Dermatology Elective Curriculum

Birdwatching List and Travel Guide

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Life is my college. May I graduate well, and earn some honors.
-Louisa May Alcott

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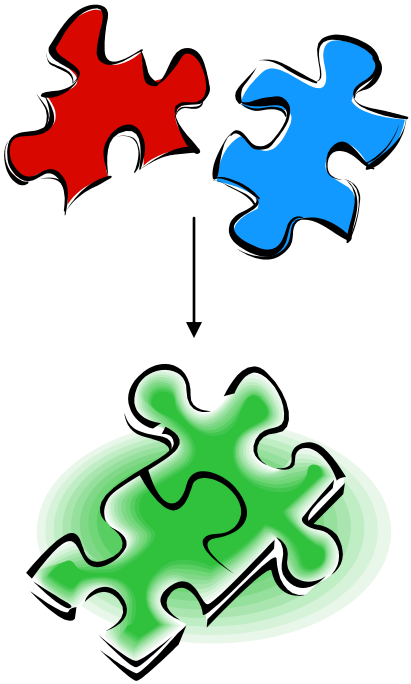
Evaluation guides are available in the accompanying booklet.

The Clinical Practice Gap

Primary care residents and medical students often have the **opportunity** to recognize and initiate management of dermatologic conditions.

However, numerous studies have shown that **non-dermatologists do not perform as well** as dermatologists in the diagnosis of skin disease.[1]



The purpose of this curriculum is to **close the clinical practice gap** by providing an efficient and effective way to teach dermatology to medical students and residents in the setting of a busy dermatology practice.

1 Federman DG, Concato J, Kirsner RS. Comparison of Dermatologic Diagnoses by Primary Care Practitioners and Dermatologists: A Review of the Literature. Arch Fam Med. 1999;8:170-172.

Course Objectives

Learning goals organized by ACGME competency areas:[2]

1.) **Medical Knowledge**
- Describe skin lesions accurately
- Diagnose common dermatologic conditions

2.) **Patient Care**
- Manage initial and follow-up presentations of common skin diseases
- Demonstrate competency in performing common dermatologic procedures

3.) **Systems-Based Practice**
- Recognize cases in which dermatology referral is appropriate
- Recognize cases in which dermatologic findings indicate need for further referral

4.) **Interpersonal and Communication Skills**
- Interact effectively with patients, physicians, and staff

5.) **Professionalism**
- Discuss ethics as it relates to dermatology

6.) **Practice-Based Learning and Improvement**
- Seek feedback from the preceptor
- Act to improve skills throughout the rotation
- Provide feedback to evaluate the rotation

[2] ACGME Board. Common Program Requirements: General Competencies. http://www.acgme.org/outcome/comp/GeneralCompetenciesStandards21307.pdf. Accessed February 23, 2011. Updated February 13, 2007.

Checklist for Success

- ☐ Review this booklet including the *travel guide* and *birdwatching list*
- ☐ Review dermatology vocabulary and *lesion morphology* by completing the exercises on www.learnderm.org
- ☐ Identify books and resources available in the office and elsewhere
- ☐ *Learn as you go* by using VisualDx (www.visualdx.com) on iPad or computer to read about each patient you see
- ☐ Keep your *birdwatching list* updated
- ☐ Complete the ethics assignment (see page 27)
- ☐ Look over the final evaluation at the *beginning* of the rotation
- ☐ Schedule time to discuss your performance *midway* through your rotation and at the *end* of your rotation.

Travel Guide

If you have:

1/2 Day

- total body skin exam (TBSE)
- skin cancer, esp. malignant melanoma vs. seborrheic keratoses, nevi, angiomas

1 Day

- non-melanoma skin cancer, actinic keratoses
- asteatosis
- warts
- acne

1 Week

- eczema
- psoriasis
- the birdwatching list

2 Weeks

- regional dermatology
- treatment of common conditions
- expanded differential diagnosis
- skin signs of systemic disease

1 Month

- project related to area of interest

Welcome to the Birdwatching List!

