

**CSI:
District of Columbia**



**CARE SCENE
INVESTIGATION**

CERTIFICATE OF ATTENDANCE

THIS CERTIFIES THAT

ATTENDED THE

**PRESSURE ULCER
INSERVICE**

DATE

SIGNATURE

GLOSSARY

Pressure Ulcer Terms

Abscess: A cavity containing pus and surrounded by inflamed tissue in any part of the body—a result of a localized infection.

Aerobe: A microorganism that lives in the presence of free oxygen.

Altered tissue perfusion: A condition in which cells have a decrease in nutrition and oxygenation caused by a deficient capillary blood supply

Anaerobe: A microorganism that grows without any or with little free oxygen.

Antibacterial: An agent that kills or stops the growth of bacteria.

Antimicrobial: An agent that kills or stops the growth of microbes.

Autolysis: Disintegration or liquefaction of tissue or of cells by the body's own mechanisms (leukocytes/enzymes).

Bactericidal: An agent that destroys bacteria.

Bacteriostatic: Inhibits the growth or multiplication of bacteria.

Blanching Test: A test to check circulation of fingers and toes. Pressure is applied over nail until all color is gone. When pressure is removed, the rate at which color returns determines circulation.

Cell migration: Movement of cells in the repair process.

Cellulitis: Inflammation of tissue around a lesion. Characterized by heat, redness, swelling, and tenderness. Signifies a spreading infectious process.

Collagen: The main supportive protein which combines to form of skin, tendon, bone, cartilage, and connective tissue.

Colonized: Presence of bacteria which cause no local or systematic signs or symptoms.

Contamination: To infect by contact or introduction of organisms into a wound.

Contraction: Tissue pulling together the wound edges in the healing process.

Crater: A circular depression with a raised area around the periphery.

Debridement: Removal of damaged tissue.

Debris: Remains of broken down or damaged cells or tissue.

Decubitus ulcer: Ulcer of the skin caused by prolonged pressure over the affected area.

Denude: Loss of epidermis.

Dermal: Related to skin or derma.

Dermal wound: Loss of skin integrity; may be surface level or deeper.

Dermis: The inner layer of skin in which hair follicles and sweat glands reside; involved in Stage II to IV pressure ulcers.

Edema: The presence of larger than normal amounts of fluid in the interstitial space.

Enzymes: Biochemical substances that can break down necrotic tissue.

Enzymatic debridement: Breakdown to liquid form of necrotic wound debris by chemical agents.

Epidermis: The outer most layer of skin.

Epithelialization: Regrowth of the epidermis across wound surface.

Erythema: Redness of skin surface produced by vasodilatation.

Eschar: Thick, leathery necrotic tissue; damaged tissue.

Excoriation: damage to the surface of the skin from trauma, e.g., scratching, abrasion.

Exuberant granulation: Formulation of large amounts of granulation tissue that may protrude above the margins of a wound.

Exudate: Fluid that leaks from damaged tissue.

Fibroblast: Any cell of the body from which connective tissue is developed.

Fibroplasia: The formation of connective tissue.

Friction: Surface damage caused by skin rubbing against another surface.

Full-thickness: Wounds that extend through the epidermis, and entire dermis, and possibly muscle or bone.

Granulation: The formation of growth of small blood vessels and connective tissue in a full thickness wound.

Granulation tissue: Healing tissue composed of new capillaries and fibroblasts.

Horney layer: The thin top most layer of the epidermis.

Hydrophilic: Attracts moisture.

Hyperalimentation: Nutritional supplement given either enterally or parentally.

Hyperemia: Presence of excess blood in the vessels: engorgement.

Induration: Abnormal firmness of tissue with a defined edge.

Infection: Overgrowth of microorganisms capable of tissue destruction and invasion followed by local or systemic symptoms.

Inflammation: Reaction to tissue injury; involves increased blood flow and capillary permeability and requires physiologic cleanup of wound. Accompanied by increased heat, redness, swelling, and pain in the affected areas.

Insulation: Keeping wound temperature close to body temperature.

Ischemia: A deficiency of blood because of functional constriction or obstruction of a blood vessel to a body part.

Keloid: A large, bulging scar caused by excessive amounts of collagen in connective tissue.

Kennedy terminal ulcer: A pressure ulcer that is a precursor to death. It is characterized by:

- 1) Sudden onset;
- 2) Red, yellow and black colors;
- 3) Round or pear shape;
- 4) Usually on the sacrum or ischium.

Lesion: A broad term referring to wounds or sores.

Leukocytosis: An increase in the number of leukocytes (above 10,000 per cu. Mm) in the blood.

Maceration: Softening of tissue by soaking in fluids.

Macrophage: Cells which have the ability to destroy bacteria and devitalized tissue.

Mechanical debridement: The loosening and removal of necrotic wound debris by means of water, brush, gauze, and etc.

Moist wound healing: Healing of a wound that is kept moist as opposed to allowing the wound to dry. Moist wound healing eliminates desiccation of viable tissue, allows faster reepithelialization and granulation tissue to form at wound surface. It minimizes scab and eschar formation. It also allows autolysis by inflammatory cells and enzymes in exudates. Moist wound healing helps comfort level of the patient.

Necrotic: Dead; avascular.

Neoangiogenesis: The new growth of new capillaries from preexisting blood vessels.

Neovascularization: (See neoangiogenesis.)

