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CNA TRAINING ADVISOR From HCPro

Pressure ulcers

When it comes to resident safety, pressure ulcers are a critical area of concern. A pressure ulcer is a lesion on the skin caused by unrelieved pressure. That pressure damages the skin and underlying tissue, preventing blood vessels from delivering nutrients and oxygen to the skin and tissue. Deprived of those necessities, the skin and tissue die.

Pressure ulcers and other skin conditions can cause extreme discomfort and pain. It's important for CNAs to be aware of the dangers of pressure ulcers and to know how to recognize residents who are at a high risk of developing one.

This issue will explain how to **monitor and reposition residents** to prevent pressure ulcers and subsequent infections. It will also cover **wound evaluation** based on shape, smell, color, and other characteristics. In addition, this issue will address the best practices for **pressure ulcer care.**

Have a good day of training, and stay tuned for next month's issue of **CNA Training Advisor,** which will cover incontinence.

Did you know?

The largest organ in the human body is the skin. Though often overlooked because it's not an internal organ, our skin is very complex. Ask your CNAs what they know about skin structure and skin conditions. Are they aware of the importance of skin care, especially when it comes to older residents?

PROGRAM PREP

Program time

Approximately 30 minutes

Learning objectives

Participants in this activity will learn how to:

- Recognize high-risk residents
- Prevent pressure ulcers through repositioning
- Evaluate wounds and provide care with an understanding of skin structure

Preparation

- Review the material on pp. 2–4
- Duplicate the **CNA Professor** insert for participants
- Gather equipment for participants (e.g., an attendance sheet, pencils, etc.)

Method

1. Place a copy of **CNA Professor** and a pencil at each participant's seat
2. Conduct the questionnaire as a pretest or, if participants' reading skills are limited, as an oral posttest
3. Present the program material
4. Review the questionnaire
5. Discuss the answers

Tips and tools for CNA training

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PRESSURE ULCERS

The skin controls the body's temperature by releasing heat through sweat and constricting and expanding surface blood vessels to insulate or cool the body. It also protects against injury and disease. The skin covers and pads the body's muscles and bones and forms a barrier against harmful organisms and infection.

The skin's nerve endings make the skin sensitive to pressure, pleasure, pain, and temperature. The skin cares for itself by creating vitamin D, which is produced when sunlight comes into contact with the skin, and it warns of diseases by changing color, temperature, or level of moistness.

The thin surface layer of the skin is called the epidermis, and the thickest layer underneath the surface is called the dermis. The dermis contains:

- Blood vessels (carry oxygenated blood through the body)
- Nerves (carry sensations to and from the brain)
- Oil glands (secrete a lubricating fluid)
- Sweat glands (separate waste products from the blood and secrete them as sweat)
- Hair follicles (the root of hair growth)

There is a layer of fatty tissue located under the dermis. Although it's not part of the skin, the tissue provides insulation to keep in heat and serves as a protective layer of padding to prevent injury to bones and muscles.

As the body ages, the skin and fatty tissue layer become thinner and less elastic. The oil glands produce less oil, often leaving the skin dry. Blood vessel walls get thinner and more delicate. Circulation of the blood slows at this stage, resulting in the skin receiving less oxygen and nutrition from the blood, which causes it to become poorly nourished and fragile. As a whole, these changes leave many residents more susceptible to pressure ulcers.

Pressure ulcer prevention

Nursing staff are required to actively prevent the development of pressure ulcers. The first step in prevention is identifying common risk factors, which include:

- Comatose or semi-comatose residents
- Urinary incontinence
- Bowel incontinence
- Malnutrition and dehydration
- Vascular diseases
- Diabetes
- Severe chronic obstructive pulmonary disease
- Terminal cancer
- Chronic or end-stage renal, liver, or heart disease

Some pressure ulcer prevention methods are logical. For example, if you know a resident is incontinent, change his or her clothes frequently, and when a resident has an incontinent episode, cleanse his or her skin immediately.

Some parts of the body are more susceptible to pressure ulcers than others. Pressure ulcers tend to develop on bony prominences (e.g., hips, heels, buttocks, calves, and elbows).

Always check with your nurse supervisor to discuss possible risk factors and conditions that might make a resident susceptible to pressure ulcers.

