

Dermatology Elective Curriculum

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Approved by Curriculum Meeting June 30, 2006

- I. **Educational Purpose:** This elective rotation is designed to teach the resident the fundamentals of diagnosis and management of commonly encountered dermatological disorders. The major emphasis will be on the diagnosis and treatment of the most commonly encountered skin lesions such as acne, skin cancer, and allergic reactions. The resident will learn the standard terminology used in describing skin lesions.
- II. **Rationale:** Skin lesions are encountered in every patient; no individual has flawless skin. It is, therefore, important to identify those lesions that do not need treatment, those that can be treated by the general internist, and those that should be referred to a dermatologist.
- III. **Knowledge/Objectives:**
 - A. The resident should be able to recognize the range of presentations of common skin conditions:
 - a. Psoriasis
 - b. Acne
 - c. Drug eruption
 - d. Verrucae
 - e. Tinea
 - f. Seborrheic dermatitis
 - g. Contact dermatitis
 - h. Actinic keratoses
 - i. Basal cell carcinoma
 - j. Nevi
 - k. Hair loss
 - l. Pyoderma
 - m. Urticaria
 - B. The resident will learn the dermatological history including:
 - a. Medications
 - b. Exposure to contactants – tape, detergents, industrial, insect bite(s), etc.
 - c. Progression of lesions
 - d. Sexual history
 - C. The resident will learn clues to less common skin diseases:
 - a. Location of lesions
 - b. Age of patient
 - c. Color of lesions
 - d. Special lesions
 - e. Descriptive pointers

IV. Teaching Methods:

- A. Patient encounters in private dermatology offices.
- B. Didactic lectures

V. Procedures: The resident should become familiar with the following techniques:

- a. KOH examination for fungi
- b. Mineral oil scraping for scabies
- c. Trepine (punch) biopsy of skin
- d. Elliptical excision of skin
- e. Subsection (shave) biopsy of skin
- f. Liquid nitrogen treatment for warts and keratoses

VI. Educational Goals by Relevant ACGME Competency:

*Legend for learning activities (see above for a description of each activity).

- DPC – Direct Patient Contact
- DC – Dermatology Consultation
- ID – Formal Lectures and Individual Discussions
- LR – Literature Review
- SC – Subspecialty Conferences
- DX – Dermatology Exam
- BR – Board Review

Patient Care:

Principal Educational Goals	Learning Activities*
Develops skills of comprehensive patient interview and adequate, timely use of other available data sources	DPC, FC, BR
Improve skills of patient examination	DPC, DC
Define and prioritize patient's problems in a timely and accurate manner	DPC, DC, EX, BR
Generate and prioritize pertinent differential diagnosis	DPC, DC, ID, LR, EX, BR
Develop rational, evidence-based management strategies, in accordance with patient's preferences and values	DPC, DC, ID
Implement and oversee accurate and timely delivery of management plan, including procedural skills	DPC, DC
Actively assure effective continuity of patient care	DPC, DC, ID
Capable of timely, accurate and focused verbal and written communication with all members of the health care team	DPC, DC

Medical Knowledge:

Principal Educational Goals	Learning Activities*
Progressively expand clinically applicable knowledge base of the basic and clinical sciences underlying the care of the patient with an endocrine disorder	DPC, DC, ID, LR, SC, RR
Demonstrate initiative and capability to access and critically evaluate current medical information and scientific evidence relevant to patient care	DPC, DEC
Show comprehensive understanding of complex relationships, mechanisms of disease	DPC, DC, ID, EX, BR

Practice-Based Learning:

Principal Educational Goals	Learning Activities*
Constantly evaluates own performance and incorporates feedback into improvement activities	DPC, DC
Identify and readily acknowledge gaps in personal knowledge and skills in the care of patients with endocrine disorders	DPC, DC
Develop and implement strategies for filling gaps in knowledge and skills	DPC, DC, SC, ID
Effectively uses technology to manage information for patient care and self-improvement	DPC, EC, SC, ID

Interpersonal Skills and Communication:

