M_CWCNPQ (300+ Questions) - Quiz Questions with Answers

1.

A solid skin barrier wafer with a pouch is applied to a copiously draining wound, but the skin beneath the wafer has become denuded. The BEST initial solution is to

apply a skin barrier powder to the denuded skin under the wafer.

discontinue use of the pouch and apply topical dressing.

apply a moisture barrier paste under the wafer.

apply a moisture barrier ointment to the skin and absorbent dressings.

Explanation:

A skin barrier powder is used as an initial barrier on denuded skin to provide an adherent base for ointments, pastes, or solid skin adhesive barriers. The powder is sprinkled over the denuded area and excess removed before application of a second barrier. The powder should be applied thinly because excess will impair adhesion of other barrier products, and it should not be used on intact skin because it will not properly adhere. Skin barrier powders contain powder pectin, karaya, gelatin, carboxymethyl cellulose, or combinations. Skin barrier powders are frequently used with ostomy products when the skin has become weepy.

2.

When using transparent film dressing for autolytic debridement, how often should dressing changes be scheduled?

8 to 10 days

5 to 7 days

3 to 5 days

1 to 2 days

Explanation:

Transparent film should be changed every 3 to 5 days, although the dressing should always be changed if leakage occurs as this can cause tissue maceration. Transparent film is most useful for dry eschar, which should be crosshatched prior to application of the film to facilitate autolysis. The dressing should be at least 2 inches larger than the size of the wound. The wound should be irrigated with NS and a skin sealant applied to surrounding tissue prior to application of the dressing.

3.

A primary consideration when choosing mechanical debridement is that it

is non-selective.

is less painful than other methods.

is not damaging to granulation tissue.

requires no special equipment.

Explanation:

A primary consideration when choosing mechanical debridement is that it is non-selective and may debride nonviable tissue but may also damage viable tissue, such as granulation tissue. Mechanical debridement includes wet-to-dry dressings (which are no longer recommended although wet-to-moist dressings may be used), hydrotherapy, and pulsed lavage. One disadvantage to mechanical debridement is that it tends to be more painful than some other methods more commonly used.

4.

Which of the following skin conditions is characterized by a vesicular rash?

erythema nodosum

herpes zoster

folliculitis

candidiasis

Explanation:

A skin condition characterized by a vesicular rash is herpes zoster as well as herpes simplex. Vesicles have the appearance of blisters but are small, typically 5 to 10 mm in diameter and result from fluid under the epidermis. If the lesions are 0.5 cm or larger, they are referred to as bullae. Other causes of vesicular rash include chicken pox (varicella), acute contact dermatitis, pompholyx, scabies, and some rashes associated with drugs.

5.

The potency of topical corticosteroids may be increased by

air drying.

covering with a gauze dressing.

covering with water-impermeable barrier.

applying heat to the area the steroid is applied to.

Explanation:

The potency of topical corticosteroids may be increased by covering with a water-impermeable barrier, such as plastic wrap or gloves (if on the hands). The covering should be kept in place for at least 4 hours. Alternately, wet wraps may be used for large areas, such as having the patient wear damp pajamas covered with dry pajamas. Topical steroids have very little systemic absorption, so they have fewer adverse effects than oral steroids. Ointments are more potent than creams.

6.

Patients who are sitting in wheelchairs should be advised to shift weight every

60 minutes.

45 minutes.

30 minutes.

15 minutes.

Explanation:

Patients who are sitting in wheelchairs should be advised to shift weight every 15 minutes. Additionally, they should reposition, if possible, every hour. If patients are unable to shift weight, then alternating pressure support surfaces are recommended. Wheelchairs should contain support surfaces that are pressure mapped for the individual in different positions, such as when sitting upright, leaning forward, and reclining, to ensure that the support surfaces provide adequate reduction in pressure.

7.

Intertrigo is most likely to occur in patients that are

elderly.

diabetic.

obese.

malnourished.

Explanation:

Intertrigo is most likely to occur in patients that are obese, especially in humid conditions. It results from the interaction of friction, moisture, and heat and often occurs in body folds with erythema, maceration, and fissures. Patients may experience pain, itching, and burning and may develop a secondary bacterial or fungal infection. The area must be kept clean and dry. Treatment includes topical steroids (hydrocortisone 1%) and an antifungal, such as clotrimazole1%.

8.

With cellulitis, blood testing usually shows leukocytosis with increased

neutrophils.

basophils.

lymphocytes.

monocytes.

Explanation:

With cellulitis, blood testing usually shows leukocytosis with increased neutrophils. Cellulitis is most common on the lower extremities but can occur elsewhere. Cellulitis typically initially appears as a small reddened edematous area that expands over the next 6 to 36 hours and is often accompanied by increasing fever and chills. In some cases, septicemia and hypotension may occur. Treatment is with IV or parenteral antibiotics. Cellulitis is usually caused by gram-positive cocci, such as group A beta-hemolytic streptococci, Staphylococcus aureus, and MRSA.

9.

Which of the following is the first treatment for a chemical burn to the skin?

flush the area with water

administer pain medication

wash the area with soap and water

apply cold compresses to the area

Explanation:

The first treatment for a chemical burn to the skin is to flush the area with copious amounts of water, usually for at least 10-20 minutes. The flushing should be carried out so that the water running off of the burned area does not flow onto other body parts as this may spread contamination. Any clothing, jewelry, shoes, or other items worn by the person and contaminated should be removed. The healthcare provider should utilize PPE to avoid inadvertent exposure to the chemicals.

10.

Which of the following are the three wound factors that most often lead to social isolation?

pain, malodor, and impaired mobility

pain, drainage, and infection

infection, size of wound, and malodor

malodor, drainage, and visible wound

Explanation:

The three wound factors that most often lead to social isolation are:

- *Malodor: Patients may feel embarrassed or ashamed if the wound has a foul odor and may avoid contact with other when they encounter negative attitudes. In turn, others may avoid contact with the patients, increasing their isolation.*
- *Drainage: Trying to cope with drainage in social situations can be difficult, especially if patients are worried that the dressing may become saturated and leak and that drainage may soak into clothing and furnishings.*
- *Visible wound: Wounds that are disfiguring or easily seen, especially wounds on the face or other visible parts of the body often result in negative responses from others.*

11.

If a patient with peripheral arterial disease develops an ulcer on the foot, which of the following is indicated to help determine if the ulcer resulted from ischemia or pressure?

documentation regarding positioning and pressure reduction

assessment of wound character

vascular laboratory/imaging studies

assessment of wound location

Explanation:

If a patient with peripheral arterial disease develops an ulcer on the foot, vascular laboratory/imaging studies (such as arteriograms and Doppler ultrasounds) are indicated to help determine if the ulcer resulted from ischemia or pressure, since both may be implicated to some degree. The degree of circulatory impairment must be assessed in order to determine the best approach to treatment and to prevent further breakdown of tissue. If circulatory impairment is severe, prevention of pressure ulcers is challenging.

12.

If a patient with diabetes has a healing diabetic ulcer and an inflamed great toe, which the patient says resulted from using scissors to cut his nails, the nurse should recommend that the patient

use clippers instead of scissors.

cut the nails under a good light.

visit a podiatrist.

ask the spouse to cut the toenails.

Explanation:

If a patient with diabetes has a healing diabetic ulcer and an inflamed great toe, which the patient says resulted from using scissors to cut his nails, the nurse should recommend that the patient visit a podiatrist on a routine basis for nail care. Because of impaired sensation, cutting the nails can be dangerous for a diabetic patient, who may also have impaired vision. Additionally, the podiatrist will examine the foot and note any issues of concern.

13.

A chronic ulcer resulting from peripheral vascular insufficiency may remain in which phase of healing for prolonged periods?

hemostasis

inflammation

proliferation

remodeling

Explanation:

Chronic ulcers with poor perfusion or other complicating factors, such as infection, may remain in the inflammatory phase of healing. If the macrophages that are activated during the inflammation stage are not able to adequately attract fibroblasts, then the angiogenesis, formation of collagen, and epithelization that are necessary for the wound to heal do not take

place, so the wound remains stalled for long periods of time unless the complicating factors are aggressively treated and reversed.

14.

If a 65-year-old patient's zinc level is 60 mcg/dL, the anticipated effect on the patient's wound is

no effect.

accelerated healing.

impaired circulation.

delayed healing.

Explanation:

If a 65-year-old patient's zinc level is 60 mcg/dL, the anticipated effect on the patient's wound is delayed healing. Zinc is essential to the enzymes involved in metabolism of proteins and carbohydrates and is also involved in DNA replication. About 20% of the body's zinc is stored within the skin. Normal values for adults are 70 to 120 mcg/dL. Zinc levels must be monitored, especially with large wounds such as burn injuries, and supplementation provided if levels fall below normal.

15.

Ultrasound is used in wound care to

stimulate healing and debride wounds.

decrease bacterial flora.

relax muscles and decrease pain.

increase the tissue temperature.

Explanation:

Ultrasound is used in wound care to stimulate healing and debride wounds. Ultrasound produces mechanical vibration and may be used with or without heat. Ultrasound is most effective on collagen-based tissues, such as tendons, ligaments, and fascia. High frequency (0.5 to 3 MHz) is used primarily to stimulate healing and to deliver transdermal medications. Penetration correlates to MHz with 1.0 MHz penetrating up to 5 cm (used for deeper injuries) and 3 MHz penetrating 1 to 2 cm. Three MHz is typically used to treat superficial skin lesions. Low frequency ultrasound (20 to 50 KHz) may be used to debride necrotic tissue and promote healing and may have an antibacterial effect.

16.

According to the NPUAP consensus statement, which of the following patient circumstances may result in unavoidable pressure sores?

impaired cognitive status

hemodynamic instability that prevents repositioning

peripheral neuropathy that decreases sensation

paralysis (hemiplegia/paraplegia/quadriplegia)

Explanation:

According to the NPUAP consensus statement, the patient circumstance that may result in unavoidable pressure sores is hemodynamic instability that prevents repositioning. Other conditions include skin failure and patient refusal to turn or reposition. Patients at risk should be placed on pressure-distributing surfaces (mattresses, chair cushions) before skin begins to break down. While standard practice is to reposition patients every 2 hours, some patients may require more frequent repositioning and assessment of skin.

17.

The primary purpose of a support surface is to

increase comfort.

decrease pressure.

heal pressure ulcers.

redistribute pressure.

Explanation:

The primary purpose of a support surface is to redistribute pressure and by doing so to reduce the risk of development of pressure sores; however, a support surface in itself is not sufficient to prevent or heal an existing sore. Support surfaces should always be assessed by checking to determine if they are bottoming out or, even better, with a pressure monitoring device. If a wound continues to deteriorate despite adequate care, a different support surface may be considered.

18.

In which of the following layers of the skin is found a network of nerve endings and blood vessels?

epidermis

basement membrane (dermal-epidermal junction)

dermis

hypodermis (subcutaneous tissue)

Explanation:

A network of nerve endings and blood vessels is found in the dermis layer (which lies between the basement membrane and the hypodermis) of the skin. The dermis is itself composed of two layers: papillary dermis and reticular dermis. Sweat glands, sebaceous glands, and hair follicles are also found in the dermis, which provides structure and strength to the skin, provides moisture, and helps to resist shearing. The dermis is essential in providing nourishment (blood, oxygen, nutrients) to the skin.

