis B vaccine** available to all workers with occupational exposure
- Provide **post-exposure evaluation** for work exposures to blood/body fluid
- Use labels and signs to communicate hazards (Biohazard signs, SDS info)
- Provide information and training to workers
- Maintain medical and training records for employees
 - Medical records must be kept for **duration of employment plus 30 years**
 - Training records must be kept for **at least 3 years**

OSHA Bloodborne Pathogen Fact Sheets

(See resource section at end of this presentation)

Vaccines for Healthcare Workers

- Hepatitis B
- Flu (Influenza)
- MMR (Measles, Mumps, Rubella)
- Varicella (Chickenpox)
- Tdap (Tetanus, Diphtheria, Pertussis)



Recommended Vaccines for Healthcare Workers

<http://www.cdc.gov/vaccines/adults/rec-vac/hcw.html>

Reporting Requirements

- Form 301: Injury and illness incident report
 - Form 300: Log of work-related injuries and illnesses
 - Form 300A: Summary of work-related injuries and illnesses
- *Make sure employees know how to report an injury or illness*
- Notify OSHA within 8 hours after:
 - Death of any employee from a work-related incident
 - Inpatient hospitalization of 3 or more employees as a result of a work-related incident
 - 1-800-321-OSHA

OSHA Recordkeeping Forms

<https://www.osha.gov/recordkeeping/RKforms.html>

Infection Prevention Topics

- Hand Hygiene
- Respiratory / Cough Etiquette
- Antibiotic Stewardship
- Injection Safety
- Point of Care Testing
 - Blood Glucose Testing (Glucometers)
- Environmental Cleaning
- Personal Protective Equipment (PPE)
- Linen Handling

Hand Hygiene

- Hand Hygiene (handwashing or using alcohol-based hand sanitizer) is a simple yet effective way to prevent infections.



CDC – Hand Hygiene in Healthcare Settings
<https://www.cdc.gov/handhygiene/>

When soap-and-water is needed:

- If your hands are visibly dirty
- If you've been in a room of a resident with diarrhea caused by *Clostridioides difficile* ("C. diff") or Norovirus

P. S. When you're not sure if the resident has these infections, the best strategy is wash with soap-and-water. **Make sure to rub your hands with soap for at least 20 seconds.** Be sure to rub the backs of your hands, between your fingers, and under your nails.

Hand Sanitizer vs. Soap

**and the
Winner is...**

Alcohol-based hand sanitizer is the best for killing germs on your hands.



www.cdc.gov/HandHygiene

DID YOU KNOW?

Hand sanitizer has ingredients (emollients) that help protect your skin from drying out.

Alcohol-based hand rub will actually dry your skin less than using soap-and-water all the time.

The Best at Killing Germs



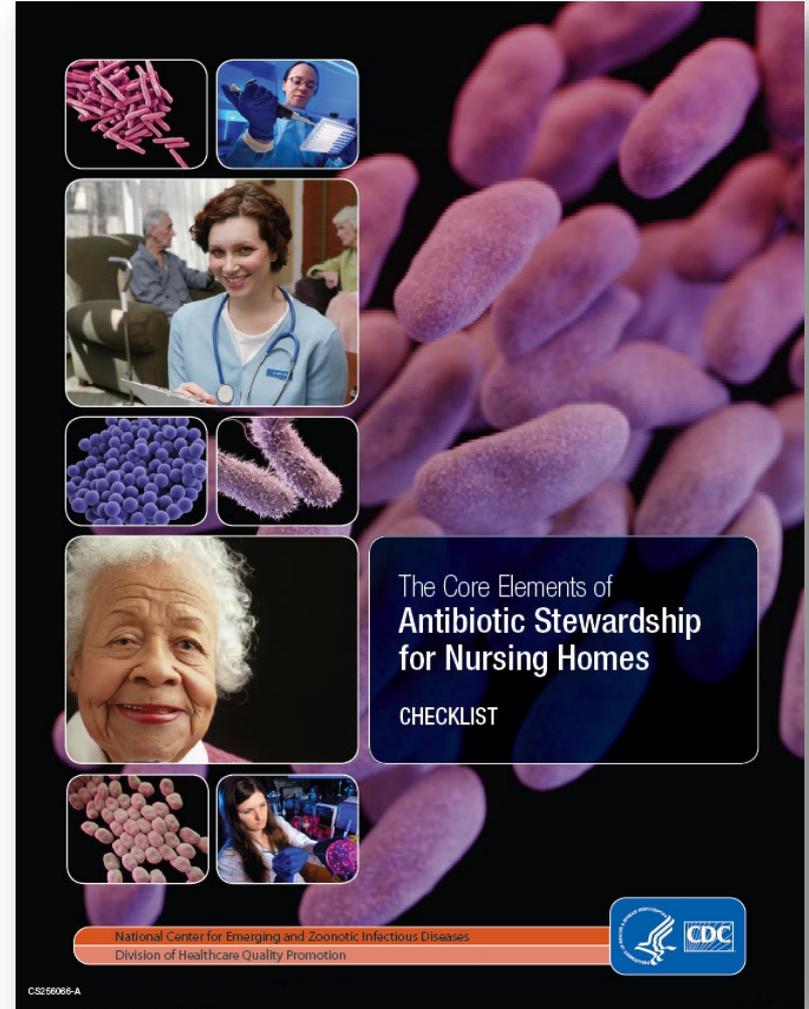
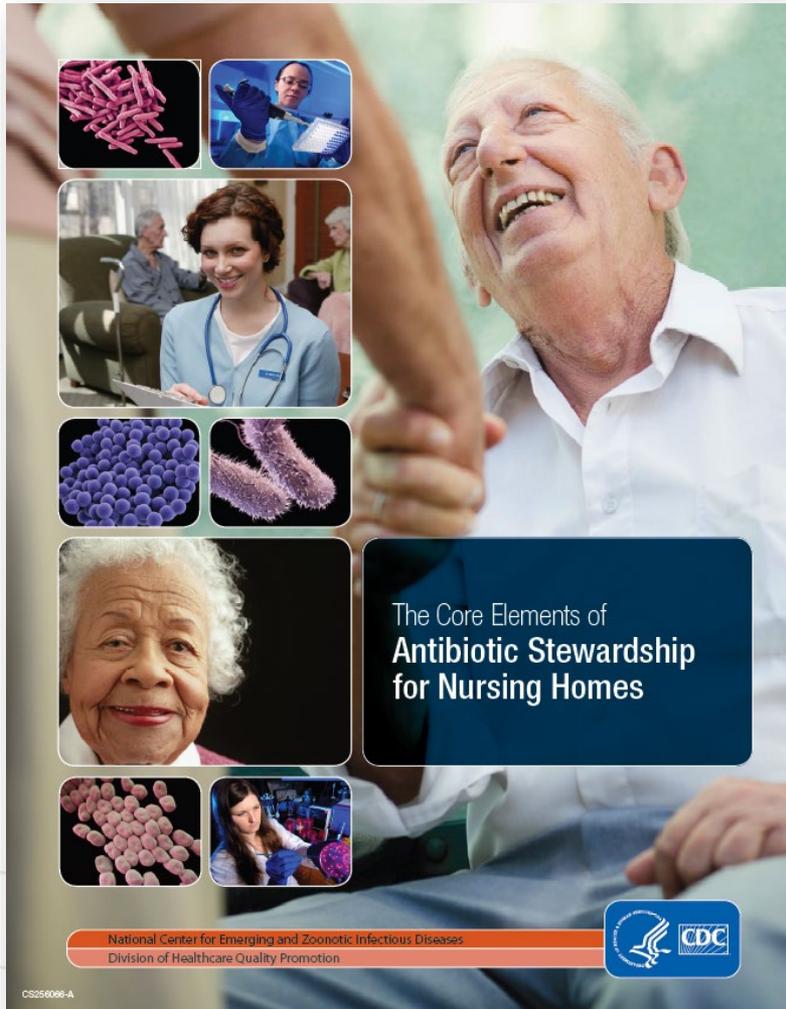
Good
Plain Soap