Norton scale: As assessment of physical condition, mental status, activity, mobility, and incontinence to determine the risk of pressure ulcer development.

Pallor: Lack of natural color; paleness.

Partial-thickness: Wounds that extend through the epidermis and part of the dermis.

Pathogen: Any disease producing agent or microorganism.

Phagocytosis: Auto debridement of bacteria and necrotic debris from the wound.

Pressure: A force applied to skin compromising circulation.

Pressure sore: An area of localized tissue damage caused by ischemia because of pressure.

Proud flesh: (See exuberant granulation.)

Pus: Thick fluid indicative of infection that contains leukocytes, bacteria, and cellular debris.

Pyogenic: Producing pus.

Reactive hyperemia: The body produces extra blood in vessels in response to a period of blocked blood flow.

Remodeling: Reorganization of collagen fibers in a healing wound.

Scab: Dried fluid, cells, or other substances that have been discharged covering a superficial wound.

Serous: Producing a secretion or containing serum that moistens mucous membranes.

Sharp debridement: Surgical removal by scalpel or scissors of the eschar and/or any devitalized tissue within the pressure ulcer.

Shear: Trauma to the skin caused by tissue layers sliding against each other results in disruption or angulation of blood vessels.

Sinus Tract: A course or pathway that can extend in any direction from the wound surface; results in space with potential for abscess formation.

Slough: Loose, stringy necrotic tissue.

Stratum corneum: The thin top layer of the epidermis.

Strip: Remove epidermis by mechanical means: denude.

Subcutaneous layer: Masses of loose connective and fat tissues located beneath the dermis.

Tunneling: A narrow channel/passageway extending into healthy tissue.

Ulcer: An open sore.

Undermine: Tissue destruction underlying intact skin along wound edges.

Varicosities: Dilated tortuous superficial veins.

Vasoconstriction: Constriction of the blood vessels.

Vasodilatation: Dilation of blood vessels—especially small arteries and arterioles.

Wound base: Top viable tissue layer of wound; may be covered with slough or eschar.

Wound margin: Edge or border of a wound.

Wound repair: The healing process. Partial-thickness involves epithelialization; full-thickness involves contraction, granulation, and epithelialization.

Pressure Ulcer Knowledge and Attitude Survey

Position Title: _____ Nursing Home: _____

Department _____ Shift: Check One Days _____ Evenings _____ Nights _____

We are interested in your individual answer, please circle *true* (T) or *false* (F) to each of the following statements.

- T F Pressure ulcer identification and documentation is part of my job duties.
- T F Pressure ulcer prevention is part of my job duties.
- T F Pressure ulcers should be documented by the RN, or LPN staff only.
- T F Immobility is a cause of pressure ulcers.
- T F Incontinence is a cause of pressure ulcers.
- T F Poor dietary intake is a cause of pressure ulcers.
- T F Chronic illness is a cause of pressure ulcers.
- T F Poor circulation is a cause of pressure ulcers.
- T F Pressure ulcers are part of the aging process.
- T F Pressure ulcers can be prevented by proper positioning of residents.
- T F Pressure ulcers begin with a reddened area of the skin that does not disappear after pressure is relieved.
- T F Residents that have had a pressure ulcer in the past are more likely to develop one in the future.
- T F A bed ridden resident will not fully recover from a pressure ulcer without surgery.
- T F Pressure ulcers are often viewed as a sign of poor care being provided by the nursing staff.
- T F Pressure ulcers lower a resident's self-esteem.
- T F Pressure ulcers can occur on any area on the body.
- T F Family members are an important part of the pressure ulcer healing process.

Potential Learning Opportunities:

Pressure Ulcer Survey

Questions 1 & 2

All clinical staff within your facility should have identification, assessment, prevention, care and documentation of pressure ulcers identified as a part of their job duties. This would be noted as a true answer. If your facility's surveyed staff felt this statement was false, it may indicate an area your facility could focus on for additional training.

Non-clinical staff's answers may vary between True and False, however, if you have a high percentage of non-clinical staff who believe prevention is not part of their job duties, additional training would be indicated. It is important for all staff to recognize ways they can identify potential problems and inform the correct clinical staff. Your facility may want to provide educational interventions to staff, volunteers and families regarding:

- Your facility's overall pressure ulcer plan.
- The role each team member plays in pressure ulcer prevention, assessment and treatment.
- The role the family has in pressure ulcer prevention, assessment and treatment.
- Ongoing frequent education noting your facility's commitment to pressure ulcer prevention and treatment.

Questions 3

This question addresses documentation issues associated with pressure ulcers. All staff has the responsibility to note information that is identified as part of the general pressure ulcer plan of care. Your facility must identify how and where that information will be documented on the residents record. Non-clinical staff may answer false, but your facility will need to incorporate a method for those non-clinicians to report their observations as well ensuring this information is documented. Your facility may want to provide educational interventions to staff to include:

- Facility's documentation guidelines regarding pressure ulcers for all disciplines.
- Training on share work responsibilities regarding pressure ulcers between disciplines, i.e. activities staff must reposition resident while attending activities and document this for staff sharing, dietary staff must know the resident with a pressure ulcer cannot sit up to eat
- Identifying pressure ulcer tools to increase documentation consistency throughout the facility and within clinical staff, i.e. ulcer measurement guide, bedside turning schedule, staging guidelines, exudate documentation

Questions 4, 5, 6, 7, 8 and 12

This set of questions reference identified risk factors associated with pressure ulcers. These risk factors greatly increase the potential for any resident to develop a pressure ulcer. Immobility, poor nutritional and circulatory conditions are direct contributing factor to pressure ulcer formation.