Another way to help prevent pressure ulcers from forming is to reposition residents. Because ulcers tend to form over bony prominences,

Pressure ulcer stages defined

CNAs should be able to identify pressure ulcers based on the ulcer's stage. Pressure ulcers are described primarily by their physical condition. The *RAI User's Manual*, Version 3.0, defines four specific pressure ulcer stages. Those definitions, which apply to documentation in the MDS 3.0 to be implemented October 1, 2010, are as follows:

- **Stage I pressure ulcer:** An observable, pressure-related alteration of intact skin, whose indicators as compared to an adjacent or opposite area on the body may include changes in one or more of the following parameters: skin temperature (warmth or coolness); tissue consistency (firm or boggy); sensation (pain or itching); and/or a defined area of persistent redness in lightly pigmented skin. In darker skin tones, the ulcer may appear with persistent red, blue, or purple hues.
- **Stage II pressure ulcer:** Partial-thickness loss of dermis presenting as a shallow open ulcer with a red-pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled blister.
- **Stage III pressure ulcer:** Full-thickness skin loss involving damage to, or necrosis of, subcutaneous tissue that may extend down to, but not through, underlying fascia. The ulcer presents clinically as a deep crater with or without undermining of adjacent tissue.
- **Stage IV pressure ulcer:** Full-thickness skin loss with extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structures (e.g., tendon or joint capsule). Undermining and tunneling also may be associated with stage IV pressure ulcers.

Source: RAI User's Manual, *Version 3.0, pp. M-7 through M-11.*

you should frequently reposition at-risk residents, especially if they are lying or sitting for an extended period of time.

If residents can change position without assistance, remind them of how important it is to do so and monitor how frequently they reposition. If residents are able to walk, encourage them to do so several times per day. If a resident cannot move him- or herself, ensure that there is a note in the resident's care plan stating that staff need to reposition him or her frequently.

Observe the resident's movement and position. For example, if the resident's knees are in direct contact with one another, place a foam pad between the legs to prevent bone-to-bone contact.

Remember that momentary pressure relief followed by a return to the same position does not prevent pressure ulcers. This is because momentary relief doesn't allow the capillaries to refill with blood.

Apply moisturizers regularly. Whenever possible, apply them after a resident has bathed to trap water in the epidermis. Avoid putting lotion on bony prominences and reddened areas as it can irritate the skin.

Always make sure each resident receives the food and liquid he or she needs and give the resident the highest-caloric foods at the beginning of every meal. Keep the resident's bed free of crumbs and wrinkles, both of which can irritate the skin.

Nurse assessment

Despite providing the best possible prevention efforts, residents still occasionally develop pressure ulcers. If a pressure ulcer develops, CMS requires that a nurse:

- Determine the pressure ulcer's stage
- Describe and monitor the ulcer's characteristics
- Monitor the healing progress
- Determine whether infection is present
- Assess, treat, and monitor pain
- Monitor dressings and treatments

As part of the overall evaluation, nurses should:

- Note the pressure ulcer's location. Describe in detail the joints or prominences on which the ulcer appears.
- Measure the pressure ulcer for length, width, and depth. Measurements are important because they help determine the status of the wound and, therefore, how the nurse should treat the ulcer.
- Ask about pain each day. Ask how intense and frequent the pain is.
- Look for exudate. Exudate is the fluid that builds up in a pressure ulcer, and it can sometimes be helpful in healing the wound.
- Examine and evaluate the wound bed. Note the color of the wound. Ulcers should heal from the bottom up, and to do so, the wound bed must be clean and free from infection. The granulation tissue is the pinkish, living tissue that fills a pressure ulcer when it starts to heal.
- Look for slough and eschar, which are types of dead necrotic tissue. Eschar is thick-looking black tissue, and slough is yellowish.

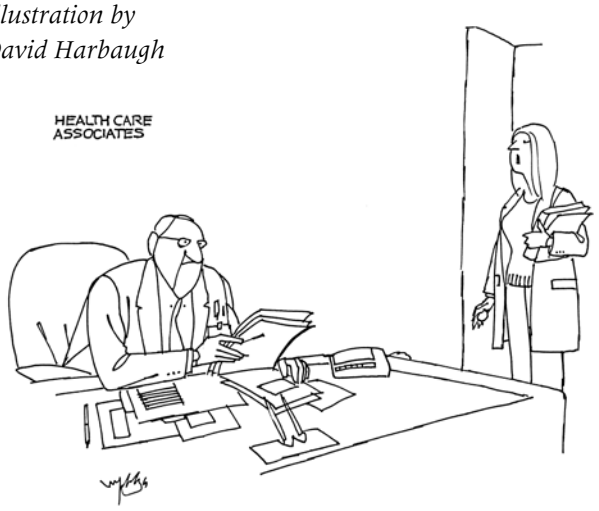
Infection is a major problem that must not be overlooked because pressure ulcers are open wounds. An infected pressure ulcer may have increased swelling, pus, and excessive drainage. Other signs of infection include fever, increased pain, or a change in odor. Just because these signs are absent doesn't mean there is no infection present. Infected pressure ulcers can be deadly, so careful monitoring is critical.

