The Arab League
Council of Arab Health Ministers
The Arab Board of Health Specializations
General Secretariat

جامعة الدول العربية
مجلس وزراء الصحة العرب
المجلس العربي للاختصاصات الصحية
الأمانة العامة

المجلس العلمي للأمراض الجلدية والتناسلية

Scientific Council of Dermatology and Venereology

دليل اختصاص طب الجلد التجميلي

Guidebook of Cosmetic Dermatology

37	الإطلاق	2020
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Arab Board of Cosmetic Dermatology:

Program Goals:

The purpose of this board is to design a high quality Cosmetic Dermatology Fellowship Program that will meet the highest standards of education and training for the dermatologists enrolled in this fellowship. The principal goal of this fellowship is to promote academic and clinical excellence in the rapidly developing field of cosmetic dermatology in the Arab World, placing the dermatologists in the forefront and the Arab board of Dermatology as the leading society in this field.

Participating Fellowship-Training Programs must meet the guidelines specified in this document, and most importantly be staffed by expert dermatologists with subspecialties in Cosmetic Dermatology in order to train fellows properly to perform cosmetic dermatologic procedures.

Each training site will be reviewed and site visits will be conducted periodically to ensure the abidance of the training program with the requested guidelines in order to keep the highest standards of this fellowship training.

The program is designed as one academic year. The candidate will be granted a Fellowship in the Arab Board of Cosmetic Dermatology, only upon successfully passing all the assessments and evaluations and completing all the necessary requirements as specified in the manual.

Fellowship Training Sites and Teaching Faculty

The fellowship includes multiple training sites. Each site will have a designated fellowship c0-director and teaching faculty members. The teaching faculty (fellowship c0-director and other teaching faculty members) should be Board certified dermatologists (Arab Board, American Board, European Board, Royal Collage, or other acceptable Boards), with accredited fellowship training in

Cosmetic, Laser, Photo, and/or surgical dermatology and more than four years of experience in performing cosmetic dermatology procedures. The teaching faculty should be role models with high levels of professionalism, ethical behavior as well as clinical and research expertise. The teaching faculty should have performed a minimum number of cases specified by the fellowship. Case experiences including case records or logs of the fellowship co-director and the faculty members should be documented and submitted each year by the training site in order to be approved for training for the following year. All teaching faculty should submit their curriculum vita and case logs as well as information about the training site (including the available energy-based devices, other cosmetic machines, available dedicated space) to be approved by the President and Vice President of the Arab Board of Dermatology and the Head of the Arab Board of Cosmetic Dermatology committee.

The number of fellows accepted in this program will be determined each year, depending on the available number of highly qualified training sites fulfilling the necessary guidelines.

For each fellow being accepted for training, the sites involved in training should have performed 1,000 ***combined*** cosmetic cases in the specified categories per year in the previous year. For two fellows, three fellows, four fellows or five fellows accepted for training, the sites involved in training should have performed 2000, 3000, 4000 0r 5000 ***combined*** cosmetic cases in the specified categories per year in the previous year. These numbers will enable the fellows to have more hands-on experience and more one-on-one faculty: fellow learning opportunities by highly trained and experienced faculty.

Direct supervision of the fellows in training by the teaching faculty is crucial with continuous discussion by the faculty of competencies, side effects and complications of the cosmetic procedures during daily interactions. The fellow is required to be involved in teaching residents and medical students as well.

Fellowship Requirements

The Cosmetic Dermatology fellowship is a one academic year of training, subject to extension. Registration for this fellowship is once per year, beginning 15th of January and ending on 1st of April each year.

This is a very competitive fellowship, which is restricted to Dermatologists. It is

targeted to attract highly qualified dermatology residents with high academic scores. The applicants should be board-certified in dermatology (Arab Board, American Board, European Board, Royal Collage, or other acceptable Boards).