19.

Older patients are prone to dry skin primarily because

they take less care of their skin.

many medications are drying to the skin.

they have frequent skin infections.

sweat glands begin to atrophy with age.

Explanation:

Older patients are prone to dry skin primarily because sweat glands begin to atrophy with age as part of the normal aging process. As the glands shrink in size, they produce less perspiration and are less sensitive to temperature changes. Perspiration is important to thermoregulation and skin hydration. As perspiration decreases, the skin tends to become looser (taking on a sagging appearance) and dry, making it more vulnerable to infection and mechanical trauma.

20.

For a patient in bed, which position poses the greatest risk of friction and shear?

supine

semi-Fowler

prone

left lateral

Explanation:

For a patient in bed, the position that poses the greatest risk of friction and shear is the semi-Fowler's position (especially if head of bed is elevated beyond 30 degrees) because, as the patient sits partially upright, the body tends to slide down toward the foot of the bed. Applying cornstarch to the linen or applying lubricants to the skin may help to reduce friction.

21.

The thin skin typically seen in older adults is caused by

decreased thickness of the dermis.

decreased thickness of the epidermis.

decreased thickness of the hypodermis (subcutaneous tissue).

mechanical irritation of the skin.

Explanation:

The thin skin typically seen in older adults is caused by decreased thickness of the dermis, which results in fewer collagen fibers, blood vessels, and nerve endings. This, in turn, results in decreased sensation and thermoregulation and impaired fluid retention, giving the skin a sagging appearance. The thinner skin is more at risk for injuries from shear and pressure, and wounds tend to heal more slowly. Over time, the basement membrane flattens and the epidermis thins as well.

22.

Which of the following is the primary cause for skin failure?

pressure

xerosis

incontinence

hypoperfusion

Explanation:

The primary cause for skin failure is hypoperfusion, usually associated with severe systemic dysfunction or multi-organ failure at the end of life. With skin failure, skin breakdown and ulcers

may occur without pressure because the impaired circulation makes the skin more susceptible to injury. However, it can be difficult to differentiate a lesion associated with skin failure from a pressure ulcer. Skin failure may be acute (associated with critical illness), chronic (associated with chronic illness), or end-stage (associated with end-of-life).

23.

If an 80-year-old patient in an acute care hospital center requires daily dressing changes, and the 75-year-old spouse has been learning to do the procedure but still gets confused at times about the steps required, the best recommendation is

patient transfer to a convalescent hospital.

a referral to a home health agency.

to hire a nurse to assist.

to teach the patient to assist his spouse.

Explanation:

If an 80-year-old patient in an acute care hospital center requires daily dressing changes, and his 75-year-old spouse has been learning to do the procedure but still gets confused at times about the steps in the required, the best recommendation is a referral to a home health agency. A nurse will come to evaluate the patient and can continue teaching the patient's spouse to change the dressings and supervise until the spouse feel's secure enough to handle the dressing change independently.

24.

Hypertrophic scars are *MOST* likely to occur

over joints.

in dark-skinned patients.

on the deltoids and earlobes.

on the upper back and chest.

Explanation:

Hypertrophic scars most frequently occur over joints where there is tension on the wound. They remain localized to the area of the original wound and may spontaneously regress. They may result in contracture of the wound. Keloid scars most frequently occur on the upper back and chest as well as the deltoids and earlobes. They extend beyond the original wound and rarely regress. They usually arise after the wound has healed as raised, shiny, rope-like fibrous scars. They do not result in contracture of the wound.

25.

If, during the patient's physical assessment, the patient's ankle-brachial index (ABI) was 0.35, the nurse anticipates

no symptoms.

borderline perfusion.

severe disease with ischemia.

critical limb-threatening condition.

Explanation:

If, during the patient's physical assessment, the patient's ankle-brachial index (ABI) was 0.6, the nurse anticipates severe disease with ischemia:

Ankle-brachial index score	
>1.4	*Abnormally high, may indicate calcification of vessel wall.*
1 to 1.4	*Normal reading, asymptomatic.*
0.9 to <1.0	*Indicates narrowing of one or more leg blood vessels; borderline PAD*
0.7 to <0.9	*Indicates peripheral artery disease; often associated with intermittent claudication during exercise.*
0.4 to 0.7	*Moderate PAD*
<0.4	*Severe PAD; pain even at rest, limb threatened.*
0.25	*Critical limb-threatening condition.*

26.

When developing a plan of care for a patient who must learn wound management, which of the following would be an appropriate listing of a behavioral outcome?

- understands the need to do daily dressing change
- accepts mobility limitations
- feels that he can manage wound care independently within a few days

able to demonstrate dressing change in 3 days

Explanation:

Behavioral outcomes should always be measurable, such as "able to demonstrate dressing change in 3 days." This outcome covers a specific task and a time frame, making it easy to evaluate. Words such as "understands," "accepts," and "feels," are not measurable. Behavioral outcomes should be described in terms of actions words, such as "demonstrates," "states," "describes," and "lists." Behavioral outcomes should always be those things that can be directly observed and measured to determine if outcomes have been successfully achieved within the allotted time.

27.

A patient has marked bilateral non-pitting edema of both lower legs and feet, including toes, and has thickening of the skin but no pigmentation. This edema can *MOST* likely be characterized as

orthostatic edema.

lymphedema.

lipedema.

chronic venous insufficiency.

Explanation:

Lymphedema: Hard, nonpitting edema with skin thickening but no pigmentation. Edema usually includes feet and toes and often occurs bilaterally. Orthostatic edema: Occurs with prolonged sitting and is soft and pitting but without skin thickening or pigmentation. It is always bilateral and includes edema of the foot. Lipedema: Bilateral fatty deposition in legs may mimic edema, but there is no pitting, skin thickening, or pigmentation, and no edema of the foot. Chronic venous insufficiency: Edema is soft and pitting initially but may harden later. Skin thickening

may occur around the ankles and pigmentation changes are common. Edema often involves feet and may be bilateral.

28.

The most common cause of venous outflow obstruction and venous ulceration is

deep vein thrombosis.

trauma.

congestive heart failure.

obesity.

Explanation:

The most common cause of venous outflow obstruction and venous ulceration is deep vein thrombosis. With obstruction, veins distal to the obstructed area become distended, resulting in increased venous hypertension (sustained increased pressure in the legs). As the venous pressure rises, venous stasis occurs, leading to ulceration. Other factors that can also contribute to increased venous hypertension include obesity, CHF, edema, trauma, ascites, and tumors of the legs.

29.

When applying an Unna boot for a nonhealing venous stasis ulcer, to what tension should the outer self-adhering elastic bandage (Coban) be stretched?

100%

50%

25%

10%

Explanation:

An Unna boot is used to treat nonhealing stasis ulcers in ambulatory patients. If the ulcer is draining, it should be packed with alginate and a dressing applied to absorb the discharge until the Unna boot is changed. Before applying, the leg and ulcers should be cleaned and the leg patted dry. Most wraps contain a moisture barrier, generally, zinc oxide and glycerin. The wrap must be applied upward from the toes to about 1 inch below the knee. It is then covered with an elastic bandage or self-adhering bandage (such as Coban), stretched to 50% tension.

30.

Which is the best choice for a support surface for a patient with large stage III and stage IV pressure ulcers on multiple turning sites?

alternating air mattress

static flotation (air)

foam

low-air-loss therapy device

Explanation:

The best choice for a patient with large stage III and stage IV pressure ulcers on multiple turning sites is a low-air-loss therapy device. Low-air-loss devices may use a bed frame or be placed on top of a standard mattress. Low-air-loss therapy devices have low moisture retention, reduced heat accumulation, and provide relief of pressure in any position, so they are particularly useful for patients with multiple ulcers. The devices comprise connected air-filled pillows covered by a low-friction material. The amount of air and pressure in each pillow can be separately calibrated.

31.

A large open wound on the patient's leg is contaminated with dirt, gravel, and other debris. The *BEST* approach to cleansing is

pulsatile lavage only.

sharp debridement and pulsatile lavage.

hand debridement, large volume irrigation, and pulsatile lavage.

large volume irrigation and hand debridement.

Explanation:

Foreign material should be removed by hand debridement from a large open contaminated wound followed by large-volume irrigation at 5 to 8 lb pressure per square inch (usually using a <19-gauge needle) and pulsatile lavage in order to reduce the risk of infection. Pulsatile high-pressure lavage is irrigation of an infected or necrotic wound under pressure, using an electrically powered device. Normal saline is commonly used for lavage treatments with the amount varying according to the size and amount of exudate on the wound. It is recommended that pressure be between 8 to 15 psi.

32.

The presence of necrotic tissue and debris that prevents epithelization from occurring is called

bioburden.

contamination.

colonization.

critical colonization.

Explanation:

Bioburden refers to the presence of necrotic tissue and debris that prevent epithelialization from occurring. Bioburden contributes to the development of infection in the wound. Contamination of a wound means that bacteria are present but are not multiplying. Colonization is common and occurs when bacteria multiply in the wound but do not cause an inflammatory response, damage tissues, or retard healing. Critical colonization occurs when bacteria replicate to a level that causes delay in healing without causing an inflammatory response or an infection with tissue damage.

33.

Which of the following biological skin substitutes would be appropriate for repair post-Mohs procedure for a large facial squamous cell carcinoma?

Apligraf

TransCyte

Integra

Dermagraft

Explanation:

Integra, with a protective silicone outer layer over a collagen and chondroitin-6-sulfate layer, is FDA approved for a wide variety of uses, including full-thickness or partial-thickness burns, pressure ulcers, venous ulcers, diabetic ulcers, and surgical wounds, such as post-Mohs procedure. It is also used to resurface scars and keloids and for contracture release. Integra is usually meshed (1:1 ratio) to allow for drainage and penetration of antimicrobials. After application, Integra is secured with compression dressing or negative pressure.

34.

Which of the following is the correct documentation of undermining?

"Extends 1.8 cm width about one-quarter of wound perimeter."

"Extends ¾ inch width by the right lower quadrant of the wound."

"Extends 1.8 cm width from 1 o'clock to 4 o'clock."

"Extends ¾ inch width from 1 o'clock to 4 o'clock."

Explanation:

Undermining, which is damaged tissue under intact skin, usually occurs around the perimeter of a wound. Undermining is reported in centimeters and in relation to the open wound by reference to a clock face: "extends 1.8 cm width from 1 o'clock to 4 o'clock." If the undermining is open, it can be measured by insertion of a sterile swab. In some cases, tissue may be damaged but remains intact; in that case, undermining is estimated by palpation as undermined tissue may feel spongy.

35.

People with a fluidized air/high-air-loss support surface must be carefully monitored for

bottoming.

dehydration.

fungal infection.

tissue maceration.

Explanation:

The increased airflow with fluidized air/high-air-loss support surfaces can increase evaporative fluid loss, so patients must be adequately hydrated to compensate and avoid dehydration. Intake and output must be carefully monitored and skin turgor and mucous membranes evaluated. Fluidized air/high-air-loss support surfaces have beads with a pH of 10 (alkaline), so they have bactericidal properties, decreasing risk of infection. These support surfaces reduce friction, shear, and pressure, as well as moisture, decreasing risk of fungal infection.

36.