- You will see patients with a variety of lesions during your dermatology rotation.

- Please keep track of the conditions that you see and the procedures that you see or perform by using the list that follows.

- The list works best if you read about each lesion as you see it clinically.

- By filling in the pertinent information on the birdwatching list, you will identify the unique characteristics of each condition, creating a “field guide” of dermatology.

- When completed diligently, the birdwatching list serves both as a study guide and as a record of your dermatology experience.

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
MUST SEE					
Acne Vulgaris					
Actinic Keratosis					
Basal Cell Carcinoma					
Dermato-fibroma					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
MUST SEE					
Eczema (atopic dermatitis)					
Epidermoid Cyst					
Hemangioma					
Nummular Eczema					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
MUST SEE					
Viral Warts					
Psoriasis					
Seborrheic Keratosis					
Seborrheic Dermatitis					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
MUST SEE					
Telangiectasia					
GOOD TO SEE					
Acne Rosacea					
Alopecia Areata					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
GOOD TO SEE					
Blue Nevus					
Bowen's Disease					
Contact Dermatitis					
Herpes Simplex					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
GOOD TO SEE					
Icthyosis Vulgaris					
Id Reaction (Auto-eczematation)					
Keloid					
Kerato-acanthoma					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
GOOD TO SEE					
Lentigo Maligna					
Lichen Planus					
Lichen Simplex Chronicus					
Malignant Melanoma					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
GOOD TO SEE					
Molluscum Contagiosum					
Perioral Dermatitis					
Pityriasis Rosea					
Scabies					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
GOOD TO SEE					
Squamous Cell Carcinoma					
Stasis Dermatitis					
Tinea Capitis					
Tinea Versicolor					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
GOOD TO SEE					
Ulcers (venous, arterial, diabetic, pressure)					
Urticaria					
BONUS DIAGNOSES					
Angioedema					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
BONUS DIAGNOSES					
Cutaneous Mastocytosis					
Cutaneous T-Cell Lymphoma					
Dermatitis Herpetiformis					
Dermatitis of Pregnancy (PUPPP)					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
BONUS DIAGNOSES					
Erythema Annulare Centrifugam					
Erythema Multiforme					
Erythema Nodosum					
Fixed Drug Eruption					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
BONUS DIAGNOSES					
Granuloma Annulare					
Herpes Zoster					
Keratosis Pilaris					
Lyme Disease (erythema migrans)					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
BONUS DIAGNOSES					
Morphea					
Neuro-fibromatosis					
Neuro-dermatitis					
NLD (Necrobiosis Lipoidica Diabeticorum)					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
BONUS DIAGNOSES					
Pemphigus/ Pemphigoid					
Photosensitivity Dermatitis					
Porphyria Cutanea Tarda					
Scleroderma					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
BONUS DIAGNOSES					
Vitiligo					
OTHER DIAGNOSES SEEN					

DIAGNOSIS	Seen	Read	Lesion Type, Shape, Distribution	Treatment	Key Words/ Notes/ References
OTHER DIAGNOSES SEEN					

PROCEDURES	Seen	Done	Notes	Potential Complications/ Pitfalls
Diagnostic Scraping (KOH)				
Wet prep (for scabies)				
Punch Biopsy				
Shave Removal				
Excision (benign lesion)				
Excision (malignant lesion)				

Dermatoethics

You will encounter ethical dilemmas in the outpatient dermatology office daily. During your rotation, choose at least one situation and schedule time to discuss it with your preceptor, using the following worksheet as a guide.

The Scenario:

In this situation, which ethical principles are in conflict?

What course of action would you take as the clinician in this encounter? On what reasoning is your decision based?

