

# **DERMATOLOGY CURRICULUM**





# **CONTRIBUTORS**

## **Preparation Curriculum Scientific Group**

- DR. MOHAMMAD FATANI
- DR. KHALID BAHAMDAN
- DR. AFAF AL SHEIKH

## **Resident Representative**

DR. SULTAN ALJAAFAR

## **Supervision Curriculum Specialist**

- DR. ZUBAIR AMIN
- DR. SAMI ALSHAMARRI

## Reviewed and Approved Dermatology Scientific Council

- DR. KHALED BAHMDAN DR. MAJDI ABDULGANE
- DR. SALEH AL JABE DR.AHMED ALISSA
- DR. ISSAM HAMADA DR. ABDULAZIZ ALNOSHAN
- DR. FAHAD ALSAIF DR. MOHAMMED FATANI
- DR. AFAF AL-SHEIKH DR. HASSAN ABDELFATTAH
- DR. KHALID AL ATTAS DR. MOHAMMED AL KALTHAM

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## **Correspondence:**

Saudi Commission for Health Specialties

P.O. Box: 94656

Postal Code: 11614

Contact Center: 920019393

E-mail: systemadmin@scfhs.org

Website: www.scfhs.org.sa

## Formatted and Designed by:

Salem Altamimi (SCFHS)/Manoj Thomas Varghese, CMT (SCFHS)

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#### Phase 1: Five-year Program

Dr. Ali Alraddadi, Dr. Mohammed Fatani, Dr. Khalid Bahamdan, Dr. Khalid AL Attas, Dr. Waleed Al Ajroush, Dr. Magdy Abulghani, Dr. Abdulmajeed Al Ajlan, Dr. Mohamad Qari.

## Phase 2: Adaptation to a four-year curriculum program

Dr. Mohammad Fatani, Dr. Khalid Bahamdan, Dr. Magdy Abdulghani, Dr. Afaf Al Sheikh, Dr. Khalid AL Attas

## Phase 3: Final SCFHS four-year curriculum program CanMED 2013

Dr. Mohammad Fatani, Dr. Khalid Bahamdan, Dr. Afaf Al Sheikh, Dr. Sultan AlJaafari

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## Introduction

#### **Context of Practice**

Dermatology and Venereology concerns the diagnosis and treatment of diseases related to the skin, hair, nails, subcutaneous and mucus membranes, and the management of these through different investigations and therapies, including, but not limited to, dermatohistopathology, topical and systemic medications, dermatologic surgery and dermatologic aesthetic surgery, immunotherapy, phototherapy, laser therapy, radiotherapy, photodynamic therapy, and sexually transmitted infections.

This is a unique specialty with both medical and surgical aspects. Dermatologists see patients of all ages, from newborns to people over one hundred years of age, and they diagnose and treat over 3000 different diseases. Dermatological conditions are common—they constitute approximately 15% of GP visits; at one time or another, nearly every person suffers from some form of skin disease. Many systemic diseases have dermatological manifestations. Some dermatological diseases, such as toxic epidermal necrolysis, are life threatening. Others have a major psychological impact.

#### Historical background

The Saudi Board of Dermatology and Venereology was created in 1997, at the same time the Saudi Commission for Health Specialties (SCFHS) was established. Board members are primarily selected from different universities and governmental medical services and maintain the high standards of this specialty.

#### Nature of program

The program is a four-year structured training in dermatology and related subspecialties. It is a joint program where the trainee spends predetermined period in each different hospital in the region over the four years.

#### Profile of practice

A board-certified dermatologist is expected to be an expert in disorders of the skin, nails, hair, and visible mucous membranes. The candidate's knowledge must include the basic science of the skin and its appendages, pharmacology, and therapeutics. It should also include photomedicine, dermatopathology, cutaneous diagnostic skills, venereology, the performance of cutaneous surgical procedures, the safe utilization of phototherapy and lasers, the basics of aesthetic dermatology, ethics, professionalism, and evidence-based medicine and research.

Although most dermatology practice is in the form of outpatient services or hospital-based, dermatologists can gain greater influence and responsibility in their fields by pursuing careers in research or academics. The duties involved in these positions include securing research funding, publishing in scientific journals, presenting at professional conferences, and teaching medical students and residents.

# Introduction

In addition, a dermatologist can further advance his career, responsibilities, and income by engaging in subspecialty practices, such as pediatric dermatology, dermatopathology, dermatological surgery, immune dermatology, hair disease and transplant, lasers and phototherapy, oncology, and easthetics.

#### **Expected outcomes**

The graduate will be able to pursue many career paths, including:

- Clinical practice
- Academic dermatology
- Pediatric dermatology
- Dermatopathology
- Dermatological surgery
- Immune dermatology
- Hair disease and transplant
- Laser and photo-therapy
- Oncology

## DIFFERENCES BETWEEN PRESENT AND PREVIOUS CURRICULA

## Philosophical orientations

- Competency-based
- Graded responsibility for the physicians
- Better supervisory frameworks
- Clearer demarcations concerning what should be achieved at each stage of

## **Training**

- A core curriculum with elective and selective options
- Independent learning within a formal structure

## **Expanded range of competencies**

- A balanced representation of knowledge, skills, and professionalism
- Incorporation of new knowledge and skills

## **Evidence-based approach**

- Demographic data (e.g., disease prevalence)
- Practice data (e.g., procedures performed)
- Patient profile (e.g., outpatients versus inpatients)
- Catered towards future needs.

#### **Holistic Assessment**

- Greater emphasis on continuous assessment
- Balanced assessment methods
- Use of a portfolio and logbook to support learning and individualized

#### Assessments

In-built formative assessment

# **DEFENITION USED IN THE DOCUMENT**

**Assumed Knowledge (A):** knowledge of a specific disease that is expected to have been acquired prior to the beginning of training.

Competency: This is the capability to apply or use the set of related knowledge, skills, and abilities required to successfully perform "critical work functions" or tasks in a defined work setting. Competencies often serve as the basis for skill standards that specify the level of knowledge, skills, and abilities required for success in the workplace as well as potential measurement criteria for assessing competency attainment.

Core (C) (skills, knowledge, and professional behavior): A specific knowledge or skill or professional behavior that is specific to the given specialty.

Mastery (M): These topics are beneficial for Year 1 and 2 level trainees to know. They are expected to attain competency in managing these conditions during years 3 and 4 of their training.

**Portfolio:** This is a collection of selected work performed by the resident that is packaged and organized for easy review and evaluation.

**Universal**: Knowledge, skills, or professional behavior that is not specific to the given specialty but universal for the practice of clinical medicine

## **Outcomes**

#### Rationale

The Saudi Board of Dermatology and Venereology Program is committed to providing the highest level of clinical training, education, and research for the development of future dermatologists. We accept candidates with outstanding qualifications into our program. Residents are advised to read the policies and guidelines contained in this handbook.

#### **Mission**

Our mission is to graduate knowledgeable, skillful, competent, and safe dermatologists.

#### Overall Goal

A resident who successfully completes this period of study shall:

- 1. Be an independent and competent dermatologist who can treat skin diseases safely and effectively.
- 2. Create and maintain an ideal environment that promotes the delivery of high standards in dermatology and venereology education for our population.
- 3. Perform thorough and suitably oriented physical examinations and checks of patients' history.
- 4. Formulate diagnoses and recognize common disorders in dermatology, including many of the rare diseases, and provide the proper treatment.
- 5. Recognize emergencies and manage them effectively.
- 6. Select necessary investigations logically and conservatively and interpret the results accurately.
- 7. Manage common problems in dermatology and possess knowledge of management alternatives.
- 8. Possess good skills in various diagnostic and therapeutic procedures in dermatology.
- 9. Communicate well with patients, relatives, and colleagues.
- 10. Maintain orderly, accurate, and informative medical records.
- 11. Educate and update himself/herself and others in his field.
- 12. Advise colleagues from other specialties on problems related to dermatology and venereology when required.
- 13. Provide patient and family education
- 14. Be a patient advocate

## Strategies to achieve teaching/learning outcomes

- 1. The specialty will provide competent and trained supervisors, instructors, and program directors that will supervise the training of all residents.
- 2. The residents will be expected to take responsibility for their own learning with support from the specialty faculty.
- 3. The local supervising committee will provide all of the learning opportunities specified in the curriculum, such as tutorials, bedside and outpatient teaching, ambulatory operative sessions and consultations, and clinical rounds.

#### **Admission requirements**

In accordance with and without contradiction to the SCFHS training rules and regulations, the following requirements must be fulfilled by any candidate accepted into the training program:

- 1. Hold a bachelor degree in medicine from a recognized university.
- 2. Successful completion of an internship.
- 3. Have passed the Saudi Commission Medical Licensing Exam (SMLE).
- 4. Have passed the selection interview (If exist).
- 5. Provide a letter from a sponsoring organization stating that the candidate can join a full-time training program for the entire period of the program or a document attesting to his/her capability of self-support.
- 6. Upon acceptance, registration as a trainee with the Saudi Commission for Health Specialties.

## **Duration of the program**

- 1. The residency-training program is four years in duration.
- 2. The first year will concern rotations in medicine, pediatric, and an elective discipline (plastic surgery, psychiatry, and other related allied branches).
- 3. The second to fourth years will include extensive training in general dermatology as well as dermatosurgery, laser therapy, photobiology, evidence-based dermatology, research methodology, and venereology.

## **Program Main Training Rotations**

rogram Main Training Rotations		
R1 First Year Residency	R2 Junior Residency	
6 months Medicine 3 Months Pediatrics 2 Month Dermatology 1 Month Plastic Surgery	11 Months Dermatology 1 Month Dermatopathology (Optional)*	
R3 Junior Residency	R4 Senior Residency	
9 Months Dermatology 1 Month Dermatopathology 1 Month Laser & Phototherapy 1 Month Surgery	8 Months Dermatology 1 Month Dermatopathology (Optional)* 1 Month Aesthetics Dermatology 1 Month Surgery 1 Month Elective (Optional)*	

<sup>\*</sup> Based on resources availability, overall rotations scheduling and Program Director approval.

#### I. Medicine (6 months)

A. General medicine (1 month) - B. Infectious diseases (1 month) - C. Rheumatology (1 month) - D. Endocrinology (1 month) - E. ER medicine (1 month) - F. Oncology/hematology (1 month).

#### II. Pediatrics (3 months)

A. General pediatric (1 month) - B. Pediatric ER (1 month) - C. Immunology/infectious diseases) (1 month).

## **General objectives**

First year residency (R1)

#### Introduction:

Most systemic diseases can affect the skin either directly or as a result of a complication in the disease or its treatment. Therefore, sound knowledge of general medicine and pediatrics is mandatory to become a practicing dermatologist. The duration of this element of training is one year, during which time the trainee will be attached to medical and pediatrics units in a teaching hospital approved by the Saudi Council for Health Specialties.

This period will be devoted to basic training in general medicine, pediatrics, and other related clinical specialties.

#### Training rotation will be as follows:

- I. Medicine (6 months)
- a. General medicine (1 month)
- b. Infectious diseases (1 month)
- c. Rheumatology (1 month)
- d. Endocrinology (1 month)
- e. ER medicine (1 month)
- f. Oncology/hematology (1 month)

#### Pediatrics (3 months)

- a. General pediatric (1 month)
- b. Pediatric ER (1 month)
- c. Immunology/infectious diseases) (1 month)
- III. General Dermatology (2 months)
- IIII. Plastic Surgery (1 months)

#### Reading list

This reading list is provided as a useful source of information and is a basis for study.

For all

books listed; the latest edition is recommended.

#### **Texts**

Medicine: Davidson's Principles and Practice of Medicine

#### Other Books

Pediatrics:

Nelson Essentials of Pediatrics

Other Books

## Junior Residency (R2, R3)

Second-year resident (R2) & third-year resident (R3)

Duration: 24 months

## **Learning Objectives**

- Become skilled in obtaining pertinent history, organizing data, and presenting material to staff.
- 2. Complete appropriate physical examinations and identify primary and secondary lesions.
- 3. Become capable of formulating appropriate differential diagnoses for common dermatological diseases.
- 4. Become capable of competently performing basic clinical dermatologic diagnostic procedures.
- 5. Learn the indications for patch testing, ultraviolet light therapy, cryosurgery, electrosurgery, and referrals for advanced dermatologic surgery.
- 6. Acquire and understanding of special stains, immunohistochemistry, immunofloscence, and electron microscopy of skin diseases.
- 7. Learn basic clinical photography techniques.
- 8. Know basic dermatologic terminology.
- 9. Understand the basic pathophysiology and management of the most common skin diseases.

Develop an understanding of basic principles of topical therapy, including general knowledge of costs for dermatologic medications.

\* Kindly refer to the table on page 11 for the approved rotations.

## **Topics**

- 1. Skin biology
- 2. General dermatology
- 3. Basic clinical diagnostic, surgical procedures, and investigatory tools
- 4. Dermatopathology
- 5. Evidence-based dermatology
- 6. Medical ethics
- 7. Basic therapeutics
- 8. Basic knowledge in research

#### Senior Residency (R4)

Fourth-year resident (R4)

**Duration: 12 Months** 

## **Learning Objectives**

Residents must:

- 1. Have comprehensive knowledge of the pathophysiology of skin diseases and methods of diagnosis and treatment.
- 2. Be capable of formulating an appropriate differential diagnosis and treatment plan for common and rare dermatological diseases.
- 3. Be competent in performing advanced diagnostic procedures.
- 4. Have knowledge of the histopathology of common and rare skin diseases.
- 5. Have an understanding and knowledge of the majority of surgical dermatology procedures and laser applications.
- 6. Participate in the teaching of junior residents and medical students.
- 7. Be capable of applying their knowledge of clinical dermatology to clinical practice.
- 8. Master the diagnosis and management of cutaneous disorders and be competent in dermatological consultations.
- 9. Be capable of diagnosing unknown slides and of formulating a differential diagnosis.
- 10. Show leadership skills in clinic operations and in creating and maintaining rotation schedules.

## **Topics**

- 1. General dermatology
- 2. Dermatopathology
- 3. Disorders caused by environmental factors, phototherapy, and photochemotheraphy
- 4. Neurocutaneous and psychocutaneous aspects of skin diseases
- 5. Skin changes across a patient's lifespan and genetic diseases
- 6. Skin oncology
- 7. The skin and systemic diseases
- 8. Skin surgery
- 9. Diseases caused by microbial agents
- 10. Genitourinary medicine
- 11. Dermatological formulation and systemic therapy
- 12. Dressing and wound care
- 13. Cutaneous laser surgery
- 14. Aesthetics dermatology

<sup>\*</sup> Kindly refer to the table on page 11 for the approved rotations.

# MOST COMMON CONDITIONS TREATED IN THE SPECIALTY'S TRAINING CENTERS

Top Ten Causes of Outpatient Consultations Related to this Specialty in Saudi Arabia based on expert consensus

Disease/Condition	Relative Frequency	Cumulative Frequency
Acne	9.48	
Atopic eczema	8.54	
Verruca vulgaris	8.64	
Vitiligo	3.35	
Hair loss	2.88	
Alopecia areata	3.85	
Psoriasis	3.10	
Tinea pedis	0.71	
Pityriasis versicolor	1.43	
Lichen planus	1.14	

Top Ten Causes of Inpatient/Consultations Related to this Specialty in Saudi Arabia based on expert consensus

Disease/Conditions	Relative Frequency	Cumulative Frequency
Bullous pemphigoid		
Pemphigus vulgaris		
Stevens-Jonson Syndrome		
Toxic Epidermolysis Necrolysis		
Staphylococcal Scaled Skin Syndrome		
Herpes gestationis		
Erythroderma & exfoliation		
Eczema herpetiform		
Bullous impetigo		
Erythema nodosa		

Top Ten Cases encountered in the Emergency Department related to the Specialty in Saudi Arabia based on expert consensus

Disease/Conditions	Relative Frequency	Cumulative Frequency
Urticaria and angioedema	1.55	
Viral exanthema		
Herpes zoster	0.32	
Vasculitis		
Drug eruption	1.06	
Chickenpox	0.12	
Hand & food & mouth disease	0.01	
Cellulitis & erysipelas	1.55	
Erythema Multiforme		
Pruritus	2.73	

Top Ten Procedures performed by Dermatology Specialty in Saudi Arabia based on expert consensus

Name of Procedure/Surgery	Approximate Frequency
KOH test	8/week
Simple suturing	30/week
Slit skin smear	5/week
Cryotherapy	40/week
Electrotherapy	45/week
Intralesional injection	35/week
Punch biopsy/shave	25/week
Wood's lamp	15/week
Excisional biopsy	5/week
Local anesthesia	60/week

#### Generic Problems/Issues

## A. Psychological impact of dermatological conditions

Dermatological problems can result in psychosocial effects that seriously affect patients' lives. More than a cosmetic nuisance, skin disease can produce anxiety, depression, and other psychological problems that affect patients' lives in ways comparable to other disabling illnesses. An appreciation for the effects of sex, age, and the location of lesions is important, as well as the bidirectional relationship between skin disease and psychological distress. The following are examples of such conditions:

- 1. Acne vulgaris: Acne has a demonstrable association with depression and anxiety; it affects personality, emotions, self-image, and esteem, and causes feelings of social isolation. The psychological effects of acne are unique for each patient. Patients should be asked how much their acne bothers them, regardless of how severe it appears to physicians. Interventions, such as isotretinoin, that minimize or prevent scarring and reduce the duration of the condition have the most pronounced psychosocial benefit.
- 2. Atopic dermatitis: The eczema can be a source of major psychosocial distress. Young children with this condition often suffer from sleep disturbances, which are difficult for parents and may cause behavioral problems in the child. Older children may become shy and withdrawn due to the embarrassment of a visible skin condition. Activities such as sport, participation in school camps, and swimming may have to be restricted. Long absences from school may result from both the eczema itself, and from the social avoidance that develops in some children. Adults may also suffer shyness and withdrawal due to the appearance of the eczema.
- 3. Psoriasis: Psoriasis is emotionally disabling and is accompanied by significant psychosocial difficulties. Emotional difficulties arise from concerns about appearance. This results in lowered self-esteem, social rejection, guilt, embarrassment, sexual problems, and impairment of professional ability. The presence of pruritus and pain can aggravate these symptoms. Psychological aspects can modify the course of the illness; in particular, feeling stigmatized can lead to treatment noncompliance and worsening of the psoriasis. Likewise, psychological stress can also lead to depression and anxiety. The prevalence of suicidal ideation and depression in patients with psoriasis is higher than that reported in other medical conditions and the general population. Thus, although the disease is not threatening to life itself, psoriasis can very significantly impair quality of life. A comparative study reported a reduction in physical and mental functioning comparable with that seen in cancer, arthritis, hypertension, heart disease, diabetes, and depression. According to a recent survey, 79 percent of patients with severe psoriasis reported a negative impact on their lives.
- 4. Vitiligo: The psychological impact of vitiligo varies greatly from person to person, depending on their condition, their social and occupational situation, and their psychological wellbeing. Vitiligo is often most obvious in darkly pigmented individuals, in whom the disease can have profound psychological consequences. These effects range from mild embarrassment to a severe loss of self-confidence and social anxiety, especially for those who have lesions on exposed skin.

## B. Nutrition

Nutrition is one of the most important parameters involved in modulating skin health and condition. There are many cutaneous manifestations of nutritional deficiencies. Vitamin deficiencies, whether due to malnutrition or other factors (malabsorption and genetic defects), are associated with various dermatological modifications, such as pellagra, which is the classical image of a niacin deficiency, or hyperpigmentation, which is associated with  $B_{12}$  deficiency. Additionally, trace elements are essential for skin health and deficiencies in these is related to the development of skin conditions.

## **CORE CLINICAL PROBLEM LIST AND REPRESENTATIVE DISEASES**

Expected Level of Competency for Core Specialty Level Problems

Competency level	RY2/RY3
Obtain a focused history	
Triage and prioritize the patients	
Render immediate/emergency management	
Generate the most likely diagnosis and focused di	fferential diagnoses
Describe the patho-physiological/clinic-anatomica	al basis of the condition
Rationalize, order, and interpret appropriate inves	tigations
Recognize secondary complications/adverse even	ts/severity
Counsel patients/families/care-givers regarding the	he condition
Manage complex psychosocial/financial/behaviora	al aspects of the condition
Teach students, fellow colleagues, and other he the condition	ealthcare professionals regarding

Expected Level of Competency for Master Specialty-Level Problems

Competency level	RY4
Obtain a focused history	
Triage and prioritize the patients	
Render immediate/emergency management	
Generate the most likely diagnosis and focused differential diagnoses	
Describe the patho-physiological/clinic-anatomical basis of the condition	
Rationalize, order, and interpret appropriate investigations	
Recognize secondary complications/adverse events/severity	
Counsel patients/families/care-givers regarding the condition	
Manage complex psychosocial/financial/behavioral aspects of the condition	ion
Teach students, fellow colleagues, and other health care professionals regarding the condition	

## **DERMATOLOGY CORE TOPICS**

- 1. Basic science
- 2. Genodermatoses
- 3. Neoplasms of the skin
- 4. Pruritus
- 5. Adnexal diseases
- a. Acne
- b. Rosacea
- c. Folliculitis
- 6. Urticaria, Erythemas, and purpuras
- a. Stevens-Jonson syndrome
- b. Toxic epidermolysis necrolysis
- c. Erythema multiforme
- d. Urticaria and angioedema
- e. Reactions to insect bites
- f. Vasculitis
- g. Drug eruption
- h. Herpes gastiones
- i. Pyoderma gangrenosum
- j. Tweet's syndrome
- 7. Disorders of Langerhans cells and macrophages
- 8. Atrophies and disorders of dermal connective tissue
- 9. Vascular disorders
- 10. Rheumatologic diseases
- 11.Metabolic and systemic diseases: Dermatologic disease is frequently associated with internal manifestations. There are many cutaneous disorders that are traditionally associated with systemic disease; for example, autoimmune connective tissue diseases, malignancy, liver disease, and renal disease. In addition, most endocrinopathies have dermatologic manifestations and many infectious diseases have dermatologic findings. The following are examples of dermatological manifestations in patients with systemic disease:
- a. Cutaneous conditions associated with rheumatoid arthritis:
- i. Rheumatoid nodules
- ii. Small, medium and large vessel vasculitis
- iii. Pyoderma gangrenosum
- iv. Tweet's syndrome
- v. Rheumatoid neutrophilic dermatitis
- b. Paraneoplastic dermatoses:
- i. Bazex syndrome
- ii. Erythema gyratum repens
- iii. Paraneoplastic pemphigus
- iv. Necrolytic migratory erythema
- v. Tripe palms
- c. Dermatologic associations of diabetes mellitus
- i. Acanthosis nigricans

- ii. Bullous diabeticorum
- iii. Necrobiosis lipoidica
- iv. Eruptive xanthomas

#### d. Skin findings related to Frohn's disease and ulcerative colitis

- i. Erythema nodosum
- ii. Small vessel vasculitis
- iii. Cutaneous polyarteritis nodosa
- iv. Pyoderma gangrenosum

## e. Dermatologic aspects of liver cirrhosis:

- i. Spider angiomas and other telangiectasias
- ii. Palmar erythema
- iii. Terry's nails and Muehrcke's nails
- iv. Gynecomastia
- v. Jaundice

## f. Dermatologic aspects of the hepatitis C virus:

- i. Cryoglobulinemic vasculitis
- ii. Livedo reticularis
- iii. Porphyria cutanea tarda
- iv. Lichen planus particularly erosive oral disease
- v. Necrolytic acral erythema

## g. Dermatologic aspects of end-stage renal disease:

- i. Xerosis or ichthyosis
- ii. Pruritus
- iii. Acquired perforating dermatosis
- iv. Pseudoporphyria
- v. Calciphylaxis

## 12. Disorders caused by physical agents

- a. First degree burn
- 13. Disorders of subcutaneous fat
- a. Erythema nodosa

#### 14. Hair and nails and mucous membranes

- a. Alopecia areata
- b. Hair loss

## 15. Infections, infestations, and bites

- a. Verruca vulgaris
- b. Tinea pedis
- c. Pityriasis versicolor
- d. Viral exanthema
- e. Chicken pox
- f. Herpes zoster
- g. Bullous impetigo
- h. Hand & food & mouth disease
- i. Cellulitis & erysipelas
- j. Scabies
- k. Staphylococcal scaled skin syndrome
- I. Eczema herpetiform

#### 16. Vesiculo bullous diseases

- a. Pemphigus vulgaris
- b. Bullous pemphigoid

## 17.Pigmentary disorders

- a. Vitiligo
- b. Melasma

## 18. Papulos gamous dermatos is

- a. Psoriasis
- b. Atopic eczema
- c. Lichen planus
- d. Erythroderma & exfoliation
- e. Pityriasis Rosea
- f. Acute contact dermatitis

## 19. Skin changes across lifespan and in relation to genetic diseases

## 20. Therapy and procedures

- a. Medical treatments
- b. Physical treatment modalities
- c. Dermatosurgery
- d. Basic aesthetics surgery

#### 21. Veneorology

Venereal disease is a term used to refer to infections that are defined by law and regulations as sexually transmitted diseases (STD) or sexually transmitted infections STI; for example, syphilis, chancroid, lymphogranuloma venereum, genital herpes, and granuloma inguinale. STIs (STDs) reflect the recognition of a disease caused predominantly by sexual contact with an infected person.

