

### A CLIENT CARE MODULE: PREVENTING PRESSURE ULCERS



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A Client Care Module: PREVENTING PRESSURE ULCERS

### **Instructions for the Learner**

If you are studying the inservice on your own, please do the following:

- Read through **all** the material. You may find it useful to have a highlighting marker nearby as you read. Highlight any information that is new to you or that you feel is especially important.
- If you have questions about anything you read, please ask your supervisor.
- Take the quiz. Think about each statement and pick the best answer.
- Check with your supervisor for the right answers. You need <u>8</u>
  <u>correct</u> to pass!
- Print your name, write in the date, and then sign your name.
- Email In the Know at <u>feedback@knowingmore.com</u> with your comments and/or suggestions for improving this inservice.





We hope you enjoy this inservice, prepared by registered nurses especially for caregivers like you!

After finishing this inservice, you will be able to:

Name at least four symptoms of a pressure ulcer.

\*

Discuss a minimum of five ways of preventing pressure ulcers.

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List the stages of pressure ulcer development.

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Discuss at least five factors that make a client at risk for developing an ulcer.

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Explain at least three ways that pressure ulcers are treated.



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**December 31, 2022.** After that date, you may purchase a current copy of the materials by calling 877-809-5515.

### A Client Care Module: Preventing Pressure Ulcers

### WHAT HAPPENED TO JOAN?

You are caring for Joan, a 78 year old widow who, until just a few months ago, lived at home alone. She was healthy, active and always had a sharp mind.

But, two months ago Joan had a stroke and ended up in the hospital. The plan was to place Joan in a nursing home for rehabilitation and then, as soon as possible, bring her home with the help of a home health nurse.

You watch Joan make good progress but she still needs a lot of help moving and walking. To make matters worse, she has a poor appetite and only eats about 25 percent of each meal.

During a bath, you notice a reddish, purple, bruise-like area at the base of Joan's spine, just above her buttocks. You enter the information in the chart, but... because you are busy... forget to verbally pass the information on to the nurse and to the next shift.

The following day, you are reassigned to another hall and don't see Joan again for three weeks. Unfortunately, by then, Joan is being treated for a stage 3 pressure ulcer that is infected. Joan is getting the best treatment possible, but because she is weak from the stroke and still not eating well, the treatments are not working.

The infection finds its way into Joan's bloodstream and just 83 days after her stroke, Joan dies from complications of a pressure ulcer.

Pressure ulcers, also known as pressure sores, bed sores, and decubitus ulcers are a serious cause for concern.

### A pressure ulcer is any injury to the skin caused by unrelieved pressure.

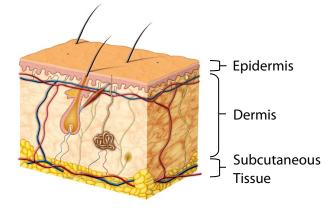
#### Here are some facts:

- Nearly 1 million people develop pressure ulcers each year.
- Treatment costs exceed \$1.3 billion annually.
- Complications resulting from pressure ulcers include extreme pain and suffering, delayed recovery from other conditions, infection, and death.



Keep reading to learn more about the skin, the stages of a pressure ulcer, who is at risk, and your important role in the prevention of pressure ulcers!

### THE ANATOMY OF PRESSURE ULCERS



### THE LAYERS OF SKIN

**THE EPIDERMIS:** This is the outside layer of skin that we can see and touch. It is made up of dead cells. That doesn't sound very appealing, does it? But, those dead cells serve a very important purpose: they protect the delicate layers of skin underneath. The dead cells shed, or fall off and are replaced by "new" cells that are pushed up from below.

The epidermis is the layer that gives skin its color. Special cells called melanocytes produce the pigment known as melanin. Melanin protects the skin from UV light.

**THE DERMIS:** The next layer of skin is called the dermis. It is thicker than the first layer and is very elastic, giving us the ability to stretch and move. The dermis contains sweat glands, hair follicles and nerve endings.

**SUBCUTANEOUS TISSUE:** The bottom layer of the skin is known as subcutaneous tissue. It is comprised mostly of fat... which helps keep the body cool in the summer and warm in the winter. Fat also cushions the body and stores extra fuel.