Better
Antibacterial Soap



BEST
Alcohol-based
hand sanitizer

Antibiotic Stewardship



Antibiotic Stewardship for Nursing Homes

<http://www.cdc.gov/longtermcare/prevention/antibiotic-stewardship.html>



Core Elements of AS in Nursing Homes



Leadership commitment

Demonstrate support and commitment to safe and appropriate antibiotic use in your facility



Accountability

Identify physician, nursing and pharmacy leads responsible for promoting and overseeing antibiotic stewardship activities in your facility



Drug expertise

Establish access to consultant pharmacists or other individuals with experience or training in antibiotic stewardship for your facility



Action

Implement **at least one** policy or practice to improve antibiotic use



Tracking

Monitor **at least one process** measure of antibiotic use and **at least one outcome** from antibiotic use in your facility



Reporting

Provide regular feedback on antibiotic use and resistance to prescribing clinicians, nursing staff and other relevant staff



Education

Provide resources to clinicians, nursing staff, residents and families about antibiotic resistance and opportunities for improving antibiotic use

Point of Care Testing

- Glucometers – devices used to check a resident’s blood sugar
 - The best strategy is to have a glucometer for each resident, to avoid sharing equipment
 - If you have to share, be sure to follow the manufacturer’s instructions for cleaning and disinfecting the device between patients
 - Perform hand hygiene and put on gloves before testing
 - When finished, remove gloves, discard them, and do hand hygiene
 - When squeezing the finger to get the drop of blood, hold finger away from your face to avoid blood splatter into face
 - Dispose of the used lancet (needle) in an approved sharps container
 - Never reuse lancets
 - Don’t bend or recap the needle

Injection Safety

1 ONE NEEDLE,
ONE SYRINGE,
ONLY ONE TIME.



Safe Injection Practices Coalition

www.ONEandONLYcampaign.org

The *One & Only Campaign* is a public health effort to eliminate unsafe medical injections. To learn more about safe injection practices, please visit OneandOnlyCampaign.org.



For the latest news and updates, follow us on Twitter @injectionsafety and Facebook/OneandOnlyCampaign.



This material was developed by CDC. The *One & Only Campaign* is made possible by a partnership between the CDC Foundation and Lilly USA, LLC.

CDC Injection Safety

<https://www.cdc.gov/injectionsafety/>



Linen Handling

- Store, handle, process, and transport linens to minimize contamination
 - Keep clean linens covered and separated from dirty items
 - Don't let clean linen touch the floor
- Make sure hands are clean when handling clean linens
- Don't cough or sneeze onto clean linen
- Handle all soiled linen as if contaminated
 - Wear gloves if body fluids may be present
 - Bag the linen inside the resident's room
 - Don't let dirty linen touch your clothing



Healthcare Laundry Accreditation Council

<http://www.hlacnet.org/>

CDC Guidelines (refer to section on Laundry and Bedding)

<https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5210a1.htm>

Standard Precautions

- Treat all blood and certain body fluid as infectious
 - This includes urine, feces (poop), vomit, saliva (spit), wound drainage, semen, vaginal secretions, lung fluid, amniotic fluid
 - Only exception is sweat, unless it contains visible blood

Always wear personal protective equipment (PPE) to prevent exposure to blood or body fluid

- **SOME TYPES OF PPE:**
 - Gloves
 - Disposable gown
 - Mask
 - Goggles / face shield

Transmission Precautions

- Things you do to prevent the spread of disease
 - These methods are used in addition to Standard Precautions
 - Based on what type of infection the person has (or might have) and how it is transmitted
 - 3 main categories: DROPLET, CONTACT, and AIRBORNE

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.

