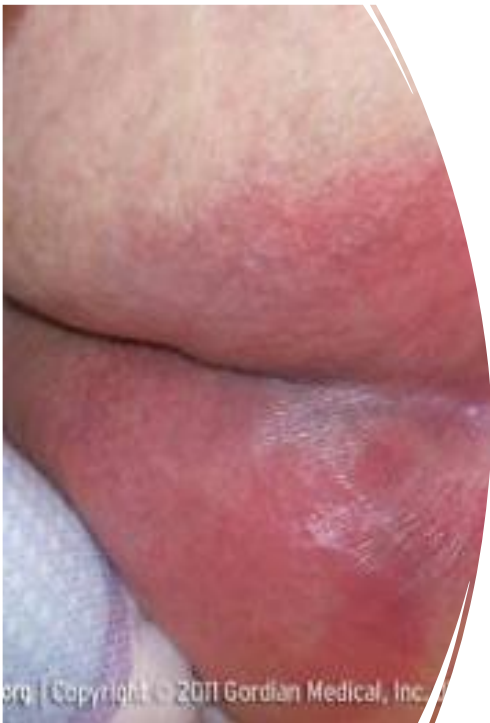


Nursing Care of Patients with Skin Disorders

Chapter 54

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Pressure Injuries: Pathophysiology and Etiology

Also known as bedsores, decubitus ulcers, or pressure ulcers.

- Mechanical forces
 - Pressure
 - Friction
 - Shearing

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Prevention of Pressure Injuries



Pressure Injuries

Signs and symptoms

Complications

Diagnostic tests

Therapeutic Measures: Debridement

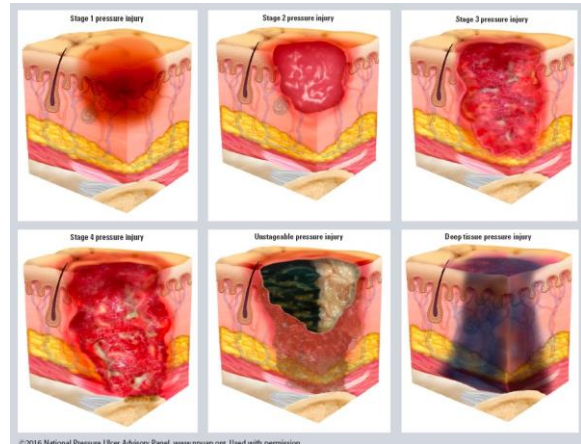
- Mechanical
 - Scissors and forceps, dextranomer beads, whirlpool baths, wet to dry dressings
- Enzymatic
 - Topical enzyme
- Autolytic
 - Synthetic dressing or moisture retentive dressing
- Surgical
 - Used only if client has sepsis, cellulitis, or to remove extensive eschar

Therapeutic Measures

- Wound cleansing
 - 4-15 pounds per square inch or psi
 - Red: needleless 30-60 mL syringe
 - Infection: 30-60 mL syringe with an 18 gauge needle
- Wound dressing
 - Hydrogel, polyurethane films, hydrocolloid wafers, cotton gauze
- Negative pressure wound therapy
 - Vacuum source
 - Packed loosely with a sterile gauze
- Other therapies

Pressure Injury Stages

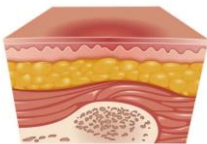
- Stage 1
- Stage 2
- Stage 3
- Stage 4
- Unstageable
- Deep Tissue Injury



Stage 1 Pressure Injury

- Skin is still intact
- Area is red but does not blanch
- There may also be warmth, hardness, and discoloration of the skin

STAGE I

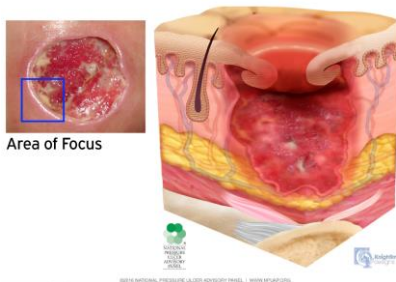
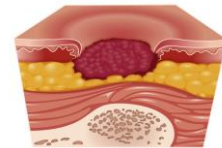