A wound is covered with dry black eschar and is to be debrided with an enzyme. The *FIRST* step is to

cover the wound with a layer of enzyme.

thoroughly dry the wound.

crosshatch through the outer layers of the eschar.

do a sharp debridement of the outer layers of the eschar.

Explanation:

Because enzymes require a moist environment, the first step when treating dry eschar is to crosshatch through the outer layers of the eschar. Chemical debridement with enzymes, such as collagenase and papain/urea, is effective for wounds with necrosis and eschar but may take several days to several weeks to debride a large area of eschar. Various types of dressing can be used with enzymes, but they must be easily removable because enzymes must be applied one to two times daily.

37.

Which of the following topical antibiotics is the *BEST* choice for a wound that may be infected with bacteria and fungi?

cadexomer iodine

metronidazole

mupirocin

silver sulfadiazine 7%

Explanation:

Cadexomer Iodine: Effective against a wide range of bacteria (S. aureus, MRSA, Streptococcus, and Pseudomonas), viruses, and fungi. Metronidazole: Effective against bacterial infections. Mupirocin: Effective against gram-positive organisms (such as S. aureus and MRSA) and may be used to treat nasal colonization, which increases risk of wound infection. Silver sulfadiazine 7%: Effective against gram-positive organisms, including S. aureus, MRSA, Streptococcus, and Pseudomonas. Topical antibiotics provide effective reduction of surface pathogens but can result in systemic reactions so patients must be monitored carefully. The same antibiotic

should not be used for both systemic and topical treatment because this increases risk of resistance.

38.

Painless open ulcers on the pressure points on the bottom of the foot surrounded by calloused skin usually indicate

arterial insufficiency.

neuropathy.

chronic venous insufficiency.

malignancy.

Explanation:

Painless open ulcers on the pressure areas on the bottom of the foot surrounded by calloused skin indicate neuropathic ulcers, such as commonly found with diabetic polyneuropathy. Because of reduced sensation, patients may develop ulcers from chronic pressure (indicated by the callus formation) without noticing, especially if they do not check their feet or are unable to do so. The nylon monofilament test can be used to assess the patient's degree of protective sensation.

39.

Which functional assessment tool measures the 8 activities necessary for an adult to function independently?

Barthel Index of Activities of Daily Living

Instrumental Activities of Daily Living (IADL)

Index of Independence in Activities of Daily Living (Katz Index)

Palliative Performance Scale

Explanation:

Instrumental Activities of Daily Living (IADL): An assessment tool to measure 8 activities necessary for an adult to function independently. This tool helps to determine the need for supportive services. Barthel Index of Activities of Daily Living: Assesses the functional ability of older adults in 10 categories. It is used to assess the person's disabilities and need for assistance. Index of Independence in Activities of Daily Living (Katz Index): Evaluates 6 areas to provide an assessment of the person's need for assistance and progression of disease and/or disability. Palliative Performance Scale: Assesses the functional ability of older adults receiving palliative care.

40.

Which therapy is the *MOST* essential for a patient living alone with diabetic peripheral neuropathy and reduced sensation in the hands and feet, resulting in repeated injuries?

occupational therapy

physical therapy

nutritional therapy

cognitive-behavioral therapy

Explanation:

Occupational therapy assists patients with home safety and self-care issues, such as wearing properly fitted shoes, checking skin, safe walking, cooking modifications, and housecleaning techniques to minimize injury. Injuries are common with peripheral neuropathy because of reduced sensation. Physical therapy may also be helpful to maintain range of motion and increase strength. Nutritional therapy should be part of all diabetic teaching. Cognitive-behavioral therapy works toward solving particular behavioral problems by increasing awareness and developing strategies, but the injuries are related to sensory changes more than behavioral problems.

41.

The nurse places her hand under a 1.5-inch foam overlay and finds that the overlay has compressed to 0.75 inches, indicating

bottoming out.

adequate support.

excess wear.

moisture retention.

Explanation:

Support surface material should provide at least an inch of support under areas to be protected when in use to prevent "bottoming out." When determining the type of overlay, the patient's size and weight must be considered. Generally, all patients at risk should have some type of pressure-reducing overlay on their beds. Viscoelastic foam provides some protection and may protect from shear and friction. Other nondynamic overlays, such as those made with foam chips, tend to deteriorate faster than viscoelastic foam.

42.

Which dietary modification is *MOST* important to promote healing for a 50-year-old overweight man who has a third-degree burn on his left arm that has had wound debridement and skin grafting?

decreased fats

increased protein

increased carbohydrate

decreased calories

Explanation:

Increased protein is especially important for wound healing. The average healthy person requires about 0.8 g of protein per kilogram every day (40 to 70 g). However, if a person has a wound, then the person must have adequate calories and general nutrition daily as well as added protein and vitamins as well. Protein amounts are increased to 1.25 to 2 g/kg to promote healing. Healing requires extra calories as well, but ensuring a high protein nutritious diet is more important than simply reducing calories or fat or increasing carbohydrates.

43.

Using the Payne-Martin classification system for skin tear, how would a skin tear be classified that is characterized by partial-thickness injury with 20% of epidermal flap missing?

category I—Linear type

category I—Flap type

category II—Scant tissue loss type

category III—Complete loss of tissue

Explanation:

Category II—Scant tissue loss type. Payne-Martin Categories:

Category I: Skin tear without tissue loss:

- *Linear: Full-thickness wound in wrinkle or furrow with epidermis and dermis pulled apart (incisional appearance).*
- *Flap: Partial-thickness wound with a flap that can cover wound with ≤1 mm of dermis exposed.*

Category II: Skin tear with partial tissue loss.

- *Scant tissue loss: Partial-thickness injury and ≤25% of epidermal flap lost.*
- *Moderate-large tissue loss: Partial-thickness injury with >25% epidermal flap lost.*

Category III: Skin tear with complete tissue loss.

- *Complete partial-thickness injury with loss of epidermal flap.*

44.

During the phases of healing, which cell is responsible for beginning angiogenesis?

neutrophil

fibroblast

macrophage

myofibroblast

Explanation:

During the inflammation phase, macrophages release growth factors, which attract fibroblasts to the wound. Fibroblasts are responsible for beginning angiogenesis and are critically important during the proliferation phase of healing, which usually begins at about day 3 after trauma. In addition to angiogenesis, fibroblasts initiate formation of collagen (type III) and initiate epithelialization, which begins from the basement membrane of the skin or from the wound edges if the basement membrane is compromised.

45.

Which type of healing would be used for a wound with full-thickness skin loss with wound margins that cannot be approximated and with nonviable wound edges?

superficial wound healing

primary intention

delayed primary intention

secondary intention

Explanation:

Wounds that involve full-thickness skin loss with margins that cannot be approximated and/or have nonviable wound edges are usually left to heal by secondary intention. In some cases of large wounds, skin grafting may be required. Secondary intention healing is also indicated for grossly contaminated wounds that carry a high risk of infection and necrotic tissue. The wound is covered with a dressing and left to heal through regeneration rather than repair, resulting in scar tissue and contraction.

46.

If a patient's prealbumin level was 16 mg/dL on admission but current testing shows a level of 10 mg/dL, what does this suggest?

indication of acute inadequate protein intake

indication of chronic inadequate protein intake

level within normal limits

indication of infectious process

Explanation:

Prealbumin is used to assess acute changes in nutritional status, so a decrease from 16 to 10 mg/dL indicates that the patient has had recent acute inadequate protein intake, possibly because of the increased demand for protein and calories to promote healing. Because prealbumin's half-life is only 2 to 3 days, it can change rapidly in response to nutritional changes:

- *Normal value: 16-40 mg/dL.*
- *Mild deficiency: 10-15 mg/dL*
- *Moderate deficiency: 5-9 mg/dL.*
- *Severe deficiency: <5 mg/dL.*

This patient's diet should be reevaluated and protein and calories increased to meet the increased needs.

47.

A patient who is receiving oral iron because of an iron deficiency should also be prescribed

vitamin A.

vitamin C.

folate.

vitamin D.

Explanation:

Patients taking oral iron should also take vitamin C because it increases the iron absorption. Dosage is usually equivalent to or higher than the iron dosage. Vitamin C also promotes the formation of collagen and promotes wound healing, so deficiency can result in impaired healing and increased capillary fragility. Ferrous sulfate is usually used for iron deficiency in adults, with dosage varying according to hemoglobin and other factors. Patients should receive nutritional counseling regarding foods high in iron and vitamin C.

48.

What is the National Pressure Ulcer Advisory Panel (NPUAP) staging of a pressure ulcer that is 6 cm in circumference at the surface, but the base is covered with slough and hard, dry brown-black eschar?

stage II

stage III

stage IV

unstageable

Explanation:

Because injury to tissues may be more extensive than what is visible with a pressure ulcer, an ulcer in which the base cannot be visualized must be staged as "unstageable" with the NPUAP Pressure Ulcer Staging until the wound can be adequately debrided and the base examined to determine depth. The base may be obscured by slough of various colors (yellow to brown) or

eschar (brown or black). To ensure proper treatment, a wound classified as unstageable should be debrided and restaged as soon as possible.

49.

When irrigating a wound, what wound irrigation pressure is needed to effectively cleanse the wound while avoiding trauma?

<4 psi

4 to 10 psi

10 to 15 psi

>15 psi

Explanation:

Wounds should be irrigated with pressures of 10 to 15 psi. An irrigation pressure of <4 psi does not adequately cleanse a wound, and pressures >15 psi can result in trauma to the wound, interfering with healing. A mechanical irrigation device is more effective for irrigation than a bulb syringe, which delivers about ≤2 psi. A 250 mL squeeze bottle supplies about 4.5 psi, adequate for low-pressure cleaning. A 35 mL syringe with a 19-gauge needle provides about 8 psi.

50.

Which type of precautions require that the nurse assistant wear a mask while caring for the patient, that the patient be separated from other patients by at least 3 feet with a curtain separating them, and that a patient mask is used during transport?

standard

contact

airborne

droplet

Explanation:

Droplet. Transmission-based precautions include:

Contact	*Use personal protective equipment (PPE), including gown and gloves, for all contacts with the patient or patient's immediate environment.* *Maintain patient in private room or >3 feet away from other patients.*
Droplet	*Use mask while caring for the patient. Maintain patient in a private room or >3 feet away from other patients with curtain separating them.* *Use patient mask if transporting patient from one area to another.*
Airborne	*Place patient in an airborne infection isolation room.* *Use ≥ N95 respirators (or masks) while caring for patient.*

51.

A patient with Charcot arthropathy who has had 2 weeks of compression to reduce edema and inflammation will probably next need

total contact cast.

half shoe.

removable cast walker.

foam dressings for cushioning.

Explanation:

Charcot arthropathy should be treated with total contact cast for months, with duration depending on the location of the deformity: 12 months for hindfoot, 9 months for midfoot, and 6 months for forefoot. The casts should be changed weekly during the time the volume is changing and then every 2 to 3 weeks. Temperatures should be checked on both sides and should be within 3°F after recalcification. The patient may be allowed gradual weight-bearing after skin has resumed normal temperature.

52.

Which of the following is the most effective to prevent pressure ulcers on the heels?

foam heel pads

heel dressings

heel elevation device

sheepskin heel pads

Explanation:

The only way to prevent pressure on the heels is to elevate the heel so that it is not in contact with a surface, such as the bed or wheelchair footrest. A special heel elevation device can be utilized or a pillow may be placed under the legs, to elevate the heels. Additionally, a pillow should be placed between the ankles to prevent pressure ulcers where the feet contact each

other. The patient's position should be changed frequently with full-body turning to 30-degree lateral position, avoiding side-lying.