Guideline for Isolation Precautions

<http://www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf>



Transmission Precautions

	DROPLET	CONTACT	AIRBORNE
Goal:	Protect eyes, nose, and mouth from droplets	<ul style="list-style-type: none"> • Protect skin & clothing from contact with infectious particles on surfaces • Disinfected equipment if shared 	<ul style="list-style-type: none"> • Protect the nose and mouth from breathing infectious particles in the air
PPE needed:	<ul style="list-style-type: none"> • Mask • Goggles or face shield 	<ul style="list-style-type: none"> • Gloves • Isolation gown 	<ul style="list-style-type: none"> • N95 respirator or PAPR
Tips:	<ul style="list-style-type: none"> • <i>Don't forget to protect <u>eyes</u></i> 	<ul style="list-style-type: none"> • <i>Be sure to disinfect all items before use on another resident</i> 	<ul style="list-style-type: none"> • <i>A "PAPR" is a powered air-purifying respirator that blows filtered air</i>
Commonly used for:	<ul style="list-style-type: none"> • Influenza (the "flu") 	<ul style="list-style-type: none"> • Caring for resident with draining wound, MRSA, VRE, RSV, Scalded Staph, <i>C. difficile</i>, Norovirus, Scabies, Lice * Use sporicidal disinfectant when residents have diarrhea 	<ul style="list-style-type: none"> • Tuberculosis (TB) • Chickenpox • Measles • Shingles that has spread over a large part of the body

Putting on (Donning) PPE

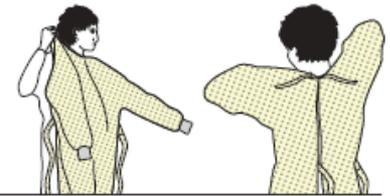
- Perform hand hygiene before putting on PPE

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist



2. MASK OR RESPIRATOR

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator



3. GOGGLES OR FACE SHIELD

- Place over face and eyes and adjust to fit



4. GLOVES

- Extend to cover wrist of isolation gown



<https://www.cdc.gov/hai/pdfs/ppe/ppe-sequence.pdf>

Taking off (Doffing) PPE

- Remove gloves first – they are usually the most contaminated piece of PPE
- Keep hands away from your face
- Perform hand hygiene immediately after removing PPE

SEQUENCE FOR REMOVING PERSONAL PROTECTIVE EQUIPMENT (PPE)

Except for respirator, remove PPE at doorway or in anteroom. Remove respirator after leaving patient room and closing door.

1. GLOVES

- Outside of gloves is contaminated!
- Grasp outside of glove with opposite gloved hand; peel off
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist
- Peel glove off over first glovet
- Discard gloves in waste container



2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield is contaminated!
- To remove, handle by head band or ear pieces
- Place in designated receptacle for reprocessing or in waste container



3. GOWN

- Gown front and sleeves are contaminated!
- Unfasten ties
- Pull away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard



4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated – DO NOT TOUCH!
- Grasp bottom, then top ties or elastics and remove
- Discard in waste container



<https://www.cdc.gov/hai/pdfs/ppe/ppe-sequence.pdf>

Gloves

Do's & Don'ts

DO'S AND DON'TS FOR WEARING GLOVES IN THE HEALTHCARE ENVIRONMENT

Types of gloves encountered in the healthcare setting

STERILE GLOVES

Indicated for performing any sterile procedure including but not limited to vaginal delivery, invasive radiological procedure, central vascular device dressing change, and accessing implanted central venous access ports.



NON-STERILE GLOVES

(e.g., nitrile, latex, medical vinyl)

Indicated in situations when there is potential for contact with infectious material *(e.g., blood, other body fluids, microorganisms)*.



NON-MEDICAL GLOVES

(e.g., vinyl)

May be used for food handling and some housekeeping procedures *(e.g., cleaning and disinfection)*.



UTILITY GLOVES

(e.g., facility, maintenance, central sterile processing)

Used for manual cleaning of instruments and decontamination with harsh chemicals.



Gloves

Do

- ✓ **DO** wear gloves to reduce the risk of contamination or exposure to blood, other body fluids, hazardous materials, and transmission of infection.
- ✓ **DO** clean hands before putting on gloves for a sterile procedure (e.g., insertion of catheter or other invasive device).
- ✓ **DO** clean hands after removing gloves.
- ✓ **DO** clean hands and change gloves between each task (e.g., after contact with a contaminated surface or environment).
- ✓ **DO** make sure that gloves fit you properly before performing any tasks.
- ✓ **DO** ensure the correct type of glove is available if you have skin sensitivity or allergy issues.
- ✓ **DO** wear gloves in hemodialysis settings for any contact with the patient or the patient's equipment.
- ✓ **DO** follow your facility's policy on glove use and remember to consult CDC* and WHO* hand hygiene guidance.

Don't

- ✗ **DON'T** re-use or wash gloves (except for utility gloves after being properly cleaned).
- ✗ **DON'T** substitute glove use for hand hygiene.
- ✗ **DON'T** use non-approved hand lotions.
- ✗ **DON'T** use gloves if they are damaged or visibly soiled.
- ✗ **DON'T** touch your face when wearing gloves.
- ✗ **DON'T** wear the same pair of gloves from one patient to another.
- ✗ **DON'T** wear gloves in the hall; consult your facility's policy for exceptions.
- ✗ **DON'T** forget to remove and dispose of gloves properly.

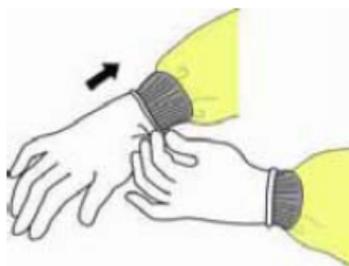


Association for Professionals in
Infection Control and Epidemiology

Gloves

Putting on gloves

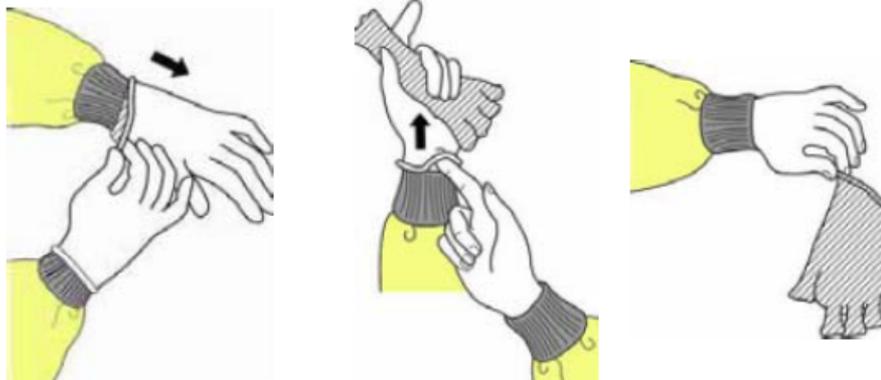
If wearing gown, then extend to cover wrist of gown



Removing gloves

Remember: outside of gloves are contaminated

1. Grasp outside of glove with opposite gloved hand; peel off.
2. Hold removed glove in gloved hand.
3. Slide fingers of ungloved hand under remaining glove at wrist.