If your facility's surveyed staff felt these statements are false, it may indicate that the pressure ulcer risk factors are not well known or their importance is not well understood. Your facility may want to identify if one group of employees or employees in general need information regarding risk factors and the role they play in pressure ulcer formation.

The facility may want to provide educational interventions to staff, volunteers and families regarding:

- What are the identified pressure ulcer risk factors?
- How do risk factors contribute to the formation of pressure ulcers?
- When are residents assessed for risk factors in your facility?
- What affect do risk factors have on the residents plan of care?
- Who is responsibility is identification and care planning for residents with identified risk factors?
- Why is this important?

Question 9

This question identifies a frequently noted misconception. Pressure ulcers are not part of the normal aging process, although loss of skin elasticity and thinning of the skin are normal with aging, pressure ulcer formation is not.

If this misconception is noted to be generally accepted in your survey results, as noted with a True answer, your facility would want to provide an intervention to educate staff, families and the community on what is considered part of the normal aging process. This information would include:

- Facts regarding the normal aging process.
- How the factors of the normal aging process contribute to the risk for pressure ulcer formation.
- What your facility is doing to address the care associated with the elderly, i.e. nutritional and activity programs, support groups, association with community support group.
- Your facility's efforts to communicate with other health care facilities that you have direct interaction with, i.e. referring hospitals, senior citizen groups, physician's offices, home health agencies.

Question 10

This question addresses the role that proper positioning has in the prevention of pressure ulcers. If the lower extremity were positioned with proper support to keep pressure off the heel, an ulcer due to pressure on the heel would be prevented.

If your facility's staff felt positioning did not contribute to pressure ulcer prevention, as noted with a false answer, your interventions may want to include the following information:

- Instruction and demonstration of basic positioning techniques.
- Your facility's plan of care addressing proper positioning and repositioning, i.e. turning schedule, pressure reduction techniques, devices available at your facility to reduce pressure load.
- Review of the etiology of pressure ulcer formation, i.e. prolonged pressure reducing the blood flow to the capillaries causing tissue damage.

Question 11

The development of a pressure ulcer is addressed in this question. Pressure ulcers do begin with a reddened area of the skin that does not disappear after the pressure is relieved. This is identified as a stage I pressure ulcer.

A response of false to this question may indicate that the staff at your facility does not have a good understanding of pressure ulcers. Educational intervention may include the following information:

- Provide all staff a common consistent definition of pressure ulcer, i.e. NPUAP is a widely accepted overall definition and staging guidelines.
- The facility's standard for description, measurement and evaluation of pressure ulcers.
- Consistent tools need to be provided and used consistently throughout the facility, i.e. measurement guide, staging guidelines, assessment scale.
- Review of the pressure ulcer plan of care.
- Outline of the potential causes of a pressure ulcer.

Question 13

This question identifies the misconception that a bed-ridden resident's pressure ulcer will require surgery to heal. The use of the newly developed and improved wound care products and pressure reduction devices have greatly increased the healing of pressure ulcers without surgical interventions.

If members of your staff noted this statement to be true it may indicate that the educational interventions need to focus on:

- Discussion and demonstration of the new pressure reduction products available to assist with wound healing.
- Review of the new products available for wound care and the appropriate clinical indications.
- Demonstrate how your facility has incorporated these products into your pressure ulcer plan of care.

Question 14

For your clinical staff that answered true to this question, further education and information regarding the reasons why pressure ulcers may occur would be indicated. If a high number of staff indicates they believe this to be true, additional training that emphasizes other factors involved may include:

- Non-compliance with pressure ulcer plan of care.
- Disease progression.
- Poor nutritional intake.
- Information regarding the pressure ulcer risk factors.

For non-clinical staff, additional information may include:

- General training regarding the etiology of pressure ulcers formation.
- The role of non-clinical staff in the prevention and assessment of pressure ulcers.
- A general review of the pressure ulcer risk factors and how they contribute to pressure ulcer formation.
- Information on their role in the care process as it relates to pressure ulcers. It is EVERYONE'S job to intervene in prevention. Activity directors, dietary and social workers have frequent opportunity to observe and interact with residents who are at risk for pressure ulcers or who have a pressure ulcer.

Question 15

If staff answered True to this statement, it is a good indicator that they understand the emotional impact a physical condition (such as pressure ulcers) can have on the resident's self-esteem. Pressure ulcers may limit the independence of the resident. They may also contribute to a resident feeling 'sick' and dependent on others for care. Additionally, many pressure ulcers occur in areas of the body that are emotionally uncomfortable for people to deal with, such as the buttocks. Dignity may be compromised if the resident feels embarrassed or ashamed over having a pressure ulcer. Family members may be angry at the facility or the resident and may verbalize their concerns. This could add to feelings of inadequacy the resident may already be experiencing.

If many of your facility's staff answered False, it would be important to educate both clinical and non-clinical staff as well as the families on the importance of understanding how pressure ulcers can effect the resident's psychosocial well-being as well as their physical discomfort.