- a. Chlamydia
- b. Thichomonal disease
- c. Molluscum contagiosum
- d. Pubic lice
- e. Syphilis
- f. Genital herpes
- g. Gonorrhea
- h. Lypmphogranuloma venereum (LGV)
- i. Granuloma inguinale
- j. Chancroid
- k. Genital warts

# **DERMATOLOGY CORE TOPICS**

## Selected Competencies and Outcomes of Dermatology Training

#### 1. Acne

Acne vulgaris is a multifactorial disorder of the pilosebaceous unit. The clinical picture can vary significantly, from mild comedonal acne to fulminant systemic disease. Although all age groups may be affected by its many variants, it is primarily a disorder of adolescence. The economic and psychosocial impact of acne is undeniable, often causing self-consciousness and social isolation in those affected. Recent insights into the pathogenesis of acne have aided significantly in further defining the subtypes of acne and establishing effective treatment regimens.

#### a. Medical Expert

- 1. Performs the standardized skin examination, ensuring the patient's comfort and proper draping (A)
- 2. Obtains an efficient, focused history in relation to skin lesions (e.g., duration, pattern of skin morphology, signs of inflammation, family history of acne, menarche, symptoms of hyper-androgen) (C)
- 3. Obtains a focused history in relation to the impact of acne on the patient's mental health (M)
- 4. Performs a complete physical examination of acne lesions (e.g. number, consistency, distribution, pattern of skin lesions, etc.)
- 5. Assesses and categorizes patients with post-acne scarring
- 6. Is aware of the treatment options for acne, including topical and oral medications as well as light and laser treatment.
- 7. Designs and individualizes the management of patients with post-acne scarring
- 8. Recognizes the biological and cellular events that lead to the initiation of comedo
- 9. Appreciates the contribution of exogenous dietary hormones and is aware of the possible sources of other hormonally active molecules in the environment
- 10. Proposes alternative treatments for patients with acne-like conditions

## b. Communicator

- 1. Counsels patients who possess risk factors relating to the development of acne scars on how to prevent scarring (A)
- 2. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 3. Interprets and understands why patients may not be responding to traditional acne therapy
- 4. Counsels and educates patients on the roles stress and sun exposure play in aggravating acne (C)
- 5. Notes how the patient and their family behave when they are newly diagnosed
- 6. Adequately prepares and educates the patient concerning available alternative treatments.

#### c. Collaborator

Liaises effectively with medical, endocrinology, psychiatry, nursing, and social work services (M)

#### d. Manager

Puts patient in contact with a community support group (M)

#### e. Health Advocate

Recognizes the major risk factors for acne patients in Saudi Arabia (A)

#### f. Scholar

- 1. Critically appraises research findings using the PICO model (patient, intervention, comparator, and outcomes) in order to resolve the patient's problem (F)
- 2. Summarizes recent advances in acne research.

## g. Professional

- 1. Keeps abreast of local acne treatment guidelines (C)
- 2. Requests investigations in accordance with local protocols (C)

#### 2. Acute Contact Dermatitis

An inflammatory reaction that usually occurs after contact with an external agent. This form of contact dermatitis can be either allergic or irritant in nature. Irritant contact dermatitis (ICD) accounts for approximately 80% of all contact dermatitis and allergic contact dermatitis (ACD) accounts for the remaining 20%. ICD is the result of a localized toxic effect caused when the skin comes in contact with irritant chemicals such as soaps, solvents, acids, or alkalis. ACD is a delayed-type hypersensitivity reaction that is elicited when the skin comes in contact with a chemical to which an individual is allergic.

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration, application of topicals, frequency, drug intake, exposure to chemicals, other diseases, infection, etc.) (C)
- 2. Performs a standard skin examination, identifying the primary skin lesion and the sites of skin lesions (C)
- 3. Performs a complete physical examination, assesses the patient's vital signs, and ascertains if the condition is associated with other medical conditions. (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Generates a differential diagnosis. (M)
- 6. Initiates appropriate investigations in relation to the severity of the condition (M)
- 7. Interprets the laboratory results (M)
- 8. Outlines the medical management and any urgent medication required (C)

- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology, role, and risk factors that may contribute to such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

#### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments. (M)

#### d. Manager

Arranges OPD appointments and further laboratory work ups (M)

#### e. Health Advocate

Recognizes the major substances/chemicals that cause acute contact dermatitis in Saudi Arabia (C)

#### f. Scholar

Critically appraises research findings in relation to this disease (M)

#### g. Professional

- 1. Keeps abreast of any new substances that may cause such a condition (C)
- 2. Teaches others (M)

#### 3. Alopecia Areata (AA)

Alopecia areata is a non-scarring alopecia that is postulated to be a hair-specific autoimmune disease. Genetic and environmental factors are important in this disease. Alopecia areata commonly occurs as round or oval patches of nonscarred hair. Other representations include alopecia totalis (loss of all scalp hair), alopecia universalis (loss of all scalp and body hair), and an ophiasis pattern (a bandlike pattern of hair loss along the periphery of the temporal and occipital scalp).

- 1. Performs the standardized skin examination, ensuring the patient's comfort and maintaining proper communication (A)
- 2. Obtains an efficient, focused history in relation to the skin lesions (e.g., duration, pattern of skin morphology, signs of inflammation, family history of allergies, disease criteria) (C)
- 3. Obtains a focused history in relation to the impact of the disease on the patient's and their parent's mental health (M)
- 4. Performs a complete physical examination of the disease
- 5. Clarifies the possible associations and triggering factors of the disease
- 6. Develops an approach to the differential diagnosis of patchy hair loss
- 7. Recognizes the types of alopecia areata, their clinical courses, and the latest information about the pathogenesis of the disease
- 8. Identifies the best treatment approach, based on a choice between wellestablished and new modalities
- 9. Identifies new and emerging therapies for AA

- 10. Evaluates the effectiveness and safety of systemic therapies
- 11. Enhances patients' perceptions of outcomes through efficient management of the disease
- 12. Utilizes a stepwise algorithm when evaluating AA patients
- 13. Determines the risk/benefit ratios for systemic treatments for AA

- 1. Counsels patients with a possible positive family history of the disease (A)
- 2. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 3. Counsels and educates patients on the role stress plays in aggravating AA (C)
- 4. Notes how the patient and their family behave when the disease is newly diagnosed.
- 5. Discusses and understands the importance of the different quality-of-life measures for cutaneous diseases
- 6. Reviews and understands the value and importance of cost, cost effectiveness, and cost-benefit analysis

#### c. Collaborator

Liaises effectively with medical, endocrinology, psychiatry, nursing, and social work services (M)

#### d. Manager

Puts patients in contact with a community support group (M)

#### e. Health Advocate

Recognizes the major risk factors for AA patients in Saudi Arabia (C)

## f. Scholar

Critically appraises research findings and uses the PICO model (patient, intervention, comparator, and outcomes) in order to resolve the patient's problem (F)

## g. Professional

- 1. Keeps abreast of local AA treatment guidelines (C)
- 2. Requests investigations in accordance with local protocols (C)

## 4. Atopic Dermatitis (AD)

Atopic dermatitis (AD) is a skin disease found commonly worldwide. It may occur at any age, but usually arises before the age of 5. There are typically three stages: infantile, childhood, and adulthood. AD is commonly associated with xerosis, a susceptibility to occur as a reaction to irritants and protein allergies, and a connection with an atopic diathesis, i.e., the tendency to develop asthma, allergic rhinitis, and possibly IgE-mediated systemic manifestations. Conventional therapy entails avoidance of irritants when possible and the use of thick emollients to hydrate the skin. Topical corticosteroids have been the mainstay of treatment for this condition.

#### a. Medical Expert

1. Performs a standardized skin examination, ensuring the patient's comfort and proper communication (A)

- 2. Obtains an efficient, focused history in relation to the skin lesions (e.g., duration, pattern of skin morphology, sign of inflammations, family history of allergies, and disease criteria) (C)
- 3. Obtains a focused history in relation to the impact of the disease on the patient's and their parent's mental health (M)
- 4. Performs a complete physical examination of the disease (e.g., distribution, pattern of the skin lesions, and the criteria of atopic dermatitis).
- 5. Clarifies the possible associations and triggering factors of the disease
- 6. Identifies the clinical subsets of eczema that can be treated through phototherapy
- 7. Discusses the possible causes of the skin-barrier defect observed in subjects with AD
- 8. Understands how barrier defects may lead to atopic dermatitis
- 9. Analyzes how this new information may impact approaches to the prevention and treatment of AD

- 1. Counsels patients who have risk factors relating to the development of AD on how to prevent scarring (A)
- 2. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 3. Counsels and educates patients on the roles stress and sun exposure play in aggravating AD (C)
- 4. Notes how the patient and their family behave when they are newly diagnosed

#### c. Collaborator

Liaises effectively with medical, endocrinology, psychiatry, nursing, and social work services (M)

## d. Manager

Puts the patient in contact with a community support group (M)

#### e. Health Advocate

Recognizes the major risk factors for AD patients in Saudi Arabia (C)

#### f. Scholar

Critically appraises research findings and uses the PICO model (patient, intervention, comparator, and outcomes) to resolve the patient's problem (F)

## g. Professional

- 1. Keeps abreast of local AD treatment guidelines (C)
- 2. Requests investigations in accordance with local protocols (C)

#### 5. Bullous Impetigo

Bullous impetigo is a form of impetigo found in young children. It involves the vesicles enlarging to form flaccid bullae with clear yellow fluid. This liquid later becomes darker and more turbid and the ruptured bullae leave a thin brown crust. Bullous impetigo is caused by strains of S. aureus that produce exfoliative toxin A, a toxin that causes loss of cell adhesion in the superficial epidermis by targeting the protein desmoglein-1. This causes the epidermal layer of the skin to slough, resulting in large areas of skin loss. This mechanism is related to the pathophysiology of pemphigus, in which autoantibodies are also directed against desmoglein-1.

#### 1. Medical Expert

- 1. Obtains a focused history in relation to skin bullae (onset, duration, location), associated symptoms (e.g., fever, malaise, diarrhea), and previous medical illness (C)
- 2. Performs a complete examination, focusing on the size, color, and location of the bullae and the presence of erythema, crustation, and erosion (C)
- 3. Generates a differential diagnosis for the outbreak of the bullae (M)
- 4. Obtains informed consent to conduct an investigation (A)
- 5. Performs a skin biopsy (C)
- 6. Acquires a skin swab for ascertaining the culture and sensitivity (M)
- 7. Initiates an appropriate investigation guided by a differential diagnosis (M)
- 8. Interprets the histopathology and lab findings (M)
- Performs local wound care (cleansing and removal of the crusts and wet dressing)
   (C)
- 10. Outlines the medical management of the disease, including topical and systemic therapy (M)

#### 2. Communicators

- 1. Counsels the patient concerning possible direct contact transmission and predisposing factors (warm temperature, poor hygiene, and skin trauma) (M)
- 2. Counsels the patient/family concerning the need for treatment on the nasal/perianal areas in case of a recurrence (M)

#### 3. Collaborator

Liaises effectively with pediatrics, infectious disease, and nursing teams (C)

#### 4. Manager

Puts the patient and family in contact with other affected families (M)

#### 5. Health Advocate

- 1. Recognizes the risk of the rapid spreading of the disease (M)
- 2. Is capable of selecting the high-risk patients (M)

#### 6. Scholar

Searches for up-to-date articles relating to the disease (M)

#### 7. Professional

Follows guidelines in regard to the investigation, treatment of, and protection against the disease (M)

## 6. Bullous pemphigoid/Pemphigus Vulgaris

Bullous pemphigoid (BP) is an autoimmune disease that causes blistering and is characterized by autoantibody deposition at the epithelial basement membrane zone. Bullous pemphigoid is characterized by the presence of immunoglobulin G (IgG) autoantibodies specific to the hemidesmosomal bullous pemphigoid antigens BP230 (BPAg1) and BP180 (BPAg2). The disorder most frequently affects elderly adults and can be fatal, particularly in patients who are debilitated. It classically occurs in the form of generalized pruritic urticarial plaques and tense subepidermal blisters.

Pemphigus Vulgaris is an autoimmune mucocutaneous blistering disorder characterized by acantholysis (loss of keratinocyte to keratinocyte adhesion) in the epithelium of mucous membranes or skin. Pemphigus vulgaris is the most common form of pemphigus. Significant morbidity and mortality can occur as a result of complications relating to this disease and its treatment.

#### a. Medical Expert

- 1. Obtains a focused history in relation to the skin blisters (e.g., duration, onset, and associated symptoms) (A)
- 2. Obtains a detailed history of medical illness, history of trauma, burn radiation, and malignancies (C)
- 3. Obtains a focused history in relation to the impact of the disease on the patient's mental health and quality of life (C)
- 4. Performs a complete skin examination, focusing on the percentage of area involved, the type and location of the blisters, the mucous membrane, and eye involvement (C)
- 5. Performs Bikolsky's sign (F)
- 6. Performs a complete systemic examination (c)
- 7. Assesses the severity of the pain (M)
- 8. Generates other possible differential diagnoses (M)
- 9. Obtains consent for an investigation (A)
- 10. Performs a skin biopsy and direct and indirect immunoflurescence (C)
- 11. Initiates an appropriate investigation guided by the differential diagnoses (M)
- 12. Interprets the histopathology, direct immunoflurescence, and laboratory findings (M)
- 13. Performs local wound care (C)
- 14. Outlines the medical management of patients with blistering diseases, including the use of a systemic corticosteroid, immunosuppressive agents, IVIG, biologics, and systemic antibiotics (M)
- 15. Obtains medical management for pain (M)
- 16. Recognizes all of the complications associated with the medications (M)
- 17. Obtains a wound culture in order to assess secondary infections (M)

#### b. Communicator

- 1. Communicates with the patient concerning the diagnosis and prognosis (C)
- 2. Counsels and educates the patient concerning the treatment and possible side-effects (M)

#### c. Collaborator

Liaises effectively with internal medicine, ophthalmology, nursing, nutrition, and social services. (C)

#### d. Manager:

Puts the patient in contact with similarly affected patients and their families (M)

#### e. Health Advocate:

- 1. Recognizes the probability of an existing malignancy (M)
- 2. Ensures that the patient is up-to-date with the age-related cancer screening tests recommended for the general population (M)

#### f. Scholar:

Searches for updated and new articles related to blistering diseases (C)

#### q. Professional:

Keeps abreast of new guidelines for the treatment of blistering diseases and the use of immunosuppressive agents (M)

#### 7. Chancroid

A sexually transmitted acute ulcerative disease usually localized at the anogenital area and often associated with inguinal adenitis or bubo. Haemophilus ducreyi, a gramnegative anaerobic coccobacillus, is a causative organism. Clinically presented as a painful, soft ulcer with a ragged, undermined margin.

## a. Medical Expert

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration, onset, any urethral discharge, genital ulcers, sexual history, fever, other symptoms, etc.) (C)
- 2. Performs a standard genital examination, examination of primary and secondary lesions, description of the character of the genital ulcers, examines for any inguinal swelling, and performs an oral and perinatal skin examination (C)
- 3. Performs a complete physical examination, including the lymph nodes, and determines if the condition is associated with other problems (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Generates a differential diagnosis (M)
- 6. Initiates appropriate investigations, including screening for HIV and hepatitis and a syphilis serology, guided by the progression of the condition (M)
- 7. Interprets the laboratory results (M)
- 8. Outlines the medical management and any urgent medication required (C)

#### b. Communicator

- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology and factors that may play a role in exacerbating such a condition and the importance of partner examination (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

#### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as the Infectious Disease Unit, Urology, and Gynecology (M)

#### d. Manager

- 1. Arranges OPD appointments (M)
- 2. Arranges special laboratory requests (M)
- 3. Reports to the infectious disease unit in relation to disease notification, if applicable (M)

#### e. Health Advocate

Recognizes the incidences and psycho-social impacts of such a condition in Saudi Arabia (C)

#### f. Scholar

Critically appraises research findings relating to this disease (M)

#### q. Professional

- 1. Keeps abreast of related developments (C)
- 2. Teaches others (M)
- 3. Complies with their professional responsibility with regard to disease notification (M)

## 8. Cellulitis and Erysipelas

Cellulitis is an infection of the deep dermis and subcutaneous tissue caused most commonly by Str. pyogenes and S. aureus. Erysipelas is primarily an infection of the dermis with significant lymphatic involvement. It has a distinctive clinical presentation and is most often caused by Str. pyogenes (group A streptococci).

- Obtains an efficient, focused history in relation to the problem (e.g., duration, site of the first sign of the disease, progression of skin lesions, drug intake, fever, other symptoms, etc.) (C)
- 2. Performs a standard skin examination, identifying the primary skin lesion (C)
- 3. Performs a complete physical examination, assesses the patient's vital signs, and determines if the condition is associated with other problems (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and physical examination (C)
- 5. Generates a differential diagnosis (M)
- 6. Initiates appropriate investigations in relation to the severity of the condition (M)
- 7. Interprets the laboratory results (M)
- 8. Outlines the medical management to be used and any urgent medication required (C)

- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology, role, and risk factors that may affect such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

#### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as the Infectious Disease Unit, Surgery, and Orthopedics (M)

#### d. Manager

- 1. Arranges OPD appointments and further laboratory work ups (M)
- 2. Reports to the infectious disease unit in relation to disease notification, if applicable (M)

#### e. Health Advocate

Is aware of the major and recent bacterial diseases found in Saudi Arabia (C)

#### f. Scholar

Critically appraises research findings relating to this disease group (M)

#### g. Professional

- 1. Keeps abreast of related developments (C)
- 2. Teaches others (M)
- 3. Complies with their professional responsibility concerning disease notification(M)

## 9. Drug Eruption

The skin is one of the most common targets for adverse drug reactions. In the case of medications such as antibiotics and anticonvulsants, at least 1%, and sometimes over 5%, of patients receiving these drugs may develop a skin eruption. This eruption can be presented as maculopapular, urticaria, angioedema or more severely as SJS and TEN.

#### a. Medical Expert

Obtains an efficient, focused history in relation to the problem (e.g., duration, frequency,

drug intake, other diseases, infections, history of drug allergies, etc.) (C)

- 1. Performs a standard skin and mucous membrane examination, identifying the primary skin lesions(C)
- 2. Performs a complete physical examination, assesses the patient's vital signs, and determines if it is associated with other medical conditions(C)
- 3. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 4. Generates a differential diagnosis (M)Initiates appropriate investigations guided by the severity of the condition (M)
- 5. Interprets laboratory results (M)
- 6. Outlines the medical management and any urgent medication required (C)

- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)2.
- 2. Counsels and educates the patient on the etiology, role, and risk factors that may affect such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

#### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Internal Medicine and ICU (M)

## d. Manager

Arranges for OPD appointments and further laboratory work ups (M)

#### e. Health Advocate

Recognizes medications that cause drug eruptions in Saudi Arabia (C)

#### f. Scholar

Critically appraises research findings relating to this disease (M)

#### g. Professional

Notifies the official authorities concerning the new adverse effects

#### 10. Eczema Herpeticum

Eczema herpeticum is a potentially life-threatening herpetic superinfection of a preexisting skin disease. Eczema herpeticum is characterized by cutaneous pain and new skin lesions secondary to a viral infection (usually HSV-1). It can spread rapidly, leading to severe morbidity and mortality. The eczema herpeticum rash may sometimes be difficult to distinguish from the patient's baseline eczema if the latter is poorly controlled.

- 1. Obtains the patient's history in relation to previous diagnoses of atopic dermatitis, onset, duration, and medications (C)
- 2. Obtains a detailed history in regard to associated symptoms (fever, malaise, pain, pruritus) and recent contact with infected persons (C)
- 3. Performs a focused examination of the affected areas, as determined by the description acquired; the presence of a discrete monotonous hemorrhagic crust, eye involvement; and lymphadenopathy (C)
- 4. Generates a differential diagnosis (M)
- 5. Obtains informed consent for investigations (A)
- 6. Performs a skin biopsy, Tzanck smear, viral culture, DIF, molecular techniques, and serology for the herpes virus (C)
- 7. Outlines medical management for eczema herpeticum, including using systemic anti-viral medications and managing active eczema (M).
- 8. Recognizes complications that can be caused by medications (M)
- 9. Recognizes the sequelae of herpes viral infections (M)

- 1. Communicates with patient/parents in relation to the diagnosis, prognosis, treatment options, and side effects (C)
- 2. Counsels patients/parents about skin care (C)
- 3. Provides education in regard to atopic dermatitis (M)

#### c. Collaborator

Liaises effectively with pediatric and nursing services (M)

#### d. Manager

Puts the patient and their family in contact with other affected families (M)

#### e. Health Advocate

- 1. Recognizes the risk of infections in atopic dermatitis patients (M)
- 2. Recognizes the possible risk of spreading the infection and modes of transmission (M)

#### f. Scholar

Searches for updated articles relating to infection and atopic dermatitis (M)

#### g. Professional

Follows guidelines in regard to the protection, investigation, and treatment of the disease (M)

## 11. Erythema Multiforme

Erythema multiforme (EM) is an acute, self-limited skin disease characterized by the abrupt onset of symmetrical fixed red papules, most of which evolve into typical popular target lesions. The eruption is often precipitated by an infection, particularly HSV. Two forms of EM are recognized – EM minor and EM major, which can distinguished by the presence or absence of mucosal involvement and systemic symptoms.