CDC/HICPAC. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings.
<http://www.cdc.gov/hicpac/2007IP/2007isolationPrecautions.html>

Gloves

- Gloves are usually the most contaminated piece of personal protective equipment (PPE)
- Don't touch your face while wearing gloves
- Change gloves when moving from a “dirty” task to a “cleaner” task
 - *Example:* You are wearing gloves to clean the resident's bathroom sink. It's important to change gloves before touching anything outside the bathroom.
 - *Example:* You change the resident's adult diaper (a “dirty” task). You should remove those gloves, do hand hygiene, and put on clean gloves before emptying the resident's Foley catheter bag (a “cleaner” task).
- Be sure to wash your hands (or use hand sanitizer) immediately after removing gloves

Gown

Putting on Gown:

- Put on before gloves.
- Fasten at back of neck and waist.



Removing gown:

Remember: outside of gown is contaminated

- Remove gloves first.
- Unfasten neck, then waist ties.
- Remove gown using a peeling motion; gown will turn inside out.
- Hold removed gown away from body, roll into a bundle and discard in room.



CDC/HICPAC. 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings.

<http://www.cdc.gov/hicpac/2007IP/2007isolationPrecautions.html>

Masks

- Procedure Mask
 - Droplet protection for nose and mouth
- Difference between a mask & a respirator (N95)
 - A particulate respirator (N95) should be used for airborne diseases to filter small particles floating in the air

Do's & Don'ts

For wearing procedure masks in non-surgical healthcare settings



Do

- ✓ Make sure to wear your mask to protect yourself from infectious droplets that may occur when patients cough, sneeze, laugh, or talk.
- ✓ Check to make sure the mask has no defects, such as a tear or torn strap or ear loop.
- ✓ Bring both top ties to the crown of head and secure with a bow; tie bottom ties securely at the nape of neck in a bow.
- ✓ Remove the mask when no longer in clinical space and the patient intervention is complete.
- ✓ For ear loop mask, remove the mask from the side with your head tilted forward. For tied masks, remove by handling only the ties, and untie the bottom tie followed by the top tie.
- ✓ Properly dispose of the mask by touching only the ear loops or the ties. Perform hand hygiene before and after removing a surgical mask or any type of personal protective equipment such as your gloves and gown.

Don't

- ✗ DON'T use for protection against very small particles that float in the air (e.g., TB, measles, or chickenpox).
- ✗ DON'T wear if wet or soiled; get a new mask.
- ✗ DON'T crisscross ties.
- ✗ DON'T leave a mask hanging off one ear or hanging around neck.
- ✗ DON'T reuse; toss it after wearing once.
- ✗ DON'T touch the front of the mask, as it is contaminated after use.

Procedure mask
(also called an isolation mask)

Disposable mask that protects the wearer from droplets that might be infectious. A version of this mask with a built-in face shield to protect against splashes is also available.

The Occupational Safety & Health Administration (OSHA) may update guidance related to masks as emerging pathogens arise and new recommendations are developed. Be on the lookout for updates by visiting the OSHA website or consult your facility's infection prevention or occupational health department.

Learn more: www.osha.gov/SLTC/respiratoryprotection/guidance.html

What is a Pressure Injury?

- **“Localized damage to the skin and underlying soft tissue usually over a bony prominence or related to a medical or other device. The injury can present as intact skin or an open ulcer and may be painful.”**
- In 2016, the National Pressure Ulcer Advisory Panel (NPUAP) announced a change in terminology from pressure ulcer to pressure injury.
- Also known as a decubitus ulcer or “bed sore”
- A resident can develop a pressure injury within 2-6 hours of the onset of pressure. That’s why it’s important to do the risk assessment with a comprehensive skin assessment as soon as possible when a resident is admitted, and re-assess often.

National Pressure Ulcer Advisory Panel (NPUAP)

<http://www.npuap.org/>

Forces that Cause Pressure Injury

- **Pressure**
 - Force pushing against the skin surface, impacts blood flow to the skin and soft tissue
- **Friction**
 - When skin rubs against an external surface, contributes to shear strain (*see below*), can also cause skin tear or laceration
- **Shear**
 - When the skin or soft tissues are forced to move in a different direction from the bones inside the body
 - Bends or pinches blood vessels, stretches the skin & soft tissue

National Pressure Ulcer Advisory Panel (NPUAP)