Question 16

Pressure ulcers may occur on any part of the body that is exposed to unrelieved pressure that decreased the flow of blood a sufficient length of time to cause underlying tissue damage. A False answer to this question may indicate that your staff does not understand the etiology of a pressure ulcer. Although pressure ulcers generally are noted over boney prominences of the body, they can occur at any location where unrelieved pressure is noted. Educational intervention may include the following information:

- Provide all staff a common consistent definition of pressure ulcer, i.e. NPUAP is a widely accepted overall definition and staging guidelines.
- The importance of proper positioning and repositioning.
- The proper use of pressure reduction devices.
- Ongoing frequent education that pressure ulcer prevention and treatment is everyone's responsibility.

Question 17

If your facility's staff answers False, this may reflect the need to identify the important role the family has as part of the healing process. When the resident has a good relationship with their family and wants them involved the healing process is positively affected. Families should be an integral part of the plan of care, particularly with cognitively impaired residents or for those residents who do not choose to comply. Interventions would focus on helping family members understand:

- How and why pressure ulcers occur.
- How pressure ulcers are treated .
- The important role that families play in the pressure ulcer plan of care and how that will help their loved one.

If staff answers True, this would indicate they have a good understanding of the importance of the role that family members have in the healing process of not only pressure ulcers, but other issues as well.

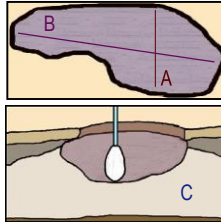
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Pressure ulcer documentation should include:

- Wound
 - Eschar
- Location
 - Exudate/ Drainage
- Stage
 - Amount
 - Color
 - Odor
- Size
 - Length
 - Width
 - Depth
- Tunneling/ Sinus Tract
 - Granulation
 - Description of Surrounding Tissue
- Undermining
 - Support Surface
- Necrotic Tissue
 - Slough

Note the following skin characteristics:

- Color
- Temperature
- Moles
- Bruises (M)
- Incisions
- Scars
- Intact
- Burns



MEASURING WOUNDS

Measure the length “head to toe” at the longest point (A) and the width at the widest point (B). Measure depth (C) at the deepest point of the wound. *All measurements should be in centimeters.*

Using a clock format, describe location and extent of tunneling (sinus tract) and/or undermining.

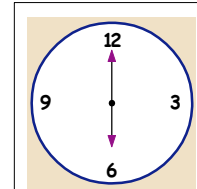
Tunneling/Sinus Tract

A narrow channel of passageway extending into healthy tissue.



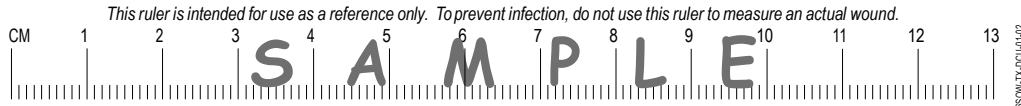
Undermining

Tunneling wound which begins directly under the wound edge.



The head of the patient is 12:00; the patient's foot is 6:00.

If the wound has many landmarks, you may want to trace it before measuring.



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Pressure Ulcers & How the CNA Can Help to Prevent Them

What is a pressure sore (also known as a decubitus ulcer)?

- A pressure sore is a wound that occurs from direct, prolonged pressure to any body part. Most sores occur along bony prominences such as heels, hips, shoulder blades, elbows and sacrum (tailbone).
- Direct pressure shuts down the blood flow, depriving the tissues of the nutrients that they need to live and cells actually die. This causes an initial reddening of the tissue, that is followed by necrosis, a dark, dusky color that turns to black as the deeper layers of skin and fat become involved and die.
- These wounds can be very painful if the patient has full sensation. However, with a lack of sensation, which is often the case, the patient does not feel the discomfort and thus, does not shift their body parts to relieve the pressure. Either way, it is an unpleasant situation for the patient and effects his or her quality of life, and oftentimes, longevity.

Who is at risk?

- Dependent patients (those who are bed-bound for whatever reason, or who are unable to move their legs while positioned in a wheel-chair).
- Highest risk would be those people with recent functional declines, especially those returning from the hospital after surgery with excessive weakness in their legs (example-a patient recently returned with a hip fracture and over one weekend developed a severe pressure sore on his heel).
- Patients with low body fat and very prominent hips, heels, tailbone and shoulder blades.
- Diabetic patients-lack of sensation, poor vascular flow and poor healing ability.

What can happen to a patient with a pressure sore?

- Extreme pain
- Inability to walk, causing further decline in function
- Surgical debridement and repair (very painful)
- Amputation
- Death

HOW YOU CAN HELP!!!!

The CNA spends the largest amount of time with the resident and has access to their skin more frequently than any other staff member. This means that your role as a caregiver is paramount in helping to protect skin integrity. You are an extremely valuable member of the healthcare team in helping to prevent pressure sores!!

What you can do:

- Always check the bulletin boards to find positioning information on patients who are at risk for pressure sores (new residents, those with recent health concerns, those returning from the hospital, recent falls).
- Always check skin when you bathe a resident (elbows, shoulder blades, tailbone, hips and heels). Look for red or darkened areas, any weeping areas; anything that looks questionable should be brought to the attention of the nurse on duty.
- For patients that you suspect might be having a hard time moving, or are showing signs of weakness, position heels so that they are off the bed (put a pillow under lower legs just above the ankle) or get a pair of pressure relief boots from the nurse.
- Avoid sliding patients' heels, hips, etc. across the bed. This causes a friction/shear force that can break down the tissues or open an existing sore. Try lifting the legs above the ankle and/or leave their soft-boots on as you move them from lying down to sitting on the edge of the bed.
- For hip concerns, roll the patient halfway on their own side, place pillows beneath the chux to help keep them in this position. Make sure that you roll them back no less than 2 hours later to their back. Put a pillow between their knees for comfort and further prevention of skin breakdown.