Research experience and publications are preferable. Once the assigned committee reviews the curriculum vita, the selected candidate will be invited for an interview. Finally, an acceptance letter will be issued to the selected candidate.

The number of accepted candidates might vary each year depending on the training sites, teaching faculty and the quality of the applicants. There will be a registration fee for all applicants and fellowship-training fee once acceptance is issued.

The fellows should observe a total of **1000** cosmetic cases during this fellowship, and should either perform or assist in a total of **240** cosmetic dermatology cases (included in the 1000 cases) in all the categories specified in the manual, with a minimum number specified in each category. These cases should be performed under the direct supervision of the teaching faculty.

The fellow is required to complete the entire year of training even if the required number of cases is completed before the end of the academic year. Furthermore, the fellow is expected to submit a full case log of all cases he/she has observed, performed or assisted before the conclusion of the fellowship. Failure to complete the required cases on time will jeopardize graduation from the fellowship program.

In addition, the fellow should receive either didactics or discussions in all of the specified areas of cosmetic dermatology.

The fellows are also required to attend anatomy course and Laser Safety Course before the end of their fellowship, preferably during the first quarter. List of possible anatomy and Laser Safety courses will be provided to the fellows.

Furthermore, the fellows are also required to prepare and deliver multiple lectures on different areas of cosmetic dermatology to the teaching faculty, residents or students during the fellowship year. A list of required didactics will be provided at the beginning of each academic year, to be delivered by either the teaching faculty or the fellow.

In addition, the fellows are required to complete one clinical research project,

write the manuscript and submit it for publication before their graduation. The fellows are encouraged to present abstracts of their work in local, regional and international Dermatology meetings.

Furthermore, the fellow should complete 25 CME credits in cosmetic dermatology, anatomy or basic dermatology.

Finally, there will be a written exam, an OSCE (objective structure clinical examination) as well as an oral exam at the end of the fellowship training. The fellow should obtain a passing score of at least 70/100 to be certified by the Arab Board of Cosmetic Dermatology. The applicants are allowed a maximum of three attempts to pass. These attempts should be within 3 years from the end of the fellowship year. Unjustified failure to attend is considered a failed attempt.

Required Procedures

1. Wrinkles and Folds (Neuromodulators, Soft Tissue Fillers)

2. Rejuvenation (Microdermabrasion, Non-ablative Laser and Light-based Treatments, Non-ablative Fractional Resurfacing, Superficial Chemical Peels, PRP, Microneedling)

3. Resurfacing (Medium to Deep Chemical Peels, Traditional Ablative Laser Resurfacing, Dermabrasion, Ablative Fractional Laser Resurfacing)

4. Telangiectasias, facial and legs, (Vascular Laser, Pulsed-light Therapy)

5. Body Contouring (Cryolipolysis, Laser Lipolysis, Ultrasound/Radiofrequency Fat Removal, Ultrasound/Radiofrequency Tissue Tightening, Other Energy-based or Chemical Modalities)

6. Hair Treatments (Laser Hair Removal, PRP)

7. Scars- Acne, surgical (Fractional/Vascular Laser, Acne Scar Excision, Subcision, TCA/CROSS, Injection Treatment)

8. Elective procedures.

Procedures	**Minimum # Cases Performed/ Assisted***	**Minimum # Cases Observed**
Wrinkles and Folds	**60**	**180**
Neuromodulators		
Soft-tissue Fillers *Must include specific training in all FDA-approved types: calcium hydroxylapatite, poly-L-lactate, hyaluronic acid fillers*		
Rejuvenation	**30**	**90**
Non-ablative Laser and Light-based Treatments *Must include specific training in pigmented lesion lasers and vascular lasers.*		