<http://www.npuap.org/>

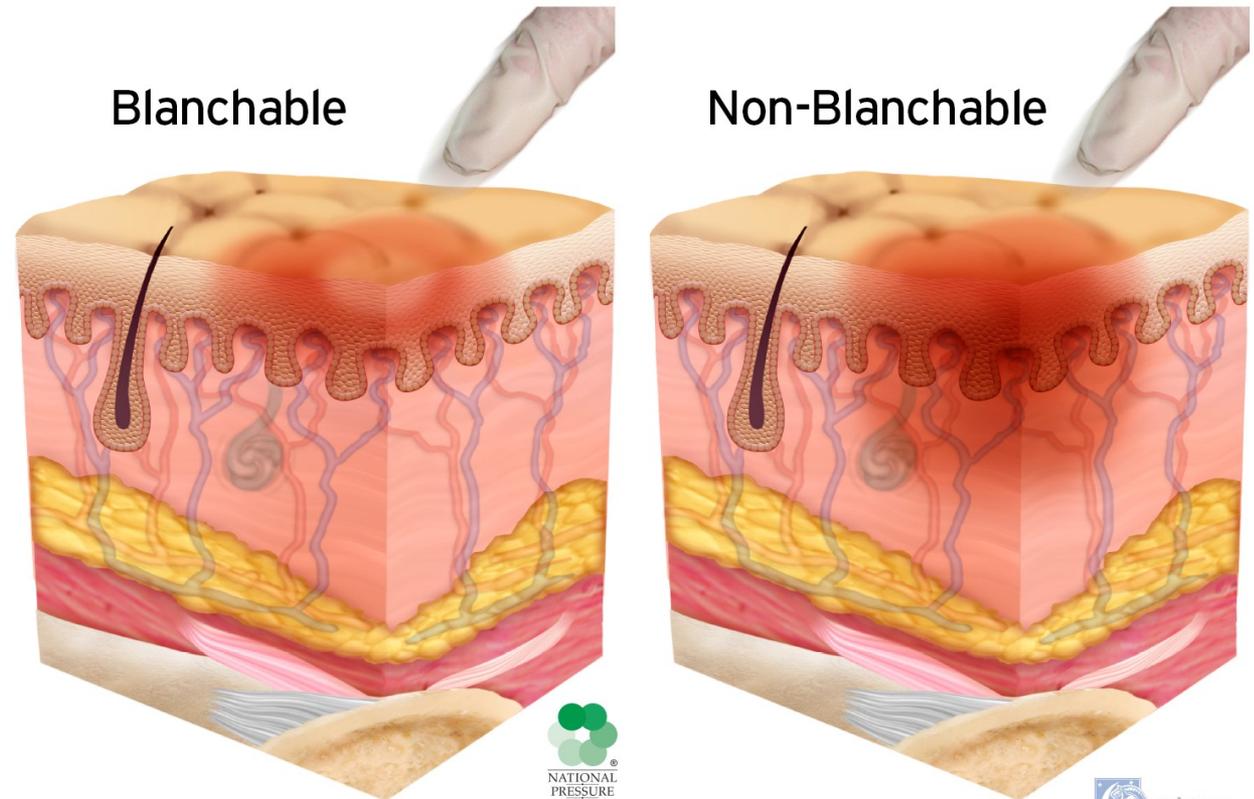
Pressure Injury Stages

There are 4 main stages of pressure injury, plus other categories for “unstageable” and “deep tissue injury.”

Blanching is when you press on an area of skin and it briefly turns whiter.

Skin that has been damaged from pressure injury will have redness that is non-blanchable. This is called “non-blanchable erythema”

Blanchable vs Non-Blanchable



There are many other types of ulcers

- Venous ulcers (*old blood stays in the legs too long*)
 - Venous insufficiency
 - Venous stasis
- Arterial ulcers (*don't have good blood flow to the legs*)
 - Ischemic ulcer
 - Peripheral artery disease (PAD)
- Diabetic ulcers
- Lymphedema ulcers
- Autoimmune ulcers
- Skin cancer

Pressure Injury Risk Assessment

There are 2 main scales used to calculate pressure ulcer risk. On both scales, a **LOWER** score means **HIGHER** risk.

- **Braden Scale**
 - “The Braden Scale for Predicting Pressure Sore Risk”
 - Developed in 1988 by Barbara Braden & Nancy Bergstrom
 - Sensory perception, moisture, activity, mobility, nutrition, friction and shear
- **Norton Plus Scale**
 - “Norton Plus Pressure Ulcer Scale”
 - Original Norton Scale was developed in 1960
 - Physical condition, mental state, activity, mobility, incontinence
 - The “PLUS” scale also considers: diagnosis of diabetes, diagnosis of hypertension, hematocrit, hemoglobin, albumin level, fever, 5 or more medications, changes in mental status

Pressure Injury Management

- Frequently assess and document resident's skin condition
 - Very dark skin tones require special attention because it's more difficult to detect redness or color change
- Identify risks and work to reduce the risks
- “Pressure Ulcer Prevention Points”

Pressure Injury Prevention Points	
	
RISK ASSESSMENT	
1	Consider bedfast and chairfast individuals to be at risk for development of pressure injury.
2	Use a structured risk assessment, such as the Braden Scale, to identify individuals at risk for pressure injury as soon as possible (but within 8 hours after admission).
3	Refine the assessment by including these additional risk factors: <ul style="list-style-type: none"> A. Fragile skin B. Existing pressure injury of any stage, including those ulcers that have healed or are closed C. Impairments in blood flow to the extremities: from vascular disease, diabetes or tobacco use D. Pain in areas of the body exposed to pressure
Repeat the risk assessment at regular intervals and with any change in condition. Base the frequency of regular assessments on acuity level:	
A.	Acute care Every shift
B.	Long term care . . . Weekly for 4 weeks, then quarterly
C.	Home care At every nurse visit
4	Develop a plan of care based on the areas of risk, rather than on the total risk assessment score. For example, if the risk stems from immobility, address turning, repositioning, and the support surface. If the risk is from malnutrition, address those problems.
SKIN CARE	
1	Inspect all of the skin upon admission as soon as possible (but within 8 hours).
2	Inspect the skin at least daily for signs of pressure injury, especially nonblanchable erythema.
3	Assess pressure points, such as the sacrum, coccyx, buttocks, heels, ischium, trochanters, elbows and beneath medical devices.
4	When inspecting darkly pigmented skin, look for changes in skin tone, skin temperature and tissue consistency compared to adjacent skin. Moistening the skin assists in identifying changes in color.
5	Cleanse the skin promptly after episodes of incontinence.
6	Use skin cleansers that are pH balanced for the skin.
7	Use skin moisturizers daily on dry skin.
8	Avoid positioning an individual on an area of erythema or pressure injury.
NUTRITION	
1	Consider hospitalized individuals to be at risk for under nutrition and malnutrition from their illness or being NPO for diagnostic testing.
2	Use a valid and reliable screening tool to determine risk of malnutrition, such as the Mini Nutritional Assessment.
3	Refer all individuals at risk for pressure injury from malnutrition to a registered dietitian/nutritionist.
4	Assist the individual at mealtimes to increase oral intake.
5	Encourage all individuals at risk for pressure injury to consume adequate fluids and a balanced diet.
6	Assess weight changes over time.
7	Assess the adequacy of oral, enteral and parenteral intake.
8	Provide nutritional supplements between meals and with oral medications, unless contraindicated.
REPOSITIONING AND MOBILIZATION	
1	Turn and reposition all individuals at risk for pressure injury, unless contraindicated due to medical condition or medical treatments.
2	Choose a frequency for turning based on the support surface in use, the tolerance of skin for pressure and the individual's preferences.
3	Consider lengthening the turning schedule during the night to allow for uninterrupted sleep.
4	Turn the individual into a 30-degree side lying position, and use your hand to determine if the sacrum is off the bed.
5	Avoid positioning the individual on body areas with pressure injury.
6	Ensure that the heels are free from the bed.
7	Consider the level of immobility, exposure to shear, skin moisture, perfusion, body size and weight of the individual when choosing a support surface.
8	Continue to reposition an individual when placed on any support surface.
9	Use a breathable incontinence pad when using microclimate management surfaces.
10	Use a pressure redistributing chair cushion for individuals sitting in chairs or wheelchairs.
11	Reposition weak or immobile individuals in chairs hourly.
12	If the individual cannot be moved or is positioned with the head of the bed elevated over 30°, place a polyurethane foam dressing on the sacrum.
13	Use heel offloading devices or polyurethane foam dressings on individuals at high-risk for heel ulcers.
14	Place thin foam or breathable dressings under medical devices.
EDUCATION	
1	Teach the individual and family about risk for pressure injury.
2	Engage individual and family in risk reduction interventions.