53.

Which is the best way to move a patient up in bed in order to prevent shear?

place hands under patient's axillary region and pull toward the head of the bed

ask patient to use trapeze to pull himself/herself up in bed

use a lift/turning sheet to move patient toward the head of the bed

lower the head of the bed and elevate the knees and ask patient to slide upward

Explanation:

Because shear results from a combination of friction and pressure, the only safe way to avoid shear when moving a patient up in bed is to use a lift/turning sheet with two people lifting and moving the patient toward the head of the bed. If possible, the patient can assist by utilizing a trapeze, but the patient should avoid pulling himself/herself toward the head of the bed with the trapeze unless the patient is able to lift completely off the bed with the feet placed flat on the bed to avoid shear on the heels.

54.

The initial treatment to relieve itching and prevent excoriation resulting from venous dermatitis is

topical antihistamine.

compression therapy.

topical steroids.

topical antibiotics.

Explanation:

Venous dermatitis appears on the ankles and lower legs and can cause severe itching and pain, and without treatment to control the dermatitis, it may deteriorate, causing ulcers to form, so treatment is needed to alleviate the symptoms. Initial treatment is usually with topical antihistamines. If this does not relieve symptoms, then low-dose topical steroids may be used for short periods only (2 weeks) to reduce inflammation and itching because of the danger of increasing ulceration.

55.

Which wound dressing type is most likely to result in pain during dressing change?

gauze

hydrocolloid

hydrogel

alginates

Explanation:

Gauze dressings cause the most pain during dressing change because they tend to adhere to the wound when dry. Even though wet-to-dry gauze dressings are frequently prescribed, they

may result in trauma to the wound, damaging granulating tissue, and should be avoided in favor of dressing types that maintain a moist environment. The primary considerations when choosing a dressing type should be those that cause the least wound trauma and the least pain while promoting healing.

56.

Which of the following topical treatments is usually the *BEST* choice to reduce infection and odor in a fungating necrotic neoplastic lesion?

Dakin's solution

yogurt

hydrogen peroxide

metronidazole

Explanation:

Metronidazole, in gel or solution, has proven to be an effective topical treatment to control infection and odor in necrotic tumors because it is effective against a wide range of anaerobic bacteria. The solution is used to irrigate the wound and the gel applied directly to the tissue. Hydrogen peroxide may irritate the tissue while Dakin's solution has an odor that some patients dislike, although both may reduce tumor odor. Some people have used yogurt and buttermilk topically to reduce odor by reducing wound pH, but there is little research to support their use.

57.

The primary problem with using the troughing technique to manage a posterior small bowel fistula in an open abdominal wound is

adherence.

wound contamination.

skin excoriation.

fungal infection.

Explanation:

Troughing is one method of fistula management that is appropriate for fistulas in the posterior aspect of an abdominal wound; however, this technique does not protect the wound from exudate, so the wound can become contaminated. Troughing involves applying skin barrier wafer to the skin surrounding the wound and skin barrier paste to the edges. Then, thin film dressing is applied to the wound down to the fistula opening and an ostomy pouch is cut to fit and applied about the fistula opening. This method allows drainage from the wound and the fistula to mix as they both drain into the ostomy appliance.

58.

When assessing a surgical wound on postoperative day 9, the nurse finds no evidence of a healing ridge. What is the primary implication?

wound is healing slowly

wound is infected

wound is at risk of dehiscence or infection

wound is well healed.

Explanation:

The healing ridge, which is the result of collagen deposition that begins in the inflammatory stage and continues to the proliferation stage, should be evident directly under a suture line between days 5 and 9 after suturing. If the healing ridge is missing, then the wound is at increased risk of dehiscence and infection. The healing ridge appears as an area of induration extending about 1 cm on both sides of the wound.

59.

What is the primary purpose for applying elbow pads to a patient who exhibits repetitive movement of the arms and legs?

prevent pressure ulcers

promote comfort

reduce friction

reduce shear

Explanation:

Elbow and heel pads do not prevent pressure ulcers but they do reduce friction, which can lead to skin breakdown. Friction occurs when body parts rub against the sheet or each other. Elbow pads are especially useful for patients who exhibit repetitive movements of the arms. Other methods to reduce friction include applying transparent film, skin sealant, or other protective dressings, such as a thin hydrocolloid or other padding, to vulnerable skin sites.

60.

When cleansing a wound in a shower, how far away from the wound should the showerhead be?

6 inches

2 inches

24 inches

12 inches

Explanation:

When cleansing a wound in a shower, the showerhead should be about 12 inches away from the wound. The showerhead may be covered with a clean washcloth or other cloth if necessary to reduce the water pressure. Showering should usually be done over 5 to 10 minutes to ensure that the wound is adequately clean. The patient may be seated in a shower chair if standing is difficult or the wound is in a hard-to-reach area.

61.

With static compression therapy, how much pressure should high-level compression dressings exert at the ankle?

30 to 40 mmHg

≤50 mmHg

10 to 20 mmHg

<23 mmHg

Explanation:

High-level compression therapy should exert 30 to 40 mmHg at the ankle. Low-level products exert ≤23 mmHg at the ankle. Static compression utilizes various products (layered wraps, single-layer wraps, and compression stockings) to apply gradually increasing pressure to the lower extremity, distally to proximally (usually beginning at the foot or ankle and extending to the knee). The primary purpose is to prevent venous ulceration or further deterioration of existing ulcers.

62.

With Ayello's ASSESSMENTS tool for evaluation of wounds, the M refer to

marginal edges.

medications.

management.

maceration.

Explanation:

Maceration. Ayello's ASSESSMENTS:

A Anatomic location and age of wound

S Size, shape, and stage (NPUAP for pressure ulcer or Wagner for neurotrophic)

S Sinus tract, tunneling, undermining, and fistulae

E Exudate (amount, consistency, and color)

S Sepsis

S Surrounding skin

M Maceration

E Edges and epithelialization

N Necrotic tissue

T Tissue bed and tenderness (0-10 scale for pain)

S Status of wound and supportive therapy

63.

When obtaining a wound culture for anaerobic organisms, what should the nurse do immediately after aspirating exudate from deep within the wound?

squirt the exudate directly into a culture tube

apply a needle to the syringe and expel all air, then inject the exudate into a culture tube

apply a needle to the syringe and inject the exudate into a culture tube

inject the exudate onto a sterile swab and insert that into a culture tube

Explanation:

Because exposure to air will kill anaerobic bacteria, a culture should be taken with a syringe without the needle. The nurse should insert the tip of the syringe as deeply into the wound as possible, aspirating 2 to 3 mL of exudate. Immediately after removing the syringe from the wound, the nurse should attach a needle, expel all air from the syringe, and inject the exudate into a special sealed culture tube intended for anaerobic organisms. Aerobic organisms are cultured by swabbing the wound surface with a sterile swab.

64.

Which of the following findings on assessment is a risk factor for malnutrition and impaired healing?

weight 95% of ideal body weight for age

wears dentures

drinks 1 to 2 glasses of wine daily

body mass index (BMI) of <18.5

Explanation:

BMI <18.5. Malnutrition risk factors:

- *Hypermetabolism resulting from various diseases.*
- *Weight loss, especially sudden or loss of 10% of normal weight over a 3-month period.*
- *Low body weight of <90% of ideal body weight for age.*
- *Low BMI <18.5.*
- *Immunosuppressive drugs that interfere with nutrient absorption, malabsorption of nutrients caused by diseases, changes in appetite, and food intolerances, such as lactose intolerance.*
- *Dietary restrictions, such as limiting of protein with kidney failure.*
- *Functional limitations such as inability to feed oneself.*
- *Lack of teeth or dentures, limiting intake.*
- *Alterations of taste or smell that render food unpalatable.*

65.

Which of the following is an extrinsic factor that may affect wound healing?

wound bioburden

age

nutrition

immunosuppression

Explanation:

Extrinsic factors are those that derive from outside the body, such as wound bioburden. Other extrinsic factors include radiotherapy, medications, interfering therapies, and stress. Intrinsic factors are those that are inherent in the patient and can include the patient's age, disease (such as diabetes), immunosuppression (from disease, such as HIV/AIDS, or from medications, such as chemotherapeutic agents). Malnutrition and neuropathy are also intrinsic factors that can affect healing.

66.

A basic principle of wound care with occlusive dressings is to keep the wound

cool and dry

warm and dry

warm and moist

cool and moist

Explanation:

Occlusive dressings should keep the wound warm and moist. Reasons include:

- *Reduction in dehydration allows cells such as neutrophils and fibroblasts to carry out their functions in wound repair. This also results in less cell death.*
- *Angiogenesis requires a moist environment and low oxygen tension.*
- *Autolytic debridement with proteolytic enzymes is enhanced.*
- *Re-epithelization of tissue occurs because the epidermal cells are able to spread across the surface of the wound.*
- *Reduction in microorganisms because the seal provided by occlusive dressings decreases infection.*
- *Pain reduction results from protection of the nerve endings and the need for fewer dressing changes.*

67.

Which of the following wound types would be the *BEST* candidate for negative pressure wound therapy (NPWT)?

second-degree burns on arm

open wound on leg with osteomyelitis

stage III pressure ulcer with moderate amount exudate

abdominal wound dehiscence with organs exposed

Explanation:

NPWT is intended for wounds healing by second or third intention, so the best candidate would be a stage III pressure ulcer. NPWT reduces edema, promotes healing, and decreases exudate but is contraindicated with exposed blood vessels, osteomyelitis, and exposed organs. For

NPWT, the wound bed is filled with nonadherent porous foam and secured by occlusive transparent film into which an opening is cut over the foam and a drainage tube applied. This tube is then attached to a suction canister to create a closed system.

68.

What is the primary advantage of the clock method of measuring a wound as opposed to the greatest length by greatest width (GLBGW) method?

GLBGW underestimates wound size and clock method does not

clock method is the most commonly used

clock method requires less precision

clock method tracks the same site

Explanation:

The clock method, which involves measuring the wound from 12 o'clock to 6 o'clock and from 9 o'clock to 3 o'clock always tracks the same site, while the GLBGW method may involve measurements at different sites each time because wounds often do not heal evenly. The clock method does require more precision to ensure that measurements are exactly perpendicular to each other. The GLBGW method is the most commonly used, but studies show it often overestimates the wound surface, while the clock method may be more accurate, but both methods can overestimate to some degree because of wound irregularities.

69.

When testing a diabetic patient's vibratory perception threshold (VPT) with a tuning fork, the nurse should first conduct a preliminary test on the patient's

lower leg.

forehead.

forearm.

sternum.

Explanation:

When testing the VPT, the nurse should first conduct a preliminary test on the patient's sternum so that the patient knows what sensation to expect. During the test, the patient should keep the eyes closed and report when first feeling a vibratory sensation and when it ceases. After striking the tuning fork, it is applied to the dorsum of the great toe (proximal to the nail bed) with the test repeated 8 times. A patient receives 1 point each time he/she fails to feel the vibration, so scores range from 0 (good) to 8 (impaired).

70.

The primary risk factor for development of pressure ulcers is

sensory loss.

inactivity.

immobility.

cognitive impairment.