Stage 2 Pressure Injury

- Partial-thickness skin loss with exposed dermis
- Wound bed is pink or red and moist
- May appear as an intact or ruptured blister
- Skin loss may result from shearing



STAGE III



Stage 3 Pressure Injury

- Full-thickness skin loss with visible fat showing
- Granulation, slough, and/or eschar may be seen
- Undermining and tunneling may occur



Stage 4 Pressure Injury

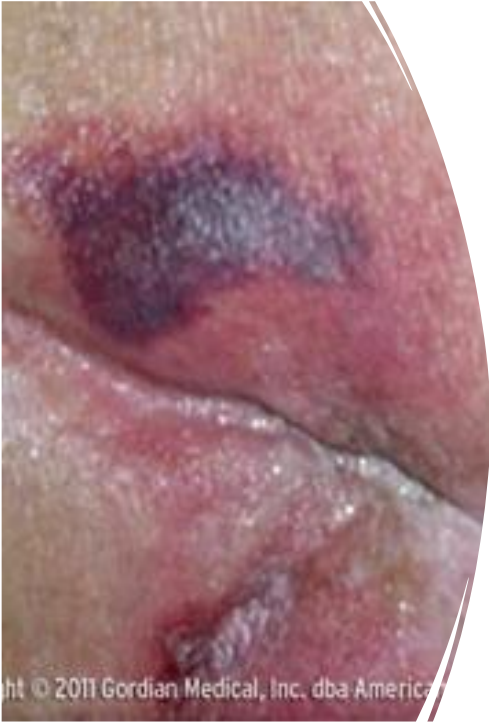
- Full-thickness skin loss with exposed muscle, bone, and/or tendons
- Slough or eschar may be present



Unstageable Pressure Injury

- Full-thickness skin and tissue loss is hidden by slough or eschar so the depth cannot be evaluated
- A stage 3 or 4 may be revealed once the wound bed is debrided





Deep Tissue Injury

- Intact or nonintact skin area with persistent, nonblanchable, dark red-maroon-purple discoloration or epidermal separation revealing a dark wound bed or blood filled blister

Place the wounds in correct order from stage 1 to stage 4.

- _____ Skin appears abraded
- _____ Skin is red, intact, and nonblanchable
- _____ Full-thickness skin is lost; muscle and bone are showing
- _____ Full-thickness skin is lost; no muscle or bone involvement

Nursing Diagnoses

- Impaired Skin Integrity
- Risk for Infection
- Acute Pain

Inflammatory Skin Disorders

Dermatitis

Psoriasis

Dermatitis

Inflammation of the skin

Allergens

Irritants

Heredity

Stress

Dermatitis

- Types
 - Contact
 - Acute or chronic; caused by contact with irritant (for example, soap, detergent, astringent, cosmetic) or allergen (for example, perfume, medication, poison ivy/oak)
 - Atopic
 - Chronic, inherited; may be associated with respiratory allergies or asthma; bright red maculas, papules, oozing, and lichenified or hyperpigmented areas
 - Seborrheic
 - Chronic, inflammatory; excessive production of sebaceous secretions; can appear as dry, moist, or greasy scales, yellow or pink-yellow crusts, redness, and dry flakiness



Dermatitis

- Signs and symptoms
 - Rash, itching
- Lesions
 - Scales
 - Crusts
 - Fissures
 - Macules
 - Papules
 - Pustules
- Complications
 - Infection
 - Sepsis
- Diagnostic tests
 - History and physical
 - Culture and sensitivity

Dermatitis

- Therapeutic interventions
 - Antihistamines
 - Analgesics
 - Antipruritics
 - Steroids
 - Colloidal oatmeal baths
 - Wet dressings

Nursing Diagnoses

- Impaired Skin Integrity
- Disturbed Body Image
- Deficient Knowledge

Psoriasis

A chronic inflammatory skin disorder in which the epidermal cells proliferate abnormally fast.