Pressure Ulcer Prevention (and Management)

<http://www.npuap.org/wp-content/uploads/2016/04/Pressure-Injury-Prevention-Points-2016.pdf>

Interventions for Pressure Injury Risk

Manage Moisture

- Use facility-approved moisture barrier
- Use absorbent pads or diapers that wick and hold moisture
- Address the cause of moisture if possible
- Offer bedpan/urinal and a glass of water in conjunction with turning schedules

Manage Nutrition

- Increase protein intake
- Increase calorie intake to spare proteins
- Supplement with multi-vitamins (include A, C, and E to promote healing)
- Offer liquid diet supplement
- Act quickly to alleviate deficits
- Consult dietitian

Interventions for Pressure Injury Risk

Manage Friction & Shear

- Elevate head of bed no more than 30 degrees
- Use trapeze when indicated
- Use lift sheet to move patient
- Protect elbows and heels if being exposed to friction

General Care Issues

- Don't massage reddened bony prominences
- Don't use donut-type devices
- Maintain good hydration
- Treat excessive dry skin (use moisturizer as appropriate)

F-Tag 686

- Pressure injury prevention and treatment
 - Were risk factors evaluated?
 - Could any identified risk factors be removed, modified, or stabilized?
 - Have all areas at risk of constant pressure been evaluated?
- Severity determination
 - Presence of harm/negative outcome because of lack of treatment or care
 - Potential for the development of, occurrence (or recurrence) of an avoidable pressure injury
 - Complications such as sepsis or pain related to the presence of an avoidable pressure injury
 - Pressure injuries that fail to improve as anticipated or develop complications such as sepsis or pain due to lack of appropriate treatment or care

F-Tag 686

The following F-Tags may also be cited for pressure injury:

- F580: Notification of change
- F636: Comprehensive assessment
- F656: Comprehensive care plan
- F657: Care plan revision
- F658: Services provided meet professional standards
- F684: Quality of care
- F726: Competent nursing staff
- F710: Physician supervision of care
- F841: Medical director responsibilities

F-Tag 686

- Was the pressure injury avoidable or unavoidable?
- Avoidable pressure injury
 - A resident developed a pressure injury, and the facility failed to do at least 1 of the following:
 - Evaluate clinical condition and risk factors for pressure injury
 - Define and implement interventions that are consistent with resident needs, goals, standards of practice
 - Monitor interventions or revise as appropriate

F-Tag 686

- Unavoidable pressure injury
 - A resident developed a pressure injury, even though the facility had done the following:
 - Evaluated the resident's clinical condition and pressure injury risk factors
 - Defined and implemented interventions that were consistent with the resident's needs, goals, and recognized standards of care
 - Monitored and evaluated the impact of the interventions and revised the approaches as appropriate
- Perform careful and complete assessments. Use a standardized pressure injury risk assessment tool. Do appropriate interventions and monitor the resident's response to interventions. Communicate with the resident and family members. Be sure to *DOCUMENT* all of this!

Don't "reverse stage" pressure ulcers

- As a pressure ulcer heals, do not reverse the staging
 - As a pressure injury heals, the new tissue is not the same as the original tissue. The resident will have permanent changes to muscle, fat, and skin layers as the ulcer fills in.
 - A Stage 4 pressure injury cannot improve to become a Stage 3, Stage 2, or Stage 1. The staging system was not intended to measure that way. It only measures the maximum depth that the injury reached.
 - Reverse staging (or “back-staging”) should not be used to describe progress or healing.
 - When a Stage 4 ulcer has healed it should be classified as a “healed Stage 4 ulcer.” This is a more accurate description of what has happened to the resident’s body.

PUSH Tool 3.0

Pressure Ulcer Scale for Healing

This tool is widely used to document healing of pressure ulcers.



Pressure Ulcer Scale for Healing (PUSH) PUSH Tool 3.0

Patient Name _____ Patient ID# _____
Ulcer Location _____ Date _____

Directions:

Observe and measure the pressure ulcer. Categorize the ulcer with respect to surface area, exudate, and type of wound tissue. Record a sub-score for each of these ulcer characteristics. Add the sub-scores to obtain the total score. A comparison of total scores measured over time provides an indication of the improvement or deterioration in pressure ulcer healing.

LENGTH X WIDTH (in cm ²)	0	1	2	3	4	5	Sub-score
	0	< 0.3	0.3 – 0.6	0.7 – 1.0	1.1 – 2.0	2.1 – 3.0	
		6	7	8	9	10	
		3.1 – 4.0	4.1 – 8.0	8.1 – 12.0	12.1 – 24.0	> 24.0	
EXUDATE AMOUNT	0	1	2	3			Sub-score
	None	Light	Moderate	Heavy			
TISSUE TYPE	0	1	2	3	4		Sub-score
	Closed	Epithelial Tissue	Granulation Tissue	Slough	Necrotic Tissue		
							TOTAL SCORE

Length x Width: Measure the greatest length (head to toe) and the greatest width (side to side) using a centimeter ruler. Multiply these two measurements (length x width) to obtain an estimate of surface area in square centimeters (cm²). Caveat: Do not guess! Always use a centimeter ruler and always use the same method each time the ulcer is measured.