Explanation:

Immobility is the primary risk factor for development of pressure ulcers, although inactivity and sensory loss are also contributing factors. People with sensory loss may not feel the discomfort that occurs with pressure. Studies have indicated that those who make 50 spontaneous movements during the night have almost no risk of developing a pressure ulcer while those who make 20 or fewer spontaneous movements during the night are at high risk, highlighting the importance of frequent repositioning of patients whose mobility is limited.

71.

When assessing a wound, what is the best way to differentiate between granulation tissue and muscle tissue?

observe for color

measure temperature difference

observe for location in wound

palpate and gently pinch tissue

Explanation:

Muscle tissue and granulation tissue may be similar in color; location alone is not adequate to differentiate the two. Because muscle tissue is firmer and reacts differently to pressure, the best method to differentiate the two is to palpate and gently pinch the tissue. Granulation tissue tends to be soft and spongy and will often bleed if disturbed, such as by gently pinching. Muscle tissue, however, is more resilient to pressure but may twitch if pinched or palpated.

72.

Which is the best choice for mechanical debridement of a large infected pressure ulcer on the right hip with undermining and tunneling in a febrile patient who is undergoing cardiac monitoring?

pulsatile lavage with suction

whirlpool

wet to dry dressing

flush with 35 mL syringe with size 19 needle

Explanation:

Pulsatile lavage with suction (PLWS) is the best choice because it is effective in reducing bacterial load and can be used with undermining and tunneling. Additionally, it can be carried out effectively at bedside if necessary. Whirlpool is contraindicated in febrile patients and cannot be carried out if the patient is undergoing cardiac monitoring. Wet to dry dressings are no longer recommended because they may damage new tissue. Flushing a large contaminated wound with a 35 mL syringe and 19-gauge needle is likely to be ineffective.

73.

The 5 Ps of neurovascular assessment are

pain, pulselessness, position, paresthesia, paraplegia

pain, pallor, pulselessness, paresthesia, paraplegia

pain, perception, pulselessness, position, paresthesia

pain, pulselessness, perception, pallor, paraplegia

Explanation:

The five Ps of neurovascular assessment are

- *Pain: Amount and severity are contributing factors.*
- *Pallor: Indicates decreased arterial supply.*
- *Pulselessness: Note weak or absent pulses. Capillary refill time should be ≤3 seconds.*
- *Paresthesia: Numbness, tingling.*
- *Paraplegia: Assess motion.*

74.

When doing a continuous wave Doppler probe assessment of peripheral pulses, the normal phasic flow pattern is

quadriphasic.

triphasic.

biphasic.

monophasic.

Explanation:

The normal phasic flow pattern is triphasic when assessing peripheral pulses with continuous wave Doppler (representing systolic forward flow, negative deflection during diastole, and return to forward flow). As the artery loses the ability to recoil, such as through atherosclerosis, the phasic flow pattern changes to biphasic and then eventually to monophasic when the pulsatile nature of the blood flow is impaired. Continuous wave Doppler is most often used when calculating the ankle-brachial index (ABI).

75.

What is the *BEST* debridement choice for a venous ulcer with hard brown adherent eschar covering 60% of the wound?

- autolytic with hydrogels
- autolytic with transparent film dressing
- sharp
- enzymatic

Explanation:

The best debridement choice for a venous ulcer with hard brown adherent eschar covering 60% of the wound is autolytic with hydrogels. Because of the edema associated with venous ulcers, they tend to produce a lot of exudate, and this increases as the wound debrides, so hydrogel dressings, which have absorptive properties, help to contain the exudate and prevent maceration of the surrounding tissue. Enzymatic debridement may also be used, but the surrounding skin must be monitored carefully and protected from the enzyme and exudate.

76.

What does it mean if the wound surface appears gelatinous 1 week after Apligraf has been applied to a diabetic ulcer?

- infection
- rejection
- allergic response

normal response

Explanation:

Upon application of Apligraf to the wound, it appears similar to a skin graft. However, after about a week, it should appear gelatinous, so this is a normal transition and care must be taken not to disrupt or wash away the biological skin substitute for the first 2 to 3 weeks. In some cases, reapplication is necessary. Apligraf is supplied in a thermally controlled container and requires incubation prior to application. Apligraf is applied to the wound surface (edges overlapping) and covered with a compression wrap to secure.

77.

The *BEST* candidate for hyperbaric oxygen therapy is a patient with

chronic venous ulcers, refractory to standard treatment.

chronic diabetic ulcers (Wagner III classification), refractory to standard treatment.

newly diagnosed osteomyelitis, recently started on standard treatment.

acute wound from trauma to lower leg.

Explanation:

The best candidate for hyperbaric oxygen therapy is the patient with chronic diabetic ulcers (Wagner classification III or higher), refractory to standard treatment. During treatment, patients breathe 100% oxygen in a pressurized environment. Hyperbaric oxygen therapy increases available oxygen to tissues by 10 to 20 times. Blood that is saturated increases perfusion of the tissues. Hyperbaric oxygen therapy is indicated for peripheral arterial insufficiency, compromised skin from grafts, and diabetic ulcers (usually Wagner III or higher). In 2003, Medicare approved payment for hyperbaric oxygen therapy to treat diabetic ulcers.

78.

According to Krasner's Chronic Wound Pain Experience (CWPE) model, what intervention would be specifically instituted to relieve cyclic acute wound pain?

transcutaneous nerve stimulation

tricyclic antidepressants

soaking dressing to loosen prior to removal

application of heat

Explanation:

Soaking dressing to loosen prior to removal relieves cyclic acute pain. CWPE model:

- *Noncyclic acute wound pain: Occurs with trauma, such as sharp debridement. Interventions include topical or local anesthetics and anti-anxiety medication.*
- *Cyclic acute wound pain: Occurs at regular times, such as with wound changes or position changes. Interventions include soaking dressing, timeouts, nonadherent dressings, and use of repositioning devices.*
- *Chronic wound pain: Occurs continuously. Interventions include heat, transcutaneous nerve stimulation, and tricyclic antidepressants.*

79.

Which pressure measurement is indicative of limb ischemia?

ankle pressure <60 mmHg

ankle pressure <40 mmHg

toe pressure <60 mmHg

toe pressure <40 mmHg

Explanation:

Indications of limb ischemia include ankle pressure <40 mmHg and toe pressure <30 mmHg. Critical limb ischemia occurs when resting pain is so severe it requires analgesia for more than 2 weeks of duration. Limb ischemia can result in impaired healing of arterial ulcers and increased wound pain. Pain may be evident on positional changes (increasing with elevation, decreasing with dependency), when walking (usually relieved after about 10 minutes rest), or at rest with limb elevated (neuropathic).

80.

High-compression stockings (50 to 60 mmHg), class IV, are recommended for

edema associated with venous insufficiency.

edema associated with lymphedema.

dependent edema.

edema with ulceration.

Explanation:

High-compression stockings, class IV (50 to 60 mmHg), are recommended only for edema associated with lymphedema, which is characterized by edema that begins soft and pitting but over time become firm and diffuse but more severe distally than proximally. It often occurs bilaterally and is usually not associated with pain, although the patient may complain the

affected limbs feel heavy. Ulcerations are rare, and elevation provides only partial relief. Skin eventually thickens and tissue is fibrotic.

81.

What is the *BEST* treatment for a patient with peripheral edema whose lower legs are dry, scaly, and pruritic, resulting in slight excoriation from scratching?

warm mineral oil

corticosteroid ointment

domeboro soaks

Neosporin

Explanation:

Warm mineral oil treatment for 1 week during the night can relieve dry, scaly, pruritic skin associated with peripheral edema. The legs are washed and dried thoroughly and then warm mineral oil is applied to all affected areas (usually from toes to knees). The skin is then covered with plastic wrap and secured over the feet with cotton stockings. The plastic wrap is removed in the morning and the skin washed and dried, followed by application of a thick moisturizing cream.

82.

What is the primary purpose of applying foam dressing over amorphous hydrogels or alginates for a large pressure ulcer?

provide protection

provide cushioning

prevent adherence to the wound

remove excess exudate and promote autolysis

Explanation:

While all of these are attributes of foam dressings, amorphous hydrogels and alginates are used to contain wounds with a large amount of exudate. Foam dressings are highly absorbent and thermally insulating, so the primary purpose of covering these wound fillers with foam dressing is to absorb additional exudate and to raise the core temperature of the wound in order to promote autolysis. Additionally, foam dressings conform to the body and can easily mold to irregular body surfaces.

83.

Which of the following treatments may be used to reduce hypergranulation in a wound?

povidone iodine

hyaluronic acid (Hyalofill)

hypertonic sodium chloride

silver sulfadiazine

Explanation:

Hypertonic sodium chloride may be applied to a wound to reduce hypergranulation as it is less toxic than silver nitrate. Hypergranulation, which inhibits epithelialization, often occurs in

wounds left open to heal by secondary intention. Hypertonic sodium chloride dressings are applied daily until the granulation level is normal, but should be changed every 24 hours to inspect the wound. The hypertonic saline in the dressing draws excess fluid from the cells on the wound surface.

84.

Which is the *BEST* dressing to apply to protect reddened but intact skin in order to prevent skin breakdown?

foam dressings

hydrocolloids or film dressings

sheet hydrogel

silver dressings

Explanation:

Hydrocolloids or film dressings are the best choices to provide protection to reddened skin and prevent further skin deterioration as they reduce friction and shear. Foam dressings are used for moist wounds with exudate. Sheet hydrogel is used to rehydrate slough to aide in autolysis, so it is useful when slough is present with minimal exudate. Silver dressings have antibacterial properties and are used to treat infected wounds or, as in the case of burns, to prevent infection.

85.

When using a lidocaine soak to prevent pain during debridement of an ulcer, how long should the soak be in contact with the wound before beginning debridement?

3 to 5 minutes

10 to 15 minutes

20 minutes

30 minutes

Explanation:

3 to 5 minutes. Procedure for lidocaine soak:

- *Draw 5 to 10 mL of 2% lidocaine into a syringe.*
- *Remove wound dressing and cleanse wound.*
- *Place clean dry gauze over surface of wound.*
- *Saturate the wound area (and gauze) with the 2% lidocaine.*
- *Allow the lidocaine solution to contact the wound for 3 to 5 minutes.*
- *Evaluate pain sensation to ensure the area is anesthetized.*
- *Debride wound and redress as appropriate.*

86.

Pressure dressings to prevent scarring are usually indicated when a wound takes longer than

>7 days to heal.

>14 days to heal.

>21 days to heal.

>28 days to heal.

Explanation:

Wounds that take fewer than 14 days to heal are often partial-thickness wounds that heal with no or minimal scarring, but the potential for scarring is greater for those that take more than 14 days. Pressure dressings or garments are used commonly with burns and special pressure garments in various sizes are available for different parts of the body. In small areas, such as on a forearm, pressure dressings may be applied with self-adherent stretch wrap or tubular dressings.

87.

When exercising and stretching a scar, maximal stretch is usually indicated by

onset of pain.

reddening of scar.

blanching of scar.

increase in pain.

Explanation:

When exercising and stretching a scar, maximal stretch is usually indicated by blanching of the scar. While some pain is often involved in stretching, it should not exceed the patient's tolerance. Slow stretching that is sustained is better than rapid stretching and relaxing exercises. Exercises to stretch scars should be individually determined and depend on the type of scar, location of scar, and phase of healing, as well as patient factors, such as age, mobility, cognition, and medical status.