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration, frequency, drug intake, other diseases, infection, etc.) (C)
- 2. Performs a standard skin examination, identifying the primary skin lesion or any characteristic skin lesions (C)
- 3. Performs a complete physical examination, assesses the patient's vital signs, and determines if the ailment is associated with other medical conditions (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Generates a differential diagnosis (M)
- 6. Initiates appropriate investigations in accordance with the severity of the condition (M)
- 7. Interprets laboratory results. (M)
- 8. Outlines the medical management and any urgent medication required (C)
- b. Communicator
- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology, role, and risk factors that may affect such a condition (C)

3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

#### c. **Collaborator**

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Internal Medicine and ICU (M)

#### d. Manager

Arranges for OPD appointments, further laboratory work ups, and possibly a skin biopsy (M)

#### e. Health Advocate

Recognizes the major factors that cause eythema multiforme in Saudi Arabia (C)

#### f. Scholar

Critically appraises research findings in this disease group (M)

#### g. Professional

- 1. Keeps abreast of related developments (C)
- 2.Teaches others (M)

#### 12. Erythema Nodosum (T)

Erythema nodosum (EN) is characterized by red or violet subcutaneous nodules that usually develop in a pretibial location. EN is presumed to represent a delayed hypersensitive reaction to antigens associated with various infectious agents, drugs, and other diseases with which it is associated, although the pathogenesis is largely unclear. EN occurs in a variety of disorders for which the etiology remains unknown; for example, sarcoidosis, inflammatory bowel disease, Nehçet's disease, connective tissue disease, and in relation to the use of pregnancy or oral contraceptives.

- 1. Obtains a focused history in relation to the nodules (locations, duration, tenderness)
- 2. Obtains a detailed history of the patient's medications, infections, and other medical illnesses (C)
- 3. Performs a focused skin examination on the area involved (number of nodules, pain, location, color) (C)
- 4. Generates a differential diagnosis (M)
- 5. Obtains informed consent for investigations (A)
- 6. Performs a deep skin biopsy (C)
- 7. Performs physical screening of the systems involved, as suggested by the patient's history (F)
- 8. Initiates appropriate investigations guided by the differential diagnosis (M)
- 9. Interprets the histopathology and laboratory findings (M)
- 10. Outlines medical managements for patients with erythema nodosum; for example: bed rest, salyicylate, non-steroidal anti-inflammatory agents, colchicines, and systemic corticosteroids (M)

- 1. Communicates with the patient and the patient's family concerning the diagnosis, prognosis, treatment options, and side effects (c)
- 2. Educates the patient about the possibility of an underlying medical illness and that erythema nodosum can be a prognostic indicator of a certain disorder (M)

### c. Collaborator:

Liaises effectively with internal medicine and nursing services (M)

## d. Manager:

Puts the patient in contact with similarly affected families (M)

### e. Health Advocate:

Recognizes the association with certain systemic disorders (M)

### f. Scholar:

Researches updated articles relating to the management of erythema nodousm (M)

# g. Professional:

Keeps abreast of new guidelines and protocols for the management of erythema nodosum (M)

# 13. Erytroderma (T)

Erythroderma (exfoliative dermatitis) is a severe and potentially life-threatening condition that presents as diffuse erythema and scaling, involving all or most of the skin surface area (≥91 percent in the most common definition). Lrythroderma is the clinical presentation of a wide range of cutaneous and systemic diseases (including psoriasis and atopic dermatitis, bullous dermatosis, and congintal ichthyosis), drug hypersensitivity reactions and, more rarely, Sézary syndrome, which is a leukemic subtype of cutaneous T-cell lymphoma.

- 1. Obtains a focused history in relation to prior localized skin diseases (e.g., atopic dermatitis, psoriasis, cutaneous T-cell lymphoma, connective tissue diseases) and medications (C)
- 2. Obtains a detailed history of the skin erythyema (duration and associated symptoms)
- 3. Performs a focused skin examination in regard to percentage of area involved, characteristics of the scales, the presence of pigmentary changes, and palmoplanter keratderma (C)
- 4. Performs a complete examination in relation to the presence of alopecia, nail changes, eye involvement, tachycardia, lymphadenopathy, oragnomegaly, and hyperhypothermia (C)
- 5. Generates a differential diagnosis (M)
- 6. Obtains informed consent for investigations

- 7. Performs a skin biopsy (A)
- 8. Initiates appropriate investigations guided by the differential diagnosis (M)
- 9. Interprets the histopathology and laboratory findings (M)
- 10. Outlines the medical managements for patients with erythroderma, including: nutritional assessments, correction of fluid and electrolyte imbalances, prevention of hypothermia, treatment of secondary infections, and the use of wet dressing and bland emollients (M)

- 1. Communicates with the patient and the patient's family concerning the diagnosis, prognosis, treatment options, and side effects (M)
- 2. Educates the patient, their family, and nurses about skin care (C)

### c. Collaborator

Liaises effectively with internal medicine, ophthalmology, nutrition, and nursing services (M)

### d. Manager

Puts the patient in contact with similarly affected families (M)

### e. Health Advocate

Recognizes the risk of high-output cardiac failure, infection, and malignancy in patients with erythreoderma (M)

### f. Scholar

Researches updated articles relating to the management of erytherodermic patients (M)

### g. Professional

Keeps abreast of new guidelines and protocols relating to the management of erytherodermic patents (M)

## 14. First Degree Burn

The most common type of burn. It can be caused by sun exposure or if the skin comes in contact with flames, hot objects, or boiling water. It is superficially limited to the epidermis and presents as erythematous, a painful lesion without a blister that heals without scarring.

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration; application of topicals; drug intake; exposure to chemicals, hot fluids, fire, or irradiation; other diseases, infections, etc.) (C)
- 2. Performs a standard skin examination, identifying the primary skin lesion and the extent and site of the skin lesions (C)
- 3. Performs a complete physical examination, assesses the vital signs, and determines if the ailment is associated with other medical conditions (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Generates a differential diagnosis (M)
- 6. Initiates appropriate investigations guided by the severity of the condition (M)
- 7. Interprets laboratory results (M)
- 8. Outlines the medical management and any urgent medication required (C)

- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology, role, and risk factors that may affect such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Burn Unit and ICU (M)

### d. Manager

Arranges OPD appointments (M)

# e. Health Advocate

Recognizes the major hazards/chemicals that cause burns in Saudi Arabia (C)

#### f. Scholar

Critically appraises research findings relating to this condition (M)

## g. Professional

- 1. Keeps abreast of any new substances that can cause such a condition. (C)
- 2. Reports to the responsible authorities and teaches others. (M)

# 15. Folliculitis

Bacterial folliculitis is a superficial or deep infection of the hair follicle. S. aureus is the most common infectious cause of folliculitis. Occasionally, gram-negative folliculitis can be found in acne vulgaris patients who have been treated with long courses of oral antibiotics.

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration, frequency, drug intake, other diseases, infection, etc.) (C)
- 2. Performs a standard skin examination, identifying the primary skin lesion or any characteristic skin lesions (C)
- 3. Performs a complete physical examination, assesses the patient's vital signs, and determines if the ailment is associated with other medical conditions (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Formulates an appropriate differential diagnosis (M)
- 6. Initiates appropriate investigations guided by the severity of the condition (M)
- 7. Interprets laboratory results (M)
- 8. Outlines the medical management and any urgent medication required (C)
- b. Communicator
- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology, role, and risk factors that may affect such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

### c. Collaborator

Liaises effectively with nursing staff and other specialized departments such as Microbiology and Pharmacy (M)

## d. Manager

Arranges for OPD appointments, further laboratory work ups, and possibly a skin biopsy (M)

#### e. Health Advocate

Recognizes the most common etiological factors of folliculitis in Saudi Arabia (C)

#### f. Scholar

Critically appraises research findings in this disease group. (M)

## g. Professional

- 1. Keeps abreast of related development (C)
- 2. Teaches others (M)

## 16. Genital Herpes Simplex

This is one of the most common sexually transmitted diseases and is primarily caused by herpes simplex virus type 2, although some infections are attributed to herpes simplex virus type 1. It follows the sequence of primary infection, latency, and reactivation. The reactivation can happen spontaneously or as a result of a stimulus such as stress, ultra-violet light, fever, tissue damage, or immune suppression.

## a. Medical Expert

- 1. Obtains a complete history of previous exposure to an affected person (C)
- 2. Obtains a complete history concerning the presence of malaise, fever, anorexia, painful lymph nodes, as well as local pain and burning before the onset of the legion (C)
- 3. Obtains a complete history of the skin lesions (duration, onset, and distribution) (C)
- 4. Performs a complete physical examination of the skin and genitalia with regard to the presence of vesicles, erythema, pustules, ulceration, and the distribution of the condition (C)
- 5. Recognizes the systemic complaints and complications (urinary retention and septic meningitis) (M)
- 6. Formulates an appropriate differential diagnosis (M)
- 7. Initiates an appropriate investigation guided by differential diagnosis (C)
- 8. Interprets the laboratory results (M)
- 9. Outlines the medical management of genital herpes and the use of systemic antiviral medications (M)
- 10. Recognizes the complications associated with the medications (M)

### b. Communication

- 1. Communicates with the patients concerning diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Communicates and educates the patient concerning the etiology and factors that contribute to the disease (C)

- 3. Communicates with the patient concerning the risk associated with, and the transmission methods of, the disease while it is in an inactive stage (M)
- 4. Answers the patient's questions and addresses their anxiety (F)

#### c. Collaborator

Liaises effectively with the infectious control/infectious disease team, nursing, and social services (M)

## d. Manager

Puts patients in contact with similarly affected individuals. (M)

#### e. Health Advocate

- 1. Recognizes the risks of sexually transmitted infections (M)
- 2. Reports the disease to the relevant authorities in Saudi Arabia (M)
- 3. Recognizes the psycho-social impact of the disease (M)
- 4. Encourages affected patients to practice safe sex with their partners while the disease is active (M)

### f. Scholar

Researches updated articles relating to the management of genital herpes (M)

### q. Professional

Keeps abreast of new guidelines and protocols relating to the management of genital herpes (M)

#### 17. Gonorrhea

Gonorrhea is one of the most commonly reported STIs in the industrialized world and is caused by neisseria gonorrhoeae, a microorganism that infects the mucous membranes of the human genital tract (as well as the anus, rectum, or mouth) after direct – usually sexual – contact with the mucosal surface of an infected person. There is a broad spectrum of clinical manifestations of gonorrhea in both men and women, including asymptomatic infections, local symptomatic mucosal infections, and systemic dissemination.

- Obtains an efficient, focused history in relation to the problem (e.g., duration, urethral discharge, onset of the disease, painful micturition, fever, other symptoms, etc.) and other sexual contact history (C)
- 2. Performs a standard genital examination and an oral and perianal skin examination (C)
- 3. Performs a complete physical examination, including the joints, and determines if the condition is associated with other problems (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Formulates an appropriate differential diagnosis (M)
- 6. Initiates appropriate investigations, including screening for HIV and hepatitis and a syphilis serology, in accordance with the progression of the condition (M)
- 7. Interprets laboratory results. (M)
- 8. Outlines the medical management and any urgent medication required (C)

- 1. Communicates with patients concerning the diagnosis and prognosis with due empathy and effectiveness. (C)
- 2. Counsels and educates the patient on the etiology and factors that may play a role in such condition and the importance of partner examination (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as the Infectious Disease Unit, Urology, and Gynecology (M)

# d. Manager

- 1. Arranges for OPD appointments (M)
- 2. Arranges for special laboratory requests (M)
- 3. Reports to the infectious disease unit for disease notification, if applicable (M)

### e. Scholar

Recognizes the incidences and psycho-social impacts of such a condition in Saudi Arabia (C)

#### f. Professional

- 1. Keeps abreast of relevant developments (C)
- 2. Teaches others (M)
- 3. Complies with their professional responsibility in relation to disease notification (M)

# 18. Granuloma Inguinale

Granuloma Inguinale (donovanosis) is a rare, chronic, progressive ulcerative bacterial infection. Its causative microorganism is Calymmatobacterium (Klebsiella) granulomatis, a gram-negative bacillus. The responsible microorganisms are found within macrophages in smears or biopsy specimens (Donovan bodies). Ulcers occur primarily in the genital region.

- Obtains an efficient, focused history in relation to the problem (e.g., duration, onset of the disease, any urethral discharge, genital ulcers, fever, other symptoms, sexual history, etc.) (C)
- 2. Performs a standard genital examination, noting the primary and secondary lesions, the presence of any genital ulcers, the character of the inguinal swelling, and an oral and perianal skin examination (C)
- 3. Performs a complete physical examination, including the lymph nodes, and determines if the condition is associated with other problems (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Formulates an appropriate differential diagnosis (M)
- 6. Initiates appropriate investigations, including screening for HIV, VDRL, TPHA, and a hepatitis serology in accordance with the progression of the condition (M)

- 7. Interprets the laboratory results (M)
- 8. Outlines the medical management and any urgent medication required (C)

- 1. Communicates with patients concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology and factors that may play a role in such a condition and the importance of partner examination (C)
- 3. Explores and responds to the patient's concerns and thoughts on such condition (C)

#### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Infectious Disease Unit, Urology, and Gynecology (M)

### d. Manager

- 1. Arranges for OPD appointments (M)
- 2. Arranges for any special laboratory requests (M)
- Reports to the infectious disease unit concerning disease notification, if applicable(M)

### e. Health Advocate

Recognizes the incidences and psycho-social impacts of such a condition in Saudi Arabia (C)

#### f. Scholar

Critically appraises research findings relating to this disease (M)

## g. Professional

- 1. Keeps abreast of related developments (C)
- 2. Teaches others (M)

## 19. Lymphogranuloma venereum (LGV)

Lymphogranuloma venereum (LGV) is a rare STI caused by Chlamydia trachomatis serovars L1-3. The initial clinical presentation is a herpetiform lesion at the site of the infection with unilateral lymphadenopathy. This is accompanied by overlying erythema. The bubo is initially firm and then undergoes rapid enlargement, becoming more painful. It finally ruptures through the skin with a discharge of pus, after which healing begins. If untreated, relapses occur in approximately 20% of patients.

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration, onset, any urethral discharge, genital ulcers, fever, sexual history, other symptoms, etc.) (C)
- 2. Performs a standard genital examination, noting the primary and secondary lesions, any genital ulcers, the character of inguinal swelling, and an oral and perianal skin examination (C)
- 3. Performs a complete physical examination, including the lymph nodes, and determines if the condition is associated with other problems (C)

- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination. (C)
- 5. Formulates a differential diagnosis (M)
- 6. Initiates appropriate investigations, including a screening and serology for HIV and hepatitis, in accordance with the progression of the condition (M)
- 7. Interprets laboratory results (M)
- 8. Outlines the medical management and any urgent medication required (C)

- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology and factors that may play a role in such a condition and the importance of partner examination (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition. (C)

#### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Infectious Disease Unit, Urology, and Gynecology (M)

### d. Manager

- 1. Arranges for OPD appointments (M)
- 2. Arranges for any special laboratory requests (M)
- 3. Reports to the Infectious Disease Unit for disease notification, if applicable (M)

### e. Health Advocate

Recognizes the incidences and psycho-social impacts of such a condition in Saudi Arabia (C)

### f. Scholar

Critically appraises research findings relating to this disease (M)

# g. Professional

- 1. Keeps abreast of relevant developments (C)
- 2. Teaches others (M)
- 3. Complies with their professional responsibility in relation to disease notification (M)

## 20. Hair Loss

Everyone loses hair. It is normal to lose between approximately 50 and 100 hairs every day. If you find bald patches or a considerable amount of thinning, you may be experiencing hair loss. There are many causes of hair loss. Women may notice hair loss after giving birth. People suffering from a great deal of stress may have noticeable hair loss. Some diseases and medical treatments can also cause hair loss.

# a. Medical Expert

- 1. Obtains an efficient, focused history in relation to skin lesions (e.g., duration, past medical history, etc.) (C)
- 2. Performs a standardized skin examination, ensuring the patient's comfort and proper communication (A)
- 3. Obtains a focused history in relation to the impact of the disease on the patient's and their parents' mental health (M)
- 4. Assesses the patient suffering from hair loss
- 5. Determines the cause of the hair loss; in some cases this only takes a short time
- 6. Determines techniques to efficiently diagnose and evaluate patients with alopecia
- 7. Clarifies the possible associations and triggering factors of the disease
- 8. Develops an approach to the differential diagnoses of diffuse hair loss
- 9. Understands the structural and physiologic properties of hair
- 10. Recognizes the types of noncicatricial alopecia, their clinical courses, and the latest information about the pathogenesis of the disease.
- 11. Is aware of and comfortable with the diagnostic laboratory tests and diagnostic procedures
- 12. Evaluates and treats androgenetic alopecia in women and understands when a workup for hyperandrogenism is required
- 13. Develops management plans for patients with common forms of alopecia
- 14. Systematically selects an appropriate therapy and track response parameters
- 15. Applies the principles of effective surgical designs and techniques to achieve excellent surgical results in hair transplant surgery
- 16. Reviews and understands which hair products may cause hair damage and which are beneficial for women with alopecia.

### b. Communicator

- 1. Counsels patients with a possible positive family history of the disease (A)
- 2. Communicates with patients concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 3. Counsels and educates patients on the role stress plays in aggravating alopecia (C)
- 4. Notes how patients and their families behave when the disease is newly diagnosed.

# c. Collaborator

Liaises effectively with medical, endocrinology, psychiatry, nursing, and social work services (M)

# d. Manager

Puts the patient in contact with a community support group (M)

## e. Health Advocate

Recognizes any impact factors in society that affect hair loss in Saudi Arabia (A)

### f. Scholar

Critically appraises research findings using the PICO model (patient, intervention,

comparator, and outcomes) to resolve the patient's problem (F)

# g. Professional

- 1. Keeps abreast of local alopecia treatment guidelines (C)
- 2. Requests investigations in accordance with local protocols (C)
- 3. Complies with their professional responsibility with regard to the notification of the disease to the alopecia registry (C)

### 21. Hand, Foot, and Mouth Disease

One of the most common and well-recognized exanthematous illnesses. It primarily occurs during pediatric ages and is caused by Coxsackievirus serotype A16. This disorder is characterized by vesicular eruptions on the palms and soles in conjunction with an oral lesion. It is a self-limiting disease and does not require specific treatment.

## a. Medical Expert

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration, site of the onset of the disease, the progression of the skin lesions, drug intake, fever, other symptoms, etc.) (C)
- 2. Performs a standard skin examination, identifying the primary skin lesion (C)
- 3. Performs a complete physical examination, assesses the vital signs, and determines if the condition is associated with other problems (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Generates a differential diagnosis (M)
- 6. Initiates appropriate investigations in accordance with the severity of the condition (M)
- 7. Interprets laboratory results (M)
- 8. Outlines the medical management and any urgent medication required (C)

## b. Communicator

- 1. Communicates with the patient's parents concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient's parents on the etiology, role, and risk factors that may affect such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

## c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Infectious Disease Unit and Pediatrics (M)

### d. Manager

- 1. Arranges for OPD appointments and further laboratory work ups (M)
- 2. Reports to Infectious Disease Unit for disease notification, if applicable (M)

## e. Health Advocate

Recognizes the incidences and prevalence of the disease in Saudi Arabia (C)

### f. Scholar

Critically appraises research findings in this disease group (M)

## g. Professional

- 1. Keeps abreast of related developments C)
- 2. Teaches others (M)
- 3. Complies with their professional responsibility relating to disease notification (M)

## 22. Herpes Gestationis (Gestational Pemphigoid) (T)

Pemphigoid gestationis (or herpes gestationis) refers to an autoimmune blistering disease that is clearly associated with pregnancy and increased fetal risk. It occurs during pregnancy or with trophoblastic tumors and, in rare cases, may persist for a number of years postpartum. HLA-DR3 and HLA-DR4 are more common among women with this disorder. Pemphigoid gestationis may remit prior to delivery. However, 75% of patients flare postpartum and at least 25% subsequently flare with the use of oral contraceptive pills or during menses.

## a. Medical Expert

- Obtains a detailed history in relation to the patient's current pregnancy and/or delivery and previous pregnancies (C)
- 2. Obtains a focused history in relation to skin involvement (onset, duration, location, and associated symptoms) (c)
- 3. Obtains complete information concerning the fetus/newborn (prematurity, if it is small for gestational age births, etc.) (C)
- 4. Performs a complete skin examination in relation to the type of eruption (blisters, urticarial papules and their distribution, etc.) (C)
- 5. Generates a differential diagnosis (M)
- 6. Obtains informed consent for investigation (A)
- 7. Performs a skin biopsy and DIF (M)
- 8. Initiates an appropriate investigation guided by the differential diagnosis (M)
- 9. Interprets the histopathology, DIF, and laboratory findings (M)
- 10. Performs local skin care (C)
- 11. Outlines management through the use of HG, including the use of systemic steroids (M)
- 12. Recognizes the impact of the medication on the patient and fetus (M)

## b. Communicator

- 1. Communicates with the patient concerning the diagnosis and prognosis (C)
- 2. Counsels and educates the patient concerning the risk of a reoccurrence during a future pregnancy (M)
- 3. Counsels the patient about the impact of the disease on the fetus/newborn (M)
- 4. Counsels the patient on the possible recurrence of the disease upon use of contraception medication or menstruation (M)

# c. Collaborator

Liaises effectively with obstetrics and nursing services (M)

#### d. Manager

Puts the patient in contact with similarly affected patients (M)

### e. Health Advocate

- 1. Recognizes the risk the disease poses to the fetus (M)
- 2. Encourages regular, appropriate screenings during pregnancy (M)
- 3. Recognizes that the patient has a higher risk of developing Grave's disease (M)

## f. Scholar

Researches updated articles relating to the diagnosis and management of herpes gestations (M)

## g. Professional

Keeps abreast of guidelines and protocols relating to Herpes gestations (M)

## 23. Herpes Zoster

This is caused by the reactivation of VZV when it travels from cutaneous and mucosal lesions to invade dorsal root ganglion cells, where it remains until reactivation. Herpes zoster often begins with a prodrome of intense pain and, in over 90% of patients, it is associated with pruritus, tingling, tenderness, or hyperesthesia. If severe enough, the pain can be misdiagnosed as a myocardial infarction, pleurisy, or surgical abdomen. It presents as a painful eruption of grouped vesicles on an erythematous base that develops within a sensory dermatome.