Aggravating factors

- Stress
- Strep pharyngitis
- Hormone changes
- Cold weather
- Skin trauma
- Some drugs

Psoriasis

- | | |
|--|---|
| <ul style="list-style-type: none"> • Signs and symptoms <ul style="list-style-type: none"> • Papules, plaques • Silvery scales • Itching • Complications <ul style="list-style-type: none"> • Infection, fever, chills • Arthritis • Nail changes • Lymphadenopathy | <ul style="list-style-type: none"> • Diagnostic tests <ul style="list-style-type: none"> • Physical assessment • Rule out infection |
|--|---|

Psoriasis

- Therapeutic interventions
 - Tub baths
 - Lukewarm water daily
 - Corticosteroids
 - Salicylic acid
 - Vitamin D creams
 - Slows the proliferation of skin cells
 - Retinoids
 - Coal tar, anthralin
 - Ultraviolet (U V) light
 - Chemotherapy
 - Occlusive dressings
 - Fish oil supplements



Infectious Skin Disorders

Herpes Simplex

Herpes Zoster (Shingles)

Fungal Infections

Cellulitis

Acne Vulgaris

Herpes Simplex Virus

- Viral infection
 - Herpes simplex virus (HSV) 1: Above waist
 - HSV 2: Below waist
- Primary infection
 - Direct contact
 - Respiratory droplet
 - Fluid exposure
- Lies dormant
- Recurs with stress



Herpes Simplex Virus

- | | |
|---|--|
| <ul style="list-style-type: none"> • Signs and symptoms <ul style="list-style-type: none"> • Prodromal phase <ul style="list-style-type: none"> • Burning, tingling • Vesicles and pustules <ul style="list-style-type: none"> • Burning, itching, pain • Contagious until scabs form • Diagnostic tests <ul style="list-style-type: none"> • History and physical • Culture | <ul style="list-style-type: none"> • Therapeutic interventions <ul style="list-style-type: none"> • Antiviral agents (Acyclovir [Zovirax]) <ul style="list-style-type: none"> • Topical • Oral • Antibiotics for secondary infection • Avoid triggers of recurrence. • Can be painful |
|---|--|

Herpes Zoster (Shingles)

- Acute inflammation/infection
- Painful vesicles
- Follows nerve distribution
- Usually one-sided



Herpes Zoster (Shingles)

- Reactivation of varicella zoster virus (chickenpox virus)
- Occurs with reduced immune function
 - Elderly
 - AIDS
 - Immunosuppressed
- Prevention
 - Avoidance of infected persons
 - Varicella vaccine (Varivax)
 - Zostavax

Herpes Zoster (Shingles)

- Signs and symptoms
 - Vesicles, plaques
 - Irritation
 - Itching
 - Fever
 - Malaise
 - Pain
- Complications
 - Postherpetic neuralgia
 - Persistent dermatomal pain
 - Hyperesthesia
 - Ophthalmic herpes zoster
 - Sepsis
- Diagnostic tests
 - History and physical
 - Culture

Herpes Zoster (Shingles)

- Therapeutic interventions
 - Acyclovir (Zovirax)
 - I V, oral, topical
 - Analgesics
 - Anticonvulsants/antidepressants
 - Antihistamines
 - Corticosteroids
 - Antibiotics for secondary bacterial infection

Fungal Infections

- Pathophysiology/etiology
 - Direct contact with fungus
 - Overgrowth with antibiotic therapy
 - Grows in warm moist environment
- Types
 - Tinea pedis (athlete's foot)
 - Tinea capitis **Ringworm on the head**
 - Tinea corporis **Ringworm on the body**
 - Tinea cruris **Jock itch**
 - Candidiasis/thrush
- Therapeutic interventions
 - Keep skin clean and dry.
 - Topical antifungals
 - Oral antifungals
 - Corticosteroids
 - Teach to avoid spread.