Non-ablative Fractional Resurfacing		
Superficial Chemical Peels		
Platelet Rich Plasma treatments (PRP)		
Microneedling		
Resurfacing	**10**	**30**
Medium to Deep Chemical Peels Traditional Ablative Laser Resurfacing		
Ablative Fractional Laser Resurfacing		
Dermabrasion		
Telangiectasias- facial and legs	**10**	**30**
Vascular Laser		
Pulsed-light Therapy		
Body Contouring *Each area on each person can be counted as a separate case* Cryolipolysis	**25**	**45**
Laser Lipolysis		
Ultrasound/Radiofrequency Fat Removal		
Ultrasound/Radiofrequency Tissue Tightening		

Other Energy-based or Chemical Modalities		
Hair Treatments	**20**	**35**
Laser Hair Removal		
PRP		
Scars- Acne, surgical	**15**	**30**
Fractional/Vascular Laser		
Acne Scar Excision		
Subcision		
TCA/CROSS		
Injection Treatment **		
Elective Procedures	**70**	**560**
TOTAL	**240**	**760**
TOTAL NUMBER of REQUIRED CASES	**1000**	

*assisted means participating in at least 50 percent of the procedure as primary surgeon.

**excluding intralesional corticosteroids, local anesthetics or injections elsewhere in this table.

Appendix

Cosmetic Dermatology Fellowship Program Curriculum

Anatomy and Physiology

1. Classic anatomy
2. Topographical features and underlying bony and cartilaginous structures
3. Blood supply of the face
4. Sensory innervation of the head and neck
5. Motor innervation of the head and neck
6. Muscles of facial expression
7. Characteristics of the skin in different cosmetic unit
8. Relaxed skin tension lines, cosmetic units and junction lines
9. Physiology of the skin and soft tissues
10. Microscopic anatomy of the skin and subcutaneous tissues
11. Photo-aging and intrinsic aging

Chemical Adipocytolysis

1. New drug for disruption of fat cell membranes and adipocyte destruction

2. Non-animal derived deoxycholate

3. Pharmacologic variant of “mesotherapy”

Chemical Lipolysis

(in drug development pathway; not yet FDA approved)

1. Subcutaneous drug for nonablative local fat reduction

2. Existing approved pharmacologic agent

3. Salmeterol xinafoate [SX] and fluticasone propionate [FP] (Advair)

4. Eight weekly sessions

5. Reported fat reduction of approximately 200 cc

Dermabrasion

1. Preoperative assessment of scar/scarring

2. Careful review of patient history for:

   a. History of abnormal scarring/hypertrophic scars/keloids

   b. History of connective tissue abnormalities

   c. Recent treatment with isotretinoin

   d. Age of scar

   e. History of HIV/Hepatitis/other blood-borne diseases

3. Anesthesia – local and blocks

4. Procedure

   a. Choose appropriate equipment – 100 gr sandpaper vs. diamond fraise vs. wire brush

   b. Perform resurfacing in two directions to prevent “stroke effect”

5. Postoperative care – occlusive dressing with Vaseline or other appropriate wet care

Ethics

1. The ideals of medicine
2. Personal integrity and accountability
3. Ethical accountability in physician-patient relationships
4. Boundary violations in physician-patient relationships
5. Professional accountabilitiy, licensing and discipline
6. The physician and public accountability

Evidence-based medicine

1. Categories used to rank the quality of evidence

2. Statistical measures used to express the clinical benefits of an intervention

3. How to evaluate the quality, limitations and generalizability of clinical trials

Laser Surgery

1. Nature of light energy

2. Biology of laser tissue effects with various lasers

3. Indications

4. Skin-type assessment

5. Pre- and post-operative patient care

6. Complications

7. Laser safety: safety/protection of patient and operating room personnel, eye protection and infectious disease risk

8. Laser treatment of cutaneous vascular lesions

9. Laser of benign pigmented cutaneous lesions

10. Intense pulsed light

11. Treatment of tattoos

12. Hair removal with laser

13. Ablative and non-ablative skin resurfacing

14. Photodynamic therapy

15. Lasers/light for acne

16. Prophylactic antiviral/antibiotics

17. Anesthesia for cutaneous laser surgery

Mesotherapy

1. History

   a. Developed 1948 in France for lymphedema, musculoskeletal pain, dental pain

   b. Nerotic and fat reductive effects shown on rats, using MRI, human biopsies

2. Technique

      a. Used with injection or “Pistor gun”