# a. Medical Expert

- Obtains an efficient, focused history in relation to the problem (e.g., duration, site of the onset of the disease, progression of skin lesions, pain, fever, other symptoms, etc.) (C)
- 2. Performs a standard skin examination at the site of the occurrence, identifying segmental distribution and apparent vesicles as possible signs of generalization (C)
- 3. Performs a complete physical examination, assesses the patient's vital signs and determines if the condition is associated with other problems (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Generates a differential diagnosis. (M)
- 6. Initiates appropriate investigations depending on the severity of the condition (M)
- 7. Interprets laboratory results (M)
- 8. Outlines the medical management and any urgent medication required (C)

### b. Communicator

- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology and factors that may play a role in such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Infectious Disease Unit, Neurology, and Ophthalmology (M)

# d. Manager

- 1. Arranges for OPD appointments (M)
- 2. Arranges for pain management, if required. (M)
- 3. Reports to the infectious disease unit in relation to disease notification, if applicable (M)

### e. Health Advocate

Recognizes the incidences and psycho-social impact of such conditions in Saudi Arabia (C)

## f. Scholar

Critically appraises research findings that relate to this disease (M)

## g. Professional

- 1. Keeps abreast of related developments (C)
- 2. Teaches others (M)
- 3. Complies with their professional responsibility with regard to disease notification(M)

## 24. Reactions to Insect Bites

Insect bites and stings are prevalent throughout the world and usually occur as a result of outdoor activity. Insects are important disease vectors worldwide, and personal protection against bites plays a major part in the prevention of disease. Arthropods produce a wide spectrum of clinical lesions such as urticarial erythematous papules. Nodular and vesiculobullous reactions commonly occur.

## a. Medical Expert

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration, previous similar conditions, outdoor activity, exposure to animals, etc.) (C)
- 2. Performs a standard skin examination, identifying the primary skin lesion. (C)
- 3. Performs a complete physical examination assesses the patient's vital signs and determines if the condition is associated with angioedema (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Formulates an appropriate a differential diagnosis (M)
- 6. Initiates appropriate investigations depending on the severity of the condition (M)
- 7. Interprets laboratory results. (M)
- 8. Outlines the medical management and any urgent medication required (C)

### b. Communicator

- 1. Communicates with patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology, role, and risk factors that may affect such a condition. (C)
- Explores and responds to patient's concerns and thoughts on such a condition.
   (C)

### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as ENT and ICU (M)

### d. Manager

Arrange for OPD appointments and further laboratory work ups. (M)

## e. Health Advocate

Recognizes the major etiologic factors that cause reactions to insect bites in Saudi Arabia. (C)

#### f. Scholar

Critically appraises research findings relating to this disease. (M)

## g. Professional

- 1. Keeps abreast of related developments (C)
- 2. Teaches others (M)

# 25. Lichen planus

Lichen planus (LP), the prototype of lichenoid dermatoses, is an idiopathic inflammatory disease of the skin and mucous membranes. LP is classically characterized by pruritic, violaceous polygonal papules that favor the extremities. The etiology and pathogenesis of LP are not fully understood; however, the disorder has been associated with multiple disease processes and agents.

- 1. Performs a standardized skin examination, including genital and oral lesions, ensuring the patient's comfort and maintaining proper communication (T)
- 2. Obtains an efficient, focused history in relation to the skin lesions (e.g., duration, pattern of skin morphology, signs of inflammations, family history of disease, drug intake, and disease criteria) (C)
- 3. Obtains a focused history in relation to the impact of the disease on the patient's and their parents' mental health (M)
- 4. Performs a complete physical examination of the disease
- 5. Clarifies the possible associations and triggering factors of the disease
- 6. Develops an approach to the differential diagnoses of papulosqamous disorders
- 7. Recognizes the types of lichen planus, their clinical courses, the latest information about pathogenesis, and management techniques
- 8. Lists various comorbidities associated with lichen planus and describes their effect on the natural history of the disease and their influence on the selection of therapy
- 9. Identifies the clinical subsets of lichen planus that can be treated through proper topical and systemic treatment and phototherapy
- 10. Chooses the proper topical and systemic treatments that may be associated with phototherapy
- 11. Outlines potential adjustments to treatments that may optimize treatment responses in patients with comorbidities who are not responding optimally
- 12. Discusses the mechanisms of action and potential adverse effects of selected current and future systemic treatments for lichen planus

- 1. Counsel patients with possible positive family history of the disease (A)
- 2. Communicates with patients concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 3. Counsels and educates patients on the roles stress and sun exposure play in aggravating lichen planus (C)
- 4. Recognizes how the patient and their families behave when the disease is newly diagnosed.

#### c. Collaborator

Liaises effectively with medical, psychiatry, nursing, and social work services (M)

## d. Manager

Puts the patient in contact with a community support group (M)

### e. Health Advocate

Recognizes the major comorbidities of lichen planus patients in Saudi Arabia (A)

### f. Scholar

- 1. Critically appraises research findings using the PICO model (patient, intervention, comparator, and outcomes) to resolve the patient's problem (F)
- 2. Identifies the most up-to-date therapies in topical, systemic, and phototherapy treatments.

## g. Professional

- 1. Keeps abreast of local lichen planus treatment guidelines (C)
- 2. Request investigations in accordance with local protocols (C)
- 3. Complies with their professional responsibility with regard to disease notification to the lichen planus registry (C)

# 26. Malignant and premalignant skin lesions

Non-melanoma skin cancer (NMSC) is the most common cancer in humans. Approximately 75–80% of NMSCs are basal cell carcinomas (BCCs) and up to 25% are squamous cell carcinomas (SCCs). Although BCC rarely metastasizes and, thus, rarely causes death, it can result in significant morbidity if not correctly diagnosed and managed. SCC of the skin, if not diagnosed and treated early, can lead to both significant morbidity and mortality. Actinic keratosis (AK), the most commonly treatable neoplasm in humans, is a potential precursor to SCC. As incidences of NMSC continue to rise, these neoplasms represent a significant health problem from the standpoint of patients' wellbeing and from the perspective of healthcare expenditure.

- Obtains an efficient, focused history in relation to the problem (e.g., family history, duration, previous skin excisions, recurrences, outdoor activities, tobacco consumption, drug intake, relation to other medical problems, infection, etc.) (C)
- 2. Performs a standard skin examination at the site of the outbreak, identifying the primary and any secondary skin lesions. (C)

- 3. Performs a complete physical examination, assesses the skin type, performs a lymph node examination, ascertains levels of solar damage, and determines if the condition is associated with other medical problems. (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Formulates an appropriate differential diagnosis (M)
- 6. Initiates appropriate investigations, including informed consent for a skin biopsy, guided by the presentation and severity of the condition (M)
- 7. Interprets the pathology and laboratory results. (M)
- 8. Outlines the surgical and medical management and any urgent action required (C)

- Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology and risk factors that may play a role in such a condition (C)
- Explores and responds to the patient's concerns and thoughts on such a condition
   (C)

### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Surgery, Oncology, and Radiotherapy (M)

## d. Manager

- 1. Arranges for OPD appointments and further laboratory work ups (M)
- 2. Offers social services for the patients, as provided by the community

### e. Health Advocate

Recognizes the major etiologic factors of malignant and premalignant skin tumors in Saudi Arabia, with an emphasis on prophylaxis (sunblock, appropriate clothing, and the avoidance of excessive sun exposure) (C)

### f. Scholar

Critically appraises research findings relating to these conditions (M)

## g. Professional

- 1. Keeps abreast of relevant developments (C)
- 2. Teaches others (M)

## 27. Melasma

Melasma is a common, acquired disorder, characterized by symmetric, hyperpigmented patches with an irregular outline that most commonly occur on the face. It is most prevalent among young to middle-aged women who have darker skin phototypes. Melasma also tends to persist longer in those with more darkly pigmented skin. Exacerbating factors include sun exposure, pregnancy, and medication.

# a. Medical Expert

1. Performs the standardized skin examination, ensuring the patient's comfort and proper communication (A)

- 2. Obtains an efficient, focused history in relation to skin lesions (e.g., duration, pattern of skin morphology, onset, aggravating factors, pregnancy, and outdoor activities) (C)
- 3. Obtains a focused history in relation to the impact of the disease on the patient's and their parents' mental health (M)
- 4. Performs a complete physical examination of the disease, including performing Wood's lamp
- 5. Formulates an appropriate differential diagnosis for hyperpigmented dermatosis
- 6. Identifies all forms of treatment of melasma, their advantages and disadvantages, indications for use, and outcomes

Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness, emphasizing the avoidance of sun exposure and regular use of sun block (C)

#### c. Collaborator

Liaises effectively with other related specialized departments (M)

## d. Manager

Puts patient in contact with a community support group (M)

#### e. Health Advocate

Recognizes the major risk factors for melasma patients in Saudi Arabia (A)

### f. Scholar

Critically appraises research findings using the PICO model (patient, intervention, comparator, and outcomes) in order to resolve the patient's problem (F)

## g. Professional

Keeps abreast of melasma treatment (C)

## 28. Pityriasis Versicolor (PV)

One of the most common skin diseases. Patients usually present with multiple oval or round macules or patches with mild scaling. Centrally, within the areas of involvement, the lesions are often confluent and they may be quite extensive. Seborrheic areas occur, in particular on the upper trunk and shoulders. The most common colors are brown (hyperpigmented) and tan (hypopigmented).

- 1. Performs the standardized skin examination, ensuring the patient's comfort and proper draping (A)
- 2. Obtains an efficient, focused history in relation to the skin lesions (e.g., duration, pattern of skin morphology, sign of inflammations, past medical history) (C)
- 3. Obtains a focused history in relation to the impact of PV on the patient's mental health (M)
- 4. Performs a complete physical examination of the lesions (e.g., number, consistency, distribution, and the pattern of skin lesions).
- 5. Chooses the appropriate diagnostic methods.
- 6. Defines the risk factors, incidences, and clinical and prognostic characteristics of PV

- 7. Knows the treatment options, including topical and oral medications
- 8. Becomes familiar with recent approaches to the management of superfacial fungal infections
- 9. Diagnoses skin conditions caused by malassezia yeast
- 10. Discusses the pathogenic strategies employed by malassezia yeast and possible responses to them

- 1. Counsels patients with risk factors for the development of pityriasis versicolor
- 2. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 3. Interprets and understands why patients may not be responding to traditional therapy
- 4. Counsels and educates patients on the role a hot environment plays in aggravating pityriasis versicolor (C)
- 5. Notes how the patient and their family behave when the disease is newly diagnosed
- 6. Adequately prepares and educates the patient concerning alternative available treatments

## c. Collaborator

Liaises effectively with other specialized medical departments, if required (M)

### d. Manager

Puts patient in contact with a community support group (M)

### e. Health Advocate

Recognizes the major risk factors for pityriasis versicolor patients in Saudi Arabia (A)

### f. Scholar

- 1. Critically appraises research findings using the PICO model (patient, intervention, comparator, and outcomes) to resolve the patient's problem (F)
- 2. Summarizes recent advances in pityriasis versicolor research

### q. Professional

- 1. Keeps abreast of local pityriasis versicolor treatment guidelines (C)
- 2. Requests investigations in accordance with local protocols (C)
- 3. Complies with their professional responsibility regarding notification of the disease to the pityriasis versicolor registry (C)

## 29. Pruritus

Pruritus can be defined subjectively as a poorly localized, usually unpleasant sensation that elicits a desire to scratch. Pruritus is the most common dermatologic condition. It can be caused by a primary cutaneous disorder but can also be a symptom of an underlying systemic disease in an estimated 10% to 50% of patients. Diagnoses to consider include metabolic disorders, hematologic disease, malignancy, HIV infection, a complication of pharmacologic therapy, and neuropsychiatric disorders

# a. Medical Expert

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration, frequency, drug intake, relation to food, infection, other underlying diseases, etc.) (C)
- 2. Performs a standard skin examination, identifying the primary, secondary, or any special skin lesions and assesses the level of skin hydration. (C)
- 3. Performs a complete physical examination, assesses the patient's vital signs, and determines if the condition is associated with other system involvement (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Generates a differential diagnosis (M)
- 6. Initiates appropriate investigations guided by the severity of the condition (M)
- 7. Interprets laboratory results (M)
- 8. Outlines the medical management and any urgent medication required (C)

## b. Communicator

- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology, role, and risk factors that may affect such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Internal Medicine (M)

## d. Manager

Arranges for OPD appointments and further laboratory work ups (M)

### e. Health Advocate

Recognizes the major etiologic factors of pruritus in Saudi Arabia (C)

### f. Scholar

Critically appraises research findings relating to this disease (M)

## q. Professional

- 1. Keeps abreast of relevant developments (C)
- 2. Teaches others (M)

# 30. Psoriasis

Psoriasis is a polygenic disease with various triggering factors; e.g., trauma, infections, or medications, and may elicit a psoriatic phenotype in predisposed individuals. The characteristic lesion is a sharply demarcated erythematous plaque with silvery white scales. There may be a small number of coin-sized lesions on the elbows and knees, or the entire skin surface may be affected. It can also affect the scalp, nails, and joints. The impact of psoriasis on quality of life is significant given its chronicity and prevalence (up to 2% of the population).

## a. Medical Expert

- 1. Performs a standardized skin examination, ensuring the patient's comfort and proper communication (A)
- 2. Obtains an efficient, focused history in relation to the skin lesions (e.g., duration, pattern of skin morphology, signs of inflammation, family history of psoriasis, disease criteria) (C)
- 3. Obtains a focused history in relation to the impact of the disease on the patient's and their parents' mental health (M)
- 4. Performs a complete physical examination of the disease
- 5. Clarifies the possible associations and triggering factors of the disease
- 6. Develops an approach to the differential diagnosis of papulosqamous disorders
- 7. Recognizes the types of psoriasis, their clinical courses, the latest information about pathogenesis, and the management of psoriasis and psoriatic arthritis
- 8. Lists various comorbidities associated with psoriasis and describes their effect on the natural history of the disease and their influence on the selection of psoriasis therapy
- 9. Identifies the clinical subsets of psoriasis that can be treated through phototherapy
- 10. Chooses the proper topical and systemic treatments that may be associated with phototherapy
- 11. Evaluates and recognizes how to monitor and manage patients on biologic drugs
- 12. Outlines potential adjustments that can be made to treatments in order to optimize treatment response in psoriasis patients with comorbidities who are not responding optimally
- 13. Discusses the mechanisms of action and potential adverse effects of selected current and future systemic treatments for psoriasis
- 14. Effectively treats nail psoriasis and psoriasis in children; recognizes systemic disorders associated with psoriasis; knows when and how to use phototherapy

## b. Communicator

- 1. Counsels patients with a possible positive family history of the disease (A)
- 2. Communicates with patients concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 3. Counsels and educates patients on the role stress plays in aggravating psoriasis (c)
- 4. Notes how patient and their family behave when the disease is newly diagnosed
- 5. Discusses and understands the importance of the different quality-of-life measures for psoriasis
- 6. Reviews and understands the value and importance of cost, cost effectiveness, and cost-benefit analyses.

### c. Collaborator

Liaises effectively with medical, psychiatry, nursing, and social work services (M)

## d. Manager

Puts the patient in contact with a community support group (M)

## e. Health Advocate

Recognizes the major comorbidities of psoriasis patients in Saudi Arabia (A)

### f. Scholar

- 1. Critically appraises research findings using the PICO model (patient, intervention, comparator, and outcomes) in order to resolve the patient's problem (F)
- 2. Identifies the most up-to-date therapies in topical, systemic, and biological treatments.
- 3. Reviews the latest clinical data relating to novel oral and biological therapies for psoriasis that are in development

# g. Professional

- 1. Keeps abreast of local psoriasis treatment guidelines (C)
- 2. Reguests investigations in accordance with local protocol (C)
- 3. Complies with their professional responsibility with regard to notifying the psoriasis registry of the case (C)
- 4. Teaches others

# 31. Pyoderma Gangrenosum (PG)

Pyoderma gangrenosum (PG) is an uncommon, chronic, recurrent cutaneous ulcerative disease with a distinctive morphologic presentation. The laboratory and histopathologic findings can vary and, therefore, the diagnosis requires clinicopathologic correlation. This neutrophilic dermatosis is idiopathic in 25–50% of patients but it is frequently associated with a systemic disease such as inflammatory bowel disease.

## a. Medical Expert

- 1. Obtains a focused history in relation to skin lesions (duration, location), associated symptoms (fever, malaise, arthritis, abdominal pain), drugs, and medical illness (C)
- 2. Performs a complete examination focusing on the type of lesions (ulcerative, bullous, pustular, or vegetative), location, size, edge, and depth
- 3. Generates a differential diagnosis (M)
- 4. Obtains informed consent for their investigation (A)
- 5. Performs a skin biopsy (C)
- 6. Recognizes the systemic diseases that are associated with PG (M)
- 7. Initiates appropriate investigations guided by the differential diagnosis
- 8. Interprets the histopathology and lab findings (M)
- 9. Outlines the medical management of the disease, including topical and systemic therapy (M)

### b. Communicator

- 1. Counsels and educates the patient concerning the etiology and risk factors that may play a role in such a condition. (C)
- 2. Counsels the patient concerning the treatment modalities (M)

## c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Rheumatology, Gastroenterology, and Oncology

## d. Manager

Puts the patient and their family in contact with other affected families (M)

### e. Health Advocate

Approaches patients with PG in order to detect any associated systemic diseases early

## f. Scholar

Searches for up-to-date articles relating to the disease (M)

# g. Professional

Follows guidelines in regard to the investigation and treatment of the disease (M)

## 32. Rosacea

This is a common skin disease found in adults, and has a variety of clinical manifestations and variable degrees of involvement. Some forms of rosacea are disfiguring but it is not a potentially serious condition.

# a. Medical Expert

- 1. Obtains a complete history concerning the presence of facial symptoms (erythema, and blushing) and/or ocular symptoms (dryness, edema, pain, blurry vision, styes, and chalazia) (C)
- 2. Obtains a complete history concerning the triggering factors (C)
- 3. Performs a physical examination of the skin to ascertain the presence of telangiectasia, edema, papules, pustules, nodules, and rhynophyma (C)
- 4. Performs a physical examination for ocular involvement (blepheritis, congectivitis, iritis) (M)
- 5. Generates a differential diagnosis (M)
- 6. Obtains informed consent for investigation
- 7. Initiates an appropriate investigation guided by differential diagnosis (C)
- 8. Interprets laboratory results (M)
- 9. Outlines the topical management of rosacea and the use of systemic medications (M)
- 10. Recognizes complications associated with medications (M)

# b. Communicator

- 1. Communicates with the patients concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Communicates and educates the patient concerning the etiology and factors that can contribute to the disease (C)
- 3. Communicates with the patient concerning how to avoid triggering factors (M)
- 4. Answers the patient's questions and addresses their anxiety (F)
- 5. Explains the chronicity of the disease to the patient (M)

#### c. Collaborator

Liaises effectively with the nursing staff and Ophthalmology (M)

### d. Manager

Puts patients in contact with similarly affected individuals (M)

#### e. Health Advocate

Recognizes the major triggering factors of the disease in the region (M)

#### f. Scholar

Researches up-to-date articles relating to the management of Rosacea (M)

## g. **Professional**

Updates new guidelines and protocols relating to the management of Rosacea (M)

### 33. Scabies

Human scabies is caused by the host-specific itch mite Sarcoptes scabiei var. hominis, which lives its entire life within the epidermis of the skin. Although it is not a known vector for any systemic disease, secondary bacterial infections with group A streptococcus pyogenes or Staphylococcus aureus may occur. Transmission occurs through direct close contact with an infested person; fomite transmission may also occur and is much more common in severe and/or crusted cases. Classically, intense pruritus is accentuated at night and is exacerbated by a hot bath or shower. Pruritus is contracted from household members or through close personal contact with an infected person. The distribution and types of lesions and the pruritus form the basis of the clinical diagnosis.

## a. Medical Expert

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration, previous episodes, other family members affected, etc. (C)
- 2. Performs a standard skin examination, identifying the primary skin lesion, sites of involvement, and distribution (C)
- 3. Performs a complete physical examination and assesses the patient's vital signs (C)
- 4. Performs a provisional diagnosis of the condition based on the patient's history and the physical examination (C)
- 5. Generates a differential diagnosis. (M)
- 6. Initiates appropriate investigations depending on the severity of the condition (M)
- 7. Interprets the laboratory results (M)
- 8. Outlines the medical management, including topical and systemic medication (C)

### b. Communicator

- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology, role, and risk factors that may affect such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

## c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Infection Control (M)

## d. Manager

Arranges for OPD appointments and further laboratory work ups (M)

### e. Health Advocate

Recognizes the risk factors relating to the spread of scabies in Saudi Arabia (C)

### f. Scholar

Critically appraises research findings relating to this disease (M)

### g. Professional

- 1. Keeps abreast of relevant developments C)
- 2. Teaches others (M)

# 34. Staphylococcal Scalded Skin Syndrome: (SSSS)

Staphylococcal epidermal necrolysis encompasses a spectrum of superficial blistering skin disorders caused by the exfoliative toxins of some strains of Staphylococcus aureus.

# a. Medical Expert

- 1. Obtains an efficient history in relation to skin the lesions (onset, duration, disruption) and preceding illnesses and symptoms (fever, malaise, irritability and skin tenderness) (C)
- 2. Performs a complete physical examination on the skin in regard to the type of lesions, the presence of crusts, exfoliation, fissures, and erythema) (C)
- 3. Generates a differential diagnosis (M)
- 4. Obtains informed consent for investigations (A)
- 5. Performs a skin biopsy (C)
- 6. Initiates an appropriate investigation guided by the differential diagnosis (M)
- 7. Interprets the histopathology and laboratory findings (M)
- 8. Performs local wound care (C)
- 9. Recognizes the need for immediate admission (M)
- 10. Recognizes the need for isolation (M)
- 11. Outlines the medical management required, including the commencement of appropriate systematic antimicrobial treatment (M)

## b. Communicator

- 1. Communicates with the patient/patient's family concerning the diagnosis, prognosis, and medical complications (C)
- 2. Answers the patent's and the patient's family's questions and addresses their anxiety (M)

### c. Collaborator

Liaises effectively with pediatrics and nursing services (M)

### d. Manager

Puts the patient in contact with similarly affected families (M)

## e. Health Advocate

Recognizes the risk of infection in the pediatric population (M)

## f. Scholar

Researches updated articles relating to the management of staph scalded skin disease (M)

# g. Professional

Updates new guidelines and protocols relating to the management of staph scalded skin disease (M)

## 35. Stevens-Johnson Syndrome

Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) are severe idiosyncratic reactions, most commonly triggered by medications. They are characterized by fever and mucocutaneous lesions and lead to necrosis and sloughing of the epidermis. SJS and TEN are considered to be dermatological emergencies; they can be distinguished chiefly by the severity and percentage of body surface area involved.