- If any portion of a wheelchair is pressing into a leg/foot, etc., bring it to rehab's attention right away, and go ahead and put a lambs wool, towel or piece of foam between the wheelchair and the patient (wrap it around the leg-rest, set their foot on it, etc.).
- STORY: A patient in a different nursing home was quite dependent and diabetic. She had been positioned in a wheel chair throughout most of her day and was wearing an old/worn out pair of shoes. One of her feet turned in with the area just under her small toe pressing directly down on the footrest. She had poor sensation. While the nursing staff did perform skin checks fairly consistently, over a weekend, she developed a dark area that eventually became necrotic, deepened, tunneled and as her family elected to forego an amputation, she eventually died from the wound. If an aide had consistently looked at her feet when the patient lay down, and quickly reported a suspect area, the woman might yet be alive. Simply changing the position of her foot on the footrest and relieving the pressure would have prevented this woman's death.

Your role is so important! You can help to save peoples' lives! Please help by regularly doing the following:

- Inspect skin regularly (especially the bony areas of heels, hips, shoulder blades, tailbone and elbows). Take a quick look when you lay someone down or have him or her in the bath. It takes only a minute. Report any suspect areas immediately to the nurse on duty.
- When transferring patients, avoid sliding their bottom, heels, hips across the bed. Use the chux to prevent skin from directly sliding on the sheets. Lift heels.
- Position patients for pressure relief when they cannot shift/roll, reposition by themselves.
- Read the bulletin board for any positioning instructions. For dependent patients, slightly elevate their heels with a pillow under their lower legs (clearing heels from pillow and bed) unless instructed otherwise. If you are working on the weekend and a patient has just returned from the hospital and you have lack of information on what to do, treat them as if they were at high risk for pressure sores – check skin frequently, position for pressure relief, change position every two hours (if they cannot do so independently).
- Help to keep patients skin dry – if they are incontinent, change them as soon as possible.
- Pay attention to the patients' position in their wheelchair. Are their legs/feet, etc. pressing firmly against any portion of the device?
- Listen to the patients: if they complain of their shoes hurting their feet, sore toes, sore hips, or you suspect any problems relating to possible skin breakdown, let the nurse on duty know.
- When in doubt, ask questions!!! We will be happy to instruct you or to obtain any materials necessary to prevent skin breakdown.

Successful Nursing Home Interventions to Prevent and Treat Pressure Ulcers

The following lists of nursing home interventions were reported to be successful by nursing home teams participating in the National Nursing Home Improvement Collaborative (NNHIC). The list is organized and influenced by the improvement strategies, change ideas, and measurement strategy found in the NNHIC framework. All of the examples below resulted from teams trying to implement the elements of the NNHIC framework in their own nursing home, usually after a focused period of trial and error that was necessary to successfully adapt change ideas to local circumstances.

Nursing Home Interventions to Increase Community Ties

- Establish blame-free peer to peer relationships with wound care staff in other healthcare facilities by
 - sharing educational events
 - participating in each other's wound rounds
 - conducting shared case reviews of inter-facility pressure ulcers
- Highlight pressure ulcer prevention and treatment in inter-facility transfer forms, including resident specific risk factors and interventions
- Offer feedback data to referring organization on the number and type of pressure ulcers admitted from that organization.
- Combine efforts to cooperate on pressure ulcers with other areas of common concerns, such as immunizations, restraints and transfer protocols.
- Utilize local QIO staff to serve as conveners and facilitators of inter-organizational efforts to coordinate and improve pressure ulcer care in a community. QIOs have working relationships with healthcare providers in acute care, outpatient clinics and home health as well as nursing homes.

Nursing Home Interventions to Increase Organizational Commitment

- Including non-clinical staff and departments in pressure ulcer task force not only added valuable insights and help to pressure ulcer programs, but improved staff job satisfaction. Many homes were surprised at the level of interest non-clinical staff had in contributing to clinical quality improvement.
- Many teams reported that organized, scheduled, inter-disciplinary wound rounds resulted in increased staff awareness of pressure ulcers and provided excellent opportunities for education and involvement of front-line staff. Some teams rotated in different CNAs to each weekly wound round to give more CNAs an opportunity for hands-on learning.
- Establishing designated wound care expert or experts within the facility increased the consistency and effectiveness of wound assessments and treatments. Alternatively, some homes contracted with outside Certified wound nurses to provide on-going consultation and training, especially for the more difficult to heal wounds.
- Many teams reported that pressure ulcer monitoring and treatment programs suffered when facility wound experts were unavailable for extended periods of time. Some teams addressed

the issue by training additional nursing staff in routine wound and risk assessments and by clarifying roles for routine wound care in the absence of facility wound expert. Other teams addressed the issue by compiling written protocols to be followed in the absence of designated wound care nurse.