Principal Educational Goals	Learning Activities*
Establish a highly effective and timely therapeutic relationship with patients and families	DPC, DC
Communicate effectively with physician colleagues at all levels	DPC, DC, SC, ID
Communicate effectively with all non-physician members of the health care team to assure comprehensive and timely care of patients	DPC, DC
Present patient information concisely and clearly, verbally and in writing	DPC, DC
Demonstrate excellent education and counseling of patients, families, and colleagues	DPC, DC
Demonstrate excellent education and counseling of patients, families, and colleagues	DPC, DC, SC, ID

Professionalism:

Principal Educational Goals	Learning Activities*
Honesty/ Integrity: Is truthful with patients, peers, etc., and in professional work (documentation, communication, presentations, research)	All
Reliability/ Responsibility: Is accountable to patients, families, and colleagues. Can be counted on to complete assigned duties and tasks in a timely manner. Accepts responsibility for errors	All
Respectful of others: Talks about and treats all persons with respect and regard for their individual worth and dignity; is fair and non-discriminatory. Routinely inquires about or expresses awareness of the emotional, personal, family, and cultural influences on patient well-being and their rights and choices of medical care; is respectful of the other members of the health care team. Maintains confidentiality.	All
Compassion/ Empathy: Listens attentively and responds humanely to patient's, family members', and colleagues' concerns; provides appropriate relief of pain, discomfort, and anxiety	All
Self-Improvement: Regularly contributes to patient care or educational conferences with information from current professional literature; seeks to learn from errors; aspires to excellence through self-evaluation and acceptance of the critiques of others	All
Self-Awareness/ Knowledge of Limits: Recognizes need for guidance and supervision when faced with new or complex responsibility; is insightful of the impact of one's behavior on others and cognizant of appropriate professional boundaries	All
Communication/ Collaboration: Works cooperatively and communicates effectively to achieve common patient care and educational goals of all involved health care providers	All
Altruism/ Advocacy: Adheres to best interest of the patient; puts best interest of the patient above self-interest and the interest of other parties	All

System-Based Practice:

Principle Educational Goals	Learning Activities*
Understand and utilize the multidisciplinary resources necessary to care optimally for patients	DPC, DC, SC, ID
Collaborate effectively with other members of the health care team to assure comprehensive patient care	DPC, DC, SC
Use evidence-based, cost-conscious strategies in the care of patients with endocrine disorders	DPC, DC, SC, ID, BR
Utilize systems-based approaches to reduce errors	DPC, DC
Assist in development of systems improvement	DPC, DC

VII. Rotation Specific Competency Objectives

- a. **Patient Care** – By the end of the rotation the resident must be able to complete a comprehensive history with particular focus paid to dermatologic problems as outlined in section III. The resident must demonstrate the ability to complete a detailed examination of the skin. The resident will demonstrate skills in clinical documentation in the medical record.
- b. **Medical Knowledge** – By completion of the rotation, the resident must be able to evaluate common dermatologic problems including acne, psoriasis, skin cancer, actinic keratoses, and contact dermatitis. The resident will develop competence in the use of medications to treat acne and in the use of topical steroids and 5 fluorouracil.
- c. **Interpersonal and Communication Skills** – The resident will actively work with the nursing staff and demonstrate the ability to work in a team setting. The resident will develop and sustain a therapeutic and ethically sound relationship with patients and their families. The resident will demonstrate the ability to communicate effectively and demonstrate a caring, compassionate, and respectful behavior.
- d. **Professionalism** – The resident will demonstrate respect, compassion, and integrity. The resident will be committed to excellence and continuous professional development.
- e. **Practice Based Learning and Improvement** – The resident will be able to locate, critically appraise, assimilate evidence from scientific studies to apply to patients' health problems. The resident will be able to use information technology to manage information, access on-line medical resources to support self-education, patient care decisions and patient education. The resident will learn the indications as well as the limitations of dermatologic diagnostic testing.
- f. **System Based Practice** – The resident will be able to practice cost-effective health care and resource allocation while advocating for quality. The resident will be able to assess, coordinate, and improve health care and system performance.

