Workbook Answers
Chapter 6

Diseases and Conditions of the Integumentary System
1. Protects the body from trauma, infection, and toxic chemicals; synthesizes vitamin D; houses sensory receptors; helps regulate body temperature and excretion
2. Thick, flaky red patches of various sizes covered with characteristic white silvery scales
3. Sebum
4. Appearance of a specific type of lesion or group of lesions
5. Acrochordon
6. Basal cell carcinoma
7. *Staphylococcus* or *Streptococcus* bacteria
8. Tinea capitis, tinea corporis, tinea unguium, tinea pedis, tinea cruris
9. Seborrheic keratoses, dermatofibromas, keratoacanthomas, keloids and hypertrophic scars, epidermal cysts and acrochordons, actinic keratoses and nevi
10. Nevi or nevus
11. Benign
12. After trauma or surgery
13. 8 to 12 months
14. Patch test
15. Stress, anxiety, conflict
16. Reduce inflammation and slow the rapid growth of skin cells that cause the condition
17. Shingles
18. Boil
19. Lower extremities
20. Round lesion, ringed and scaled with vesicles
21. Toenails or more rarely fingernails
22. Soles of feet, between toes
23. Males
24. 70%
25. 95%
26. Melanocytes
27. Pink or pale blue
28. It will not improve
29. Warts are cutaneous manifestations of human papillomavirus
30. Injury to the nail beds, psoriasis, lichen planus, chronic paronychia with bacteria entering the nail separation, iron deficiency anemia, chronic hepatic disease, infections of the cardiac valves, systemic lupus erythematosus, and dermatomyositis. Another cause could be vitamin and mineral deficiencies.

31. Epidermis, dermis, subcutaneous layer

32. Pruritus, erythema, and the appearance of various cutaneous lesions

33. Cutaneous lesions or eruptions, Pruritus (itching), Pain, Edema (swelling), Erythema (redness), and Inflammation

34. A decubitus ulcer, commonly called a pressure ulcer or bed sore, is a localized area of dead skin that can affect the epidermis, dermis, and subcutaneous layers. An early sign of a decubitus ulcer is shiny, reddened skin appearing over a bony prominence in individuals with prolonged immobilization. Other signs that eventually occur include blisters, erosions, necrosis, and ulceration. If the decubitus ulcer becomes infected, a foul-smelling, purulent discharge is present. Pain may or may not accompany a decubitus ulcer.
35. A = Asymmetry (lack of equality in the diameter)
B = Border (notched, scalloped, or indistinct)
C = Color (uneven, variegated—ranging from tan, brown, or black to red and white)
D = Diameter (usually larger than 6 mm)
E = Evolving (Any change in size, shape, color, elevation, or another trait, or any new symptom such as bleeding, itching, or crusting points to danger.)

36. Abnormal skin pigmentation
37. Corns and calluses
38. Irritation, either chemical or mechanical; by sensitization; photoallergy
1. largest
2. middle
3. epidermis, keratin, melanin
4. subcutaneous layer, insulation
5. hydrocortisone
6. hives, itching, redness
7. inherited
8. hormonal, pregnancy, discontinued
9. benign, blood vessels, red, purple
10. keratoses, growths, greasy papules
11. pityriasis
12. minoxidil (Rogaine)
Anatomic Structures
Normal Skin

1. Opening of sweat glands
2. Epidermis
3. Dermis
4. Subcutaneous layer
5. Sweat gland
6. Arrector pili muscle
7. Pacinian corpuscle
8. Cutaneous nerve
9. Papilla of hair
10. Hair follicle
11. Sebaceous (oil) gland
12. Meissner corpuscle
13. Dermal papilla
14. Dermal papilla
15. Stratum basale
16. Stratum spinosum
17. Stratum basale
18. Stratum corneum
19. Hair shaft
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Shingles are caused from the herpes varicella-zoster virus. The virus becomes reactivated after staying dormant in the dorsal root ganglia. Herpes varicella-zoster is the same virus that causes chickenpox.

The patient will have a bandlike unilateral pattern along the peripheral nerves or the dermatomes that are affected. It does not cross the midline of the body. Pain precedes a rash that develops into vesicles. After a few days, the vesicles appear pustular, develop a crust, and then scab.

Shingles are treated with analgesics, mild tranquilizers, sedatives, steroids, antipruritics, and betamethasone. A topical drying agent may be prescribed. Antiviral medications including acyclovir (Zovirax), famciclovir (Famvir), valacyclovir (Valtrex), or foscarnet sodium (Foscavir) may be prescribed, as well as an antibiotic to prevent a secondary infection. If the pain is intolerable, lidocaine or nerve block injections may be attempted.
Essay Question #2
Describe the cause, symptoms, and treatment of rosacea.

The onset of rosacea is insidious and often is mistaken for a complexion change, a sunburn, or even acne. The redness becomes more noticeable and does not go away. The skin then may begin exhibiting dryness and pimples that may become inflamed or filled with pus. In addition, small blood vessels of the cheeks and face enlarge and show through the skin as red lines even after the redness diminishes (Figures 6-9 and 6-10, pp. 275-276). Small knobby bumps occasionally appear on the nose, causing it to look swollen, mostly in the male with rosacea.

