Although skin rashes are common in patients with cancer, they can be difficult to properly assess, diagnose, and treat. Sharpen your decision-making skills using challenging, interactive case studies on different types of skin reactions. You’ll learn to identify, communicate, manage, and treat skin reactions and receive the necessary knowledge and tools to improve patient outcomes.

**Target Audience:** Registered Nurses, Advanced Practice Nurses

**Level of Content:** Intermediate/Advanced

**Speaker:**
Margaret Bobonich, DNP, FNP-C, DCNP, FAANP
University Hospitals Case Medical Center
Department of Dermatology Assistant Professor
Case Western Reserve University School of Medicine and
Frances Payne Bolton School of Nursing
Cleveland, OH

**Full Disclosure:**
Nothing to Disclose

**Objectives:**
At the end of this session, participants will be able to:
1. Identify the morphologic characteristics of a rash.
2. Develop a systematic approach for the diagnosis of rashes.
3. Discuss the assessment of skin eruption.

**Bibliography:**
Rash Decisions
Assessment, diagnostics, and treatment of cancer related skin eruptions

Margaret A. Bobonich, DNP, FNP-C, DCNP, FAANP
Assistant Professor, Case Western Reserve
Schools of Nursing and Medicine
University Hospitals Case Medical Center
Department of Dermatology, Director of NP residency

Objectives
1. Identify morphologic characteristics of skin eruptions.
2. Develop systematic approach to diagnosing these “rashes”
3. Discuss the assessment of skin eruptions related to cancer diagnoses

Skin eruptions
- Cutaneous manifestations of cancers
- Metastasis**
- Cutaneous eruptions from management
  - Side effects and complications
  - Cosmetic issues (esp. children and adolescents)

What can oncology nurses do?
- Become knowledgeable in evaluating dermatologic complaints
- Anticipate/manage special skin needs of oncology patients
- Ask patients about skin symptoms and concerns
- ALWAYS be suspicious of skin eruptions
- Develop a relationship/referral pipeline with derm

Approach to a Rash
- History
  - Examination
    - Morphology (primary)
      - Fluid filled
      - Red or colored
    - Scale
  - Distribution/arrangement
  - Location
- Diagnostics

Past medical history
- Allergies
- Immunization
- Previous infections
- Major diseases or illness
- Surgeries
- Recent illnesses (colds, flu, etc)
- Stressful events
- Exposure
- Medications: OTC, Homeopathic, Prescription.
- Family history
- Social/Occupational
- Travel history

History of Present illness
- Age/time of onset
- Previous treatment
  - Prescribed, OTC, homeopathic
- Chronology of illness
  - When & where did it start?
  - How has the rash changed?
  - New areas involved since the rash started?
  - What makes it better/worse?
  - Has it ever happened before?
  - Any associated symptoms – pruritus, change in eating, sleep, elimination, behavior/activity pattern, joint pain, runny nose, or dyspnea.

Patient’s (or caregivers) perception

Medication history

Don’t minimize the significance of a GREAT medication history

The Seven “I”s for History of Patient Medications

• Instill (eye, ear drops, contact lens solution)
• Ingest (capsules, tabs, gels, liquids)
• Inhale (corticosteroids)
• Inject (IM, IV, SC)
• Insert (suppositories)
• In secret (sharing among elders or teens)
• Intermittent (not taken every day)

Don’t forget: OCP’s, NSAIDs, vitamins and herbals.

Morphology- primary lesions

<table>
<thead>
<tr>
<th>Size of Lesion</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1cm</td>
<td>Flat</td>
</tr>
<tr>
<td></td>
<td>Macule</td>
</tr>
<tr>
<td>&gt; 1cm</td>
<td>Raised</td>
</tr>
<tr>
<td></td>
<td>Papule</td>
</tr>
<tr>
<td></td>
<td>Vesicle</td>
</tr>
<tr>
<td></td>
<td>Bullae</td>
</tr>
</tbody>
</table>

Nodule/tumor
Pustule (yellow of pus filled)
Cyst
Wheal (hive)

Morphology-

Focus on 3 characteristics:

» Fluid-filled (or solid)
» Color
» Scale

Morphology of Primary Lesion

Secondary

Scale
Crust
Erosion
Ulcer
Fissure
Atrophy
Lichenification

Associated Characteristics

Mobility of skin
Nails
Hair
Pruritus

Exam

Fluid-filled lesions

<table>
<thead>
<tr>
<th>Vesicles (≤ 1 cm)</th>
<th>Bullae (≥ 1 cm)</th>
<th>Pustular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyshidrotic eczema</td>
<td>Bullous impetigo</td>
<td>Acne vulgaris</td>
</tr>
<tr>
<td>Herpes simplex</td>
<td>Bullous tinea</td>
<td>Rosacea</td>
</tr>
<tr>
<td>Impetigo</td>
<td>Bullous erythema</td>
<td>Drug-induced pustular acne</td>
</tr>
<tr>
<td>Varicella/coster</td>
<td>Bullous erythema</td>
<td>Foliculitis-bacterial, candidiasis, pityrosporum</td>
</tr>
<tr>
<td>Tinea pedis</td>
<td>Multiforme</td>
<td>Scabies</td>
</tr>
<tr>
<td>Scabies</td>
<td>Staph Scalded Skin</td>
<td>Pustular psoriasis (esp. palmoplantar)</td>
</tr>
<tr>
<td>Contact dermatitis</td>
<td>Stephens Johnson Syndrome Toxin</td>
<td>Perioral dematitis</td>
</tr>
<tr>
<td>Hand foot &amp; mouth</td>
<td>Epidermal necrolysis</td>
<td>Bullous drug eruption</td>
</tr>
<tr>
<td>Polymorphic light eruption</td>
<td>Autoimmune blistering disease</td>
<td>Lichen planus</td>
</tr>
<tr>
<td>Grover’s disease</td>
<td></td>
<td>Porphyria cutanea</td>
</tr>
<tr>
<td>Arthropod assaults</td>
<td></td>
<td>Tarda</td>
</tr>
<tr>
<td>Erythema</td>
<td></td>
<td>Herpetiformis</td>
</tr>
<tr>
<td>Multiforme</td>
<td></td>
<td>Id reaction</td>
</tr>
<tr>
<td>Dermatitis</td>
<td></td>
<td>Diabetic bullae</td>
</tr>
<tr>
<td>Lichen planus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Porphyria cutanea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tarda</td>
<td></td>
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</tr>
<tr>
<td>Herpetiformis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Id reaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetic bullae</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Color of lesions