Melanoma: TNM Classification

T:

Tis melanoma in situ

T1 thickness <1.0 mm
- **a**. no ulceration and mitosis <1/mm^2
- **b**. ulceration or mitosis > 1/mm^2

T2 thickness 1.01-2.0mm
- **a**. no ulceration
- **b**. ulceration

T3 thickness 2.01-4.0 mm
- **a**. no ulceration
- **b**. ulceration

T4 thickness >4mm
- **a**. no ulceration
- **b**. ulceration

N:

N0 no metastases

N1 1 node
- **a**. micrometastases
- **b**. macrometastases

N2 2-3 nodes
- **a**. micrometastases
- **b**. macrometastases
- **c**. mets in transit without nodes

N3 4+ nodes or matted nodes or mets in transit with metastatic nodes

M:

M0 no mets

M1
- **a**. skin, subcutaneous, nodal mets
- **b**. lung mets
- **c**. visceral mets or any mets with elevated serum LDH

References:
1. Balch CM, Mihm MC, Gershenwald JE, Soong S. The Revised Melanoma Staging System and the Impact of Mitotic Rate. The Melanoma Letter. The Skin Cancer Foundation: Fall 2010, Vol28,No 3. http://www.skincancer.org/the-revised-melanoma-staging-system-and-the-impact-of-mitotic-rate.html. Accessed February 23, 2011.
2. Nading MA, Balch CM, Sober AJ. Implications of the 2009 American Joint Committee on Cancer Melanoma Staging and Classification on Dermatologists and Their Patients. Seminars in Cutaneous Medicine and Surgery. 2010 Sep;29(3):142-7.

Melanoma: Clinical Staging

Clinical Stage	TNM Classification
0	Tis, N0, M0
IA	T1a, N0, M0
IB	T1b, N0, M0 T2a, N0, M0
IIA	T2b, N0, M0 T3a, N0, M0
IIB	T3b, N0, M0 T4a, N0, M0
IIC	T4b, N0, M0
III	any T, N>N0, M0
IV	any T, any N, M1

Note: Stage III melanoma is further subdivided pathologically.

Melanoma: Facts & Discussion Points

1. Survival rates among patients with melanomas are high for stage 0 and I melanomas, but drop significantly in stages II, III, and IV

2. The strongest risk factor for developing melanoma is _____.

3. The most common sites for melanoma metastases are: _____.

4. True or False: A family history of melanoma increases an individual's risk of developing melanoma.

5. What is the appropriate follow-up for a patient with a history of melanoma?

Reference: Balch CM, Mihm MC, Gershenwald JE, Soong S. The Revised Melanoma Staging System and the Impact of Mitotic Rate. The Melanoma Letter. The Skin Cancer Foundation: Fall 2010, Vol28,No 3. http://www.skincancer.org/the-revised-melanoma-staging-system-and-the-impact-of-mitotic-rate.html. Accessed February 23, 2011.

Ulcers and Wounds

Ulcer Type	VENOUS	ARTERIAL	DIABETIC	PRESSURE
Etiology	Incompetent valves, venous thrombosis	Athero-sclerosis, leads to poor blood supply to skin	Peripheral neuropathy leads to foot deformity; ulcers form due to mechanical and vascular factors	Mechanical factors (i.e.pressure) lead to skin ischemia
Description	Large, shallow, poorly-demarcated ulcer	Well-demarcated, round ulcer	Foot ulcer with surrounding callous	Occur over bony prominences
Physical Exam Findings	Pitting edema, hemosiderin deposits, varicosities, stasis dermatitis	Findings indicative of poor perfusion: weak pulses, cool extremities, slow capillary refill, hair loss and shiny appearance of surrounding skin	Foot deformity, callous, diminished sensation	Immobilized patient
Associated Findings	Leg swelling, improved with elevation	Leg pain exacerbated by elevation and improved in dependent position; history of claudication	High risk for infection and amputation	Cachexia, malnutrition, infection risk

Reference: Fonder MA, Lazarus GS, Cowan DA, Aronson-Cook B, Kohli AR, Mamelak AJ. Treating the chronic wound: a practical approach to the care of nonhealing wounds and wound care dressings. J Am Acad Dermatol 2008;58:185-206.