The etiology of rosacea, a chronic and often cyclic condition, is unknown. A possible correlation with the frequency of the individual’s blushing or facial flushing has been suggested. Those with lighter complexions appear to have a greater incidence of the disorder, and rosacea possibly may be inherited. Rosacea is not considered to be infectious or contagious and is not spread by skin contact.

Rosacea is diagnosed from the history of facial blushing and flushing. Although rosacea often has many of the same symptoms as acne, the individual experiencing episodes of rosacea does not have the blackheads or whiteheads (comedones) typical of acne. A dermatologist should be consulted for a definite diagnosis.

Rosacea has no cure, but symptoms can be controlled through medical treatment with Finacea 15% (azelaic acid), metronidazole cream 1%, sodium sulfacetamide, and topical antibiotics, (erythromycin, clindamycin) and change of lifestyle. The patient is urged to identify situations that cause him or her to blush or experience facial flushing and attempt to avoid these triggers. These events may be different for various rosacea sufferers, so the patient would be wise to avoid sunlight, hard exercise, extreme heat or cold, stress, spicy foods, hot drinks, and alcohol. Sun exposure, hot weather, cold weather, and wind all have been identified as triggers, as have abrupt changes of season and weather extremes. The physician may prescribe medications to control the redness. Antibiotics (minocycline, doxycycline, or tetracycline) sometimes are prescribed. For stubborn cases, redness can also be treated with laser surgery. Mild cleansers should be used, and moisturizers that do not contain alcohol or drying agents should be applied routinely. Sunscreens help. Consistent treatment is necessary to prevent flare-up.

Rosacea has no cure, but the patient may be able to control symptoms with medical treatment and modification of lifestyle.
Patient Screening #1

- Possible Atopic Dermatitis or Eczema

The discomfort the child is experiencing should be considered in scheduling her to be seen at the earliest possible time. If a prompt appointment is not possible, referral is indicated.
Patient Screening #2

- Possible Hives

Hives can develop into a life-threatening situation if they involve the respiratory system. Anyone experiencing respiratory difficulties should be entered into the emergency medical system for immediate assessment and intervention. Cutaneous symptoms make the individual very uncomfortable. They should be seen immediately or referred to a facility for prompt assessment.
Possible Herpes Zoster or Shingles

Individuals experiencing the onset of herpes zoster often experience excruciating pain in the affected area. Prompt assessment and intervention is required. An appointment should be scheduled as soon as possible on the day of the call. If no appointment is available, refer to a facility where the individual can be promptly seen. Immediate drug therapy helps decrease the severity of symptoms.
Possible Impetigo

Discovery of an impetigo infection can be distressing to the individual or parent of the child. In addition, impetigo can be spread among children or contacts, prompting urgent attention. Because of the possible contagious nature of impetigo, the child’s school may require immediate attention to the situation. Schedule for the next available appointment; if none are available that day or the next, refer to an open facility (emergency department or clinic) for prompt assessment and treatment.
Patient Screening #5

- Possible Skin Cancer

Individuals reporting skin lesions such as the following should be scheduled to be seen at the next available appointment: a sore that bleeds, heals, and recurs; a reddish, irritated area, usually on the back, shoulders, extremities, or chest, that may be painful or cause pruritus; a smooth growth with an indented center and elevated, rolled edge or border; a scarlike area, often with poorly defined edges, that is white, yellow, or waxy in appearance. Although most of these conditions at the early stage are not life-threatening, the anxiety level of the patient is probably quite high. Providing the patient with the earliest possible opportunity for assessment and treatment of the condition is a prudent aspect of total patient care.
Contact Dermatitis

Encourage the patient to avoid substances or situations that trigger contact dermatitis. Provide information about proper methods of cleansing the skin after contact with offending substances. Instruct the patient to keep from scratching areas of affected skin in an effort to prevent additional damage or infection from developing in the skin tissue.
Acne

Using printed material available in the office, provide the patient with information about acne and its care. Instruct the patient on methods of application of dermal medications. Encourage the patient to report any side effects from oral medications. Reinforce the importance of not squeezing any pimples or pustules. In addition, stress the importance of good hand washing after touching involved skin areas.
Dermatophytosis

Provide printed information to the patient concerning the disorder. Encourage the patient to dry skin after exposure to moisture, especially in the areas between the toes and in the folds of the skin. Explain the importance of wearing cotton clothing that will absorb moisture from the body. Advise patients with diabetes or compromised peripheral circulation to seek medical attention for athlete’s foot.
Scabies and Pediculosis

Provide printed information concerning the recognition of scabies and lice to the patient and parents. Pictures of the offending organisms are helpful in recognition. Explain the importance of laundering clothing and bedding in an appropriate manner. Stress the importance of advising all contacts of the infestation so they can seek treatment. Instructions should be provided for correct methods of using shampoo or scabicide.
Patient Teaching #5

- Skin Cancer

Provide the patient with information about various benign and premalignant tumors. Illustrations are helpful if available. Encourage consistent use of sunscreen, as well as regular evaluations by a physician of any suspicious skin lesions. Explain that many patients will be referred to a dermatologist for follow-up care. Assist the patient with scheduling the referral appointment.