VIII. **Methods of Evaluation:** Dermatology clinical faculty complete written comprehensive competency based evaluation forms provided by the residency coordinators. The faculty will review the evaluation face-to-face with the resident. All evaluations are part of the resident file and are available for resident review except for those evaluations provided by resident peers.

IX. References:

- a. Demis, DJ. *Clinical Dermatology*. Lippincott Williams, 1995.
- b. Fitzpatrick, TB, et al. *Dermatology in General Medicine*. McGraw-Hill, 1996.
- c. Internet Dermatology – <http://www.telemedicine.org/stamford.htm> (excellent site)
- d. Dermatology Online – <http://matrix.ucdavis.edu/DOJdesk/desk.html>

Terminology used in Dermatology (adopted from the Virtual Hospital ®):

- i. Macules (circumscribed change in skin color without elevation or depression)
 - a. Vitiligo
 - b. Tinea Versicolor
- ii. Papules and plaques (papule – solid elevated lesion usually 0.5cm or less in diameter; plaque – raised lesion that has a greater area as compared to its elevation above the skin surface)
 - a. Urticaria/hives
 - b. Erysipelas
- iii. Nodules (palpable solid lesion of varying size, greater than 0.5 cm and less than 2 cm in diameter, may be present in the epidermis, dermis or subcutis)
 - a. Erythema nodosum
- iv. Cysts (sac containing liquid or semisolid material usually in the dermis)
 - a. Epidermoid cysts
- v. Papules and scales (papulosquamous) (scale – heaping up of stratum corneum or keratin)
 - a. Psoriasis
 - b. Secondary syphilis
 - c. Lichen planus
 - d. Tinea corporis
- vi. Dermatitis
 - a. Seborrheic dermatitis
 - b. Tinea corporis
 - c. Candidiasis
 - d. Impetigo
 - e. Scalded skin syndrome (staphylococcus)
 - f. Poison Ivy
 - g. Contact dermatitis
- vii. Rosacea
- viii. Erosion (loss of epidermis above the basal layer leaving denuded surface)
- ix. Crust (accumulation of serum, blood, or purulent exudates)
- x. Excoriation (linear crusts and erosions due to scratching)
- xi. Ulcer (loss of epidermis and part or all of dermis leaving depressed moist lesion)
- xii. Atrophy (thinning of epidermis or dermis)
- xiii. Sclerosis (hardening or induration of skin)
- xiv. Scar (fibrous tissue replacing normal skin in areas of healing)
 - a. Hypertrophic scar
 - b. Keloid
 - c. Post-inflammatory dyspigmentation
- xv. Lichenification (accentuation of skin markings commonly associated with thickening of epidermis caused by scratching or rubbing)
- xvi. Pokiloderma (combination of atrophy, hyper- and hypopigmentation and telangiectasis)
- xvii. Telangiectasia (dilated superficial blood vessels, especially of the upper reticular dermal plexus)

- xviii. Vesiculobullous (vesicle – circumscribed elevated lesion which contains free fluid, 0.5 cm or less in diameter; bulla = blister)
 - a. Herpes simplex
 - b. Herpes zoster
 - c. Superficial Candidiasis
 - d. Pemphigus
- xix. Purpura (non-blanching erythema or violaceous color due to extravasation of blood into the tissue)
 - a. Palpable purpura
 - b. Retiform purpura
 - c. Livedo reticularis
 - d. Hemorrhage and superficial necrosis
- xx. Nikolsky's Sign – a disadhesion of skin assessed by light pressure at the edge of a preexisting bulla