- Establishing a CNA-run pressure ulcer task force empowered CNAs to contribute to quality improvement efforts. CNA initiative in improving care was reinforced when nursing and administrative staff honored CNA input and supported the testing of CNA suggested system changes. CNAs proved capable of conducting their own pressure ulcer task force meetings.
- Sponsoring a pressure ulcer poster contest among staff, residents, and volunteers produced useful posters for the facility and also provided a venue for teaching principles of pressure ulcer prevention and treatment.
- Some teams found that publicly posting facility and unit specific trends for the collaborative measures helped to heighten awareness of quality improvement efforts and motivated friendly inter-unit competition. Some teams used contests or games with rewards or prizes based on pressure ulcer outcomes to motivate staff.
- Several teams found a structured “root cause analysis” of facility acquired pressure ulcers greatly increased their understanding of system breakdowns and provided a rich basis for employee education.
- Making a facility wide list of pressure ulcer risk assessment scores helped identify units and residents in greatest need of preventive resources, such as specialized support surfaces or more frequent repositioning.
- Involving resident and family councils in pressure ulcer activities helped to enlist their active support of pressure ulcer reduction program. Once residents and families were educated regarding the principles of pressure ulcer prevention and treatment, they were able to reinforce community expectations for high quality care.
- Many teams found ways to incorporate pressure ulcer prevention training in their new employee orientation programs as well in annual skills evaluation for continuing employees.
- Simple multiple-choice or true/false tests helped to identify key pressure ulcer knowledge and skill deficits among all levels of staff, thereby helping to identify educational needs.

Nursing Home Interventions to Improve Assessment and Monitoring of Pressure Ulcers

- Establishing a system for CNAs to document and communicate to nurses the results of daily skin inspections helped reinforce inspection and reporting behaviors. Many teams used forms that CNAs would carry with them and fill out as the opportunity to inspect skin occurred during the course of daily care giving. The inspection and reporting behavior was reinforced if nurses acknowledged receiving the report and CNAs could see that reporting made a difference to resident care. In addition to the intrinsic rewards of contributing to improved resident care, many teams provided extrinsic rewards (such as gift certificates or other prizes) to CNAs who excelled in early detection of pressure ulcers or in performing daily skin inspections.
- Including pressure ulcer risk assessment tool in the admission (and re-admission) paperwork increased the likelihood that risk assessments were completed within one day of admission (or re-admission).
- Providing calculators to nurses made it easier for them to use the PUSH tool and increased the accuracy and reliability of the PUSH scores.

- Several teams reported that using PUSH scores to communicate to physicians helped the process of obtaining physician orders for changes in wound treatment for wounds that were not progressing towards healing.
- Pressure ulcer risk assessment scores were used to quickly identify all residents who needed enhanced pressure reducing support surfaces. Such screening resulted in identifying unmet support surface needs among high-risk residents.
- Braden Scale sub scores were compiled and analyzed for an entire facility and for residents with pressure ulcers. This helped to identify the most common risk factors and the risk factors most associated with pressure ulcers for that resident population.

Nursing Home Interventions to Improve Prevention and Treatment of Pressure Ulcers

- Establishing a visual cue (icon) at resident bedside helped staff to quickly indicate the types of preventive measures/equipment called for in the resident's care plan. Some teams also used icons to identify high-risk residents to help CNAs prioritize preventive interventions.
- Several teams reported that developing and implementing "interim" care plans for new admissions, based upon admission risk assessment, ensured that new admissions received appropriate preventive measures in the two weeks before a finalized care plan could be developed.
- Using soft foam covering to protect the ears of residents who use supplemental oxygen delivered by nasal cannula help prevent pressure ulcers on ears. The foam covering is applied to the oxygen tubing with double sided tape.
- Establishing a system to physically inspect and track the state of repair for support surfaces helped to identify ineffective support surfaces in need of replacement that otherwise would have remained in use beyond their effective life span. Several teams found it useful to establish a systematic schedule for support surface replacement, noting that most support surfaces have limited life spans, even under ideal conditions.
- Establishing a system for ensuring removable support surfaces are returned to the rightful place. One team borrowed the labeling system used in retail clothing stores to securely but unobtrusively attach identifying information to removable cushions.
- Reducing or eliminating the layers of incontinence pads used on beds improved the effectiveness of support surfaces and reduced exposure to pressure ridges caused by wrinkles. Working with CNAs to test alternatives to overuse of "pink pads", some teams eliminated the products from their inventories while other teams severely limited the supply of the products to prevent overuse.
- Several teams reported that ensuring the use of properly fitting adult briefs reduced pressure ulcers caused by ill-fitting briefs. To ensure proper fitting adult briefs for all their residents, teams found it necessary to actually measure residents (according to manufacturer's instructions) and to stock a full range of adult brief sizes.
- Several teams reported that disposable adult briefs worked better to wick moisture away from skin than cloth briefs. One team reported success using an "all night" disposable brief that protected resident skin from urinary incontinence without requiring disturbing the resident's sleep for linen or brief changes.