88.

Which of the following is the *BEST* debridement choice for an infected diabetic ulcer with hard gray callus formation at wound edges?

sharp debridement with saucerization or callus removal

autolytic debridement with hydrogels or hydrocolloids

autolytic debridement with transparent film dressing

enzymatic debridement

Explanation:

Sharp debridement with saucerization (tissue excavated to form a shallow depression to facilitate drainage) is the best choice for an infected diabetic ulcer with callus formation, although repeat saucerization may be required with each dressing change. All of the callus and necrotic tissue should be removed and the wound flushed with sterile saline. In some cases, autolytic debridement with hydrocolloids or hydrogels may be used first to help soften the callus prior to its removal.

89.

In the acute surgical wound, signs of inflammation are normal for the first

24 hours.

2 days.

3 days.

4 days.

Explanation:

Signs of inflammation are usually evident in the acute surgical wound for the first 4 days, and this is a normal finding. Indications can include increased skin temperature about the incision, erythema, and edema. If no evidence of inflammation occurs, then this may indicate immunosuppression. Because hair follicles are usually present, epithelium resurfaces the incision within 72 hours, providing protection from bacteria and mild trauma, although the tensile strength of the healing incision remains weak.

90.

A patient with a Braden score of 16 has what chance of developing a pressure ulcer?

no risk (normal finding)

slight risk (50% to 60%)

moderate risk (65% to 90%)

high risk (90% to 100%)

Explanation:

Slight (mild) risk (90% to 100%). The Braden scale rates 5 areas (sensory perception, moisture, activity, mobility, and usual nutrition pattern) with a 1-4 scale and one area (friction and shear) with a 1-3 scale. Lower scores indicate increased risk. The scores for all six items are totaled and a risk is assigned according to the number:

- *23 (best score) = excellent prognosis, very minimal risk.*
- *15 to 18 = mild risk (50%-60%) with 16 usually the breakpoint for pressure ulcer.*
- *13 to 14 = moderate risk (65%-90%).*
- *10 to 12 = high risk (90%-100%) with 6 the worst score.*

91.

How many pillows should be placed for pillow bridging to position patients with minimal compression of tissue?

2

3

4

5

Explanation:

Pillows are useful for reducing compression of tissue even with support surface, especially to protect the heels. Pillow bridging usually requires placement of at least 5 pillows with one in each of the following positions: under the legs (to protect the heels), between the ankles, between the knees, behind the back, and underneath the head. An additional small pillow may be used to support the upper arm when the patient is lying in a side-lying tilt.

92.

When assessing venous refill time, venous occlusion is indicated with times of

>3 seconds.

>10 seconds.

>20 seconds.

>30 seconds.

Explanation:

Venous refill time: The procedure begins with asking the patient to lie supine for a few moments and then having the patient elevate the legs to 45 degrees for 1 minute. Next, the patient is assisted into sitting position with the feet dependent while the nurse closely observes the veins on the dorsum of the foot and counts the seconds before normal filling. Normal venous refill time is 5 to 15 seconds, and venous occlusion is indicated with times >20 seconds.

93.

What intervention is appropriate for patient with a diabetic ulcer on the great toe, which is swollen, draining, painful, and has purple discoloration?

referral to surgeon

sharp debridement

autolytic debridement

enzymatic debridement

Explanation:

Because these findings (swelling, drainage, pain, and purple color) are consistent with wet gangrene, no debridement should be carried out. The patient should be referred to a surgeon immediately. Wet gangrene involves necrosis of tissue from excessive moisture and bacterial infection, causing bacterial gases to accumulate in the damaged tissue. Dry gangrene occurs from impaired circulation, resulting in dry, black, shriveled tissue.

94.

The Harris mat is used for

strengthening exercises.

temperature testing to evaluate Charcot's arthropathy.

pressure testing for plantar offloading.

foot measurements to evaluate swelling.

Explanation:

The Harris mat, used for pressure testing, is a tool that indicates the patient's plantar pressure and weight distribution and can be used to provide a pattern for off-loading. The mat is placed on the floor and opened and ink applied with a roller to the impression side. Then a piece of paper is placed on the opposite side and the impression side folded over to cover the paper (ink side down). Then, the patient steps onto the impression side and the ink transfers onto the paper with darker areas indicating areas of higher pressure.

95.

Patients with peripheral neuropathy should routinely have professional skin and nail care of the foot

every 2 weeks.

weekly.

every 2 months.

monthly.

Explanation:

Patients with peripheral neuropathy should routinely have professional skin and nail care of the foot at least monthly so that the foot can be thoroughly examined and assessed in order to prevent ulceration. Those with poor hygiene or compromised tissue may need care more frequently. Toenails grow at the rate of about 1 mm per month while fingernails grow at the rate of about 3 mm per month. Toenails should be cut straight across with sharp corners smoothed with a file. Patients should be taught proper hygiene and care of the feet.

96.

What is the *BEST* emollient to apply to protect the feet of patients with peripheral neuropathy?

petrolatum jelly

zinc oxide

Vicks VapoRub

lotion

Explanation:

The best emollient to apply to the feet for a patient with peripheral neuropathy is petrolatum jelly because it has low water content and provides good moisturizing. Zinc oxide is used for barrier protection but is too thick for emollient purposes. Vicks VapoRub is used to soften calluses but not for routine foot care. Lotion has high water content and must be reapplied every few hours. Before application of petrolatum jelly, the feet should be washed (not soaked) with nondrying soap and dried thoroughly with clean cotton socks worn after application.

97.

What is the most likely cause of itching, erythema, scales, and fissures between the toes and on the planter foot surface of a patient who has been taking a broad-spectrum antibiotic for an infected venous ulcer?

allergic dermatitis

bacterial infection

tinea pedis

circulatory impairment

Explanation:

Tinea pedis (athlete's foot) is a fungal infection that can occur in those who are immunocompromised or taking broad-spectrum antibiotics. Symptoms include:

- *Severe itching with vesicles or erosion of instep and with peeling maceration and fissures between toes.*
- *Dry, scaly, mildly erythematous patches on plantar and lateral foot surfaces.*

Treatment includes selenium sulfide shampoo wash of area before applying topical antifungal (clotrimazole, miconazole, tolnaftate, naftifine, terbinafine) 2 times daily for about 4 weeks. Lamb's wool may be used between toes to absorb moisture.

98.

Which patient is an appropriate candidate for electrical stimulation (ES) therapy?

patient with neoplastic wound

patient with osteomyelitis

2-year-old patient with burns

patient with chronic neuropathic ulcer

Explanation:

Electrical stimulation has been found to promote healing in most types of acute and chronic wounds and at all phases; however, ES is not recommended for children younger than 3 years, although it may be appropriate for older children. ES is also contraindicated with neoplastic wounds and evidence of osteomyelitis. If wounds penetrate to the bone, then a presumption of osteomyelitis should be made and ES avoided. Any topical treatments containing metal ions, such as povidone iodine and silver sulfadiazine, must be removed completely before ES treatment.

99.

When using the pinch test as an initial assessment of skin turgor and dehydration, which site provides the most accurate results?

skin on top of hand or palm

skin on forehead or sternum

skin on abdomen

skin on forearm or upper arm

Explanation:

The pinch test is not very reliable for assessing dehydration, especially if done over areas with much subcutaneous tissue, so the best sites are on the forehead or over the sternum. Indications of dehydration include cracked lips, dry mucous membranes, tachycardia, altered sensations, hypotension, and weight loss. If dehydration is suspected, then it should be confirmed with diagnostic testing, such as serum osmolality, serum sodium, BUN, BUN/creatinine ratio, urine specific gravity, and albumin.

100.

What transcutaneous oxygen pressure ($tcPO_2$) level indicates that a wound will probably not heal?

<20 mmHg

<25 mmHg

<30 mmHg

<35 mmHg

Explanation:

$TcPO_2$ level <20 mmHg usually indicates that a wound will not heal because oxygen supply is inadequate while a level >30 mmHg indicates good potential for healing, and the wound can be safely debrided. The transcutaneous method is contraindicated if edema or infection is present in the wound because results will not be accurate. Depending on the type of machine for testing, the $TcPO_2$ can take up to 30 minutes to complete.

101.

In order to prevent friction and shear, which method is the safest to move a patient toward the head of the bed?

the patient uses an overhead trapeze to slide upward

the patient sits up and slides the buttocks backward

the patient is grasped under the arms from the head of the bed and pulled

two people move the patient on a pull sheet

Explanation:

In order to prevent friction and shear, the method that is the safest to move a patient toward the head of the bed is for two people to move the patient on a pull sheet. Friction occurs when the skin rubs against the surface, and the friction causes the skin to stick to the linen. Shear then occurs when the skin stays in one place but the underlying tissue and the deep fascia stretches and slides, damaging vessels and tissues. Because pressure also often occurs, pressure sores may develop.

102.

Which of the following is characteristic of moisture-associated and incontinence-associated dermatitis?

presence of necrotic tissue

lesions over bony prominences

lesions in skin folds

absence of pain/itching

Explanation:

Moisture-associated and incontinence-associated dermatitis is characterized by lesions in skin folds (such as the labia, between the buttocks, and under and around the scrotum) rather than over bony prominences. The inflamed tissue tends to be red and diffuse rather than circumscribed and red to purple as in pressure ulcers. The dermatitis may vary from intact but irritated skin to partial-thickness wounds. Necrotic tissue is not present although patients may complain of pain and itching.

103.

The monofilament test is used for diabetic patients to assess

loss of protective sensation.

response to medications.

healing in diabetic ulcers.

dermal oxygenation.

Explanation:

The monofilament test is used for diabetic patients to assess loss of protective sensation and risk for development of diabetic ulcers. Procedure:

- *Grasp a length of #10 monofilament in the instrument provided.*
- *Touch the monofilament against the bottom of the foot and then press the monofilament into the foot until the line buckles.*
- *Test the great, 3rd, and 5th toes.*
- *Test the left, medial, and right areas of the ball of the foot*
- *Test the right and left of the arch.*
- *Test the middle of the heel.*

If the patient fails to detect more than four sites out of the 10 tested, this indicates increased risk. The patient may be taught to carry out the testing at home.

104.

When applying an Unna boot over an open wound, the wound should be covered with

foam dressing.

non-adherent dressing.

gauze dressing.

antibacterial ointment.

Explanation:

When applying an Unna boot over an open wound, the wound should be covered with a non-adherent dressing to prevent traumatic injury to the healing tissue when the Unna boot is removed. Unna boots are indicated for wounds that are slow healing and are usually left in place for 3 to 7 days and serves to protect the wound and to promote healing. The wound should be carefully assessed at each change.

105.

With electrical stimulation (estim) with high-voltage pulsed current (HVPC), the negative electrode would be the active electrode if the wound is in the

hemostasis phase.

maturation phase.

proliferation phase.

inflammatory phase.

Explanation:

With electrical stimulation (estim) with high-voltage pulsed current (HVPC), the negative electrode would be the active electrodes if the wound is in the inflammatory phase. One electrode is the active one (negative or positive) and the other is the dispersive electrode. The electrodes attract particular cells. The negative electrode typically attracts neutrophils, fibroblasts, and lymphocytes, making it effective for infected wounds. The positive electrode would be the active electrode on the wound if the wound is clean and in the proliferation phase. The positive electrode attracts macrophages and is effective in necrotic wounds.