Exudate Amount: Estimate the amount of exudate (drainage) present after removal of the dressing and before applying any topical agent to the ulcer. Estimate the exudate (drainage) as none, light, moderate, or heavy.

Tissue Type: This refers to the types of tissue that are present in the wound (ulcer) bed. Score as a "4" if there is any necrotic tissue present. Score as a "3" if there is any amount of slough present and necrotic tissue is absent. Score as a "2" if the wound is clean and contains granulation tissue. A superficial wound that is reepithelializing is scored as a "1". When the wound is closed, score as a "0".

- 4 – Necrotic Tissue (Eschar):** black, brown, or tan tissue that adheres firmly to the wound bed or ulcer edges and may be either firmer or softer than surrounding skin.
- 3 – Slough:** yellow or white tissue that adheres to the ulcer bed in strings or thick clumps, or is mucinous.
- 2 – Granulation Tissue:** pink or beefy red tissue with a shiny, moist, granular appearance.
- 1 – Epithelial Tissue:** for superficial ulcers, new pink or shiny tissue (skin) that grows in from the edges or as islands on the ulcer surface.
- 0 – Closed/Resurfaced:** the wound is completely covered with epithelium (new skin).

Pressure Ulcer Scale for Healing (PUSH) Tool

<http://www.npuap.org/resources/educational-and-clinical-resources/push-tool/>



Care Transitions

- Engage the resident & family members in care transitions
- Care transition can be stressful
- Improve communication with resident & family members
 - Clarify goals and priorities
 - “*What’s important to you?*”
 - Establish what the resident’s limitations are (mental, physical, cognitive)
 - Prevent falls
 - Prevent medication errors
- Improve communication with other care settings
- Transitions of Care (TOC) Checklist

http://www.ntocc.org/Portals/0/PDF/Resources/TOC_Checklist.pdf

Infection Control Transfer Form

- History of present illness
- Reason for transfer
- Point of Contact (POC) at sending and receiving facilities
- Is the resident currently in isolation? If so, what type?
- Current symptoms
- Current (or recent) antibiotic use
 - What type? What for? How long? Anticipated stop date?
- Indwelling devices (Foley catheter, PICC line, etc.)
- Vaccination history for influenza and pneumococcal pneumonia

Inter-facility Infection Control Transfer Form
 This form must be filled out for transfer to accepting facility with information communicated prior to or with transfer.
 Please attach copies of latest culture reports with susceptibilities if available.

Sending Healthcare Facility:

Patient/Resident Last Name	First Name	Date of Birth	Medical Record Number	
		/ /		
Name/Address of Sending Facility		Sending Unit	Sending Facility Phone	
Sending Facility Contacts	Contact Name	Phone	E-mail	
Transferring RN/Unit				
Transferring physician				
Case Manager/Admin/SW				
Infection Preventionist				
Does the person* currently have an infection, colonization OR a history of positive culture of a multidrug-resistant organism (MDRO) or other potentially transmissible infectious organism?		Colonization or history Check if YES	Active infection on Treatment Check if YES	
Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)				
Vancomycin-resistant <i>Enterococcus</i> (VRE)				
<i>Clostridioides difficile</i>				
<i>Acinetobacter</i> , multidrug-resistant				
Enterobacteriaceae (e.g., <i>E. coli</i> , <i>Klebsiella</i> , <i>Proteus</i>) producing-Extended Spectrum Beta-Lactamase (ESBL)				
Carbapenem-resistant Enterobacteriaceae (CRE)				
Other, specify (e.g., lice, scabies, norovirus, influenza):				
Does the person* currently have any of the following? (Check here <input type="checkbox"/> if none apply)				
<input type="checkbox"/> Cough or requires suctioning	<input type="checkbox"/> Central line/PICC (Approx. date inserted ___/___/___)			
<input type="checkbox"/> Diarrhea	<input type="checkbox"/> Hemodialysis catheter			
<input type="checkbox"/> Vomiting	<input type="checkbox"/> Urinary catheter (Approx. date inserted ___/___/___)			
<input type="checkbox"/> Incontinent of urine or stool	<input type="checkbox"/> Suprapubic catheter			
<input type="checkbox"/> Open wounds or wounds requiring dressing change	<input type="checkbox"/> Percutaneous gastrostomy tube			
<input type="checkbox"/> Drainage (source) _____	<input type="checkbox"/> Tracheostomy			
Is the person* currently in Transmission-Based Precautions? <input type="checkbox"/> NO <input type="checkbox"/> YES				
Type of Precautions (check all that apply) <input type="checkbox"/> Contact <input type="checkbox"/> Droplet <input type="checkbox"/> Airborne <input type="checkbox"/> Other: _____				
Reason for Precautions: _____				
Is the person* currently on antibiotics? <input type="checkbox"/> NO <input type="checkbox"/> YES (current use)				
Antibiotic, dose, route, freq.	Treatment for:	Start date	Anticipated stop date	Date/time last dose
Vaccine	Date administered (if known)	Lot and Brand (if known)	Year administered (if exact date not known)	Does the person* self-report receiving vaccine?