Skin Disorders According to the Location of the Lesion

Area	Examples	
Scalp	Alopecia areata Seborrheic dermatitis Verrucae Trichotillomania Epitheliomas Folliculitis psoriasis	Ectodermal defect Pediculosis Inclusion cyst Lichen simplex chronicus Nevi Tinea capitis
Face	Hemangioma Herpes simplex Eczema herpetic Xanthelasma Photosensitivity Scleroderma Vitiligo Perioral dermatitis Verrucae Acne Furuncle Impetigo Contact dermatitis	Sarcoidosis Rosacea Molluscum contagiosum Melasma Epitheliomas Herpes zoster Seborrheic keratoses Lentigines Lupus erythematosus Verrucae Dermatitis papulosa nigra Actinic keratoses
Eyelids	Hordeolum Blepharitis Verrucae Alopecia areata Basal cell epithelioma Purpura Edema Contact dermatitis Meibomian cyst Seborrheic dermatitis	Amyloidosis Dermatomyositis Syringoma Xanthelasma Pediculosis Acrochordon Vitiligo Seborrheic keratoses Behcet's syndrome
Mouth	Aphthous ulcers Leukoplakia Squamous cell cancer Lichen planus	Erythema multiforme Geographic tongue Hairy tongue
Lip	Herpes simplex Leukoplakia Squamous cell cancer Epithelioma	Actinic cheiliris Venous lake Fordyce disease Perleche

Area	Examples	
Trunk	Acne Keloid Psoriasis Contact dermatitis Darier's disease Dermatitis herpetiformis Secondary syphilis Paget's disease of breast Miliaria rubra Morphea	Seborrheic dermatitis Seborrheic keratoses Ptyriasis rosea Tinea Versicolor Psoriasis Urticaria Varicella Kaposi's sarcoma Actinic keratoses
Inguinal	Tinea cruris Erythrasma Intertrigo Seborrheic dermatitis	Psoriasis Hidradenitis Suppurativa
Antecubital – popliteal fossae	Atopic dermatitis Miliaria rubra Psoriasis Dermatitis herpetiformis	Xanthoma Epidermolysis bullosa Ehlers-Danlos syndrome
Hand	Contact dermatitis Psoriasis Keratolysis exfoliativa Scabies Paronychia Verrucae Pustular psoriasis	Mucous cysts Dupuytren's contracture Vitiligo Erysipelioid Granuloma annulare Erythema multiforme Hyperhidrosis
Shins	Lichen amyloidosis Pretibial myxedema Ichthyosis Pigmented purpuric eruption Insect bites Sarcoidosis	Hypertrophic lichen planus Xerosis Erythema nodosum Erythema multiforme Necrobiosis lipoidica diabetorum

Area	Examples	
Feet	Tinea pedis Verrucae Erythrasma Contact dermatitis Callus Atopic eczema	Gout Kaposi's sarcoma Hyperhidrosis Dyshidrosis Keratolysis punctata Psoriasis
Wrist	Lichen planus Vitiligo	Contact dermatitis
Ankle	Stasis dermatitis Stasis ulcer	Lipoatrophy Granuloma annulare
Nails	Psoriasis Lichen planus Verrucae Onychomycosis	Onychoschizia Yellow nail Paronychia Periungual fibroma
Arms/ thighs	Keratosis pilaris Oil folliculitis Prurigo	Xerosis Actinic keratoses Psoriasis
Axilla	Acrochordon (skin tags) Contact dermatitis Hidradenitis suppurativa Trichomycosis axillaries Erythrasma Scabies	Fox-Fordyce disease Bromidrosis Hyperhidrosis Seborrheic dermatitis Hailey-Hailey disease
Vulva	Candidiasis Lichen simplex chronicus Lichen sclerosis and atrophicus	Verrucae Herpes simplex Chancre
Penis	Scabies Leukoplakia Verrucae Herpes simplex Sebaceous cysts Fixed drug eruption Chancre Candidiasis	Lichen sclerosis and atrophicus Balanitis Lichen planus Psoriasis Pyoderma Bowen's disease Epithelioma Erythroplasia of Queyrat

Area	Examples	
Perianal	Verrucae Contact dermatitis Hemorrhoids Psoriasis Seborrheic dermatitis Intertrigo	Neurodermatitis Chancre Candidiasis Condyloma latum Vitiligo Lichen sclerosis and atrophicus
Widespread	Exanthema Drug eruption Erythroderma Toxic Erythema	Ptyriasis rubra pilaris Toxic epidermal necrolysis psoriasis Erythema multiforme