106.

Which of the following medications must be discontinued prior to treatment with hyperbaric oxygen?

cisplatin

methotrexate

sulfathiazole

fluoxetine

Explanation:

Cisplatin and Sulfamylon must be discontinued prior to treatment with hyperbaric oxygen because the combination of the drug and the therapy impairs wound healing. Other drugs that must be discontinued include bleomycin (which can lead to interstitial pneumonitis), disulfiram (which can lead to oxygen toxicity), and doxorubicin (which can lead to oxygen toxicity). Both bleomycin and cisplatin must be discontinued for an extended time period before beginning hyperbaric oxygen therapy.

107.

If a patient with a small wound on the hand states he was bitten by a bat when he picked it up to remove it from his house, the MOST pressing need is

wound care.

antibiotic therapy.

rabies prophylaxis.

steroids.

Explanation:

If a patient with a small wound on the hand states he was bitten by a bat when he picked it up to remove it from his house, the most pressing need is rabies prophylaxis because bats have a high rate of rabies infection. A bat that is able to be picked up is probably ill, and that increases the risk. All bites from a bat, even tiny wounds, must be treated with post-exposure prophylaxis before the onset of any symptoms in order to be effective.

108.

To provide support for a scar, microporous tape should be applied

transversally at intermittent intervals along the scar.

longitudinally along the length of the scar.

at right angles across the length of the scar.

at right angles intermittently across the scar.

Explanation:

To provide support for a scar, microporous tape should be applied longitudinally along the entire length of the scar and left in place until it loosens on its own after several days before replacement. Stripping the tape may cause inflammation that worsens the scar. The tape should not be applied at right angles. Scar support is especially important in areas where vector forces pull at the wound, such as in areas of movement.

109.

How far about the perimeter of a wound does the periwound tissue extend?

2 cm

3 cm

4 cm

5 cm

Explanation:

The periwound tissue extends 4 cm about the perimeter of the wound. Periwound tissue should be carefully examined because it is vulnerable to damage, especially from exudate, which may cause maceration, and adhesive, which may cause dermatitis. Periwound tissue should be cleansed with water or NS and a skin barrier (such as alcohol-based skin sealants, creams, or ointments) applied. If a wound has excessive exudate, a moisture retentive dressing may help to protect the periwound tissue.

110.

According to the Modified Wagner Foot Ulcer Classification System, a full thickness ulcer that extends to the tendon or joint but without abscess or osteomyelitis is classified as

grade 1.

grade 2.

grade 3.

grade 4.

Explanation:

A full-thickness ulcer that extends to the tendon or joint but without abscess or osteomyelitis is classified as grade 2. The Modified Wagner Foot Ulcer Classification System separates foot ulcers into 6 grades (grade 0 to grade 5). Classification is based on depth of lesion, presence of osteomyelitis, gangrene, infection, ischemia, and neuropathy, but does not include ulcer size, so this grading system is not used in isolation; however, it is predictive of outcomes, with grades 3 to 4 indicating marked compromise.

111.

Keloid scarring is generally caused by excess production of collagen type

I.

II.

III.

IV.

Explanation:

Keloid scarring is generally caused by excess production of collagen type I, which is found in the skin. There is a genetic component to keloid scarring, which involves fibrous tissue that develops about a wound. The keloid scar may develop over a period of about 3 months and can be larger than the original wound, having the appearance of tumors at times. Keloid scarring is most common in patients with darkener skin tones, such as African Americans, Asians, and Latinos.

112.

Which of the following is a contraindication to the use of hydrocolloid dressings?

leg ulcer

surgical incision

third degree burn

full-thickness wound

Explanation:

A contraindication for the use of hydrocolloid dressing is a third-degree burn although it may be used in small partial-thickness burns, especially in the later stages of healing. Hydrocolloid dressings are generally contraindicated for infected wound and those with tunneling as well as dry wounds and those with heavy exudate. Hydrocolloid dressings should also be avoided if the periwound tissue is very fragile as they may result in further skin breakdown when removed.

113.

What angle at hip and knees is considered the ideal sitting position?

80°

85°

90°

95°

Explanation:

The ideal sitting position is considered to be 95° at the hips and the knees and 90° to 95° at the ankles. While some patients, because of physical disabilities or pain, may be unable to achieve this ideal position, the nurse should aim to position the patient as close to this position as possible. Patients should be evaluated to determine their seating needs so that chairs can be properly adjusted. Some patients may require back supports, seat cushions or footrests to compensate for limited hip or knee flexion.

114.

Which group of patients should be assessed for pressure ulcer risk?

all patients

patients over 65 years

patients with a history of pressure ulcers

patients with diabetes

Explanation:

All patient should be routinely assessed for pressure ulcer risk even though some groups, such as those over 65, those with a history of pressure ulcers, and those with diabetes may be at increased risk. Focusing only on limited groups may result in missing other patients who may develop pressure ulcers. Various risk scales, such as Braden or Norton, may be utilized and can help to determine the care needs of the patient.

115.

Patients should be repositioned

routinely every 2 hours.

every 2 to 4 hours, depending on patient's condition.

only if so ordered by physician.

as determined by patient's condition and support surface utilized.

Explanation:

Patients should be repositioned according to the patient's condition and the support surface utilized rather than on a routine "q 2 hr" basis, which has been the standard for many years. Some patients may require more frequent turning, and others may be able to turn independently. Support surfaces that redistribute pressure may allow patients to be left in place for longer periods. The patient's risk for pressure ulcers should be part of the consideration for repositioning.

116.

According to CMS, in addition to daily wound monitoring, a thorough wound assessment should be carried out at least

daily.

weekly.

biweekly.

monthly.

Explanation:

According to CMS, in addition to daily wound monitoring, a thorough wound assessment should be carried out at least weekly. The wound assessment should ideally be carried out by a wound care specialist. Small changes may be overlooked in daily monitoring but may be more evident over a more extended period of time. Documentation of wound condition should be done in a consistent manner so that all healthcare providers are following the same protocol.

117.

If a wound has developed a fungal infection, which of the topical antimicrobials may prove effective?

metronidazole

gentamicin sulfate

cadexomer iodine

silver sulfadiazine 7%

Explanation:

If a wound has developed a fungal infection, cadexomer iodine (Iodosorb®) may prove effective because it works against bacteria, fungi, and viruses. Gentamicin, silver sulfadiazine, and metronidazole are effective only against bacteria. Cadexomer iodine must be avoided in patients who are sensitive to iodine and those who are pregnant or have a history of thyroid disorders. Cadexomer iodine should not be used for more than 3 months. Cadexomer iodine is available in various forms: gel, ointment, powder, and paste.

118.

If a Mexican patient with diabetic ulcers has been making slow progress and plans to have a *curandero* (healer) come to provide a healing ritual, believing this is more effective than modern medicine, the best response is

“A healer can’t help make your wounds better.”

“Why do you think you need a healer?”

“What can I do to help?”

"You need to trust your doctors to do what is best for you."

Explanation:

If a Mexican patient with diabetic ulcers has been making slow progress and plans to have a curandero (healer) come to provide a healing ritual, believing this is more effective than modern medicine, the best response is, "What can I do to help?" Unless a healing ritual in some way interferes with treatment or poses a risk to the patient (such as from some herbal preparations), the patient's desire for a healer should be respected. If the patient believes in the healer, the power of positive thought may have an effect on healing that cannot be quantified.

119.

The best option for cleansing the perineal skin in patients at risk for incontinence-associated dermatitis is

water only.

mild soap and water.

disinfectant soap and water.

cleansing product pH balanced to that of the skin.

Explanation:

The best option for cleansing the perineal skin in patients at risk for incontinence-associated dermatitis is a cleaning product pH balanced to that of the skin. No rinse cleansers should be utilized and scrubbing avoided. Soap should also be avoided as it may increase irritation. Additionally, moisturizers and skin barriers (such as zinc oxide) should be applied to protect the skin. Antifungal products may be necessary as well because the warmth and dampness of incontinence encourages the growth of fungal infections.

120.

An example of a humectant used in skin moisturizers to promote water retention in the stratum corneum is

petrolatum.

lanolin.

glycerin.

mineral oil.

Explanation:

An example of a humectant used in skin moisturizers is glycerin. Humectants are included to promote water retention in the stratum corneum. Other humectants commonly used include urea, propylene glycol, proteins, and urea. Other ingredients in moisturizers include occlusives, which provide protection to decrease water loss to the environment, and emollients, which aid in hydration of the stratum corneum. Occlusives include pam kernal, castor oil, carnauba wax, allantoin and cocoa butter. Emollients include mineral oil, cocoa butter, lanolin, paraffin, and shea butter.

121.

To reduce the risk of ulcerations, a patient with controlled bilateral peripheral pitting edema and brownish discoloration of skin around the ankles and anterior tibial areas should be advised to

stop smoking.

wear compression stockings.

use off-loading methods.

avoid elevating feet above the heart.

Explanation:

Therapeutic compression stockings (class II, 30 to 40 mmHg) are used to prevent ulceration in those with varicose veins and stable venous insufficiency (indicated by brownish discoloration) after edema is controlled or with existing ulcers when edema recedes. Patients should also elevate feet when sitting. Therapy may include lying down and elevating the affected limb above the heart for 1 to 2 hours two times daily and during the night. While everyone should stop smoking, it is more critical for those with peripheral arterial insufficiency.

122.

Which of the following is *MOST* important during maggot debridement therapy for debridement of an infected pressure ulcer?

maggots must be covered with an occlusive dressing

maggots must be left in the wound for 4 hours

maggots should be cleaned from the wound with hydrogen peroxide

maggots must have an oxygen supply

Explanation:

Because maggots are living things, they must have an oxygen supply, so they cannot be covered with hydrogels or other occlusive dressings. Maggots are applied to an open wound, but should not be applied to exposed vessels because they may cause bleeding. A special cage is applied

to encase the maggots and allow air to circulate. The maggots are left in place for 48 hours and then wiped out with gauze and the wound irrigated with NS.

123.

If a patient with chronic diabetic ulcers of the lower extremities and multiple morbidities tells the nurse that his goal is to eventually return to work, what is the best response?

"Let's set some short-term goals to work toward that."

"Do you think that's realistic?"

"You won't be able to work with your health problems."

"You should discuss that with your doctor."

Explanation:

If a patient with chronic diabetic ulcers of the lower extremities and multiple morbidities tells the nurse that his goal is to eventually return to work, the best response is, "Let's set some short-term goals to work toward that." Even though a patient's goals may seem unrealistic, the nurse should remain supportive while guiding the patient toward goals that may be more achievable in the short term because this may motivate the patient to keep trying.

124.

Which of the following statements by a patient indicates the need for referral to a diabetic educator?

"Because I can't see very well, I think I need to see a podiatrist for nail care."

“Now that my blood sugar has returned to normal with metformin, I don’t have to worry about my diet anymore.”

“I’m getting used to eating a little fruit instead of cakes and cookies.”

“I want one of the diabetic monitors that doesn’t require a finger stick.”

Explanation:

The statement by a patient that indicates the need for referral to a diabetic educator is, “Now that my blood sugar has returned to normal with metformin, I don’t have to worry about my diet anymore.” The patient needs to be aware that changes in lifestyle must be maintained for a lifetime and not just temporarily until the condition stabilizes because if the patient resumes previous eating habits, the diabetes may worsen.