Infection Control Transfer Form



Organisms	Did or does have (send documentation):		<input type="checkbox"/> No Known MDRO or Communicable Diseases	
	Multiple Drug Resistant Organism (MDRO):			<input type="checkbox"/> Yes
	MRSA			<input type="checkbox"/>
	VRE			<input type="checkbox"/>
	Acinetobacter not susceptible to carbapenems			<input type="checkbox"/>
	E. coli or Klebsiella not susceptible to carbapenems			<input type="checkbox"/>
	Significant communicable disease:			<input type="checkbox"/> Yes
	C. diff			<input type="checkbox"/>
Other*: _____ <small>±e.g.; lice, scabies, disseminated shingles, norovirus, flu, TB, etc.</small>		<input type="checkbox"/> (current or ruling out)		
*Additional info if known: _____				
Symptoms	Check yes to any that <u>currently</u> apply*):		<input type="checkbox"/> No Symptoms or PPE not required as "contained"	
	<input type="checkbox"/> Cough/uncontrolled respiratory secretions	<input type="checkbox"/> Acute diarrhea or incontinent of stool		
	<input type="checkbox"/> Incontinent of urine	<input type="checkbox"/> Draining wounds		
	<input type="checkbox"/> Vomitin	<input type="checkbox"/> Other uncontained body fluid/drainage		
		<input type="checkbox"/> Concerning rash (e.g.; vesicular)		
*NOTE: Appropriate PPE required ONLY if incontinent/drainage/rash NOT contained				
Required PPE	ISOLATION PRECAUTIONS		Answers to sections above ANY YES: Check Required PPE ALL NO: Just sign form	
				
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
	CHECK IF INDICATED			
Person completing form: _____		Date: ____/____/____		
Role: _____		Version 1.8 4/23/2014 - e.version		

- Here's another example of an infection control transfer form.
- The goal is to improve communication during transitions of care.

Infection Control Transfer Form (example)

<http://www.cdc.gov/hai/pdfs/toolkits/InfectionControlTransferFormExample2.pdf>

Rights During Transitions of Care

- Patients (or residents) have the right to care transitions that are safe and well coordinated.

<http://www.ntocc.org/Portals/0/PDF/Resources/PatientBillOfRights.pdf>

- Cultural competence

Cultural competence is “the process by which individuals and systems respond respectfully and effectively to people of all cultures, languages, classes, races, ethnic backgrounds, religions, and other diversity factors in a manner that recognizes, affirms, and values the worth of individuals, families, and communities and protects and preserves the dignity of each.”

National Transitions of Care Coalition

<http://www.ntocc.org/Portals/0/PDF/Resources/CulturalCompetence.pdf>



CMS Final Rule: October 4th, 2016

Last update was in 1991, major changes were needed.

- Phase 1: Implemented by November 28, 2016
- Phase 2: Implemented by November 28, 2017
- Phase 3: Implemented by November 28, 2019

Infection Control (§ 483.80)

- Develop an Infection Prevention and Control Program (IPCP) that includes an Antibiotic Stewardship Program and designate at least one Infection Preventionist (IP).

Facility Assessment

- Conduct, document, and annually review a facility-wide assessment to determine what resources are necessary to care for residents competently during both day-to-day operations and emergencies.
 - Facility-based risk assessment
 - Age and condition of equipment
 - Average census, maximum census
 - Staffing, supplies and resources
 - Community-based risk assessment
 - Public health officials
 - Other medical providers in the area
 - Utilities (water, gas, sewer, waste disposal)
 - Hazard vulnerabilities

Facility Assessment

- Address the following:
 - Number of residents, acuity, diagnoses
 - Overall types of care provided
 - Staff competencies, skills, training, education
 - Physical environment, equipment, services
 - Ethnic, cultural, or religious factors that may affect care
 - Services provided: physical therapy, pharmacy, rehab, wound care
 - Contracts, MOUs, and other agreements with companies to provide services or equipment during normal operations and emergencies
 - Health information technology: systems for electronically managing resident medical records and electronically sharing information with other organizations

Facility Assessment

- Infection Control data should be included:
 - Prevalence of MDROs (MRSA, VRE, *C. difficile*, etc.)
 - Surveillance data for urinary, respiratory, skin/soft tissue, sepsis, gastrointestinal infections
 - Infectious disease outbreaks: Influenza (flu), Norovirus, Scabies, foodborne illness
 - Process-related data
 - Hand hygiene compliance
 - Use of transmission precautions
 - PPE use (gloves, gowns, masks, etc.)
 - Staff training and competencies
 - Resident & staff vaccination rates for influenza

Tools & Resources

- OSHA Bloodborne Pathogens Standard
https://www.osha.gov/SLTC/bloodbornepathogens/bloodborne_quickref.html
- Recommended Vaccines for Healthcare Workers
<http://www.cdc.gov/vaccines/adults/rec-vac/hcw.html>
- Prevention of Musculoskeletal Disorders in the Workplace
<https://www.osha.gov/SLTC/ergonomics/>
- Guidelines for Nursing Homes: Ergonomics for the Prevention of Musculoskeletal Disorders
https://www.osha.gov/ergonomics/guidelines/nursinghome/final_nh_guidelines.pdf
- OSHA Bloodborne Pathogen Fact Sheets
https://www.osha.gov/OshDoc/data_BloodborneFacts/bbfact01.pdf
https://www.osha.gov/OshDoc/data_BloodborneFacts/bbfact02.pdf
https://www.osha.gov/OshDoc/data_BloodborneFacts/bbfact03.pdf
https://www.osha.gov/OshDoc/data_BloodborneFacts/bbfact04.pdf
https://www.osha.gov/OshDoc/data_BloodborneFacts/bbfact05.pdf
- CDC Sharps Safety Workbook
https://www.cdc.gov/sharpsafety/pdf/sharpsworkbook_2008.pdf
- Injection Safety
<https://www.cdc.gov/injectionsafety/>

Tools & Resources

- Association for Professionals in Infection Control and Epidemiology
www.apic.org
- Hand Hygiene in Healthcare Settings
<https://www.cdc.gov/handhygiene/>
- Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings
<http://www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf>
- Using personal protective equipment (PPE) the right way
<http://professionals.site.apic.org/10-ways-to-protect-patients/using-ppe-the-right-way/>
- Infection Prevention during Glucose Monitoring and Insulin Administration
https://ftp.cdc.gov/pub/CLIAAC_meeting_presentations/pdf/Addenda/cliac0313/07B_CLIAAC_2013March_Glucose_Monitoring.pdf
- Core Elements of Antibiotic Stewardship in Nursing Homes
<http://www.cdc.gov/longtermcare/pdfs/core-elements-antibiotic-stewardship.pdf>
- Checklist: Core Elements of Antibiotic Stewardship in Nursing Homes
<http://www.cdc.gov/longtermcare/pdfs/core-elements-antibiotic-stewardship-checklist.pdf>
- National Transitions of Care Coalition
<http://www.ntocc.org/>
- Facility Assessment Tool
<https://qioprogram.org/facility-assessment-tool>