There are many risk factors for SJS and TEN, including HIV infections, genetic factors (patients with HLA-B\*1502), concomitant viral infections, underlying immunologic diseases, and possibly physical factors

# a. Medical Expert

- 1. Obtains an efficient history in relation to the duration, distribution, onset, tenderness of the skin lesions, and associated symptoms (fever, cough, sore throat, and headache) (C)
- 2. Obtains a detailed history of medication and preceding illnesses (C)
- 3. Performs a complete skin examination focusing on the percentage of area involved, the type and the location of the skin lesions, the mucous membrane, eye involvement, organomegaly, and lymphadenopathy (C)
- 4. Performs Bikolsky's sign (M)
- 5. Performs a complete systemic examination (C)
- 6. Assesses the severity of the pain (M)
- 7. Recognizes all of the sequelae of the disease (M)
- 8. Generates other possible differential diagnoses (M)
- 9. Obtains informed consent for the investigation (A)
- 10. Performs a skin biopsy and direct and indirect immunoflurescence (C)
- 11. Initiates an appropriate investigation guided by the differential diagnosis (C)
- 12. Interprets the histopathology (M)
- 13. Performs local wound care (C)
- 14. Recognizes the need for immediate admission to Intensive Care Unit/Burn Unit (M)
- Outlines the medical management of patient, beginning with discontinuing the use of the offending drug and providing supportive care and specific therapy, which includes the use of systemic corticosteroids, immunosuppressive agents, and IVIG (M)
- 16. Obtains medical management for pain (M)
- 17. Recognizes all of the related complications for the medications (M)

### b. Communicator

- 1. Communicates with the patient concerning the diagnosis and prognosis (C)
- 2. Counsels and educates the patient concerning treatment and possible side effects (M)

### c. Collaborator

Liaises effectively with the Intensive Care/Burn Unit, ophthalmology, nursing, nutrition, physical therapy, and social services. (M) (good)

## d. Manager

Arranges to put the patient in the Intensive Care/Burn Unit if required (M)

## e. **Health Advocate**

Recognizes the risk of skin reactions developing in some patients

### f. Scholar

Searches for updated and new articles (M)

### g. Professional

Keeps abreast of new guidelines (M)

# 36. Sweet's Syndrome (acute febrile neutrophilic dermatosis)

Tweet's syndrome is an uncommon disease with unknown pathogenesis. Its association with infections, autoimmune diseases, inflammatory bowel disease and malignancies, as well as its greater incidence in women, suggests a hypersensitivity reaction. The initial cutaneous lesions are tender, non-pruritic, erythematous plaques or papules, which may enlarge or coalesce to form plaques with an uneven mammillated surface. The cutaneous eruption of Tweet's syndrome favors the head, neck, and upper extremities (including the dorsal aspect of the hands), but can occur anywhere.

# a. Medical Expert

- 1. Obtains a focused history in relation to skin lesions (duration, location), associated symptoms (fever, malaise, arthritis, abdominal pain), drugs, and medical illness (C)
- 2. Performs a complete examination focusing on lesion type, location and size
- 3. Generates a differential diagnosis (M)
- 4. Obtains informed consent for investigation (A)
- 5. Performs a skin biopsy
- 6. Recognizes systemic diseases associated with Tweet's syndrome (M)
- 7. Initiates an appropriate investigation guided by the differential diagnosis
- 8. Interprets the histopathology and lab findings (M)
- 9. Outlines the medical management of the disease, including the topical and systemic therapy (M)

## b. Communicator

- 1. Counsels and educates the patient on the etiology and risk factors that may play a role in such a condition (C)
- 2. Counsels the patient concerning the treatment modalities (M)

### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Rheumatology, Gastroenterology, and Oncology

# d. Manager

Puts the patient and their family in contact with other affected families (M)

# e. Health Advocate

Takes a recommended approach for patient with Tweet's syndrome in order to detect any associated systemic diseases early

## f. Scholar

Searches for updated articles relating to the disease (M)

### q. Professional

Follows guidelines in regard to investigation and treatment of the diseases (M)

# 37. Syphilis

Syphilis is a sexually acquired, chronic infection caused by treponema pallidum and is characterized by a variety of clinical manifestations. Syphilis can be transmitted before birth (congenital). It is an intermittent disease with primary, secondary, and tertiary stages as well as a latent period of unknown length that occurs before the onset of tertiary syphilis. Mucocutaneous manifestations vary from genital ulcers to widespread papulosquamous eruptions to granulomatous nodules.

# a. Medical Expert

- 1. Obtains a detailed history in relation to the skin lesions (onset, duration, and distribution) and associated symptoms (fever, malaise, and weight loss) (C)
- 2. Obtains a complete history in relation to the presence of cardiovascular, neurological, and skeletal symptoms (C)
- 3. Obtains a detailed history concerning the sexual activity of the adult patient and their partner (C)
- 4. Recognizes the different presentations of all stages (congenital, primary, secondary, and latent periods) (C)
- 5. Performs a complete physical examination of the skin, mucosal membrane, and scalp (C)
- 6. Performs a complete physical examination of the genital area with regard to the presence of painless papules, nodules, ulceration, and lymphadenopathy (C)
- 7. Recognizes all extra cutaneous manifestations of the disease, including in the cardiovascular, neurological, skeletal, and digestive system (C)
- 8. Generates a differential diagnosis. (M)
- 9. Performs a syphilis serology and a hepatitis and HIV screening (A)
- 10. Initiates appropriate investigations guided by the differential diagnosis and the suspected stage of the disease (C)
- 11. Performs a skin biopsy and interprets the histopathology, serology, and other laboratory findings (C)
- 12. Outlines the medical management for syphilis patients of all stages and the recommended treatment for special situations such as pregnancy, HIV, and congenital disease (M)
- 13. Performs a post-treatment follow-up examination (serological, and clinical) for all patients (M)

## b. Communicator

- 1. Communicates with the patient/patient's partner concerning the diagnosis, prognosis, treatment options, and complications (C)
- 2. Addresses all of the patients' questions and concerns (C)
- 3. Counsels and educates the patients concerning the impact of the disease both clinically and socially (M)
- 4. Educates the patient concerning the transmission mode of the disease (C)

## c. Collaborator

Liaises effectively with Infectious Disease/Infection Control Unit, nursing, internal medicine, and social services

### d. Manager

Puts patients in contact with a social worker for further support

#### e. Health advocate

- 1. Recognizes the risk of syphilis as a sexually transmitted infection
- 2. Reports syphilis to the relevant authorities as a case of a sexually transmitted disease in Saudi Arabia

### f. Scholar

Researches updated articles relating to the diagnosis and management of syphilis

### g. Professional

Updates new guidelines and protocols relating to sexually transmitted infections

# 38. Tinea Pedis (TP)

Tinea pedis is a dermatophyte infection of the soles of the feet and the interdigital web spaces. The feet are the most common location for dermatophyte infections. The disease is more common in adults and is found around the world, affecting both sexes. The lack of sebaceous glands and the moist environment created by wearing occlusive shoes are the most important factors in the development of tinea pedis.

# a. Medical Expert

- 1. Performs a standardized skin examination, ensuring the patient's comfort and proper draping (A)
- 2. Obtains an efficient, focused history in relation to the skin lesions (e.g., duration, pattern of skin morphology, sign of inflammations, past medical history) (C)
- 3. Obtains a focused history in relation to the impact of AP on the patient's psychological health (M)
- 4. Performs a complete physical examination of the lesions (e.g., number, consistency, distribution, and pattern of skin lesions)
- 5. Chooses the appropriate diagnostic methods
- 6. Defines the risk factors, incidences, and clinical and prognostic characteristics of TP
- 7. Is aware of the treatment options, including topical and oral medications
- 8. Becomes familiar with recent approaches towards the management of superficial fungal infections

# b. Communicator

- 1. Counsels patients with risk factors for the development of TP
- 2. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 3. Interprets and understands why patients may not be responding to traditional therapy
- 4. Counsels and educates patients on the role a wet and moist environment plays in aggravating TP (C)
- 5. Notes how the patient and their family behave when they are newly diagnosed
- 6. Adequately prepares and educates the patient concerning alternative available treatments

## c. Collaborator

Liaises effectively with medical, endocrinology, psychiatry, nursing, and social work services (M)

# d. Manager

Puts the patient in contact with a community support group (M)

### e. Health Advocate

Recognizes the major risk factors of TP patients in Saudi Arabia (A)

### f. Scholar

- 1. Critically appraises research findings using the PICO model (patient, intervention, comparator, and outcomes) in order to resolve the patient's problem (F)
- 2. Summarizes recent advances in TP research

## g. Professional

- 1. Keeps abreast of local TP treatment guidelines (C)
- 2. Requests investigations in accordance with local protocols (C)
- 3. Complies with their professional responsibility regarding notification of the disease to the TP registry (C)

## 39. Toxic Epidermal Necrolysis (TEN)

This is a rare, acute, and life-threatening mucocutaneous disease that is almost always drug-related. It is caused as a consequence of extensive keratinocyte cell death, which results in the separation of significant areas of skin at the dermal–epidermal junction, producing the appearance of scalded skin. This extensive cell death also results in mucous membrane detachment. The disease runs an unpredictable course. Rapid diagnosis and, thus, rapid identification and withdrawal of the causative drug has been recognized as a major factor in improving the outcome.

- Obtains an efficient history in relation to the skin lesions (duration, distribution, onset) and associated symptoms (fever, pain, difficulty swallowing, eye involvement), medical illness, and medications (C)
- 2. Performs focused examinations of the skin lesions (blisters, purpuric, nicrosis, erythema, presence of atypical target lesions) and ascertains the presence of mucosal involvement (C)
- 3. Determines the percentage of body surface area suffering from detached skin
- 4. Performs Bickosky's sign (F)
- 5. Assesses the severity of the pain
- 6. Uses the SCORTEN scale (a severity of illness rating for TEN) to recognize all of the prognostic factors that predict the outcome (M)
- 7. Recognizes all of the sequelae of the disease (M)
- 8. Generates a differential diagnosis (M)
- 9. Obtains informed consent for investigations (A)
- 10. Performs a skin biopsy (C)
- 11. Initiates appropriate investigations guided by the differential diagnosis (C)
- 12. Interprets the histopathology and laboratory findings (M)
- 13. Recognizes the need for immediate admission to the Intensive Care/Burn Unit
- 14. Performs local wound care (M)

- 15. Outlines the medical management commencing with the immediate discontinuation of use of the causative drugs and the provision of supportive care and specific therapy (M)
- 16. Recognizes the complications that are associated with the medications (M)

- Communicates with the patient concerning the diagnosis, prognosis, and medical complications (C)
- 2. Answers the patient's and the patient's family's questions and addresses their anxieties (C)
- 3. Demonstrates respect and empathy in relation to the patient (A)

### c. Collaborator

Liaises effectively with the Intensive Care/Burn Unit and nursing, ophthalmology, nutrition, and physical services (M)

# d. Manager

Puts the patient in contact with similarly affected families (M)

### e. Health Advocate

Recognizes the risk of the patient redeveloping the reaction upon another exposure (M)

### f. Scholar

Researches updated articles relating to the management of toxic epidermal necrolysis (M)

## q. Professional

Keeps abreast of new guidelines and protocols relating to the management of toxic epidermal necrolysis (M)

## 40. Urticaria

Urticaria is common disease characterized by transient skin or mucosal swellings caused by plasma leakage. Superficial dermal swellings are wheals, and deep swellings of the skin or mucosa are termed angioedema. Wheals are characteristically pruritic and pink or pale in the center, whereas angioedema is often painful, less well defined and shows no color change. The condition may be caused by an allergy, autoimmunity, drugs, dietary pseudoallergens, or infections. However, many cases remain idiopathic, even after full evaluation.

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration, frequency, drug intake, relation to food, infection, etc.) (C)
- 2. Performs a standard skin examination, identifying the primary skin lesion (C)
- 3. Performs a complete physical examination, assesses the patient's vital signs, and determines if the condition is associated with angioedema (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Generates a differential diagnosis (M)
- 6. Initiates appropriate investigations guided by the severity of the condition (M)
- 7. Interprets the laboratory results (M)
- 8. Outlines the medical management and any urgent medication required (C)

- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology and risk factors that may play a role in such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

## c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as ENT and ICU (M)

# d. Manager

Arranges for OPD appointments and further laboratory work ups (M)

### e. Health Advocate

Recognizes the major etiologic factors of urticaria in Saudi Arabia (C)

### f. Scholar

Critically appraises research findings relating to this disease. (M)

# g. Professional

- 1. Keeps abreast of related developments (C)
- 2. Teaches others (M)

#### 41. Varicella

VZV is the etiologic agent of varicella (chickenpox). Primary varicella usually begins with the prodromes of mild fever, malaise, and myalgia, followed by an eruption of pruritic, erythematous macules and papules, beginning on the scalp and face before spreading to the trunk and extremities. Lesions rapidly evolve over 12 to 14 hours into vesicles 1–3 mm in diameter that contain clear serous fluid and are surrounded by narrow red halos.

## a. Medical Expert

- 1. Obtains an efficient, focused history in relation to the problem and history of contact with other chickenpox patients (e.g. duration, site of the start of the disease, progression of skin lesions, drug intake, fever, other symptoms, etc.) (C)
- 2. Performs a standard skin examination, identifying the primary and secondary skin lesions, including the oral mucosa and scalp (C)
- 3. Performs a complete physical examination, assesses the patient's vital signs and determines if this condition is associated with other problems (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Generates a differential diagnosis (M)
- 6. Initiates appropriate investigations guided by the severity of the condition (M)
- 7. Interprets laboratory results (M)
- 8. Outlines the medical management and any urgent medication required (C)

# b. Communicator

1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)

- 2. Counsels and educates the patient on the etiology and risk factors that may play a role in such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as the Infectious Disease Unit, Internal Medicine, and Pediatrics (M)

# d. Manager

Arranges for OPD appointments and further laboratory work ups (M)Reports to the infectious disease unit for disease notification, if applicable (M)

#### e. Health Advocate

Recognizes the incidence of the disease and the efficacy of vaccination programs in Saudi Arabia (C)

# f. Scholar

Critically appraises research findings and mortality relating to this disease group. (M)

### g. Professional

- 1. Keeps abreast of related developments (C)
- 2. Teaches others (M)
- 3. Complies with their professional responsibility in relation to disease notification(M)

### 42. Vasculitis

Vasculitis represents a specific pattern of inflammation of the blood vessel wall and can occur in any organ system of the body. Vasculitis may be idiopathic or secondary to a medication, infection, neoplasm, or a systemic inflammatory disease. Although it may represent a disease that is limited to the skin, cutaneous vasculitis can be the harbinger of serious systemic involvement.

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration, frequency, drug intake, relation to other medical problems, infection, hematuria, melena, abdominal pain, etc.) (C)
- 2. Performs a standard skin examination at the site of the onset of the disease, identifying the primary and secondary skin lesions (C)
- 3. Performs a complete physical examination, assesses the patient's vital signs, and determines if the condition is associated with other medical problems (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Formulates an appropriate differential diagnosis (M)
- 6. Initiates appropriate investigations guided by the severity of the condition, including a skin biopsy and DIF (M)
- 7. Interprets laboratory results (M)
- 8. Outlines the medical management and any urgent medication required (C)
- 9. Recognizes the different types of vasculitis

- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology, role, and risk factors that may affect such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

## c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as Rheumatology and ICU (M)

### d. Manager

Arranges for OPD appointments and further laboratory work ups (M)

### e. Health Advocate

Recognizes the major etiologic factors of vasculitis in Saudi Arabia (C)

### f. Scholar

Critically appraises research findings relating to this disease (M)

### g. Professional

- 1. Keeps abreast of related developments (C)
- 2. Teaches others (M)

### 43. Viral Exanthem

Viral infections are frequently associated with cutaneous manifestations, especially in children, for whom they are the most common cause of exanthems. An exanthem is defined as a skin eruption occurring as a sign of a general disease. Viral exanthems may present with distinctive cutaneous features or in an entirely non-specific fashion and, at times, may pose a significant diagnostic challenge.

- 1. Obtains an efficient, focused history in relation to the problem (e.g., duration, site of the start of the disease, progression of skin lesions, drug intake, fever, other symptoms, etc.) (C)
- 2. Performs a standard skin examination, including oral mucosa, identifying the primary skin lesion (C)
- 3. Performs a complete physical examination, assesses the patient's vital signs and determines if the condition is associated with other problems (C)
- 4. Performs a provisional diagnosis of this condition based on the patient's history and the physical examination (C)
- 5. Generates a differential diagnosis (M)
- 6. Initiates appropriate investigations and serology guided by the severity of the condition (M)
- 7. Interprets laboratory results. (M)
- 8. Outlines the medical management and any urgent medication required (C)

- 1. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 2. Counsels and educates the patient on the etiology and risk factors that may play a role in such a condition (C)
- 3. Explores and responds to the patient's concerns and thoughts on such a condition (C)

### c. Collaborator

Liaises effectively with nursing staff and, if their services are required, with other specialized departments such as the Infectious Disease Unit and Pediatrics (M)

## d. Manager

- 1. Arranges for OPD appointments and further laboratory workups (M)
- 2. Reports to the Infectious Disease Unit for disease notification, if applicable (M)

## e. Health Advocate

Recognizes the major and recent viral diseases in Saudi Arabia (C)

#### f. Scholar

Critically appraises research findings relating to this disease group (M)

## g. Professional

- 1. Keeps abreast of related developments (C)
- 2. Teaches others (M)
- 3. Complies with their professional responsibility with regard to disease notification (M)

#### 44. Vitiligo

Vitiligo is an acquired, idiopathic disorder characterized by circumscribed depigmented macules and patches. Functional melanocytes disappear from involved skin through a mechanism(s) that has not yet been identified. Vitiligo affects approximately 0.5–2% of the general population worldwide and has a major psychological impact.

- 1. Performs a standardized skin examination, ensuring the patient's comfort and proper communication (A)
- 2. Obtains an efficient, focused history in relation to skin lesions (e.g., duration, pattern of skin morphology, sign of inflammations, family history of vitiligo, disease criteria) (C)
- 3. Obtains a focused history in relation to the impact of the disease on the patient and their parents' mental health (M)
- 4. Performs a complete physical examination of the disease
- 5. Clarifies the possible associations and triggering factors for the disease.
- 6. Develops an approach to the differential diagnosis of depigmented deratosis
- 7. Recognizes the types of vitiligo, their clinical courses, the latest information about pathogenesis, and the peculiarities relating to depigmented skin
- 8. Discusses the mechanism of depigmentation
- 9. Develops a strategy to diagnose vitiligo and related disorders

- 10. Identifies the best approach to treatment, based on a choice between wellestablished and new modalities
- 11. Identifies all of the forms of treatment of vitiligo, their advantages and disadvantages, indications for use, and outcomes
- 12. Identifies the clinical subsets of vitiligo that can be treated with phototherapy

- 1. Counsels patients with a possible positive family history of the disease (A)
- 2. Communicates with patients concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 3. Counsels and educates patients on the role stress and sun exposure play in aggravating vitiligo (C)
- 4. Notes how the patient and their family behave when the disease is newly diagnosed

## c. Collaborator

Liaises effectively with medical, endocrinology, psychiatry, nursing, and social work services (M)

# d. Manager

Puts the patient in contact with a community support group (M)

## e. Health Advocate

Recognizes any risk factors and other associated autoimmune diseases in Saudi Arabia (A)

### f. Scholar

Critically appraises research findings using the PICO model (patient, intervention, comparator, and outcomes) in order to resolve the patient's problem (F)

#### d. Professional

- 1. Keeps abreast of local vitiligo treatment guidelines (C)
- 2. Reguests investigations in accordance with local protocols (C)
- 3. Complies with their professional responsibility with regard to notification of the disease to the vitiligo registry (C)

## 45. Wart

Warts are caused by an infection of one of the many serotypes of the <u>human papilloma virus (HPV)</u>. Warts vary in appearance depending on where they are on the body. Warts are contagious, and close skin-to-skin contact can transmit the infection. They can also be transmitted indirectly through contaminated objects or surfaces.

- 1. Performs a standardized skin examination, ensuring the patient's comfort and proper draping (A)
- 2. Obtains an efficient, focused history in relation to the skin lesions (e.g., duration, pattern of skin morphology, history of contact, family history of warts) (C)
- 3. Performs a complete physical examination of the warty lesions (e.g., number, consistency, distribution, and pattern of skin lesions)
- 4. Screens for STDs in genital warts

- 5. Recognizes the treatment options for warts, including topical as well as cryosurgery, surgery, and lasers
- 6. Selects the most adequate treatment option for these viruses
- 7. Counsels the patient regarding the use of vaccines in the prevention of warts
- 8. Discusses the use of <u>new topical modalities</u> to treat warts (discusses indications, contraindications, and the pros and cons of using topical sensitizers to treat warts)

- 1. Counsels patients concerning the possible risk of transmission through family members (A)
- 2. Communicates with the patient concerning the diagnosis and prognosis with due empathy and effectiveness (C)
- 3. Interprets and understands why patients may not be responding to traditional therapy
- 4. Notes how the patient and their family behave when they are newly diagnosed
- 5. Adequately prepares and educates the patient concerning alternative available treatments.

### c. Collaborator

Liaises effectively with medical, obstetric and gynecology, surgical, psychiatry, nursing, and social work services (M)

## d. Manager

Puts the patient in contact with a community support group (M)

### e. Health Advocate

- Recognizes the major risk factors concerning warts for patients in Saudi Arabia

   (A)
- 2. Raises the concern that sexual abuse may be involved when genital warts are diagnosed in children

## f. Scholar

- 1. Critically appraises research findings using the PICO model (patient, intervention, comparator, and outcomes) to resolve the patient's problem (F)
- 2. Summarizes recent advances in wart research

# g. Professional

- 1. Keeps abreast of local wart treatment guidelines (C)
- 2. Requests investigations in accordance with local protocols (C)
- 3. Complies with their professional responsibility with regard to notification of the disease to the wart registry (C)

## **Procedures List**

## For Category II and III procedures, the following must be specified:

- 1. Number of procedures observed/participated in, performed under supervision, and certified by the supervisor to be competently executed.
- 2. The trainee also must declare that he/she is sufficiently competent to perform the procedure independently.
- 3. Each trainee must maintain an electronic logbook documenting the procedures observed, performed under supervision, and performed independently.

#### General competencies for procedures

#### 1.Medical expert

- a. Recognizes the subsequent indications of the procedure
- b. Knows the proper techniques of the procedure
- c. Is aware of the drugs that are used in the procedure, their indications, contraindications, and side effects
- d. Knows the Intraoperative and postoperative complications and how they can be managed
- e. Knows the precautions and contraindications of the procedure

#### 2. Communicator

- a. Explains to the patient the indications and possible complications related to the procedure
- b. Asks the patient to sign a consent form before the procedure.