<table>
<thead>
<tr>
<th>Rough surface</th>
<th>Freckles</th>
<th>Pityriasis alba</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin tags</td>
<td>Skin tags</td>
<td>Idiopathic guttate hypomelanosis</td>
</tr>
<tr>
<td>Verruca</td>
<td>Lentigines</td>
<td>Tinea versicolor</td>
</tr>
<tr>
<td>Open comedones</td>
<td>Compound, junctional</td>
<td>Ash leaf macule</td>
</tr>
<tr>
<td>Actinic keratosis</td>
<td>Seborrheic keratosis</td>
<td>Milia</td>
</tr>
<tr>
<td>Corns/callus</td>
<td>Seborrheic keratosis</td>
<td>Keratosis platis</td>
</tr>
<tr>
<td>Epidermal nevus</td>
<td>Tinea versicolor (pinkish)</td>
<td>Postinflammatory</td>
</tr>
<tr>
<td>Smooth</td>
<td>Postinflammatory</td>
<td>Hyperpigmentation</td>
</tr>
<tr>
<td>Milium</td>
<td>Hyperpigmentation</td>
<td>Nevus anemicus</td>
</tr>
<tr>
<td>conflagoium</td>
<td>Dermatofibroma</td>
<td>Morphoform basal cell skin cancer</td>
</tr>
<tr>
<td>Basal cell</td>
<td>Café au lait</td>
<td>Vitiligo</td>
</tr>
<tr>
<td>Verruca/HPV</td>
<td>Mongolian spot</td>
<td>Piebaldism</td>
</tr>
<tr>
<td>Epidermoid cysts</td>
<td>Melanoma</td>
<td>Lichen sclerosus et atrophicus</td>
</tr>
<tr>
<td>Lipomas</td>
<td>Pigmented basal cell</td>
<td>Morphia</td>
</tr>
<tr>
<td>Keratoacanthoma</td>
<td>Dermal papilloma</td>
<td>Tuberculoid eczema</td>
</tr>
<tr>
<td>Scar</td>
<td>Congenital nevus</td>
<td>Morphea</td>
</tr>
<tr>
<td>Granuloma annulare</td>
<td>Fixed drug eruption (purple)</td>
<td>Yellow</td>
</tr>
<tr>
<td>Neurofibromas</td>
<td>Erythema</td>
<td>Xanthelasma</td>
</tr>
<tr>
<td>Pearly penile papules</td>
<td>Seborrheic keratosis</td>
<td>Seborrheic keratosis</td>
</tr>
<tr>
<td>Adnexal tumors</td>
<td>Seborrheic keratosis</td>
<td>Nodular hidradenoma</td>
</tr>
</tbody>
</table>

Red, scaly lesions

**Eczematous**
Epithelial disruption

- Atopic dermatitis
- Irritant contact dermatitis
- Allergic contact dermatitis
- Dyshidrotic eczema
- Nummular eczema
- Stasis dermatitis
- Scabies
- Secondary lesions (dermatitis herpetiformis, tinea, psoriasis, etc)
- Seborrhoeic dermatitis
- Polymorphic light eruption
- Lichen planus
- Eczematous reaction patterns
- Xerotic eczema
- Exfoliative erythroderma

**Papulosquamous**
No epithelial disruption

- Papules
- Pityriasis rosea
- Keratosis pilaris
- Tinea
- Lichen planus
- Secondary syphilis
- Guttate psoriasis

Prominent plaques

- Psoriasis
- Tinea
- Lupus erythematosus
- Discoid lupus erythematosus
- Cutaneous T cell lymphoma (mycosis fungoides)
- Pityriasis rubra pilaris
- Darier’s disease
**Approach to a Rash**

- **History**
- **Examination**
  - **Morphology (primary)**
    - Fluid filled
    - Red or colored
  - **Scale**
  - **Distribution/arrangement**
  - **Location**
- **Diagnostics**

**LOCATION** of primary lesions

- Trunk
- Extremities (extensors/flexors)
- Acral (palms, soles, nose, ears)
- Mucosa
- Head/neck/scalp
- Eyelids and ENT
- Interdigitate
- Intertriginous
- Hair and nails

**DISTRIBUTION**

**Arrangement**

- Reticular
- Linear
- Herpetiform
- Confluent
- Annular
- Targetoid
- Blaschko lines
  ...more

**DIFFERENTIAL DIAGNOSES**

*Clinical Dermatology: A Manual of Differential Diagnosis, 3rd Ed.* by Stanford L. Kusch, M.D.

http://www.taropharma.com/kusch/
Clinical presentations

Cutaneous manifestations of cancers

Side effects & complications

Skin cancers

Disfiguring & cosmetic changes

References