3. Ingredients for fat reduction

      a. Phosphatidylcholine and sodium deoxychlate

b. Deoxycholate, a bile salt/detergent, is active ingredient which emulsifies fat

4. Indications

a. Human treatments of submental area and abdominal fat

5. Treatment Course

a. Multiple spaced subcutaneous injections to cover field

b. Intense inflammation, edema, erythema, bruising within 24 hours

c. Inflammation and pain for 1 week

d. Gradual fibrosis and fat reduction within several weeks

e. Several treatment cycles required

6. Treatment of Adverse Events

a. Subcutaneous nodules

b. Atypical mycobaterial infections (due to injectant contamination)

c. FDA scrutiny due to use of compounding pharmacies

Neuromodulators

1. Evaluation

2. Indications

3. Contraindications

4. Technique

5. Complications/follow up

Photographic Reproduction

1. Use of equipment

2. Photographic informed consent

3. Use of images (e.g., medical records / publication / presentation)

4. Patient’s right to privacy

Resurfacing

1. Chemical Peels – light, medium, deep

2. Subscision

3. Dermabrasion

4. Laser

5. Non-ablative

Scar Revision

1. Principles of wound healing

2. Scar formation

    a. Normal

    b. Hypertrophic

    c. Keloid

3. Recognition and management of suboptimal scar

    a. Hypertrophy

    b. Keloid

    c. Dyschromia

    d. Erythema

e. Wound contracture

f. Other

4. Resurfacing

a. Dermabrasion

b. Shave abrasion

c. Skin graft

d. Laser

5. Non-surgical approaches

a. Intralesional and topical steroids

b. Silicone gel sheeting

c. Massage

Soft-tissue Fillers

1. Ideals of beauty

a. a. Mathematics of symmetry

b. b. Principles of facial shape and harmony

2. Facial anatomy and mapping

a. Facial aesthetics and changes associated with aging

b. The use of mathematical principles and proportions to achieve excellent filler results

c. Avoiding, diagnosing and treating complications

3. Evidence-based approach to patient assessment

4. Pre-procedural patient counseling (blood thinners/advise on stopping

unnecessary bruise-causing medicines [e.g., ibuprofen], counseling on bruise-associated down-time, risks and benefits of arnica, what patients should be asked about autoimmune/connective tissue diseases, previous use of fillers / injectables and any adverse reactions, allergies especially to lidocaine and/or topical anesthetics)

5. Informed consent

    a. Video consultations and consents

    b. Off-label use

6. Molecular structure and mechanisms of filler action
7. The hyaluronic family and calcium hydroxylapatite
8. Long standing fillers and implants

    a. Poly-l-lactic acid

    b. Silicone

    c. Collagen-PLLA

    d. Permanent implants

9. Treatment planning and managing expectations

    e. Patient preparation and comfort

    f. Anesthesia pearls

10. Regional uses – technique for:

    a. Lips

    b. Forehead and glabellar regions

    c. Periorbital area and tear trough

    d. Nasolabial and perioral areas

e. Marionette lines and the pre-jowl sulcus

f. Mandibular border

g. Mid-face and temple volumizing

h. Dorsal nose

i. Scars and acne scars

j. Aging hands

k. Temples

l. Ear lobes

11. Filler and injectable safety

a. Hyaluronidase

12. Optimizing injectable outcomes

13. Minimizing tools and maximizing results

a. Cannulas

b. Assisted filler injection devices

14. Managing complications

15. Advanced techniques

Surgical Technique

1. Antiseptic preparation

a. Surgical site preparation

i. Choice of antiseptic solution

ii. Skin prep technique

b. Staff preparations

i. Hand washing/surgical scrubbing
j. ii. Gowning and gloving

c. Surgical site draping

d. Instrument handling and sterility

2. Anesthesia ;

a. Topical

b. Local

c. Regional

d. Special considerations

i. Preoperative anxiolytics

ii. Conscious sedation

Ultrasound / Radiofrequency / Infrared Tissue Tightening

1. Underlying scientific basis

a. Dermal and subcutaneous zones of thermal injury
b. Placement of thermal coagulation zones close together at various levels of depth
c. Known and postulated effects