Cellulitis

- Pathophysiology
 - Inflammation of skin/connective tissue
 - Infection
 - Staphylococcus/methicillin-resistant staphylococcus aureus
 - Streptococcus
- Etiology
 - Open wound/trauma
 - May be unknown



Cellulitis

- Signs and symptoms
 - Warmth
 - Redness
 - Edema
 - Pain, tenderness
 - Fever
 - Lymphadenopathy
- Diagnostic tests
 - Culture and sensitivity
 - Blood cultures
- Therapeutic interventions
 - Antibiotics
 - Topical
 - Systemic
 - Debridement
 - Elevation of extremity
 - Monitor VS
 - Measure, outline, and document

Acne Vulgaris

- Increased sebum production
- Obstruction of pilosebaceous ducts

Face Chest Upper back



Acne Vulgaris

Signs and symptoms

- Comedones
 - Open
 - Closed

Therapeutic interventions

- Benzoyl peroxide
- Vitamin A acid
- Antibiotics
- Estrogen therapy Birth control

Nursing Diagnoses

- Risk for Infection
- Acute Pain

Know the nursing care plans for all the chapters

Parasitic Skin Disorders

Pediculosis

Scabies

Pediculosis

- Pathophysiology/etiology
 - Infestation by lice
 - Transmission by direct contact
- Types
 - Pediculosis capitis (head lice)
 - Pediculosis corporis (body lice)
 - Pediculosis pubis (pubic lice)



Pediculosis

- Signs and symptoms
 - Itching
 - Papular rash
 - Presence of lice, nits, and excreta
- Diagnostic tests
 - History and physical
 - Test for sexually transmitted infection if pediculosis pubis.
- Therapeutic interventions
 - Pediculocides
 - Permethrin (Nix), Pyrethrin (R I D), Lindane
 - Must be reapplied in 1 week
 - Mechanical removal
 - Antipruritics
 - Topical corticosteroids

Pediculosis

- Patient education
 - Self-medication
 - Removal of nits
 - Cleaning of clothing and objects
 - Inspection of family and friends

1/2 vinegar 1/2 water helps remove dead lice

Scabies

A contagious skin disease caused by a mite that burrows into the superficial layer of the skin. It results from contact with infected person, clothing, or animal.

- Signs and symptoms
 - Itching
 - Rash
 - Burrows



common in areas with folds

Scabies

- | | |
|--|---|
| <ul style="list-style-type: none"> • Diagnostic tests <ul style="list-style-type: none"> • Shaving of lesion • Microscopic evaluation • Therapeutic interventions <ul style="list-style-type: none"> • Topical scabicides <ul style="list-style-type: none"> • Permethrin • Crothamiton • Antipruritics | <ul style="list-style-type: none"> • Patient education <ul style="list-style-type: none"> • Self-medication • Treat family members. • Wash clothing and linens. • Itching may continue 2 weeks following treatment. |
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Malignant Skin Lesions

Most common type of cancer in the US is skin cancer, which includes basal cell carcinoma, squamous cell carcinoma, and malignant melanoma.

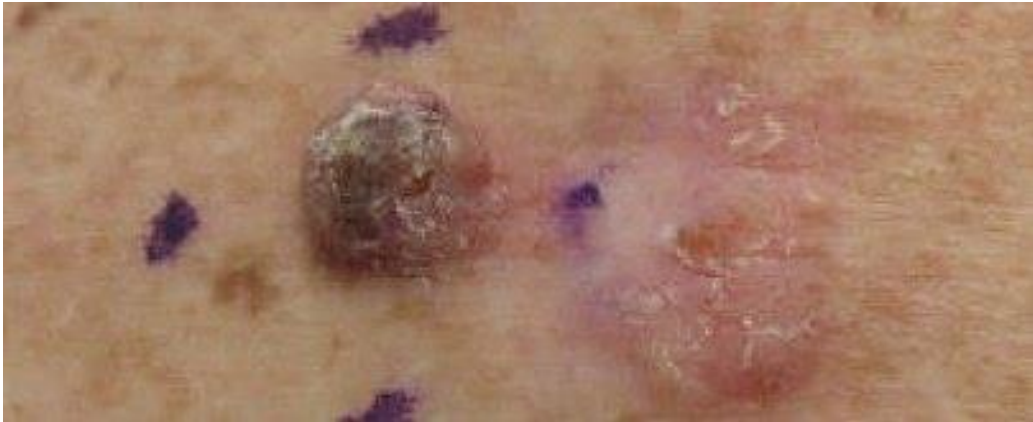
- Cancer arising from
 - Basal cell layer
 - Basal cell carcinoma
 - Epidermis
 - Squamous cell carcinoma
 - Melanocytes
 - Malignant melanoma