#### 3.Collaborator

- a. Liaises effectively with the dermatopathologist and microbiologist regarding the results of the diagnostic procedure.
- b. Cooperates with the nurse to prepare a proper environmental situation for the procedure.

# 4. Manager

- a. Makes an appointment with the patient in order to explain the result to them
- b. Makes economic use of procedure material
- c. Checks the availability of procedure material

#### 5. Health advocate

a. Endeavors to explain the procedure to the patient if it is absolutely required

#### 6.Scholar

- a. Assists in the education of other members of dermatology team
- b. Attends the dermatosurgical workshop

#### 7.Professional

- a. Always demonstrates respectful and compassionate behavior toward patients, their families, and other health care providers
- b. Demonstrates appropriate interactions with colleagues and staff
- c. Demonstrates an appropriate sense of responsibility towards themselves and their patients

The following procedures are a minimum requirement to be completed by the end of the training program:

Procedure	Number
Wood's lamp	10
Microscopic skin preparations and cultures (KOH and Tzank smear)	10
Microscopic evaluation of hair	10
Simple excision with primary layered closures	20
Use of local anesthetic	20
Intralesional treatment	20
Punch biopsy (W)*	20
Shave biopsy (W)	10
Cryosurgery (W)	30
Curettage (W)	20
Electro-surgery (W)	30
Phototherapy and laser (W)	15
PATCH test	5
Pathergy test	5
Direct immunoflourescence for herpes virus infections	5
Basic clinical photography techniques (W)	10

W: The procedures are supplemented by a workshop

List of Behavioral/Communication Skills COMMUNICATION-SITUATIONS

#### **TEACHING AND LEARNING**

#### **General Principles**

- A. Formal teaching sessions
- B. Clinical learning

#### A) Formal teaching sessions

#### 1. Morning Report

The morning report is held on a daily basis or, at a minimum, on a weekly basis. The report is directed by the on-call resident with fellows from the core faculty always present to provide input when required. On occasion, an "expert" may also be invited. The reports are run using one of two different formats. Occasionally, short discussions are held concerning a number of patients that have been admitted to the teams during the previous night/week. However, more frequently, after the on-call resident has presented pertinent clinical details about a patient pre-selected by the on-call team, a lively and interactive discussion ensues between the residents, attendees, and faculty. At the end of the report, the on-call resident may present a brief talk and update those present on the most interesting clinical case seen during the on-call period.

These sessions will assist the trainee to develop and conduct patient management plans (diagnostic and therapeutic) based on patient information and preferences, up-to-date scientific evidence, and clinical judgment. It also ensures the use of information technology to support patient-care decisions and patient education.

#### 2. Journal Club Meetings

Journal clubs are a well-recognized quality improvement strategy that are used to critique and keep abreast of relevant dermatology literature. Participants meet 1–2 times monthly for two hours. These sessions are planned in advanced with an assigned leader (tutor), a set time slot, and journals (including, but not limited to, Journal of the American Academy of Dermatology, Archives of Dermatology, Dermatologic Surgery, Pediatric Dermatology, and Journal of Dermatological Treatment). The objective is to critique research articles and to improve the participants' understanding of research design, statistics, and critical appraisal. The journal club leader should be responsible for identifying relevant articles for discussion from different journals and lead the discussion. Articles should be chosen in line with the overarching purpose of the journal club. Depending on the purpose of the journal club, it may be appropriate to evaluate knowledge acquisition formally or informally. Evaluation should be specifically related to the article(s) for discussion, critical appraisals, understanding of biostatistics reported in the papers, and translating evidence into practice.

#### 3. Grand rounds

A formal meeting during which residents and faculty discuss complex cases while viewing patients. There are two clinical rounds. One is a general round that is held twice a month for 2–3 hours for all of the residents in the program and is hosted by different hospitals for each center. The other takes place in the training center for the rotating residents.

These sessions focus on morphology, differential diagnosis, and the management of interesting and challenging clinical cases. Occasionally, these sessions are also utilized for the dissemination of new research information.

<u>Objectives:</u> It is primarily a learning opportunity for residents, medical students, interns, rotating residents, current faculty, volunteer clinical faculty, community physicians, and non-physicians interested in receiving ongoing education involving interesting and difficult dermatologic patient cases. It promotes excellence and quality in clinical care; introduces clinicians to recent advances in medical care; and provides updates on scientific advances that affect the practice of dermatology. The second objective is to provide expert input for both physicians and patients by providing assistance with diagnosis and treatment options.

#### 4. Morphology sessions

Held throughout the year, the clinical morphology sessions are led by faculty members and participants meet weekly for 1–2 hours. The attending faculty will project clinical images and encourage discussions about them in order to teach morphologic descriptions and differential diagnoses. A typical session consists of a review of unknown clinical images with associated multiple-choice and short-answer questions, including a question-and-answer period. These weekly sessions are designed to provide a valuable opportunity to learn and improve morphologic diagnoses of skin diagnoses, as well as patient management and treatment skills. Alternating moderators lead the weekly discussions. The sessions are interactive, allowing attendees to be an integral part of the discussion and enhance their education through active participation.

These small group sessions are designed to establish a close mentor relationship between residents and faculty members.

#### 5. Dermatopathology

This is a weekly, half-day activity. It is planned in advance with an assigned dermatolopathologist, time slot, and venue. It includes a slide review where the residents systematically review the histopathology of the skin and examine multiple examples of all diagnoses. Additionally, a slide session that features unlabeled images of conditions is provided during which the residents are shown a variety of cases. It also includes a discussion on the subspecialty areas of pathology, e.g., melanocytic neoplasms and hair diseases.

These sessions supplement and enhance the pathophysiology, clinical-pathologic correlation, and diagnostic criteria of skin diseases described in dermatopathology textbooks and multimedia resources.

#### 6. Weekly book review

This session follows a group session format, and involves residents interactively reviewing selected chapters from (Jean L. Bolognia, Joseph L. Jorizzo, Julie V. Schaffer, eds), Wolverton's Comprehensive Dermatologic Drug Therapy.

Each week, for two hours, individual residents present the assigned topic and may create or update an existing quiz to assess residents' knowledge of the assigned readings. The senior residents are encouraged to lead the discussions. The attending faculty oversees this session in order to help provide clinical experience and relevance when appropriate. Residents read selected chapters that are assigned weekly. These sessions are designed to provide a clinical knowledge base that is appropriate for dermatology and encourage a "critical thinking" approach to clinical situations.

#### 7. Basic Science

In the first two months of the academic year, all residents will participate in an indepth study of a selected primary dermatology textbook in order to study the relevant basic science chapters. This will be repeated annually. Examples of textbooks reviewed previously include Dermatology (Jean L. Bolognia, Joseph L. Jorizzo, Julie V. Schaffer, eds) and Fitzpatrick's Dermatology. This activity will be supplemented by readings from other texts and selected articles from peer-reviewed literature. All residents are responsible for reading all of the primary assigned materials before each meeting and are also encouraged to read the supplementary texts. R2 residents will be assigned to give lectures that cover all basic science material with supervision by attending faculty and or an invited expert. These lectures will also periodically include quizzes prepared by the lecturing residents and the attending faculty. The goal of the activity is to introduce residents to the important basic science principles necessary to acquire an understanding of dermatologic diseases and to allow them to be capable of:

- Understanding skin functions and how relevant dysfunction contributes to disease.
- Approaching dermatologic disease with an understanding of the basic skin structure and microanatomy.

#### 8. Therapeutics and pharmacology

This is a review of systemic and topical medications used in dermatology. Core text reviewed: Systemic Drugs for Skin Disease by Wolverton, and selected pharmacology chapters from Nolognia's Dermatology. This lesson is integrated within the didactic weekly session in the form of rotating lectures. During the lectures, an assigned pharmacology topic chosen by senior residents, faculty members, experts from within the basic science departments, and visiting lecturers from the selected textbooks is thoroughly discussed. These sessions include basic science-related pharmacology, comparative pharmacology of principal drug groups, pharmacokinetics, basic mechanisms and features of dermatological diseases, the role of drugs in modifying the disease process, and specific skills critical to the practice of clinical pharmacology. It prepares the trainee to apply advanced knowledge of the chemical properties and biological effects of drugs to rational drug therapy.

#### 9. Participating in research

Dermatology residents have opportunities to participate in clinical trials within different hospitals as well as to join faculty in writing guest chapters and in reviewing articles or case reports through literature reviews. Within multiple health centers, there is ample opportunity to collaborate with researchers in many areas; the resident may also be paired with a faculty mentor who oversees and provides guidance as the project develops. The goal is to prepare the resident for an academic pathway, a specific focus, or niche interest; it also provides the necessary skills and training to undertake clinical trials, from formulating the proposal to implementing the study.

Prior research experience is helpful, but not a prerequisite.

#### 10. Attending Educational Meetings

Residents have the opportunity to attend regional/national and international meetings or to attend Board Review course meetings. They can also attend annual meetings and meetings at which they present their work and learn new techniques and treatments.

#### In Summary

The teaching activities are as follows:

- 1. A daily morning report is encouraged.
- 2. Monthly journal club meeting.
- 3. A weekly book review is encouraged.
- 4. Weekly grand round meeting.
- 5. Weekly morphology sessions
- 6. Weekly dermatopathology
- 7. Therapeutics and pharmacology review
- 8. Basic science sessions
- 9. Attending educational meetings, e.g., conferences, workshops, etc.
- 10. Participating in a research project.

# Fixed Unified Monthly Teaching Activities - Virtual

No	Month	Day	Time	Topics	Region
1.	October	2 <sup>nd</sup> Tuesday	1800-20:00	Professionalism & Ethics Research Methodologies Patient Safety	Scientific Council
2.	Novembe	2 <sup>nd</sup> Tuesday	1800-20:00	Dermatologic Surgery	Central/
3.	Decembe	2 <sup>nd</sup> Tuesday	1800-20:00	Dermatopathology	Western
4.	January	2 <sup>nd</sup> Tuesday	1800-20:00	Pediatric Dermatology	Eastern
5.	February	2 <sup>nd</sup> Tuesday	1800-20:00	Aesthetics Dermatology	Central/
6.	March	2 <sup>nd</sup> Tuesday	1800-20:00	Lasers and Phototherapy	Western
7.	April	2 <sup>nd</sup> Tuesday	1800-20:00	Hair/Nail Disorders	Aseer/Gizan
8.	May	2 <sup>nd</sup> Tuesday	1800-20:00	Lessons learned from previous Dermatology	Scientific Council
9.	June	2 <sup>nd</sup> Tuesday	1800-20:00	Morphology	Central/
10.	July	2 <sup>nd</sup> Tuesday	1800-20:00	Morphology	Western
11.	August	2 <sup>nd</sup> Tuesday	1800-20:00	Morphology	Eastern
12.	Septembe	2 <sup>nd</sup> Tuesday	1800-20:00	Morphology	Aseer/Gizan

Speakers/ topics to be identified by each region.

# **Examples of Formal Teaching Activities**

# 1. Riyadh Program

Day		PM			
Sunday	8-9 Morphology session	9-10 Morning report		10-12 Clinical OPD round/Journal club (1-2 per month)	Outpatient clinic
Monday	Outp	Outpatient clinic			
Tuesday	8-10  Book review Therapeutics and pharmacology Basic science (weekly for the first two	Book review erapeutics and narmacology asic science y for the first two		ralclinicalgrand round (two	Outpatient clinic
Wednesday	Outpatient clinic				Outpatient clinic
Thursday	Thursday Outpatient clinic				

# 2. Aseer Region Program

Day		9:15 – 9:45 7:00 – 9:15	9:30 – 12:30 1:0	00 – 3:30	
Sunday	Journal club	Morning report/Rounds	AM clinic/ Dermatopath	PM clinic/ Photo	
Monday	Basic science lecture	Morning report/Rounds	AM clinic	PM clinic	
Tuesday	Pharma/dermatopath Lecture	Morning report/Rounds	AM clinic /Dermatopath	PM clinic	
Wednesday	Wednesday Morphology lecture		AM clinic/Photo	PM clinic	
Thursday	Clinical OPD Round (Co	nsultation)	Morning report/Rounds	Cryo clinic	

#### Self-directed learning (SDL) R4

#### B) Clinical learning

#### 1. Program rotations and clinical experience

- 1. The residents will rotate through different hospitals as assigned by the training center.
- 2. At each rotation, the resident will gain a unique experience in patient care in the dermatology field.

## 2.Outpatients clinics

- 1. This should comprise a significant part of level 2, 3, and 4 residency programs.
- 2. Trainees must run outpatient clinics under direct supervision by the consultant.
- 3. Sufficient time must always be made available for the supervising consultant to teach and advise the trainee during these clinics.
- 4. The trainee should be able to conduct the common procedures performed in the clinic.
- 5. Trainees should see both new and follow-up patients.
- 6. Special clinics (phototherapy, laser, and procedures rooms) should be under the supervision of an experienced consultant who provides additional learning opportunities for residents.

#### 3. Inpatients/consultations

- 1. The goal of the dermatology inpatient consultation service is to provide professional inpatient care.
- 2. The hospital policy of holding consultations (urgent and routine) should be adhered to.
- 3. All consultations must be seen by and discussed with the consultant in charge prior to performing any management plan.
- 4. Admitted patients in the dermatology service must be seen daily by the resident, under the direct supervision of the consultant in charge.

- 5. Appropriate communication skills with other staff and health professionals should be acquired.
- 6. Trainees should be able to communicate with patients' relatives and to give bad news.
- 7. Trainees should provide appropriate care to seriously ill patients.
- 8. Trainees should follow and interpret investigations concerning the admitted patients
- 9. Trainees should be capable of providing comprehensive case summaries for each patient
- 10. Trainees should learn the skills concerning how to write a professional consultation report for other services.
- 11. Trainees should be acquainted with the admission and discharge process.

#### 4. On-call duty

- 1. All trainees must have dermatology-related on-call commitments during the training.
- 2. The on-call residents should cover the care of dermatology in-patients, admissions of new patients, and referrals from other departments.
- 3. The on-call trainee will always be supervised by the on-call consultant.
- 4. During the training program, the trainee should gain competence in managing acute, serious skin diseases.
- 5. Residents should be trained to provide care for emergency and urgent dermatological cases.
- 6. Residents should attain quick responses to emergency calls.

At least every four weeks, one hour should be assigned to meet with mentors, review portfolios, mini-CEX, etc.

# **Universal Topics**

- 1. Universal topics may be developed at the Saudi Commission Level for all specialties.
- 2. Priority will be given to topics that are:
- a. High value
- b. Interdisciplinary and integrated
- c. Require expertise that may be beyond the availability of the local clinical training sites
- 3. Universal topics should be developed centrally by the Saudi Commission and available as e-learning modules
- 4. Learning outcomes of the core topics should be determined centrally
- 5. The presentation formula of universal topics may be more didactic
- 6. Each universal topic will have a self-assessment at the end of the module

N	Module	Level	Declare
1	Prescribing drugs safely	R1	
2	Hospital-acquired infections	R1	
3	Antibiotics stewardship	R1	
4	Principles of the management of cancer	R3, R4	
5	Side effects of chemo-radiation therapy	R3+R4	
6	Cancer prevention	R3, R4	
7	Management of fluid in hospitalized patients	R2, R3, R4	
8	Prescribing drugs for the elderly	R2, R3, R4	
9	Patient advocacy	R3, R4	
10	Ethical issues: Treatment refusal and patient autonomy	R4	

## **Core-Specialty Topics**

- 1. Core-specialty topics will be determined by the specialty (i.e., in the curricular document)
- 2. Core-specialty topics must ensure that the important clinical problems pertaining to the specialties are well taught.
- 3. Unlike Universal Topics, the format of the core-specialty topics should be interactive, case-based discussions including the use of pre-learning materials.
- 4. Core-specialty topics should include workshops and simulations in order to develop skills in core procedures.
- 5. The learning outcomes of each core topic will be developed by the respective specialties and specified in the curriculum.
- 6. Each trainee site will develop the core topic based on the learning outcomes.
- 7. The trainee should be actively involved in the development and delivery of the topics under faculty supervision; the involvement may be in the form of:
  - Delivery
  - Content development
  - Research, etc.

#### Contents of the program

#### 1. Basic Knowledge of EBD

- a. Be capable of practicing EBD in their daily lives
- b. Understand the objectives of clinical guidelines
- c. Be capable of using theoretical and practical knowledge for diagnosis and therapy in dermatology, based on the principles of Evidence-Based Medicine.
- d. Implement and utilize dermatological guidelines in the practice
- e. Improve skills through critical appraisal when reading dermatological literature
- f. Improve their abilities to design and participate in clinical research projects.
- g. Be capable of taking advantage of **Ebderm.org**

- h. Be capable of using free services that integrate multiple sources, such as Dermlinx and Medscape Dermatology, and to facilitate efficient information management
- 2. Mode of delivery: (4 hours)
- b. Case-based small group
- c. Lecture/presentation
- 3. Further Resources
- a. EBM internet resources
- 4. Self-Assessment
  - a. Self-awareness Exercise/Test

## 2. Basic Science of Dermatology

#### 1. Objectives

- a. Be capable of describing the basic anatomy and physiology of epidermis, dermis, subcutaneous, and skin appendages.
- b. Be capable of defining the terms used in the morphological descriptions of dermatologic diseases.
- c. Be capable of describing the key elements of the history, physical examination, and laboratory testing of skin diseases.
- d. Be capable of describing the basic pharmacology of dermatologic therapies.
- e. Know the normal structure and function of cells and tissues within the skin.
- f. Know the abnormal functions of these elements that are related to pathological conditions, including inflammation, autoimmunity, blistering, cancer, photosensitivity, dyspigmentation, infection, and genodermatosis.
- g. Understand skin biology, which is related to new therapies for patient care.
- h. Know the essential investigations in dermatology.
- i. Be capable of correlating between basic science information and pathogenesis of skin diseases.
- j. Be capable of selecting appropriate investigations for skin diseases.
- 2. Mode of delivery: (2 hours per session)
- a. Lecture/Presentation
- b. Case-based small group
- c. Independent study
- 3. Further Resources
  - a. References books
- 4. Self-Assessment
  - a. MCQ

#### 3. Medical Ethics

- a. Be capable of evaluating various ethical dilemmas encountered in dermatologic practice.
- b. Have an understanding of core issues in medical ethics.

- c. Be capable of comparing the ethical differences between the practice of a profession and a business.
- d. Apply principles of bioethics and professionalism to issues in clinical practice.
- e. Analyze issues relating to conflicts of interest and the physician's responsibilities.
- f. Know the fundamentals of medical ethics.
- g. Be capable of presenting a series of practice situations that may generate ethical dilemmas.
- h. Be capable of developing tools for identifying, understanding, and analyzing ethical issues.

#### 2. Mode of delivery: (continuous process during the entire program)

- a. Direct patient contact
- b. Ward/bedside rounds
- c. One-to-one perception
- d. Role modeling

#### 3. Further Resources

- a. Hospital & departmental policies and procedures
- b. Rules and regulations

#### 4. Self-Assessment

a. MCQ

#### 4. General Dermatology (Part 1)

#### 1. Objectives

- a. Be capable of performing a general assessment of patients presenting with dermatosis in both an in- and outpatient hospital setting.
- b. Know the primary and secondary lesions and their different morphological presentations.
- c. Be capable of describing the clinical features and differential diagnoses of skin diseases, including the mucous membrane, skin appendages, hair, nails, and other dermatoses.
- d. Be capable of identifying different presentations of skin diseases.
- e. Be capable of describing skin lesions precisely.
- f. Be capable of performing detailed and reliable history-taking and physical examinations pertaining to the skin, mucous membrane, nails, hair, and other relevant body systems.
- g. To be capable of selecting appropriate investigations and treatment plans.

#### 2. Mode of delivery: (2 hours per session)

- a. Lectures/presentations
- b. Case-based
- c. Problem-based
- d. Problem-solving exercises
- e. Small group lessons
- f. Discussion
- g. Journal clubs

- h. Rounds
- i. Bedside teaching
- j. Tutorials

- a. Dermatology references books
- b. Dermatology Journal
- c. Dermatology institution websites.

#### 4. Self-Assessment

- a. MCQ
- b. Short-answer questions

#### 5. Basic Dermatopathology

#### 1. Objectives

- a. Be capable of describing the basic histological features of different skin biopsies and begin to formulate differential diagnoses.
- b. Know the normal histology of the skin at different sites of the body.
- c. Be capable of identifying the different pathologic reaction patterns in the skin.
- d. Know how to handle specimens correctly and the different transport media.
- e. Be capable of outlining histological laboratory techniques, including special stains and immunochemistry and their value in specific diseases.
- f. Know how to evaluate histological skin slides.
- g. Be capable of discussing appropriate differential diagnoses with the histopathology team.

### 2. Mode of delivery: (2 hours per session)

- a. Lectures/presentations
- b. Small group lessons in the histopathology department
- c. Discussion with a pathologist
- d. Tutorials
- e. OSCE stations under the supervision of pathologist

#### 3. Further Resources

- a. Dermatopathology references books
- b. Dermatopathology slides
- c. Dermatology institution websites.

#### 4. Self-Assessment

- a. OSPE
- b. OSCE

#### 6. Basic Knowledge of Research

- a. Have an enhanced understanding of dermatological research.
- b. Develop a structured approach to critical appraisals of dermatological literature.
- c. Learn essential structures of medical papers.

- d. Be capable of identifying an area of dermatology that is of personal interest and suitable for a research dissertation.
- e. Be capable of designing literature-search strategies and of accessing sources of information.
- f. Know different types of clinical research (RCT, systematic review, case series, cohort study, and others).
- g. Be capable of evaluating the findings of the research in order to formulate proposals for research in the chosen subject area.
- h. Be capable of identifying well-designed and executed clinical studies in procedural dermatology.
- Be capable of assessing the validity of key study-design elements, including patient selection, randomization, blinding, avoidance of bias, outcome measures, and statistical analysis.
- j. Be capable of discussing the findings of recent high-quality studies in dermatology.
- k. Be capable of writing an appropriate research document.
- 2. Mode of delivery: (2 hours per session)
- a. Lectures/presentations
- b. Small group lessons
- c. Workshops
- d. Tutorials

- a. Research websites
- b. Hospital research and the ethical department

#### 4. Self-Assessment

a. Participate in departmental research

#### 7. Basic Therapy

- a. Know different formulations of topical therapies.
- b. Understand the basic pharmacology of topical and systemic therapy.
- c. Learn the therapeutic ladder for common dermatoses.
- d. Understand the pharmacokinetics and pharmacodynamics of commonly used topical and systemic therapies.
- e. Be capable of writing appropriate medication prescriptions safely.
- f. Be capable of communicating with other related medical professionals, e.g., pharmacists.
- g. Be capable of utilizing drug information provided by pharmacists.
- 2. Mode of delivery: (2 hours per session)
- a. Lectures/presentations
- b. Case-based
- c. Small group lessons
- d. Discussion
- e. Variations on journal clubs
- f. Rounds



- g. Bedside teaching
- h. Tutorials

- a. Dermatology references books
- b. Dermatology journals
- c. Dermatology institution websites.