i. Immediate dermal tissue-tightening via thermal contraction

ii. Contraction of fibrous septae of fat

iii. Collagen remodeling over 60-90 days

iv. Possibly effects on SMAS

2. Indications for use/patient selection

    a. For patients with early wrinkles or laxity who do not desire surgical treatment

    b. Limited effectiveness in severe sagging or when loss of substructure

    c. Need for counseling due to idiosyncratic ineffectiveness in a subset of patients

3. Expected outcomes

    a. Best-case scenario of modest tightening (2 mm browlift, midface tightening, jawline and neck improved definition)

    b. Duration of effect: unknown, likely months to years, but reduced by continued aging

4. FDA-approved indications

    a. Initial indication for brow elevation

    b. Subsequent additional indications for non-invasive aesthetic lift

5. Preoperative care

    a. Premedication with benzodiazepines, narcotics, and/or topical anesthesia, if desired

    b. Medicated patient may need to arrange for transportation

    c. Oral antivirals in patients with history of herpes infection may be indicated

    d. Consider discontinuation of aggressive facial regimen (e.g., topical retinoids one week prior)

6. Intraoperative cautions

    a. Remind patient of likely significant warmth and slight discomfort

b. Ensure familiarity with equipment, use of valid protocols, use on non-expired tips

c. Use appropriate eye protection when treating periorbital area

d. Do not treat over ocular globe or aggressively over bony protuberances

e. Severe pain may be a sign of overtreatment or other problems – cease treatment

f. For patients unable to tolerate higher energy treatments, consider multiple passes with lower energies as these have been shown to be nearly equally effective and sometimes better tolerated

7. Common expected post-operative course

a. Erythema and edema for one to several days

b. Residual tenderness managed by OTC drugs or mild narcotics

8. Uncommon to rare adverse events

a. Severe ecchymoses

b. Local atrophy (“footprints in the snow” corresponding to treatment tip)

c. Wheals and plaques d. Erosions and ulcers

e. Hypo- and hyperpigmentation

f. Dysesthesia (persistent)/nerve injury

g. Ocular injury (during periorbital treatment)

h. Scar

9. Management of adverse events

a. Rapid return to clinic for evaluation
b. Consider topical steroids for local tissue reaction
c. If erosion/ulcer, consider culture and appropriate treatment

d. If persistent severe pain after treatment, consider oral steroids
e. If nerve injury or ocular injury suspected, consult appropriate specialists

10. Typical post-treatment course

a. Swelling and redness x 1 week

b. Partial return to baseline over ensuing weeks, with some loss of apparent loss of tightening and wrinkle reduction as swelling remits

c. Additional benefits visible after 60-90 days, when collagen remodeling occurs

11. Retreatment

a. One treatment may be enough

b. Select devices may require recurrent

treatments

c. If repeat treatments are desired, may be

appropriate to deliver these after intervals of at least 90 days or greater to ensure collagen remodeling benefit from prior treatment is seen

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Wound Healing

1. Basic science

a. Phases of wound healing

b. Tensile strength

c. Theories of epidermal and dermal wound healing

2. Factors that influence wound healing

a. Environmental

b. Local

c. Systemic

d. Genetic

3. Anatomic and skin type considerations

4. Microbiology

a. Normal skin flora

b. Pathogenic organisms

5. Biomechanics and histology of normal skin and scars

6. Wound dressings

a. Materials

b. Technique