Basal Cell Carcinoma

Most common



Squamous Cell Carcinoma



Malignant Melanoma



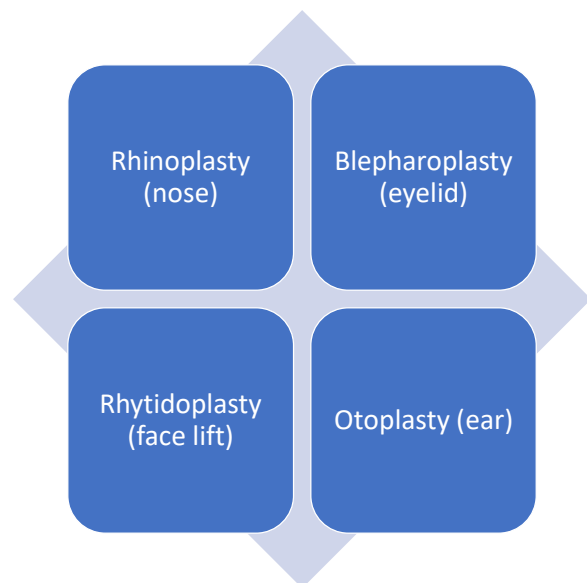
Known to spread across body. Page 1133
Nursing care tip box p. 1133

Malignant Skin Lesions

exam skin regularly asymmetrical shapes, irregular borders
diameter > pencil eraser, change appearance

- Risk factors
 - U V rays
 - Fair skin
 - Genetic tendency
 - X-ray therapy
 - Chemicals
 - Immunosuppressive therapy
- Prevention
 - Limit exposure to U V rays (10 am – 4 pm).
 - Use sunscreen.
 - Wear protective clothing.
 - Report changes in moles.
- Diagnostic tests
 - Examination
 - Biopsy
- Therapeutic interventions
 - Surgical excision
 - Chemotherapy
 - Radiation therapy

Dermatological Surgery



Vocabulary

<u>d</u>	Blanch	A.	Inflammation of cellular or connective tissue
<u>a</u>	Cellulitis	B.	Describes fluid that contains pus
<u>h</u>	Comedo	C.	Disease of the sebaceous glands marked by increase in the amount
<u>f</u>	Dermatitis	D.	To lose color
<u>j</u>	Lichenified	E.	Infestation of lice
<u>e</u>	Pediculosis	F.	Inflammation of the skin
<u>i</u>	Pruritus	G.	Chronic inflammatory skin disorder in which epidermal cells proliferate abnormally quickly
<u>g</u>	Psoriasis	H.	Skin lesion that occurs in acne vulgaris
<u>b</u>	Purulent	I.	Severe itching
<u>c</u>	Seborrhea	J.	Thickening or hardened from continued irritation

A nurse is caring for a nursing home resident with a red, pruritic skin rash. The client is confused and scratches the rash, which results in broken skin. Which interventions will help the rash heal? Select 3 that apply.

- ☒ A. Pat the skin dry after bathing
- ☐ B. Leave topical agent as ordered at the bedside so the client can apply when itching is severe
- ☐ C. Place a transparent dressing on the rash to prevent scratching
- ☒ D. Place gloves or mittens on the client
- ☒ E. Keep the client's fingernails short
- ☐ F. Place wrist restraints on the client during the night

The nurse is providing care for a client with a noninfected stage 3 pressure injury. Which of the following actions is most appropriate for cleaning the wound?

- A. Flushing the wound with pressure of 45 pounds per square inch or psi
- ☒ B. Gentle flushing with a needleless 30 mL syringe
- C. Gentle scrubbing with gauze and normal saline
- D. Flushing with a 30 mL syringe with an 18 gauge needle