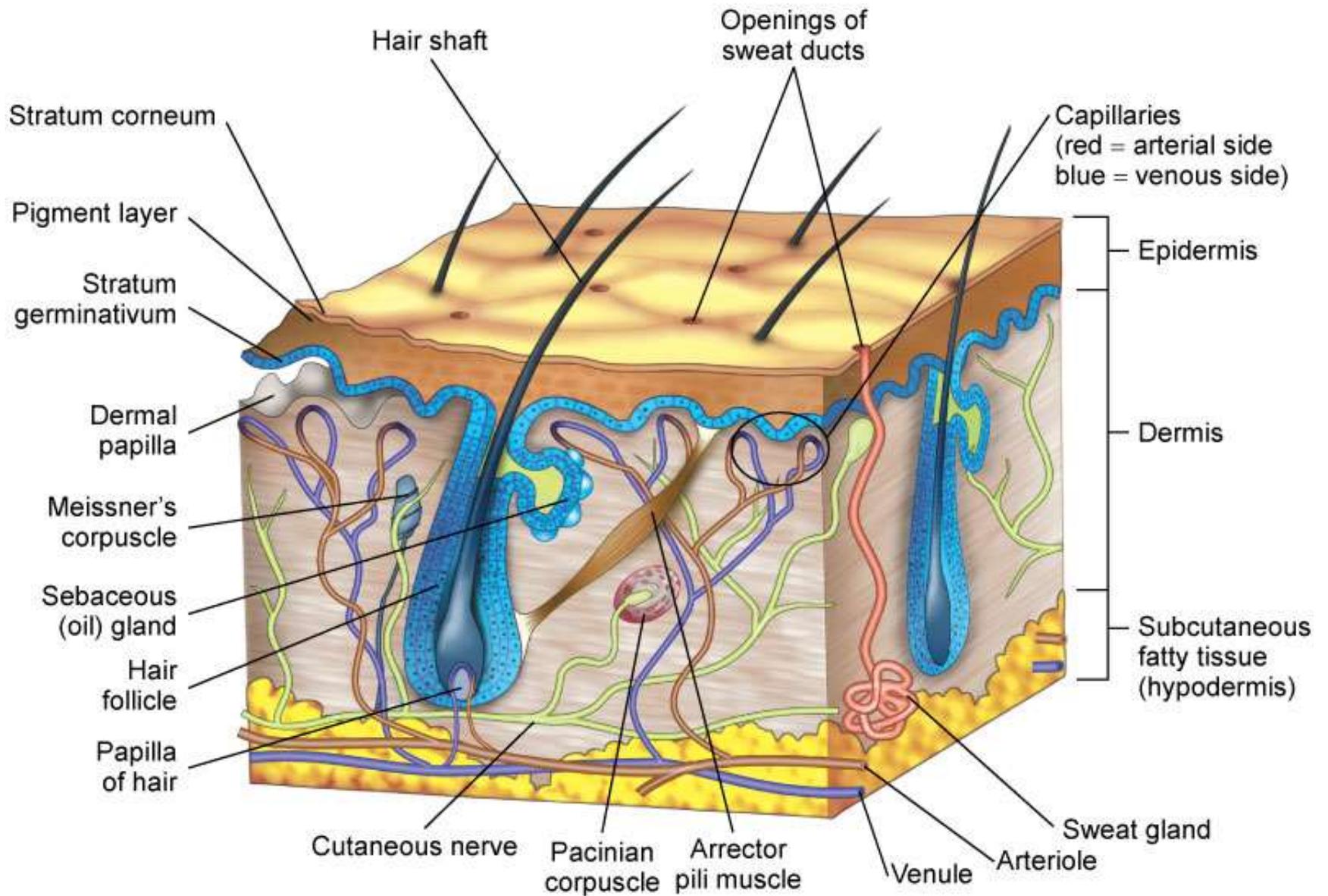


DR GEHANE

Dermatologic Drugs

Skin

- Largest organ of the body
- Two layers
 - Dermis
 - Epidermis



Modified from Thibodeau GA, Patton KT. *Anatomy and physiology*, ed 5, St Louis, 2003, Mosby.

Topical Dermatologic Drugs

- Antimicrobial drugs
 - Antibacterial drugs
 - Antifungal drugs
 - Antiviral drugs
- Antiinflammatory drugs
- Antineoplastic drugs
- Antipruritic drugs (for itching)
- Burn drugs

Topical Dermatologic Drugs (cont'd)

- Emollients (soften skin)
- Keratolytics (cause softening and peeling of the stratum corneum)
- Local anesthetics
- Topical vasodilators
- Débriding drugs (promote wound healing)
- Sunscreens

Topical Antimicrobial Drugs

- Antibacterial drugs
- Antifungal drugs
- Antiviral drugs

Antiacne Drugs

- Acne is caused by *Propionibacterium acnes*
- Drugs used to treat acne
 - benzoyl peroxide
 - erythromycin
 - tetracycline
 - isotretinoin (Amnesteem)
 - clindamycin (Cleocin T)
 - tretinoin (Renova, Retin-A)
 - Oral contraceptives (for female patients with acne)

Antiacne Drugs (cont'd)

- benzoyl peroxide
 - Causes death of the anaerobic *P. acnes* bacteria by slowly releasing oxygen
 - Antibacterial, antiseptic, drying, and keratolytic actions
 - Keratolytic: softens scales and loosens the outer layer of the skin
 - May cause peeling skin, redness, or sensation of warmth
 - Produces improvement in 4 to 6 weeks

Antiacne Drugs (cont'd)

- isotretinoin (Amnesteem, Claravis, Sotret)
 - Treatment of severe recalcitrant cystic acne
 - Inhibits sebaceous gland activity and has antikeratinizing (anti–skin hardening) and antiinflammatory effects
 - The company that produced the brand name Accutane has withdrawn it from the market

Antiacne Drugs (cont'd)

- isotretinoin (cont'd)
 - *Stringent* guidelines for prescribing and use
 - Required patient counseling regarding use of two forms of contraception and not becoming pregnant during use
 - Required “iPLEDGE” program for safety
 - Monitor for signs of depression, suicidal ideations

Antiacne Drugs (cont'd)

- tretinoin (retinoic acid, vitamin A acid) (Renova, Retin-A)
 - Used to treat acne
 - Also used to reduce dermatologic changes associated with sun damage
 - Stimulates the turnover of epithelial cells, resulting in skin peeling

Antiacne Drugs (cont'd)

- Main adverse effects are local inflammatory reactions, which are reversible when therapy is discontinued
- Common adverse effects are excessively red and edematous blisters, crusted skin, and temporary alterations in skin pigmentation

Topical Anesthetic Drugs

- Used to reduce pain or pruritus associated with
 - Insect bites
 - Sunburn
 - Poison ivy exposure
- Also used to numb the skin before a painful injection
- Ointments, creams, sprays, liquids, jellies
 - EMLA: lidocaine/prilocaine combination
 - Ela-max: lidocaine

Topical Antipruritic Drugs

- Antihistamines
- Corticosteroids
 - Antiinflammatory effects
 - Antipruritic effects
 - Vasoconstrictor actions

Other Topical Dermatologic Drugs (cont'd)

- Sunscreens

- Rated by sun protection factor (SPF), which is a number ranging from 2 to 50 (or higher) in order of increasing potency of UV protection
- Only those with SPF of 15 or greater may state they reduce the risk of skin cancer and early skin aging

Nursing Implications (cont'd)

- Wear gloves when applying topical drugs
- Apply dressings (e.g., wet, wet-to-dry, occlusive) as prescribed