#### HOW A PRESSURE ULCER DEVELOPS

- 1. The person becomes *immobile*, lacks accurate perception of pain and may have other health issues such as poor nutrition, poor circulation, diabetes, dementia or fragile, thin skin.
- When left in the same position for a long period of time, *pressure* from the weight of the body *pinches* an area of skin between a bone and the surface the person is resting upon.
- 3. Blood vessels within the skin become blocked, *shutting off blood flow to the area*. Where there is no blood—there is no oxygen. Where there is no oxygen—tissue death occurs.
- 4. The area becomes whitish and cold. It may tingle or itch.
- 5. If the pressure is not relieved, the area will turn red and may even look bruised. The skin may feel cold or hot.
- 6. The area may begin to look swollen or a blister may form.
- 7. Without treatment at this point . . . the skin will begin to *die* and the pressure ulcer will rapidly progress.
- 8. The area of damage becomes an **open wound** that progressively gets deeper as it damages the dermis, the epidermis, and the subcutaneous tissue.
- 9. Eventually, damage to muscle, bone and other structures, such as tendons and joints, will occur.
- 10. All open wounds carry bacteria . . . so in due course, without intervention, the wound will become infected.



Grab your favorite highlighter! As you read through this inservice, **highlight five things** you learn that you didn't know before. Share this new information with your supervisor and co-workers!



### THE STAGES OF A PRESSURE ULCER

**STAGE I:** The affected area is red and tender to the touch, but the skin is <u>not</u> broken.

#### How you can help:

- Report your observation to the nurse or supervisor immediately.
- Do not rub or massage. Pat dry after baths.
- Position the person so that pressure on the area is redistributed.

**STAGE II:** The skin over a bony area has shallow open wound that is red or pink inside. It may appear shiny (wet) or dry. Or, there may be an unbroken fluid filled blister.

### How you can help:

- Continue the suggestions for Stage I.
- Keep the person **off** the area at all times.
- Watch for signs of infection. (See page 4.)

**STAGE III:** The area begins to look like a crater. The ulcer will extend deeper into the skin.

### How you can help:

- Continue all previous suggestions.
- Report any problems you notice with the dressings or bandages that have been placed on the wound.

**STAGE IV:** If a pressure ulcer reaches the fourth stage, the wound extends into the muscle and perhaps even the bone. There is usually a great deal of dead tissue and drainage visible.

### How you can help:

- Continue all previous suggestions.
- Keep in mind that the healing process may be very slow.



#### ASSESSING CLIENTS WITH DARK SKIN

Early detection is critical in order to stop the damage caused by a pressure ulcer and to begin healing. But, pressure ulcers can be difficult to detect in people with dark skin.

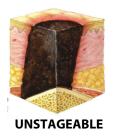
Here are a few tips for detecting a pressure ulcer in a dark skinned client:

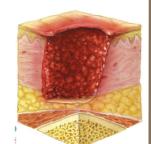
- Look for any change in color, such as skin that is purplish, brownish or bluish in comparison to the skin that surrounds it.
- Use natural light when possible.
  Fluorescent lights make things appear blue—making assessment difficult.
- Use your hands to feel for a change in the temperature over the skin. It may feel cooler or warmer over an area of damage.
- Ask the client if he is having and pain, itching, tingling or numbness over an area where you suspect a pressure ulcer may be developing.

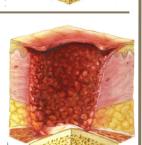


### **ADDITIONAL STAGING CATEGORIES**

- **SUSPECTED DEEP TISSUE INJURY:** An area of unbroken skin that is purple or maroon—or a blood-filled blister—may indicate damage that is deep under the skin.
- **UN-STAGEABLE:** Pressure sores are un-stageable when there is a layer of dead tissue (can be yellow, tan, gray, green or brown or black) inside the wound.







### WHO IS AT RISK OF DEVELOPING PRESSURE ULCERS?

### YOUR CLIENTS ARE AT RISK FOR DEVELOPING A PRESSURE ULCER IF THEY:

- Are elderly (since age makes the skin more likely to tear or break down).
- Do not eat the recommended amount of minerals, proteins and vitamins.
- Are very heavy... or very thin. (Both body types are equally at risk for pressure ulcers.)
- Are normally active, but come down with an illness that keeps them in bed.
- Spend the majority of their time in a bed or a wheelchair.
- Have injured their spinal cords. (According to the *Spinal Cord Injury Information Network*, around 80% of clients with spinal cord injuries will have a pressure ulcer during their lifespan.)
- Have nerve damage in certain areas of the body. (If they can't feel pain, they might not realize they are developing a pressure ulcer.)
- Lay on wrinkled linens for hours at a time.
- Are incontinent of bowel and/or bladder (creating a moist, bacteria-filled environment).
- Are diabetic. (Diabetes can decrease the flow of blood throughout the body, allowing pressure ulcers to develop quickly.)
- Are mentally impaired. (Clients with diminished mental awareness may not understand the dangers of a pressure ulcer.