#### 4. Self-Assessment

- a. MCQ
- b. Short case

### 8. Dermatological Procedures

# 1. Objectives

- a. Be capable of competently performing basic clinical dermatological diagnostic procedures.
- b. Learn the basics of dermatologic surgery.
- c. Be capable of formulating differential diagnoses and/or planning of treatment and/or diagnostic tests.
- d. Know the different diagnostic procedures and devices.

#### 2. Skills

- a. Wood's lamp
- b. Microscopic skin preparations and cultures (KOH and Tzank smear)
- c. Microscopic evaluation of hair mounts
- d. Perform simple excisions with primary layered closures
- e. Use local anesthetic
- f. Intralesional treatment
- g. Punch biopsy
- h. Shave biopsy
- i. Cryosurgery
- j. Curettage
- k. Electrocautery
- I. Slit-skin smear
- m. Phototherapy
- n. PATCH test
- o. Pathergy test
- p. Direct immunoflourescence for herpes virus infections
- q. Basic clinical photography techniques

#### 3. Mode of delivery: (2 hours per session)

- a. Workshop
- b. Lectures

#### 4. Further Resources

- a. Dermatological surgery references books
- b. Dermatological surgery journals
- c. Dermatological surgery institution websites

#### 5. Self-Assessment

a. DOPS

#### 9. Advanced General Dermatology

#### 1. Objectives

- a. Be capable of performing specialized assessments and management of patients presenting with dermatoses in both in- and outpatient hospital settings (e.g., erythroderma, toxic epidermal necrolysis, Steven-Jonsons syndrome, DRESS syndrome, and acute generalized erythematosus pustulosis.)
- b. Learn the clinical features and management of common and rare skin diseases, including mucous membranes, skin appendages, hair, nails, and occupational dermatoses.
- c. Be capable of indentifying different presentations of skin diseases.
- d. Be capable of performing detailed and reliable history-taking and appropriate physical examinations for the skin, nails, hair, mucous membranes, and other relevant body systems.
- e. Be capable of selecting appropriate investigations and treatment.
- f. Be capable of communicating with patients and their families and of delivering necessary information concerning their diseases.
- g. Be capable of assessing the severity of acute skin diseases accurately by telephone and at the bedside.

#### 2. Mode of delivery: (2 hours per session)

- a. Lectures/presentations
- b. Case-based
- c. Problem-based
- d. Problem-solving exercises
- e. Small group lessons
- f. Discussion
- g. Variations on journal clubs
- h. Rounds
- i. Bedside teaching
- j. Tutorials

#### 3. Further Resources

- a. Dermatology references books
- b. Dermatology journals
- c. Dermatology institution websites

#### 4. Self-Assessment

- a. MCQ
- b. Short answer questions
- c. MiniCEX

#### 10. Advanced Dermatopathology

- a. Be capable of recognizing the microscopic features of diseases of the skin.
- b. Be capable of choosing a range of laboratory techniques to optimize diagnostic accuracy.
- c. Be capable of describing the histological features of individual skin diseases.

- d. Be capable of using special stains and immunohistochemistry in the diagnosis of specific diseases.
- e. Be capable of discussing appropriate differential diagnoses with colleagues and the histopathology team.
- f. Be capable of interpreting special stains/immunohistochemistry correctly.

# 2. Mode of delivery: (2 hours per session)

- a. Lectures/presentations
- b. Small-group lessons in the histopathology department
- c. Discussions with the pathologist
- d. Tutorials
- e. OSCE stations under supervision of pathologist

#### 3. Further Resources

- a. Dermatopathology references books
- b. Dermatopathology slides
- c. Dermatology institution websites

#### 4. Self-Assessment

- a. OSCE
- b. OSPE

# 11. Disorders caused by Environmental Factors, Phototherapy, and Photochemotheraphy

### 1. Objectives

- a. Be capable of identifying skin disorders caused by environmental factors.
- b. Learn the principles of phototherapy.
- c. Be capable of identifying the effects of ultraviolet radiation on the skin
- d. Be capable of explaining how the skin changes as a result of physical and chemical factors.
- e. Be capable of recognizing the indications and contraindications of phototherapy.
- f. Know the different types of phototherapy and their indications, dosimetry, and treatment regimens (topical, local, systemic, broadband UVB, Narrowband UVB, PUVA, photopatch testing, excimer laser, and electrophoresis).
- g. Be capable of setting up a phototherapy machine service.
- h. Be capable of delivering and supervising phototherapy services.
- i. Be capable of determining the minimal erythema doses of UVA, UVB, and visible light.
- j. Be capable of performing the photopatch test.
- k. Know how to select appropriate treatment regimens.
- I. Be capable of evaluating patients' responses and adverse events.

# 2. Mode of delivery: (2 hours per session)

- a. Lectures/presentations
- b. Problem-solving exercises
- c. Small-group lessons
- d. Discussion

- e. Tutorials
- f. Phototherapy clinic & rooms
- g. Workshop

- a. Machine guidelines, including safety
- b. Clinical indication guidelines
- c. Conference workshops

#### 4. Self-Assessment

- a. MCQ
- b. Follow up phototherapy patients

#### 12. Neurocutaneous and Psychocutaneos aspects of Skin Diseases

#### 1. Objectives

- a. Be capable of identifying skin manifestations of psychiatric and neurocutaneous disorders.
- b. Be capable of describing the clinical features of psychodermatoses and neurocutaneous disorders and their management.
- c. Be capable of performing psychiatric history and mental status examinations.

#### 2. Mode of delivery: (1 hour per session)

- a. Lectures/presentations
- b. Problem-solving exercises
- c. Small group lessons
- d. Discussion
- e. Tutorials

#### 3. Further Resources

- a. Psychiatric clinic
- b. Psychiatric tools for assessment

#### 4. Self-Assessment

a.DLQI tool for different skin diseases

#### 13. Skin Changes across Lifespan and as a result of Genetic Diseases

- a. Be capable of recognizing different diseases in patients, from birth to old age.
- b. Be capable of recognizing different genetic skin diseases and the importance of genetic counseling.
- c. Be capable of describing the common and specific diseases that occur from infancy to old age, including dermatoses relating to pregnancy.
- d. Learn the principles of medication usage during pregnancy and lactation, and for geriatric and pediatric age groups.
- e. Be capable of recalling modes of inheritance of genetic diseases.
- f. Be capable of describing methods of prenatal diagnosis.
- g. Be capable of acquiring a comprehensive history from parents and their children.

- h. Be capable of performing an examination of skin/relevant systems of newborns/infants/children/the elderly/pregnant women.
- i. Be capable of communicating with patients/parents and providing necessary information about their diseases.
- j. Be capable of acquiring a complete family history in order to determine mode of inheritance and to be able to clearly explain to parents the risk of their offspring acquiring the condition.

#### 2. Mode of delivery: (1 hour per session)

- a. Lectures/presentations
- b. Case-based
- c. Problem-based
- d. Problem-solving exercises
- e. Small group lessons
- f. Discussion
- g. Rounds
- h. Bedside teaching
- i. Tutorials

#### 3. Further Resources

a.Pediatric dermatology text book

#### 4. Self-Assessment

a. MCQ

#### 14. Skin Oncology

- a. Be capable of diagnosing and ascertaining the stage of all primary tumors of the skin, including, but not limited to, epidermal tumors, skin appendages, melanocytics, tumors of the dermis, and subcutaneous fat.
- Be capable of describing the common clinical and histopathological features of skin cancer and be able to distinguish between benign and malignant skin diseases.
- c. Be capable of defining the current methods of molecular analysis in the diagnosis and treatment of skin cancers.
- d. Be capable of defining the different staging systems for different types of skin cancers.
- e. Know the treatment modalities for skin tumors, including topical chemotherapy, cryotherapy, photodynamic therapy, surgical treatment margins, radiotherapy, chemotherapy, immunotherapy, and others.
- f. Be capable of defining the indications of different therapeutic modalities of skin tumors and the related risks and benefits for patients.
- g. Be capable of acquiring an accurate history and of competently examining all patients with primary or metastatic malignant diseases of the skin.
- h. Be capable of using different diagnostic techniques including, but not limited to, dermatoscopy.
- i. Be capable of excising skin lesions for diagnosis or treatment and of correlating clinical and pathological findings.

j. Be capable of working in a multidisciplinary team for the management of primary and distant metastatic skin cancer.

#### 2. Mode of delivery: (1 hour per session)

- a. Lectures/presentations
- b. Case-based
- c. Problem-based
- d. Problem-solving exercises
- e. Discussion
- f. Rounds
- g. Bedside teaching

#### 3. Further Resources

- a. Conferences workshops
- b. Oncology text books

#### 4. Self-Assessment

- a. MCQ
- b. Short cases
- c. Structural oral

# 15. The Skin and Systemic Diseases

#### 1. Objectives

- a. Be capable of confidently investigating, diagnosing, and managing patients with skin lesions related to systemic diseases.
- b. Be capable of describing the skin lesions in nutritional, metabolic, and heritable diseases.
- c. Be able to recognize skin manifestations of bone marrow, blood, and internal organ disorders.
- d. Be capable of defining the clinical and laboratory findings and the different therapeutic modalities of connective tissues and other autoimmune and vascular disorders.
- e. Be capable of detecting skin lesions in patients with systemic diseases.
- f. Be capable of working in a multidisciplinary team for the diagnosis and management of patients in relation to their skin and systemic involvement conditions.

# 2. Mode of delivery: (1 hour per session)

- a. Lectures/presentations
- b. Case-based
- c. Problem-based
- d. Problem-solving exercises
- e. Small group teaching
- f. Discussion
- g. Rounds
- h. Bedside teaching

#### 3. Further Resources

a. Textbooks

#### 4. Self-Assessment

- a. MCQ
- b. Structural oral

### 16. Skin Surgery

#### 1. Objectives

- a. Be capable of surgically treat benign and malignant skin diseases safely and effectively.
- b. Be capable of describing cutaneous anatomy from the skin surface down to the muscle fascia, including the head and neck.
- c. Know in detail blood vessels and nerves of the head, neck, and other body sites
- d. Be capable of administering the appropriate local and regional anesthetic.
- e. Be capable of identifying the surgical options, evaluating and treating individual skin lesions, and realizing the safety margin.
- f. Be capable of demonstrating suturing techniques for wound repair.
- g. Be capable of demostrating their knowledge of skin surgery.
- h. Be capable of demonstrating competence in performing these procedures on the skin lesion.

#### 2. Mode of delivery: (1 hour per session)

- a. Lectures/presentations
- b. Problem-solving exercises
- c. Small group lessons
- d. DOPS
- e. Workshops

#### 3. Further Resources

- a. Dermatosurgery text books
- b. YouTube and other internet resources

# 4. Self-Assessment

a. The trainee should be able to identify his/her own weaknesses in relation to a certain procedure

#### 17. Diseases caused by Microbial Agents

- a. Be capable of diagnosing and managing bacterial, viral, fungal, and parasitic infections of the skin.
- b. Be capable of defining clinical features, investigations, and the management of infections of the skin.
- c. Know normal flora and potential pathogens.
- d. Know information concerning antimicrobial therapy.
- e. Be capable of identifying infection outbreaks within the hospital and community.
- f. Be capable of performing appropriate testing, including the use of microbiological samples.

g. Be capable of interpreting microscopic findings from outpatient preparations as a means of diagnosing fungal and parasitic infections.

### 2. Mode of delivery: (1 hour per session)

- a. Lectures/presentations
- b. Problem-solving exercises
- c. Discussion
- d. Rounds
- e. Bedside teaching
- f. Microbiology department

#### 3. Further Resources

- a. Antibiotic guideline booklet
- b. Infection control hospital policy and procedures

#### 4. Self-Assessment

- a. The candidate should be capable of recognizing the strengths and weaknesses in their own knowledge and skills.
- b. MCQ.

#### 18. Sexually Transmitted Infections (STI)

#### 1. Objectives

- a. Detecting sexually transmitted infections (STIs).
- b. Knowing the cutaneous manifestations of STI.
- c. Setting accurate diagnoses, investigations, and the management of STIs, including genital HPV, candidiasis, genital herpes, gonorrhea, syphilis, HIV, and others.
- d. Identifying the clinical features of the premalignant and malignant diseases of genitalia.
- e. Ascertaining sexual history.
- f. Performing appropriate physical examinations and conducting a differential diagnosis.

#### 2. Mode of delivery: (1 hour per session)

- a. Lectures/presentations
- b. Problem-based
- c. Small group lessons
- d. Tutorials

#### 3. Further Resources

- a. STD text books
- b. WHO guidelines and recommendations

#### 4. Self-Assessment

- a. The candidate should be capable of recognizing the strengths and weaknesses in their own knowledge and skills.
- b. MCQ.

#### 19. Dermatological Topical Formulations and Systemic Therapies

#### 1. Objectives

- a. Be capable of safely prescribing and monitoring systemic therapy for skin diseases.
- b. Be capable of prescribing topical therapies.
- c. Be capable of knowing the mode of action, indications, side effects, drug interactions, safe monitoring, and the duration of therapy of topical and systemic agents used in skin diseases.
- d. Be capable of recognizing the quality of topical therapy required for different body areas.
- e. Be capable of choosing the most suitable base for topical therapy for different body sites.
- f. Know the stability and shelf life of different preparations.
- g. Be capable of identifying and weighing the risks and benefits of systemic therapy for patients.
- h. Be capable of evaluating the effectiveness of new drugs.
- i. Be capable of performing a literature search for adverse drug events.

#### 2. Mode of delivery: (1 hour per session)

- a. Lectures/presentations
- b. Problem-solving exercises
- c. Small group lessons
- d. Discussion
- e. Variations on journal clubs
- f. Bedside teaching
- g. Tutorials

#### 3. Further Resources

- 1. Skin therapy textbooks
- 2. Online medical resources

#### 4. Self-Assessment

- a. The candidate should be capable of recognizing the strengths and weaknesses in their own knowledge and skills.
- b. MCQ.

#### 20. Dressing and Wound Care

- a. Be capable of diagnosing and managing ulceration of the skin and postsurgical skin wounds.
- b. Know the clinical features, investigations, differential diagnosis, and management of skin ulceration.
- c. Know how to perform dressing for leg ulcerations, skin blistering diseases, and skin ulceration associated with diabetes
- d. Be capable of taking care of wounds created by dermatological surgery
- e. Know how to use topical and systemic therapy in wound care.
- f. Know how to use compression bandaging in leg ulceration.
- g. Know different dressing options and their cost effectiveness.

h. Be capable of taking adequate history and performing adequate examinations on patients with acute and chronic wounds.

#### 2. Mode of delivery: (1 hour per session)

- a. Lectures/presentations
- b. Discussion
- c. Bedside teaching
- d. Tutorials

#### 3. Further Resources

- a. Text books
- b. Conferences and workshops

#### 4. Self-Assessment

- a. The candidate should be capable of recognizing the strengths and weaknesses in their own knowledge and skills.
- b. MCO.

# 21. Cutaneous Laser Surgery

#### 1. Objectives

- a. Be capable of dealing with patients who require laser treatment.
- b. Know the basic laser-skin interactions and laser safety.
- c. Be capable of identifying cutaneous disorders suitable for laser treatment and where laser treatment would be hazardous.
- d. Be capable of discussing the benefits and risks of laser surgery in different clinical situations.

## 2. Mode of delivery: (1 hour per session)

- a. Lectures/presentations
- b. Small group teaching
- c. Discussion
- d. Tutorials

#### 3. Further Resources

- a. Laser clinics
- b. Text books
- c. Conferences and workshops

#### 4. Self-Assessment

a. MCQ

#### 22. Aesthetics Dermatology

- a. Be capable of advising patients considering/demanding aesthetic treatment.
- b. Be capable of diagnosing and managing patients with complications relating to aesthetic therapy.
- c. Know the different cosmetic camouflage of skin lesions.
- d. Be capable of discussing the side effects of aesthetic treatments.

### 2. Mode of delivery (1 hour per session)

- a. Lectures/presentations
- b. Problem-solving exercises
- c. Small group lessons
- d. Discussion

#### 3. Further Resources

- a. Text book
- b. Conferences and workshops
- c. Internet resources
- d. Video tapes

#### 4. Self-Assessment

- a. The resident should be capable of recognizing the strengths and weaknesses in their own knowledge and skills.
- b. MCQ.

#### 23. Research Assignment

#### 1. Objectives

- a. To help residents become aware of what kind of information they should collect and where they should find it.
- b. To enhance their skills in researching information and writing relevant reports that effectively communicate the relevant information.
- c. To engage their critical thinking and analysis skills in assessing the validity of information sources and discussing the retrieved information.
- d. To help them to work together effectively as a team.
- e. To allow them to understand research principles.
- f. To teach them critical thinking in the design of the survey/focus group, including the use of available guidelines.
- g. To have them know how to use applications/software for analyzing data.
- h. To make them capable of applying the clinical knowledge to recommended treatments.
- i. To make them capable of listing the information sources they are expected to learn to use in their project.
- j. To make them capable of thinking critically about what they are doing at each step and what information they are acquiring at each step.
- k. To make them capable of synthesizing, analyzing, and interpreting information using appropriate disciplinary content and methodology.

# 2. Mode of delivery: (1 hour per session)

- a. Lectures/presentations
- b. Small group lessons
- c. Workshops
- d. Tutorials

#### 3. Further Resources

a. SCFHS toolkits

## 4. Self-Assessment

- a. Residents should be capable of recognizing the strengths and weaknesses in their own knowledge and skills.
- b. MCQ.

List of suggested workshops

List of suggested workshops								
Procedures wor	rkshops	Level	Estimated number attending					
3. 4. 5. 6.	al workshops Punch biopsy Shave biopsy Cryosurgery Curettage Sutures Local Anastasia Electro cautery	R2	20-25					
Diagnostic labo <b>a.</b>			20-25 20-25					
2. 3. 4. 5. 6.	PATCH PRICK Dark field microscopy Slit-skin smear Pathergy test Intralesional treatment	R3	20-25					
	d clinical simulation workshop	R2 R2 + R3	20-25 20- 40					

# **Trainee-Selected Topics**

- 1. Trainees will be given the option of developing a list of their own topics.
- 2. They can choose any topic relevant to their needs
- 3. All of these topics must be planned and cannot be random
- 4. All of the topics must be approved by the local education committee
- 5. Delivery will be local
- 6. The institution may also work with trainees to determine the topics

# **Examples of trainee topics:**

- 1. Communication skills
- 2. Presentation skills
- 3. Decision making
- 4. EBM
- 5. Passing the MCQs
- 6. Clinical teaching and learning strategy
- 7. Giving bad news
- 8. Medical ethics and malpractices and patient safety
- 9. Writing scientific papers
- 10.0SCE exam preparation
- 11. Safety practices for medication
- 12. Stress coping and management
- 13. Management skills course
- 14. Critical appraisal and how to establish a journal club
- 15. How to write a case report

#### Resident responsibilities

- a. Residents must attend a minimum of six clinics per week.
- b. Residents must attend all teaching activities.
- c. Calls are assigned on a regular basis for a minimum of seven days per month and are split evenly among all of the residents. The selection is printed and residents are notified one month in advance.
- d. All residents will be assigned to perform inpatient consultations, in accordance with hospital policy.
- e. Residents should follow the hospital policies and regulations.
- f. Residents are expected to attend dermatopathology meetings, both at the Department of Dermatology and according to the weekly activity schedules.
- g. Residents are expected to attend the weekly activities, including textbook and journal reviews, conducted in the rotational hospitals.
- h. Grand rounds are conducted every week and attendance is mandatory. In addition, attendance is required at all state dermatological society meetings and participation in patient presentation is mandatory.
- i. All residents will be assigned to perform inpatient consultations, in accordance with hospital policy.

# **Dermatology Faculty Evaluations Performance**

- a. All residents are regularly evaluated through written evaluations by the faculty members with whom they work during their rotations.
- b. The Program Director meets with each resident to discuss their performance and review the evaluations from faculty members concerning their rotations.
- c. Frequent informal evaluations are also performed by individual faculty members and communicated to the resident. These include constructive suggestions for improvement.
- d. Residents are also encouraged, at any time during the year, to discuss with the Program Director or their faculty member any specific problems or concerns they may have concerning their performance or progress.

# **ASSESSMENT**

Evaluations and assessments throughout the program are conducted in accordance with the Commission's training and examination rules and regulations. The process includes the following steps.

#### **Annual Assessment**

# **Continuous Appraisal**

This assessment is conducted toward the end of each training rotation throughout the academic year and at the end of each academic year as a continuous assessment in the form of a formative and summative evaluation.

#### Formative Continuous Evaluation

To fulfill the CanMEDS competencies based on the end-of-rotation evaluation, the resident's

performance will be jointly evaluated by relevant staff for the following competencies:

- 1. Performance of the trainee during daily work.
- 2. Performance and participation in academic activities.
- 3. Performance in a 10- to 20-min direct observational assessment of trainee—patient interactions. Trainers are encouraged to perform at least one assessment per clinical rotation, preferably near the end of the rotation. Trainers should provide timely and specific feedback to the trainee after each assessment of a trainee—patient encounter.
- 4. Performance of diagnostic and therapeutic procedural skills by the trainee. Timely and specific feedback for the trainee after each procedure is mandatory.
- 5. The CanMEDS-based competencies end-of-rotation evaluation form must be completed within <u>2 weeks</u> after the end of each rotation (preferably in electronic format) and signed by at least two consultants. The program director will discuss the evaluation with the resident, as necessary. The evaluation form will be submitted to the Regional Training Supervisory Committee of the SCFHS within <u>4 weeks</u> after the end of the rotation.
- 6. The assessment tools used, can be in the form of an educational portfolio (i.e., monthly evaluation, rotational Mini-CEX, long case assessment CBDs, DOPS, and MSF, and MSF
- 7. Academic and clinical assignments should be documented on an annual basis using the electronic logbook (when applicable). Evaluations will be based on accomplishment of the minimum requirements for the procedures and clinical skills, as determined by the program.
- \*Clinical evaluation exercises
- \*\*Case-based discussions
- \*\*\*Direct observation of practical skills
- \*\*\*\*Multisource feedback

# **ASSESSMENT**

#### **Summative Continuous Evaluation**

This is a summative continuous evaluation report prepared for each resident at the end of each academic year. The report may also involve the result of clinical examination, oral examination, objective structured practical examination (OSPE), objective structured clinical examination (OSCE), and international in training evaluation exam

#### **End-of-Year Examination**

The end-of-year examination will be limited to R1, R2, and R3. The number of exam items, eligibility, and passing score will be in accordance with the Commission's training and examination rules and regulations. Examination details and blueprints are posted on the commission website: <a href="https://www.scfhs.org.sa">www.scfhs.org.sa</a>

#### Principles of Dermatology Examination (Saudi Board Examination: Part I)

This written examination, which is conducted in multiple choice question formats, is held at least once a year. The number of exam items, eligibility, and passing score will be in accordance with the Commission's training and examination rules and regulations. Examination details and blueprints are published on the commission website: <a href="https://www.scfhs.org.sa">www.scfhs.org.sa</a>

#### Final In-training Evaluation Report (FITER)/Comprehensive Competency Report (CCR)

Tn addition to approval of the completion of clinical requirements (resident's logbook) by the local supervising committee, FITER is also prepared by program directors for each resident at the end of his or her final year in residency (R4). This report may also involve clinical examinations, oral examinations, or other academic assignments.