- Improving or maintaining the nutritional intake of at-risk residents was achieved through various approaches including:
 - Involving residents in cooking meals
 - Providing finger foods that are easier to eat
 - Making dessert-like “smoothies” or “milkshakes” readily available to supplement caloric and fluid intake. Dietary supplements that were sweet and in a thickened liquid form seem to be most popular with residents.
 - Using Braden nutritional subscale scores to trigger in-depth dietary assessments and interventions resulted in timely interventions to prevent weight loss after admission
 - Using a red napkin or some other highly visible cue such as a colored plate to identify for staff the residents at mealtime who are at risk for weight loss and therefore require additional dietary assistance.
 - Using simplified wound care formulary increased staff proficiency with the selected wound care products.
 - Several teams organized selected CNAs into designated “turning teams” whose sole purpose was to ensure that all residents on their assigned unit were repositioned in a timely manner on the day and evening shifts. By isolating the repositioning task and assigning it to a specialized team, the nursing home was able to assure timely repositioning for all at-risk residents without increasing the overall number of CNAs.
 - Several teams found low-friction repositioning sheets helped with minimizing shearing injuries associated with repositioning.

Related Links

The following is a short list of links to organizations and resources that may be helpful in your QI efforts.

To access a website listed- Hold down “control” key while clicking on organization’s name or web address.

Advancing Excellence in America's Nursing Homes Campaign

The Mission of the Advancing Excellence in America’s Nursing Homes Campaign is to help nursing homes achieve excellence in the quality of care and quality of life for the more than 1.5 million residents of America’s nursing homes. The Campaign works closely with other national nursing home quality initiatives to streamline efforts and to prevent duplication of efforts. National quality initiatives such as Quality First, the Nursing Home Quality Initiative, the Culture Change movement, the Quality Improvement Organization (QIO) Scope of Work complement one another. Working with one initiative will usually strengthen results and outcomes of the other.

Agency for Healthcare Research and Quality (AHRQ)

AHRQ is the Nation’s lead Federal agency for research on health care quality, costs, outcomes, and patient safety. They are the home to research centers that specialize in major areas of health care research. AHRQ’s mission is to improve the quality, safety, efficiency, and effectiveness of health care for all Americans.

American Health Quality Association (AHQA) Quality Improvement Organization (QIO) Locator

The American Health Quality Association (AHQA) represents Quality Improvement Organizations (QIOs) and professionals working to improve the quality of health care in communities across America. QIOs share information about best practices with physicians, hospitals, and nursing homes. Working together with health care providers, QIOs identify opportunities and provide assistance for improvement.

American College of Health Care Administrators (ACHCA)

ACHCA is a non-profit membership organization, which provides superior educational programming, certification in a variety of positions, and career development for its members. Guided by the vision that dynamic leadership forges long term health care services that are desired, meaningful, successful, and efficient, ACHCA identifies, recognizes, and supports long term care leaders, advocating for their mission and promoting excellence in their profession.

American Health Care Association (AHCA)

The American Health Care Association (AHCA) is a federation of state health organizations, together representing nearly 12,000 non-profit and for-profit assisted living, nursing facility, residential services for persons with mental retardation and developmental disabilities, and sub-acute care providers. AHCA represents the long-term care community to the nation at large - to government, business leaders, and the general public. It also serves as a force for change within the long-term care field, providing information, education, and administrative tools that enhance quality at every level.

American Medical Directors Association (AMDA)

The American Medical Directors Association is the professional association of medical directors and attending physicians practicing in the long term care continuum, dedicated to excellence in patient care by providing education, advocacy, information, and professional development.

American Nurses Association (ANA)

The American Nurses Association is a professional organization representing 2.7 million registered nurses (RNs) through its 54 constituent member associations. The ANA advances the nursing profession by fostering high standards of nursing practice, promoting the economic and general welfare of nurses in the workplace, projecting a positive and realistic view of nursing, and by lobbying the Congress and regulatory agencies on health care issues affecting nurses and the public.

Related Links

Association for the Advancement of Wound Care (AAWC) -- www.aawconline.org

The Association for the Advancement of Wound Care (AAWC) exists to be the leader in interdisciplinary wound healing and tissue preservation. The website contains professional and patient/caregiver resources for both members and non-members.

The Association for Professionals in Infection Control and Epidemiology (APIC) – www.apic.org

The Association for Professionals in Infection Control and Epidemiology (APIC) is the leading professional association for infection Preventionist (IPs) with more than 14,000 members. [Our mission](#) is to create a safer world through the prevention of infection. This is achieved by the provision of better care to promote better health at a lower cost.

The Centers for Disease Control and Prevention (CDC) – www.cdc.gov

The CDC is a United States federal agency under the Department of Health and Human Services and is one of the major operating components of the Department. The web site has a wealth of information about disease prevention and infection control. This link below will take you to the information about prevention of Catheter Related Urinary Tract Infections (CAUTI) – http://www.cdc.gov/hicpac/cauti/002_cauti_toc.html

[Centers for Medicare & Medicaid Services](#)

The Centers for Medicare & Medicaid Services (CMS) administers the Medicare program and works in partnership with the States to administer Medicaid, the State Children's Health Insurance Program, and health insurance portability standards. In addition to these programs, CMS has other responsibilities, including the administrative simplifications standards from the Health Insurance Portability and Accountability Act of 1996, quality standards in health care facilities through its survey and certification activity, and clinical laboratory quality standards.

[Culture Change Now](#) and [Action Pact, Inc.](#)

Action Pact, Inc. is a company of consultants and trainers who provide nursing homes with practical education, products, services, and training materials on Culture Change. The website and magazine for Action Pact, Inc. is titled 'Culture Change Now.'