### WHERE DO PRESSURE ULCERS USUALLY DEVELOP?

Tailbóne

Elbows

- Pressure sores can form wherever a bony part of the body presses against other body parts, or a firm surface.
- Friction can also cause a pressure ulcer if the skin rubs against a surface repeatedly.
- Ninety percent of pressure ulcers occur below the waist, with most occurring

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Heels

on the buttocks or hips.

- Heels, ankles, hips, shoulder blades, elbows, knees, back of the head and the spine are all prone to pressure ulcers.
- People who cannot change positions themselves can get a pressure ulcer in as little as two hours!
- A pressure ulcer on the hip takes longer to
  - heal than a routine hip replacement shoulder Back of blades



#### AGE RELATED CHANGES

There are normal changes that happen to the skin as we age. These changes put elderly people at an increased risk of developing wounds such as pressure ulcers and skin tears.

In addition, your elderly clients with wounds may be slower to heal and more prone to infection.

# Some normal and unavoidable age related changes that take place include:

- Skin becomes thin and fragile.
- There is a loss of the subcutaneous layer of skin (the fatty cushion between the skin and the muscles).
- Oil and sweat secretion slows, leaving the skin dry and itchy.
- Nerve endings become less sensitive, making it difficult to sense heat, cold and pain.
- The immune system weakens, making it harder to fight off common infections.

A study in the United Kingdom revealed that nearly all clients suffering from pressure ulcers had three common complaints:

- Endless pain.
- Restrictions on their activities.
- Depression.

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### WHAT ARE YOU LOOKING FOR?

Skin can become temporarily red or blotchy from pressure or rubbing. This type of redness usually disappears within thirty minutes, once the pressure has been removed. However, if skin remains reddened for longer than thirty minutes, it is probable that a pressure ulcer has started to develop.

### IN ADDITION TO REDNESS, THE SYMPTOMS OF A PRESSURE ULCER INCLUDE:

- Skin that looks irritated and causes discomfort.
- Skin that is tender to the touch.
- Temperature change. (If you notice a spot on your client's body that is warmer or cooler than the surrounding skin, a pressure ulcer may be developing.)
- A change in skin color. (At first, the affected skin may turn white, but as the pressure ulcer develops, the skin will darken. On lighter skinned people, the sore will most likely turn purple or red. On darker skinned clients, the sore may look deep purple or black.)
- Keep a close eye on the condition of each client's skin. The quicker a pressure ulcer is treated, the more likely it is to heal! (And, remember... untreated pressure ulcers can lead to long hospitalizations, amputations and even death.)

### THE "HAND CHECK"

Whether your client has a special bed, mattress, mattress overlay or seat cushion... these support surfaces are intended to *reduce* and *redistribute* pressure.

Here is a simple test to understand if these surfaces are doing their job properly:

- First, place your hand directly beneath a pressure point, but <u>underneath</u> the surface that is supporting your client.
- Make sure your fingers are flat and your palm is facing upward.
- Check the distance between the pressure point of your client's body and your hand.
- If there is less than one inch of support between the pressure point and your hand, then your client is *not* getting the proper amount of support.

-Adapted from www.spinalcord.org



WHAT ARE THE SIGNS & SYMPTOMS OF INFECTION?

Report any of the following signs to the nurse right away! An infection may be developing . . . but your quick action will lead to the treatment that saves your client's life!

- Redness
- Swelling
- Throbbing pain or tenderness
- Skin around the area is 
  warm to touch
- Pus or watery drainage
- A red line is streaking away from the wound
- Foul odor
  - the area is Fever or chills ich

- Confusion or excessive tiredness
- Swollen bumps in armpit, neck or groin
- Low BP, or fast pulse

### HOW ARE PRESSURE ULCERS TREATED?

Most stage I and stage II pressure ulcers will heal within a few weeks with minimal intervention. Stage III and stage IV wounds may require surgery. *But, no matter what the stage, all treatment will include:* 

- **FREQUENT POSITION CHANGES:** Clients should be encouraged to shift positions every 15 minutes in a wheelchair and every two hours in bed. You are responsible for repositioning those clients who cannot move without help.
- **PRESSURE REDISTRIBUTING DEVICES:** Special beds, mattresses, seat cushions, elbow and heel pads, or specially designed shoes can help to minimize or eliminate pressure from bony areas and existing sores.
- **CLEANING:** It's essential to keep wounds clean to prevent infection.
- **GOOD NUTRITION:** Serious or chronic pressure ulcers will heal better if the person eats extra protein (to help build new tissue), extra calories (for energy) and plenty of fresh fruit and water.
- **PHYSICAL ACTIVITY:** Exercise improves circulation—and, good circulation means more oxygen! Wounds heal better when they have a good supply of oxygen.