# Final Dermatology Board Examination (Saudi Board Examination: Part II)

The final Saudi Board Examination comprises of two parts, a written examination and a clinical examination.

#### Written Examination

This examination assesses the trainee's theoretical knowledge base (including recent advances) and problem-solving capabilities with regard to the specialty of Dermatology. It is delivered in multiple choice question formats and held at least once a year. The number of exam items, exam format, eligibility, and passing score will be in accordance with the Commission's training and examination rules and regulations. Examination details and blueprints are published on the commission website: <a href="https://www.scfhs.org.sa">www.scfhs.org.sa</a>

#### **Clinical Examination**

This examination assesses a broad range of high-level clinical skills, including data collection, patient management, communication, and counseling skills. The examination is held at least once a year, preferably in an OSCE format in the form of patient management problems (PMPs). The exam eligibility, format, and passing score will be in accordance with the Commission's training and examination rules and regulations. Examination details and blueprints are published on the commission website: www.scfhs.org.sa

# **ASSESSMENT**

#### Certification

Certificates of training completion will only be issued upon the resident's successful completion of all program`s requirements. Candidates passing all components of the final specialty examination are awarded the "Saudi Board in Dermatology" certificate.

Outlin	Outline of program progress requirements											
DERMATOLOGY RESIDENCY PROGRAM (4-YEAR PROGRAM)												
First ye	First year residency (R1) 6 months					hs medicine 3 months			2 months Dermatology			
					Pedia	atric		I month	Plasti	Surge	ery	
Continu	Continuous assessment (50%) Total											
Written	examin	ation: (50%)							passing	score	: 60%	
		Clinical:					Know	ledge				
Junior Residency (Years)	R2	Outpatients (3-4 hours per session)  Inpatients/ consultation	introduction to Dermatology	Basic Knowledge of EBD	Basic Knowledge of Research	Basic Science of Dermatology	Medical Ethics	Basic Therapeutic Practices	General Dermatology	Dermatology Procedures	Basic Dermatopathology	Morphology of Skin Diseases
idenc		Continuous ass	s assessment					Total Average				
Res		Written examin	ation (50%	50%)				passing score: 60%				
nior		PART ONE EXA	MINATION									
uU	R3	Clinical: Outpatients (3-4 hours per session) Inpatients/ consultation	Research Assignment	Advanced	Therapeutic Practices	Dermatologic	al Surgery Advanced	General Dermatology	Advanced	Dermatopathology	Morphology	or Skin Diseases
		Continuous ass	essment						Total	l Avera	ge	
		Written examin	ation (50%	)					pass	ing scc	re: 609	%
Senior Residency	R4	Outpatients (3-4 hours per session)	Advanced General Dermatology		Advanced Therapeutic	Practices  Dermatologic  urgery & Laser  Practices		Surgery & Laser Practices	Advanced Dermatopatholog y		Aesthetic	Dermatology
Sen		Inpatients/ consultation	Adv		<u> </u>		ă	Sur		<u> </u>		ם
Continu	Continuous assessment and FITER											
Final wi	itten Sp	ecialty examinat	ion									
Final Cl	inical S <sub>I</sub>	pecialty Examina	tion									

#### Resident Portfolio

- 1. Portfolio will be an integral component of training
- 2. Each trainee will be required to maintain a logbook
- 3. The educational supervisor should be in charge of monitoring and reviewing the portfolio and providing continuous feedback to the trainee
- 4. The portfolio should include the following:
  - a. Curriculum vita (CV)
  - b. A professional development plan
  - c. Records of educational training events
  - d. Reports from the educational supervisors
  - e. Logbook
  - f. Case write-ups (selected)
  - g. Reflections
  - h. Other: patient feedback, clinical audits, etc.

# **Resident Logbook**

This is an electronic version of logbook used to monitor Residents' performance and development and to document their academic activities. The logbook will be a part of the portfolio. The purpose of the logbook is to:

- 1. Monitor trainees' performance on a continuous basis
- 2. Document and record the cases seen and managed by the trainees
- 3. Maintain a record of the procedures and technical interventions performed
- 4. Enable the trainee and their supervisor to determine learning gaps
- 5. Provide a basis of feedback for the trainee

# Form 1 - (Mini-Clinical Evaluation Exercise (CEX)

TRAINE	:6;			TEAK	OF TRAI	NING:		
ASSESSOR:PATIENT PROBLEM/DX:								
PROBLE	EM COMP	LEXITY:				41	GН	
PATIEN	T LOCAT	ION:						
				TREATMI	ENT	□OTHER (specif	у):	-
	1. N	IEDICAL INTER	RVIEWING SKILL	.S ( not	t observe	d)		
□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7	□ 8	□ 9
Unsatisi	factory		Satisfacto	ory		Ab	ove expect	ed
	2. P	HYSICAL EXA	MINATION SKII	LLS ( r	not obsei	ved)		
□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7	8 🗆	□ 9
Unsatisi	factory		Satisfacto	ory		Above expected		
	3. P	ROFESSIONA	LISM/HUMANIS	TIC QUA	ALITIES (	_ not observed)		
□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ <i>7</i>	8 🗆	□ 9
Unsatisi	factory		Satisfacto	ory		Above expected		
	4. C	OUNSELLING	SKILLS ( not	observe	d)			
□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7	□ 8	□ 9
Unsatisi	factory		Satisfacto	Satisfactory		Above expected		
	5. C	LINICAL JUDO	GEMENT ( not	observe	ed)			
□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ 7	8 🗆	□ 9
Unsatisi	factory		Satisfacto	ory		Ab	ove expect	ed
	6. C	RGANISATIO	N/EFFICIENCY	( not c	observed	)		
□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ <i>7</i>	8 🗆	□ 9
Unsatist	factory		Satisfacto	ory		Ab	ove expect	ed
	7. C	VERALL CLIN	ICAL COMPETE	NCE				
□ 1	□ 2	□ 3	□ 4	□ 5	□ 6	□ <i>7</i>	8 🗆	□ 9
Unsatisi	factory		Satisfacto	orv		Ab	ove expect	ed

#### **Descriptors of competencies assessed during the Mini-Cex**

Time spent observing: minutes	Time providing feedback: minutes
This case adequately tested the trainee's abilities:	☐ Yes ☐ No
COMMENTS ON THE TRAINEE'S PERFORMANCE:	
Trainee's Signature	Assessor's Signature
Date	

- Medical Interviewing Skills: Facilitates the patient's description of their problem; effectively uses questions/directions to accurately and adequately obtain the required information; responds appropriately to body-language and non-verbal cues; identifies and explores the patient's issues and concerns within the scope of a focused consultation
- 2. Physical Examination Skills: Follows an efficient, logical sequence; balances screening/diagnostic steps for problem; informs the patient; is sensitive to the patient's comfort and modesty.
- 3. Professionalism/Humanistic Qualities: Shows respect, compassion, empathy, establishes trust, attends to patient's needs regarding comfort, confidentiality, modesty.
- 4. Counseling Skills: Explains rationale for test/treatment, obtains the patient's consent, educates/counsels the patient regarding management of the condition. Where appropriate, explains the natural history of the cancer, including the prognosis and treatment options.
- 5. Clinical Judgment: Selectively orders/performs appropriate diagnostic studies; considers risks and benefits; interprets clinical investigations and synthesizes these with the patient's history and symptoms; justifies treatment recommendations based on current evidence, multidisciplinary advice, and relevant patient-related factors.
- 6. Organization/Efficiency: Prioritizes; timely and succinct.
- **7. Overall Clinical Competence**: Demonstrates judgment, empathy, caring, effectiveness, and efficiency.

Clinical assessment using a modified Mini-CEX

Clinical assessment us	ing a mounted Mini	CLX		
Subject	Satisfactory Completed >5.5	Number	Assessor's comment and signatures	Date
Basic science				
Pruritus				
Papulosqamous dermatosis				
Urticaria, Erythemas, and purpuras				
Vesiculobullous diseases				
Adnexal diseases				
Connective tissue diseases				
Metabolic and systemic				
Genodermatoses				
Pigmentary disorders				
Hair and nails and mucous membranes				
Infections, infestations, and bites				
Disorders caused by physical				
Disorders of Langerhans cells and macrophages				
Atrophies and disorders of dermal CT				
Disorders of subcutaneous fat				
Vascular disorders				
Neoplasm of the skin				
Medical therapy				
Physical treatment modalities				
Dermatosurgery				
Aesthetic surgery				

# Form 2 - Direct observation of practical skills sessions (DOPS 1)

(This is to be completed by the educational supervisor. Complete a separate one of these forms for each type of procedure assessed).

Trainee's number:		Year of training:
Hospital:		
Name of educational supervisor:	<u>.</u>	
Names of procedures being assesse	d:	

	Skills	Unsatisfactory 1-2-3	Satisfactory 4-5-6	Above expected 7-8-9
1.	Selection of procedure & treatment planning # Not observed or applicable			
2.	Obtaining informed consent # Not observed or applicable			
3.	Administering effective analgesia # Not observed or applicable			
4.	Sterile technique # Not observed or applicable			
5.	Excision technique # Not observed or applicable			
6.	Handling of instruments # Not observed or applicable			
7.	Suturing # Not observed or applicable			
8.	Dressing & post-operative counseling # Not observed or applicable			
9.	Awareness & management of complications # Not observed or applicable			
10.	Professionalism & consideration for the patient during the procedure # Not observed or applicable			
11.	Operation notes: accuracy & detail # Not observed or applicable			
12.	Overall clinical competence in performing the procedure # Not observed or applicable			

Comment:									
••••••									
Future recommendations for training:									
Trainee:	Signature:	Date:							
Educational supervisor:	Signature	Date:							

### **Descriptors Of Competencies Assessed in the OSPE**

- 1. Selection of procedure & treatment planning: Clearly explains to the assessor the indications for the procedure, the relevant anatomy, and the essential steps of the procedure.
- Obtains informed consent after explaining the procedure & complications: Conveys information that is complete, relevant, clear, and jargon-free; is sensitive to the patient's concerns, respects confidentiality, actively listens, answers questions correctly, and ensures that the patient understands before obtaining consent; establishes trust.
- 3. Administers effective analgesia or safe sedation (if no anesthetist is present): Selects an appropriate local anesthetic agent (or sedative) and checks with nursing staff; injects the appropriate volume using the correct needle and technique.
- 4. Demonstrates good asepsis techniques and the safe use of instruments/sharp objects: Supervises and follows high standards of aseptic operative techniques; handles instruments and sharp objects safely.
- 5. Performs the technical aspects of excision by following the standard guidelines: Follows the protocol for the procedure, demonstrates good technique; uses instruments appropriately, handles tissue gently, controls bleeding appropriately, sutures skin neatly and atraumatically.
- 6. Handling the instruments: Follows the correct protocols for instrument handling techniques.
- 7. Suturing technique.
- 8. Dressing & post-operative counseling
- 9. Awareness & management of complications
- 10. Professionalism & consideration for the patient during the procedure: Demonstrates respect and understanding of the patient's requirements regarding comfort, respect, and confidentiality; demonstrates an ethical approach and awareness of any relevant legal frameworks.
- 11. Operation notes: accuracy and detail: Makes clear and legible notes, which enables the continuation of effective care by other practitioners.
- 12. Overall clinical competence in performing the procedure: Ensures patient safety at all times; demonstrates good clinical knowledge, judgment, and technique; makes appropriate use of equipment and resources.

Table 1a - Direct observation of practical skills sessions (DOPS 1)

Table 1a - Direct observation of practical skills sessions (DOPS 1)									
Subject	Satisfactory	Unsatisfactory	Assessor's comments and signature	Date					
Issues relating to obtaining informed consent									
Practice of aseptic techniques									
Use of local anesthetic									
Simple suture technique									
Technique for cryotherapy									
Technique for the administration of intralesional triamcinolone									
Technique for curettage and cautery									
Technique for performing a punch biopsy									
Technique for performing a shave biopsy									
Technique for performing an ellipitical excision									
Specimen preservation and transportation, histology stains									
Trunk and limbs: Full excision with appropriate standard wound closure, including deep sutures as required and interrupted skin sutures									
Face: Full excision with appropriate standard wound closure, including deep sutures as required and interrupted skin sutures.									
Other suture techniques, e.g., mattress sutures subcuticular suturing									
Wound care, including the application of steri-strips									

Table 1b - Direct observation of practical skills sessions (DOPS 2) for procedures

Subject	Satisfactory	Unsatisfactory	Assessor's comments and signature	Date
Skin scraping for fungus				
Nail scraping for fungus				
Hair for fungus				
Slit-skin smear examination for				
Tzank smear				
Zheal Neilson stain*				
Trahnm's stain*				
Eeishman's stain*				
Dark ground microscopy				
Wood's lamp examination				
Excision of growth/papilloma/cysts, etc.				
Comedone/milia extraction				
Nail surgery				
Chemical peels				
Laser		landahanatan.		

<sup>\*</sup>Should be observed in a pathology laboratory

Table 2 - Annual report and promotion exam format

Table 2 / Allifact	Evaluation Item	Cantant		Deseine
Training level	Evaluation item	Content	Relative %	Passing score
R1	Annual evaluation	Internal Medicine/ Pediatric/ Elective	50%	60 %
	Promotion Exam	Internal Medicine/ Pediatric	50%	70
R2	Promotion Exam	Mcqs = 50 Qs OSPE = 20 Qs Histopathology = 10 Qs	50%	, O0/
	Annual Report	Continuous evaluation	50%	60%
1 <sub>st</sub> part of exam		100 MCQs, 2 hours R2 Blueprint		70%
R3	Promotion Exam	Mcqs = 50 Qs OSPE = 20 Qs Histopathology = 10 Qs	60%	60%
	Annual Report Continuous evaluation			
R4	Annual Report	Continuous evaluation	100%	60%
	Written	100 MCQ Basic 100 MCQ Clinical	200%	70%
2 <sub>nd</sub> part of exam	Clinical	1. OSPE - Histopathology = 5 - Clinical = 20	25%	
		2. OSCE Station (10 stations)	10%	70%
3. Short cases (4 cases)		40%		
		4. Oral (5 stations)	25%	

## Department of Dermatology Residents' Assessment Form

RESIDENT NAME:		TRAINING YEAR:	R1	R2	R3	R4
ROTATION:		ASSESSMENT PER	IOD:			
CONTRIBUTORS to t	he EVALUATION:					

Scale Key: Please compare the resident with other residents at his/her training level:

- 1. N/A Not Applicable: There was no opportunity to enable evaluation of this item.
- 2. Unsatisfactory\* Clearly inadequate, incapable, and/or not improving.
- 3. Borderline/Marginal\*- Inconsistently meets expectations for the domain being evaluated.
- 4. Meets Expectations A solid performance for his/her level in the program the majority of residents will fit into this category
- 5. Exceeds Expectations\* Performed in a fashion that exceeds the expectations for most residents in the program and equals the performance of advanced residents and experienced practitioners.

This rating should be given to only a small number of residents and would place them at the > 90th percentile.

\*Written comments should accompany and support this rating.

Please note that observed progress and evaluation should incorporate sequential integration of prior learning, new knowledge, and skills

	COMPETENCIES	N/A	2	3	4	5	COMMENTS
	A. COMMUNICATION SKILLS						
1	Ability to elicit relevant, concise, and accurate history from patient/parent(s)						
2	Ability to present clinical data in an organized, problem- oriented manner during rounds						
3	Ability to effectively discuss relevant information with attendings, patients/families, and the health care team						
4	Adequate, appropriate, and organized documentation						
	B. MEDICAL EXPERTISE DEVELOPMENT: KNOWLEDGE/CLINICA JUDGEMENT/SKILLS/PERFORMANCE	L					
5							
6	Knowledge of common problems (related to their subspecialty and level of training)						
7	Accurate and efficient in conducting a complete and problem- focused physical examination (must be witnessed even if partially noted) e.g., cardiac, neurologic, developmental exam).						
8	Formulation of differential diagnoses, ability to prioritize and solve problems.						
9	Interpretation of relevant laboratory and diagnostic imaging tests						
10.	Competency in performance of procedural tasks related to subspecialty						
11.	Recognition and performance in acute and emergency situations						
	C. HEALTH CARE ADVOCATE						
12.	Identifies important determinants of health that are affecting patients, (e.g. poverty, socio-economic status)						
13.	Recognizes opportunities for and provides health promotion and anticipatory guidance, (e.g. recommending immunization)						

	COMPETENCIES	N/A	2	3	4	5	COMMENTS
	D.COLLABORATOR and MANAGER						
14.	Utilizes resources effectively and orders laboratory tests where appropriate.						
15.	Displays appropriate time management skills. Prioritizes tasks and performs procedural interventions in a timely and efficient manner						
16.	Understands own limitations, seeks help when required, receptive to constructive criticism, and able to adequately accept feedback.						
17.	Ability to function in a multidisciplinary team setting		П				
18.	Ability to follow up on remaining issues in a timely fashion						
	E. SCHOLARLY ACTIVITY						
19.	Ability to execute a systematic search for evidence (literature review, chart audit, etc.) in order to optimize clinical decision-making and clinical care						
20.	Ability to critically appraise sources of medical information						
21.	Teaching ability (formal/informal, e.g., clinical clerks, juniors)						
	F. PROFESSIONAL ATTITUDE AND PERFORMANCE						
22.	Demonstrates initiative in achieving educational objectives, (e.g., preparation for rounds, reading of cases, suggestions on how to						
23.	Courteous and respectful (to patients/parents and staff).  Open minded to the needs and expectations of parents.  Active listener.						
24.	Displays empathy for sick patients and their families						
25.	Demonstrates gender and cultural sensitivity						
26.	Displays dedication/enthusiasm, a sense of responsibility, and punctuality						

27.	Delivers the highest quality of care with integrity, honesty, and compassion			
28.	Displays and is able to handle an appropriate level of responsibility for their level of training			
F. OV	ERALL COMPETENCE			
29.	Overall assessment of the rotation			
Strengths	C .			
Areas rec	uiring improvement:			
Other con	nments:			
Resident's	s comments:			
Total Sco	re x 20% = No. of Evaluated	_ Item	s	
Evaluatio	n reviewed with resident: YES/NO			
Resident	Signature:			Date:
Evaluator	Signature:			Date:
Does the	resident need to repeat the rotation?			YES/NO
Program	Director			
Signature	:			Date:

### **Guidelines for Mentor**

**Trainee Support and Mentoring** 

**Guidelines for Mentor:** A mentor is an assigned faculty supervisor tasked with the professional development of the residents under his/her responsibility. Mentoring is the process by which mentors provide support to the resident. A mentee is the resident under the supervision of the mentor.

**Needs**: Post-graduate residency training is a formal academic program for residents to develop their full potential as future specialists. This is potentially the last substantial training program before they become independent specialists. However, unlike the undergraduate program, which has a well-defined structure, residency training is inherently less organized. Residents are expected to be present in clinical settings delivering patient care. They are rotated through multiple sites and sub-specialties.

This structure of residency program, while necessary for good clinical exposure, also lacks an opportunity to create a long-term professional relationship with a faculty member. Residents may feel lost without proper guidance. Moreover, without a long-term longitudinal relationship it is extremely difficult to identify a struggling resident. Residents also struggle to develop a professional identity with the home program, especially when they are rotating away and partaking in other disciplines for a long duration.

Finally, the new curriculum has a more substantial work-based continuous assessment of clinical skills and professional attributes. Residents are expected to maintain a logbook, complete mini-CEX and DOPS, and meticulously chart their clinical experiences. This requires a robust and structured monitoring system with clearer accountability and defined responsibilities.

**Nature of Relationship:** Mentorship is a formal yet friendly relationship. This is a partnership between the mentor and resident (i.e., the mentee). Residents are expected to take the mentoring opportunity seriously and help the mentor to achieve the required outcomes. The mentor should receive a copy of any adversarial report by other faculty members concerning the resident.

#### Goals

- Guide residents towards personal and professional development through continuous monitoring of their progress
- Early identification of struggling residents as well as high achievers
- Early detection of residents who are at risk of suffering emotional and psychological disturbances
- Provide career guidance

#### Roles of the Mentor

The primary role of the mentor is to nurture a long-term professional relationship with the assigned residents. A mentor is expected to provide an "academic home" for the residents so that they can feel comfortable in sharing their experiences, expressing their concerns, and clarifying issues in a non-threatening environment. A mentor is expected to keep sensitive information concerning the residents in confidence.

A mentor is also expected to make appropriate and early referrals to the Program Director or Head of the Department if s/he determines a problem that requires expertise or requires resources that are beyond his/her capacity. Examples of such a referral might include:

- Serious academic problems
- Progressive deterioration of academic performance
- Potential mental or psychological issues
- Personal problems that interfere with academic duties
- Professional misconduct, etc.

However, the following are NOT expected roles of a mentor:

- Providing extra tutorials, lectures, or clinical sessions
- Providing counseling for serious mental and psychological problems
- Becoming involved in residents' personal matters
- Providing financial or other material support

#### Roles of the Resident

- Submits a resume at the beginning of the relationship
- Provides the mentor with medium (1–3 years) and longer term (3–7 years) goals
- Takes primary responsibility in maintaining the relationship
- Schedules monthly meetings with the mentor in a timely fashion; do not request ad-hoc meetings, except in an emergency
- Recognizes self-learning as an essential element of residency training
- Reports any major events to the mentor in a timely fashion

#### Who can be mentor?

Any faculty member of consultant grade and above within the residency program can be a

mentor. No special training is required.

### Number of residents per mentor

As a guideline, each mentor should not have more than 4–6 residents. As much as possible, the residents should come from all years of training. This will create an opportunity for the senior residents to work as guides for the junior residents.

### Frequency and duration of engagement

The recommended minimum frequency for meetings is once every four weeks. Each meeting may take 30 minutes to 1 hour. It is also expected that once assigned, the mentor should preferably continue with the same resident for the entire duration of the training program or for at least two years.

## Tasks during the meetings

The following are suggested tasks to be completed during the meetings:

- Discuss the overall clinical experience of the residents, with particular attention to any concerns raised
- Review the logbook or portfolio with the residents in order to determine whether the resident is on target to meeting the training goals
- Revisit earlier concerns or unresolved issues, if any
- Explore any non-academic factors seriously interfering with training
- Document excerpts of the interactions in the logbook

### Mandatory reporting to the Program Director or Head of the Department

- Consecutive absence from three scheduled meetings without any valid reasons
- Unprofessional behavior
- Consistent underperformance in spite of counseling
- Serious psychological, emotional, or health problems that may potentially cause unsafe patient care
- Any other serious concerns the mentor may have



## الهيئة السعودية للتخصصات الصحية Saudi Commission for Health Specialties