Pressure Ulcer Staging

STAGE	DESCRIPTION
I	skin is intact; non-blanchable erythema over bony prominences; may also present as skin discoloration
II	partial-thickness loss of dermis; shallow, red-pink ulcer; may also present as a blister; no slough
III	full-thickness loss of tissue; subcutaneous fat is seen, but bone, tendon, and muscle are not; slough, undermining, and tunneling may be present
IV	full-thickness loss of tissue; bone, tendon, or muscle seen; slough, eschar, undermining, and tunneling may be present
unstageable	full-thickness loss of tissue covered by slough or eschar, such that stage cannot be determined
suspected deep tissue injury	discolored intact skin that is purple or maroon or may present as a blood-filled blister

Reference: National Pressure Ulcer Advisory Panel. Updated Staging System: Pressure Ulcer Stages Revised by NPUAP. http://www.npuap.org/pr2.htm. Updated 2007. Accessed February 20, 2011.

Diabetic Foot Ulcers:
Wagner Classification System

GRADE	DESCRIPTION
0	deformity or cellulitis, without open lesions
1	superficial lesion
2	deep lesion to tendon or joint capsule
3	deep lesion with abscess, osteomyelitis, or septic joint
4	gangrene of forefoot or heel
5	gangrene of whole foot

Clinical Pearl: Have patients with diabetes remove their shoes so you can examine their feet for deformities, callous (as sign of pressure changes), or ulcers.

Pedorthists can be utilized to address footwear problems related to pressure (www.pedorthics.org).

Reference: Frykberg RG, Zgonis T, Armstrong DG, Driver VR, Giurini JM, Kravitz SR, Landsman AS, Lavery LA, Moore JC, Schuberth JM, Wukich DK, Andersen C, Vanore JV. Diabetic foot disorders: a clinical practice guideline (2006 revision). Supplement to the Journal of Foot & Ankle Surgery. 2000;39(5 Suppl):S1-60.

Corticosteroid Potency Table

Examples of each steroid class are given. **Write in** additional examples as you see them used clinically.

Class	Examples
1	Betamethasone dipropionate 0.05% optimized vehicle ointment Clobetasol propionate 0.05% cream/ointment
2	Fluocinonide 0.05% cream Desoximethasone 0.25% cream
3	Triamcinolone acetonide 0.5% cream
4	Mometasone furoate 0.1% cream
5	Fluticasone propionate 0.05% cream
6	Desonide 0.05% cream/ointment
7	Hydrocortisone topicals

Pay attention to the vehicle! Use ointments for dry areas; use creams, lotions, and gels for moist areas. Discuss with preceptor.

Reference: Multiple pharmacy formularies and resources used to compile this table.

Antifungal Agents

Examples of some commonly used agents are given. **Write in** additional examples as you see them used clinically.

Class	Examples
Imidazoles	Clotrimazole 1% cream/lotion Ketoconazole 1% or 2% shampoo
Allylamines	Terbinafine 1% cream/solution Terbinafine 250 mg tablet
Ciclopiroxolamine	0.77% cream, gel, lotion, nail lacquer
Iodoquinol	1% gel or in cream with hycrocortisone
Other	

Reference: Multiple pharmacy formularies and resources used to compile this table.

Additional Resources

Browse these websites for additional pictures and examples of dermatologic disease:

DermAtlas
http://dermatlas.med.jhmi.edu/derm/

The University of Iowa Medical Picture Gallery
http://hardinmd.lib.uiowa.edu/derm.html

Global Skin Atlas
http://www.globalskinatlas.com

Emedicine
http://emedicine.medscape.com/

Dermnet
http://www.dermnet.com/

Don't forget to send your preceptor a postcard when you diagnose a skin cancer on your own!