Depending on the stage of the pressure ulcer, the location, and other health factors the client may have, other treatments may include:

- **DEBRIDEMENT:** For a wound to heal properly, it must be free of damaged, dead or infected tissue. Debridement is the removal of this dead tissue either by surgery, high pressure water spray, or by applying a topical enzyme that breaks down the tissue.
- **DRESSINGS:** Dressings are used to protect the wound, keep it moist, absorb drainage and speed healing.
- WHIRLPOOL THERAPY: Taking a whirlpool bath once or twice a day may help a wound heal by increasing circulation and softening loose dead tissue. Whirlpool therapy often decreases wound pain, too.
- **NEGATIVE PRESSURE WOUND THERAPY (NPWP):** A client with a chronic wound that won't heal may receive NPWT. This is done by placing a special sponge or gauze snugly inside the wound. A tube is then placed inside or attached to the foam or gauze. An airtight dressing is applied and the tube is attached to a suction device and a collection container. The device pulls excess fluid from the wound to increase circulation, remove waste and promote healing.



Exercise and good nutrition should be part of the treatment plan for all clients with pressure ulcers.

Think about a client you care for now (or one you have cared for in the past) who has a pressure ulcer the healthcare team is trying to heal.

What exercises can this client do to speed healing? (If the client is immobile, then passive range of motion may be the only option.)

List 3-4 high protein, high energy foods your client can eat to help enhance healing. (Remember to take any special diet orders into consideration.)

### THE COST OF PRESSURE ULCERS

#### **CLIENT DISCOMFORT**

- Pressure ulcers can range from mildly uncomfortable to extremely painful. Even if a client does not seem to be in a lot of pain, an untreated pressure ulcer will slowly worsen.
- The worst consequence of a pressure ulcer is death, but there are many other outcomes. It is common for people to become depressed, uncooperative or have feelings of worthlessness.
- Once an ulcer has reached a certain stage, a client's quality of life will drop quickly. The sore will keep him or her from performing normal daily activities.

#### **CLIENT DEATHS**

- A client who develops pressure ulcers is *five times more likely to die* than a client without pressure ulcers.
- Deaths from pressure ulcers are often a result of infection. Once an ulcer becomes infected, it is much harder to treat and more likely to *never* heal.
- With your diligence, and your client's cooperation, you can work together as a team to keep pressure ulcers from happening. You have the power to save lives!

#### **HEALTH CARE COSTS**

- Pressure ulcers are a *worldwide* problem. Some countries have begun to penalize healthcare organizations when pressure sores occur.
- In the U.S., the Deficit Reduction Act addressed the issue of injuries acquired during routine medical care. As a result, Medicare no longer reimburses for pressure ulcers that the client develops while receiving care for other problems.
- In addition to lack of Medicare reimbursement for these situations, American healthcare providers are not allowed to seek payment from the client or family, either!
- So, who is paying for this? As a society, <u>we</u> pay for pressure ulcers through *increased insurance premiums, staggering medical costs,* and *tax raises*.

#### YOUR WORKLOAD AND TIME

- Studies have shown that it takes *at least twenty minutes longer* to care for a client with pressure ulcers than one without—even if both are bed bound.
- Remember to always take your time when treating a client. Rushing may only make an ulcer worse.
- Don't you hate being pressed for time? Just imagine all the time you could save if you didn't have to deal with pressure ulcers! By following the steps to prevent pressure ulcers, both you and your clients can lead happier lives.



### Thinking outside the box!

- Working with clients in the home often requires coming up with creative solutions to uncommon problems.
- **THE PROBLEM:** You are caring for a 78 year old woman who lives at home with her adult son. She is at risk for developing a pressure ulcer because she is very thin, doesn't move well, doesn't eat a balanced diet and rarely exercises.
- She has a special pressure reducing bed that is supposed to help reduce her risk... but she doesn't like it and insists on sleeping in her recliner in the living room.
- The recliner is old, frayed, has very little padding and even has a few springs sticking up.
- WHAT YOU KNOW: You know you its much easier to prevent a pressure ulcer than it is to treat one. So, you know you have to find a way to get her out of that chair and into bed each night.
- GET CREATIVE: Think of 3 creative solutions you might try to get your client to use the bed.
- TALK ABOUT IT: Share your ideas with your co-workers and supervisor and find out how they would solve the problem.