Dressing and treatments

Pressure ulcer treatment can be a complex process, and a nurse will need to individualize treatment plans based on the needs of the resident and the stage of the wound. For all stages of pressure ulcers, the most important thing that CNAs should assist with is keeping pressure off the sore.

It is also important to help the resident maintain good hygiene. Help him or her wash with very mild soap or lotions and water. While a wound heals, the sore will get smaller and pink tissue will start to form around its edges. Report any unusual changes in the wound, such as an increase in drainage, increased redness around the sore, or the formation of black areas around the wound.

Illustration by David Harbaugh



"I'd like to announce the arrival of an unannounced survey and the unannounced departure of your medical staff."

When caring for residents' skin, CNAs should follow a number of guidelines, including:

- Keep residents' skin clean by patting the skin, not rubbing it, when washing or drying.
- Ensure that residents' skin is lubricated. Use lotions liberally.
- Keep residents' skin creases and folds dry.
- Make sure residents' clothes and bedding are dry.
- Ensure that residents eat nutritious food and drink lots of water. Water is very good for the skin.
- Don't disturb residents' moles.
- Massage residents' skin, but avoid bony projections and irritated areas. Massage around these areas.
- Ensure that residents use chair cushions.
- Inspect residents' skin daily for redness, tears, blisters, scrapes, or irritated areas.
- Report any problems to a nurse or doctor. ■

Pressure ulcer prevalence

According to the National Center for Health Statistics' 2004 National Nursing Home Survey, roughly 159,000 nursing home residents—11% of the U.S. nursing home population—suffered from pressure ulcers. Among those individuals, stage II pressure ulcers were the most common (5%), and stage III ulcers were the least common (1%).

The survey also found that pressure ulcer prevalence varied by age and gender. Men were affected slightly more often than women. The duration of residents' stay in a nursing home also played a role. Residents in their first year were far more likely to have pressure ulcers than residents who had been at a facility for a longer period of time.

In addition, pressure ulcer frequency seemed to be affected by weight, as one in five residents who recently lost weight developed pressure ulcers. Pressure ulcers were much more prevalent in high-immobility residents (16%) than mobile residents (5%). Recent bowel or bladder incontinence also resulted in more pressure ulcer occurrences, the survey determined.

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CNA PROFESSOR From HCPro

PRESSURE ULCERS

Mark the correct response.

Name: Date:

1. The skin's _____ make it sensitive to pressure, pleasure, pain, and temperature.
- a. sweat glands
- b. oil glands
- c. hair follicles
- d. nerve endings

2. The thickest layer of skin underneath the surface is called the dermis, which contains blood vessels and nerves.
- a. True
- b. False

3. Residents who suffer from _____ are at a higher risk of developing a pressure ulcer.
- a. incontinence
- b. vascular diseases
- c. diabetes
- d. all of the above

4. Pressure ulcers tend to develop on _____.
- a. extremities
- b. bony prominences
- c. both a & b
- d. none of the above

5. Returning residents to their original position after momentary pressure relief is enough to prevent pressure ulcers from forming.
- a. True
- b. False

6. _____ is the fluid that builds up in a pressure ulcer; it can sometimes be helpful in healing the wound.
- a. Slough
- b. Eschar
- c. Exudate
- d. Granulation tissue

7. Pressure ulcers should heal from the bottom up, and to do so, the wound bed must be clean and free from infection.
- a. True
- b. False

8. An infected pressure ulcer will likely have at least one of the following except _____.
- a. increased swelling
- b. pus
- c. excessive drainage
- d. granulation tissue

9. When washing or drying residents' skin, CNAs should rub the skin, not pat it.
- a. True
- b. False

10. A _____ pressure ulcer is described by the *RAI User's Manual,* Version 3.0, as full-thickness skin loss involving damage to, or necrosis of, subcutaneous tissue that may extend down to, but not through, underlying fascia.
- a. stage I
- b. stage II
- c. stage III
- d. stage IV