125.

If a patient complains of recurrent generalized rash and itching, the best advice is to

try cortisone cream.

wash with water only instead of soap and water.

visit an allergist.

visit a dermatologist.

Explanation:

If a patient complains of recurrent rash and itching on the arms and legs, the best advice is to see a dermatologist who can diagnose the type of rash and prescribe treatment. The

dermatologist may make a further referral to an allergist for testing if it appears that the rash is an allergic response to something that cannot be readily identified. Cortisone may not be an appropriate topical treatment for all rashes.

126.

A socioeconomic indicator that suggests a red flag for further screening for case management includes

residence in low-income urban area.

divorced woman with adult children.

inability to drive.

admission from sheltered living facility.

Explanation:

While all of these issues may be considered, the red flag is admission from a sheltered living facility. Other red flag concerns include homelessness, poor living conditions, limited financial and insurance resources, and dependency on others for care. While reportable events (child/elder abuse, violent crime, domestic violence) automatically require full case management services, other situations must be considered individually. For example, the inability to drive for someone with a spouse or with availability of public transportation may not be a problem while it may prevent others from accessing care.

127.

If a coccygeal pressure ulcer with a large heavy black eschar at the center is showing signs of increasing infection (cellulitis, edema, erythema, exudate, odor), the most essential intervention is

surgical debridement.

topical antibiotic.

enzymatic debridement.

mechanical debridement with hydrotherapy.

Explanation:

If a coccygeal pressure ulcer with heavy black eschar at the center is showing signs of increasing infection (edema, erythema, exudate, odor), the most essential intervention is surgical debridement. Removal of the eschar helps to promote healing of the wound and to treat the infection. The wound cannot be properly staged until the eschar is removed. Small areas of eschar may be removed at bedside, but large lesions may need to be removed in an operating room.

128.

If a client who underwent a BK amputation of the right leg spends most of the time in bed, insisting that he can no longer take care of himself because it is too difficult, which referral is most indicated?

social worker

psychologist

rehabilitation services

occupational therapy

Explanation:

If a client who underwent a BK amputation of the right leg spends most of the time in bed, insisting that he can no longer take care of himself because it is too difficult, the referral that is most indicated is rehabilitation services. The patient may have difficulty coming to terms with the physical changes and may be unaware of options available. The patient may need to learn to use a wheelchair and/or prosthesis and to build muscle strength.

129.

Which of the following is a preventative intervention rather than maintenance or curative?

medications

smoking cessation

radiotherapy

physical therapy

Explanation:

Smoking cessation is a preventative intervention rather than maintenance or curative. Preventative interventions occur before the onset of disease or the identification of disease and may include screening tests, such as Pap smears, mammograms, BP checks, and colonoscopy. Lifestyle changes, such as increasing exercise, dieting, and reducing stress are also preventative. Radiotherapy, physical therapy, and medications are generally curative although they may at times also be utilized for maintenance.

130.

If the care plan for a burn patient includes "Risk for infection," which of the following is an appropriate intervention for this nursing diagnosis?

maintain aseptic technique when caring for patient

maintain fluid intake and output

provide nutritional supplementation

assess type, location, severity, and quality of pain

Explanation:

If the care plan for a burn patient includes, "Risk for infection," an appropriate intervention for this nursing diagnosis is to maintain aseptic technique when caring for the patient. Maintaining fluid intake and output, providing nutritional supplementation, and assessing pain are all important aspects of care but not specific to this nursing diagnosis. Other interventions for risk for infection include maintaining a clean work area, monitoring temperature and VS, monitoring wound for signs of infection, monitoring invasive lines (IV's, catheters), and observing for fever, ileus, and disorientation (which may indicate infection).

131.

If a patient states that she is afraid to bother her physician with questions, so the nurse helps her prepare a written list of questions and gives that to the physician, this is an example of

collaboration.

team work.

patient advocacy.

professional duties.

Explanation:

Patient advocacy includes the nurse working on behalf of the patient, assessing personal values, having awareness of patient's rights and ethical conflicts, and advocating for the patient when consistent with the nurse's personal values. This nurse also advocates for the patient/family, incorporates their values into the care plan even when they differ from the nurse's, and can utilize internal resources to assist patient/family with complex decisions. This nurse advocates for patient/family despite differences in values and is able to utilize both internal and external resources to help to empower patient/family to make decisions.

132.

If the nurse needs to educate a patient about wound care prior to discharge, but the patient and the patient's spouse speaks only Spanish (no English) although the 8-year-old daughter is bilingual, the MOST appropriate solution is to

ask the 8-year-old to translate.

find printed materials in Spanish.

demonstrate using gestures and other nonverbal language.

use a medical translator.

Explanation:

If the nurse needs to educate a patient about wound care prior to discharge, but the patient and the patient's spouse speaks only Spanish (no English) although the 8-year-old daughter is bilingual, the most appropriate solution is to use a medical translator. If none is available onsite,

telephone translation is available. Family members, especially children, should not be used as translators because their health literacy may vary, and it may be impossible to determine if the translations are adequate.

133.

Which is the *BEST* choice of barrier protection for intact skin to protect it from adhesive stripping and small amounts of exudate?

skin sealant

moister barrier ointment

moisture barrier paste

solid skin barrier

Explanation:

Skin sealants are film-forming barriers composed of a polymer in a fast-drying solvent, applied every 1 to 4 days, depending on the product. When the sealant is applied to the skin, the solvent (often isopropyl alcohol) dissolves, leaving the transparent plasticized polymer barrier over the tissue. It may be applied to intact or irritated tissue, although there may be some discomfort from the alcohol solvent contact with broken skin. Sealants can be used to protect skin from exudate, urine, stool, chemicals, and adhesive stripping. Sealants are applied with wipes, wands, or sprays.

134.

Which of the following is a skin care strategy to prevent dry skin?

cleanse the skin with an alcohol-based product

limit showers to 5 to 10 minutes

rub the skin briskly with a towel to dry

use a bath brush to scrub the skin

Explanation:

A skin care strategy to prevent dry skin is to limit showers to 5 to 10 minutes. Other strategies include using warm water instead of hot, avoiding alcohol-based products and lotions in favor of ointments and creams, avoiding bath brushes and drying the skin gently. Moisturizer of some type should be applied immediately after the person finishes bathing in order to trap the moisture in the skin. Skin care products should be unscented as they tend to be less irritating.

135.

In order to reduce incidence of surgical wound infections in diabetic patients, the glucose level should be maintained at

100 to 110 mg/dL.

110 to 130 mg/dL.

120 to 180 mg/dL.

160 to 200 mg/dL.

Explanation:

In order to reduce incidence of surgical wound infections in diabetic patients, the glucose level should be maintained at 120 to 180 mg/dL. Increased glucose levels result in decreased

phagocytic function and reduced collagen deposition by fibroblasts, so that the wound is weakened. Increased glucose levels can also interfere with the nutrition of the wound because the tissues require insulin to utilize glucose. The stress of surgery may reduce the amount of insulin circulating as well as increase the amount of glucose.

136.

How many kilocalories per kg of body weight should the average person with a pressure ulcer receive each day?

25 to 30

30 to 35

35 to 40

40 to 45

Explanation:

The average person with a pressure ulcer should receive 30 to 35 kilocalories per kilogram of body weight each day. This number may be adjusted upward or downward depending on the patient's general condition and evidence of being underweight or obese. Some patients may require dietary supplements between meals in order to maintain or gain weight and to promote healing. If oral intake is not sufficient, then parenteral feedings may be required.

137.

If a patient has a pulse oximeter clipped to an ear, in order to prevent pressure from the medical device, the oximeter should be

removed for 10 minutes every hour.

used only for brief checks but not left in place.

moved from one ear to the other every 8 hours.

moved from one ear to the other each time the patient is repositioned.

Explanation:

If a patient has a pulse oximeter clipped to an ear, in order to prevent pressure from the medical device, the oximeter should be moved from one ear to the other each time the patient is repositioned. All medical devices that may apply pressure (oxygen tubing, catheters, fecal containment devices, IV tubing) should be carefully checked with each repositioning and the skin examined to determine if there are any indications of pressure or skin irritation.

138.

If a patient with peripheral venous insufficiency complains about developing pedal edema at the end of each day, the best advice is to

elevate feet and legs whenever sitting.

decrease fluid intake.

increase diuretic dosage.

decrease activities.

Explanation:

If a patient with peripheral venous insufficiency complains about developing pedal edema at the end of each day, the best advice is for the patient to elevate the feet and legs whenever sitting.

Sitting with the feet dependent decreases venous return and leads to increased edema while activities, such as walking tend to increase venous return through pumping action of the muscles against the veins. The patient should also be advised to wear compression stockings.

139.

In order to ensure adequate fluid intake for wound healing, the average patient should have a minimum intake of

800 mL/d.

1000 mL/d.

1500 mL/d.

2000 mL/d.

Explanation:

In order to ensure adequate fluid intake for wound healing, the average patient should have a minimum intake of 1500 mL/d. If the patient has fluid loss, such as through exudate, vomiting, fever, or diarrhea, the patient may need to have increased fluid intake to compensate. Some patients, such as those with kidney failure, may require a lower intake of fluids. Patients who are placed on air-fluidized beds will need an additional 500 mL/d of fluids to compensate for fluids lost.

140.

If using the pinch test to quickly assess an older patient for signs of dehydration, the most accurate sites to check include the

forehead or sternum.

lower arm

cheeks or below the chin.

backs of hands.

Explanation:

If using the pinch test to quickly assess an older patient for signs of dehydration, the most accurate sites to check include the forehead or sternum because the skin at those sites is less vulnerable to the effects of aging. Because the skin of older adults tends to be dry and thin with less subcutaneous fat, the pinch test is often unreliable; so, if the pinch test appears to indicate dehydration, this should be verified by further examination and testing.

141.

Which of the following is an appropriate level of care for a patient post-stroke and with diabetic ulcers who requires extensive physical and occupational therapy (four to five hours daily) and wound care?

acute care

post-acute care

skilled nursing facility

custodial care

Explanation:

An appropriate level of care for a patient post-stroke and with diabetic ulcers who requires extensive physical and occupational therapy (four hours daily) and wound care is a post-acute care facility. Post-acute care facilities are appropriate for patients who need ongoing skilled nursing care and therapy but do not need to be in an acute care facility. Skilled nursing facilities may offer similar services (and some have acute care units) but patients generally cannot tolerate three hours of physical therapy daily.

142.

If one of the patient's nursing diagnoses on the care plan is "Self-care deficit," an appropriate desired outcome is

"The patient will achieve maximal physical ability."

"The patient will perform self-care within physical limitations and activity restrictions."

"The patient will exhibit increased ability to engage in activities."

"The patient will need no assistance with personal care."

Explanation:

If one of the patient's nursing diagnoses on the care plan is "Self-care deficit," an appropriate desired outcome is: "The patient will perform self-care within physical limitations and activity restrictions." The nurse should help the patient develop a plan to increase the ability to meet physical needs and should assist the patient as necessary. The patient should be evaluated to determine if referral to an occupational therapist or physical therapist is indicated.

143.

Low frequency ultrasound with ultrasound-generated mist (such as UltraMIST®) can be used to