### **TIPS FOR PREVENTING PRESSURE ULCERS**

- Try to keep the client's bed clean, dry, and free from wrinkles. Change the linens as ordered <u>and</u> if they become wet or soiled. For a client who remains in bed, wet linens can increase the risk for development of pressure ulcers.
- Report any changes that affect a client's skin to your supervisor. These changes include: dry skin, very moist skin, redness, warmth, tenderness, rashes, bruises, new incontinence, changes in appetite or fluid intake and complaints of pain or discomfort.
- Avoid "sheet burn" by NOT dragging a client across the bed. Ask the client to help, if possible, or get a coworker or family member to assist you in moving the client. Always move on the count of three so that you are all working together.
- When bathing a client, *pat* the skin dry with a towel instead of rubbing it. The friction from rubbing could irritate the skin and/or make a developing pressure ulcer worse.
- Use pillows and pads to help position clients comfortably in their beds or chairs. Place the pillows so that they minimize pressure on bony parts of the body. Refrain from using a doughnut shaped pad. These pads can cut off circulation and cause swelling.
- Encourage wheelchair-bound clients to sit upright. Sitting with good posture will allow your clients to switch positions with greater ease.
- Whenever you reposition your clients, take the opportunity to check their skin for any changes. Keep an eye out for dry patches, redness, tenderness or bruises.
- Discourage your clients from lying directly on their hips when in bed. Since the hip bones are prone to bed sores, keeping pressure on this area can be very dangerous.
- Encourage your clients to shift positions every 15 minutes— if able. Explain how important position changes are for preventing pressure ulcers. Each client's needs for repositioning will be different, so be sure to follow your supervisor's orders.
- Keep incontinent clients as dry and clean as possible. It is <u>extremely</u> important for a client to stay dry to prevent pressure ulcers. Wet skin can become brittle, making it tear more easily. Soiled or wet clothing can rub against the skin, creating an ulcer.
- If a client has an adjustable bed, make sure the incline is as low as possible. The straighter a client sits in bed, the more pressure there is on the tailbone and lower back.



It's much easier, cheaper, and causes a lot less pain to <u>prevent</u> a pressure ulcer than it does to treat it.

Did you know that YOU hold the power to prevent many of the pressure ulcers your clients could possibly develop? It's true!

Talk to your supervisor, other nurses, or a special wound care nurse about your role in prevention.

#### Here are a few questions to ask:

- What type of clients are most at risk of developing pressure ulcers or having serious complications from wounds?
- What special precautions can l take with my diabetic clients to prevent pressure ulcers?
- I have a client who is bedbound but refuses to allow the caregivers to reposition him. What would you do in this situation?
- My client is incontinent of urine and stool. I know this puts him at risk of developing a wound on his buttocks or perineal area. What is the best thing I can do to prevent this from happening?

### **MORE TIPS FOR PREVENTING PRESSURE ULCERS**

- Picture a two liter bottle of soda. The average person should drink *at least* that much water everyday to keep the skin healthy. Make sure to offer your clients enough fluids to drink—unless the client is on a fluid restriction. Also, encourage your clients to limit the amount of caffeine they drink. Caffeine can be very harmful and damaging to the skin.
- Assist your clients to exercise as ordered, whether by walking or by performing range of motion exercises. Physical activity increases circulation and helps prevent pressure ulcers.
- Some of your clients may use custom devices to prevent pressure ulcers, including special pillows, egg crates, wheelchair cushions, electronic beds and heel protectors. Make sure you know how to use any devices ordered for your clients.
- Encourage your clients to eat a balanced diet to help prevent sores and/or to heal faster. Without the right nutrients, your clients are at risk for a pressure ulcer.
- If you are ordered to give a client a massage, **do NOT rub any** reddened areas. Massaging reddened skin increases the damage to that area.
- It is very important that a client's skin remain moisturized.
  Powders can dry the skin, so encourage the use of body lotion instead.
- Excessive smoking can decrease the amount of nutrients that the skin receives. If the skin suffers this neglect over a long period of time, it becomes slow to heal. While you may not be able to get a client to *quit* smoking, you can inform him/her of all the negative consequences that come with the addiction.
- If your clients are alert, suggest that they keep a mirror nearby. A mirror can help them inspect their own bodies—a great selfcare habit.
- Many pressure ulcers on knees and ankles occur from the legs rubbing together. To prevent this, try putting a pillow between your client's legs to keep them apart while in bed.
- Just as excessive smoking can be dangerous for your clients, so can drug and alcohol abuse. If you think that your client may have a substance abuse problem, let your supervisor know. You can also encourage them to quit by letting them know what a danger substance abuse can be to their health.
- Remember, only nurses or physicians can directly treat a pressure ulcer. However, your careful attention to your clients' skin can mean so much to their health and comfort.



