

Skin Cancer: What Pharmacists Should Know

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Objectives

- Identify the common types of skin cancer
- Identify risk factors for skin cancer
- Identify commonly prescribed medications that cause photosensitivity
- Understand diagnostic criteria for skin cancer
- Recognize treatment options for high-risk and low-risk
- Identify skin cancer prevention techniques



Skin Cancer

- 1 in 5 Americans will develop skin cancer during their lifetime
- Basal cell carcinoma (BCC) is most common
- NCI estimates 1 million cases in 2008
 - ~75% BCC
- ~90% of non-melanoma skin cancers are associated with UV exposure
- Average cure rate is 95% when detected and treated early

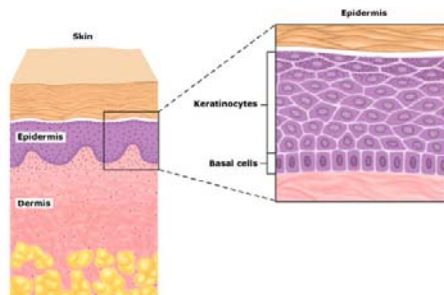


Types of Skin Cancer

- Basal cell carcinoma (BCC)**
 - Basal layer of epidermis
 - Intense intermittent sun exposure
 - Rarely metastasizes
- Squamous cell carcinoma (SCC)**
 - Keratinocytes in epidermis
 - Sun exposure over time
 - Can metastasize
- Melanoma
 - Malformation of melanocytes
 - Intense intermittent sun exposure



The Skin



Risk Factors

- Chronic UV exposure
- Fair skin
- Light eyes
- Red hair
- Elderly
- High number of past sunburns
- Immunocompromised
- Arsenic exposure
- Radiation treatment



Drug-Induced Photosensitivity

- **Medications:**
 - Fluoroquinolones
 - Tetracyclines
 - NSAIDs
 - Retinoids
 - Sulfonylureas
 - Antifungals
 - Amiodarone
 - Oral Contraceptives
 - Accutane
 - Bactrim
- **Counseling Points:**
 - Use “night-time” dose strategies
 - Avoid sun at peak times
 - Use sunscreen

Detection and Diagnosis

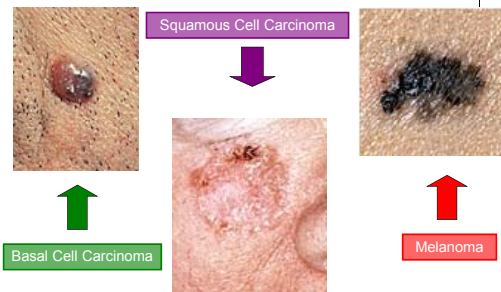
- Full body examination
 - Biopsy: excisional vs. incisional
- Most common on face, neck, back of forearms, hands, and legs



The ABCDEs of Skin Cancer

- **A**symmetry
 - Draw a line through mole and both sides do not match
- **B**order
 - Uneven borders
- **C**olor
 - A variety of colors in same mole (browns, tans, black, red)
- **D**iameter
 - Larger than the size of a pencil eraser
- **E**volving

Examples



Treatment: High vs. Low-Risk

- Type
- Location
- Extent
- Aggressiveness of cancer
- Patient's general health
- Patient preference
- **Goals:**
 - Remove all cancer
 - Reduce recurrence
 - Preserve healthy skin tissue
 - Minimize scarring after surgery

Who's “High-Risk”?

- | | |
|--|--|
| <p>Basal Cell Carcinoma:</p> <ul style="list-style-type: none"> • Nose, lips, eyelids, mask area of face • >5 mm in high risk area • >10 mm head/neck • >20 mm other • Poorly defined borders • Recurrent • Tumor at prior irradiation site • Perineural involvement | <p>Squamous Cell Carcinoma:</p> <ul style="list-style-type: none"> • ≥2 cm diameter • Ear, lip, genitals • Recurrent • Poor differentiation • Metastasis |
|--|--|

High-Risk Treatment



- Surgical excision
 - Removal of abnormal area and small amount of surrounding normal tissue
 - Examine margins after surgery
- Mohs Surgery
 - 100% of margins examined during procedure

High-Risk Treatment



- Radiation
 - Elderly or patients unable to tolerate surgery
 - Cumulative effect
 - 5 times per week for several weeks
 - AE: Hair loss, ulcers, pain, and infection

Low-Risk Treatment



- Cryosurgery
 - Swelling and blister formation → peeling → ulcer
 - Heals over 4-6 weeks
 - AE: Hair loss in area, round white flattened scar
- Electrosurgery
 - Recommended for low risk areas
 - Not recommended for face/head or those with pacemakers or defibrillators
 - Disadvantage: Pink/white raised scar
- Surgical removal

Low-Risk Treatment



- AE: stinging, burning, pain, redness, swelling, scabbing, crusting of skin
- Topical 5-FU: BID x 3-8 weeks
 - MOA: Inhibits DNA synthesis
 - Avoid sun exposure during treatment
- Topical Imiquimod: Daily or BID x 6-12 weeks
 - MOA: Immune modulator
 - Cytokine production stimulates cell mediated immunity
- Favorable cosmetic outcome

Protect Yourself: Be Sun Smart



- Self-Examination
- Avoid deliberate tanning and tanning beds
- Protective Clothing
- Seek Shade
 - Sun rays are strongest from 10 a.m. to 4 p.m.
- Vitamin D
 - Bone strength and healthy immune system
 - Adults: 1000 IU daily
 - <18 yo: 400 IU daily

Protect Yourself: Sunscreen



- Broad-spectrum
 - UVA and UVB
- Water-resistant
- SPF ≥ 30
- Reapply after 2 hours, or after swimming or sweating