Department of Aging & Disability Services (DADS) Texas-

<http://www.dads.state.tx.us/qualitymatters/qcp/fall/nf.html>

Fall prevention and management for nursing homes Quality Assurance and Improvement staff has assembled evidence-based practice information, educational tools and other information regarding fall prevention and management for use by health care providers and staff, individuals served and their families.

[Eden Alternative](#)

The Eden Alternative is a movement dedicated to changing nursing homes by focusing on an elder-centered community, and by altering the environment with plants, and increased human and animal companionship. The Eden Alternative believes through altering the nursing home environment, the issues of loneliness, helplessness, and boredom will be alleviated for the elders.

Geriatric Programs

<http://geri-ed.umaryland.edu/vpress/index.html>

The Geri-Ed Programs at the University of Maryland Baltimore web site provides geriatric web based educational materials including Medication management in assisted living facilities, delirium: a sudden change in mental status, Video Press geriatric education film productions and valuable resources on clinical interventions.

Related Links

IHI Improvement Map

The IHI Improvement Map is a free, interactive, web-based tool designed to bring together the best knowledge available on the key process improvements that lead to exceptional patient care. The Improvement Map aims to help you to; make care safer, make patient care transitions smoother, lead improvement efforts effectively, and reduce costs and increase quality.

INTERACT Tools-<http://www.interact2.net/index.aspx>

INTERACT (Interventions to Reduce Acute Care Transfers) is a quality improvement program that focuses on the management of acute change in resident condition. It includes clinical and educational tools and strategies for use in every day practice in long-term care facilities

IOWA Geriatric Education Center <https://www.healthcare.uiowa.edu/IGEC/IAAdapt/>

This website includes information and resources to help clinicians, providers, and consumers better understand how to manage problem behaviors and psychosis in people with dementia using evidence-based approaches. This includes brief lectures, written content, quick reference guides for clinicians and providers, and information for families or patients on the risks and benefits of antipsychotics for people with dementia (a.k.a. Alzheimer's disease and others).

National Gerontological Nurses Association (NGNA)

The National Gerontological Nurses Association (NGNA) was founded in 1984 and is dedicated to the clinical care of older adults across diverse care settings. Members include clinicians, educators, and researchers with vastly different educational preparation, clinical roles, and interest in practice issues. Members of the National Gerontological Nursing Association (NGNA) work in the following roles: Staff Nurse, Clinical Nurse Specialist Manager, Administrator, Clinical Educator, Academic Educator, Nurse Practitioner, and Researcher.

National Association Directors of Nursing Administration in Long Term Care (NADONA)

The National Association Directors of Nursing Administration in Long Term Care represents over 6,000 members. It is the largest educational organization committed exclusively to nursing and administration professional in the Long Term Care and Assisted Living professions.

National Pressure Ulcer Advisory Panel (NPUAP) – www.npuap.org

The National Pressure Ulcer Advisory Panel (NPUAP) is an independent not-for-profit professional organization dedicated to the prevention and management of pressure ulcers. The website has information about pressure ulcer identification, documentation and treatment. Including the "Pressure Ulcer Prevention & Treatment Clinical Practice Guidelines".

Nursing Home Compare

The primary purpose of this tool is to provide detailed information about the past performance of every Medicare and Medicaid certified nursing home in the country. Important Information on Nursing Home Compare and other resources, including the Guide to Choosing a Nursing Home, and Nursing Home Checklist are also available to help you with your nursing home choice. Use these tools, along with the information you gather during your visits to the nursing homes you are interested in to make your best choice.

Pioneer Network

The Pioneer Network is a network of people dedicated to transforming nursing homes from institutions into communities through Culture Change. This grassroots movement is focused on supporting elders and those who care for them by collectively implementing Culture Change and altering the culture of aging in America.

Related Links

Prevention Plus— www.bradenscale.com

Prevention Plus provides services and products related to the **Braden Scale for Predicting Pressure Sore Risk**® and evidence-based programs of pressure ulcer prevention.

Video Press <http://www.videopress.umaryland.edu/>

Video Press has over 20 years' experience in producing videos for training health professionals. Recognized as a leader in elder care video production and distribution provides educational and training programming distributed by Video Press and produced by MedSchool Maryland Production.

Wound, Ostomy and Continence Nurses Society (WOCN) – www.wocn.org

The Wound, Ostomy and Continence Nurses Society (WOCN®) is a professional nursing society, which supports its members by promoting educational, clinical, and research opportunities to advance the practice and guide the delivery of expert health care to individuals with wound, ostomy and continence concerns. Part of the web site is only accessible by members however, educational resources, information and links related to wound care are available for non-members.

Wound Care Education Institute (WCEI) – www.wcei.net

The Wound Care Education Institute® (WCEI®) provides comprehensive training programs at multiple locations throughout the U.S. in the fields of Skin and Wound Management, Diabetic Wound Management and Ostomy Management. Most courses are also made available in a self-paced computer based module.

The Wound Institute – www.thewoundinstitute.com

The Wound Institute offers comprehensive wound care education programs for healthcare providers. Specifically designed to meet the needs of today's fast-paced healthcare professional, the wound care education programs feature easy to use interactive modules which can be accessed safely over our secure online network. Our advanced wound care education programs are offered in both accredited and non-accredited modules and our resource center features presentations, articles, training materials, and wound photos. Accessing The Wound Institute online education is simple. Click on the registration button below, enter your desired username and password, registration information and in less than a minute you are ready to select the wound care education that best suits your needs.