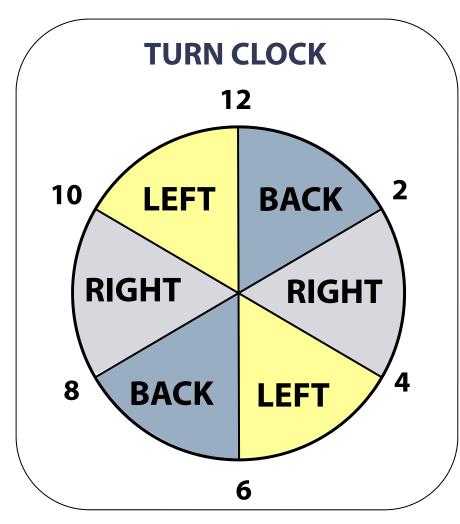
### Key Points to Remember

- A pressure ulcer is any injury to the skin caused by unrelieved pressure.
- 2. Pressure sores can form wherever a bony part of the body presses against other body parts or a firm surface.
- 3. Normal skin becomes red from pressure or rubbing, but the redness usually disappears within thirty minutes. Skin that remains reddened longer than thirty minutes probably has a pressure ulcer developing.
- It's much easier, cheaper, and causes a lot less pain to <u>prevent</u> a pressure ulcer than to treat one.
- Complications resulting from pressure ulcers include extreme pain and suffering, delayed recovery from other conditions, infection and death.

### THE TURN CLOCK

### All immobile or bedbound clients should be turned and re-positioned every 2 hours unless there is another order in place.

• Turn clocks are especially useful in home care situations where multiple family members and caregivers contribute to the care of the client.



**Directions:** Identify clients at risk for developing pressure ulcers and post the Turn Clock on the doors to the rooms for those clients.

The clock serves as a reminder to all who enter the room that at each two-hour interval, the patient should be re-positioned according to the position indicated on the clock. For example, from 12:00 to 2:00 the patient should be positioned on his or her back; from 2:00 to 4:00 on the right side; and so forth.

Clock and directions courtesy of: Owensboro Medical Health System. It was made available through the Institute for Healthcare Improvement at www.ihi.org



Now that you've read this inservice on pressure ulcers, take a moment to jot down a couple of things you learned that you didn't know before.



EMPLOYEE NAME (Please print):

DATE: \_\_\_\_

- I understand the information presented in this inservice.
- I have completed this inservice and answered at least eight of the test questions correctly.

EMPLOYEE SIGNATURE:

#### SUPERVISOR SIGNATURE:

## Inservice Credit:

Self Study	hour
Group Study	1 hour

File completed test in employee's personnel file.



### A Client Care Module: Preventing Pressure Ulcers

Are you "In the Know" about pressure ulcers? <u>Circle the best choice or fill in your</u> <u>answer. Then check your answers with your supervisor!</u>

- **1. True or False** The bottom layer of skin is called the epidermis.
- **2. True or False** A blood-filled blister may indicate a deep tissue injury.
- **3. True or False** Diabetes is a risk factor for pressure ulcers.
- **4. True or False** Friction can cause a pressure ulcer.

### 5. Any client with a pressure ulcer should be:

- A. Repositioned frequently to redistribute pressure.
- B. Encouraged to eat a high protein diet.
- C. Assisted to perform some type of active or passive exercise.
- D. All of the above.

#### 6. True or False

After bathing, you should rub vigorously with a towel to dry the person.

#### 7. True or False

You should never rub or massage a reddened area of skin.

### 8. True or False

A pressure ulcer can develop in as little as two hours.

### 9. True or False

A pressure ulcer can be serious enough to lead to the death of a client.

#### 10. Fill in the Blanks

A pressure ulcer is any injury to the \_\_\_\_\_ caused by

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unrelieved \_\_\_\_