SAUDI COMMISSION FOR HEALTH SPECIALTIES

SAUDI SPECIALTY CERTIFICATE IN PLASTIC SURGERY TRAINING PROGRAM

BOOKLET OF INFORMATION

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SAUDI SPECIALTY CERTIFICATE
IN
PLASTIC SURGERY

1) Introduction:
This is a National Structured Programme for Training in Plastic Surgery.

This national program governs any affiliated regional programs. The regional program is managed by its own regional committee, and all regional committees are governed by the rules and regulations of the central committee for plastic surgery.

The program encompasses education in basic sciences, training in cognitive and technical skills development of clinical knowledge and maturity and acquisition of surgical judgment.

The program provides experience in preoperative, and post operative care of patients in all areas that constitute the principle components of plastic surgery including burns, hand, congenital craniofacial, reconstructive, cosmetic and microvascular surgery.
Objectives

2-a) General Objectives
To train and graduate residents in the field of plastic and reconstructive surgery that will lead to specialist certification and enable them to function independently.

To provide the trainee with an educational environment that will promote standards of care by acquiring advanced and practical expertise in the various disciplines of plastic surgery.

2-b) Specific Objectives
At the end of training, the candidate should have the following capabilities and skills:

1. A sound knowledge in the principles of plastic surgery (appendix 1)
2. Formulate a reasonable and comprehensive differential diagnosis and recognize common disorders in the specialty as well as many of the rare ones, especially those amenable to treatment
3. Recognize emergency situations and manage them effectively
4. Select relevant investigations logically and conservatively, and interpret their results accurately
5. Manage common problems in plastic surgery and possess knowledge of management alternatives (appendix 2)
6. Perform many surgical diagnostic and therapeutic procedures and operations specially those used in management of emergencies and common surgical problem.

7. Communicate with the patients, their relatives and colleagues
8. Keep orderly and informative medical records
9. Educate himself and others in the field of plastic surgery
10. Advice colleagues from other specialties with regards to problems related to plastic surgery

11. Posses high ethical and moral standards

NOTE: A detailed curriculum of subjects in plastic surgery is detailing in depth subjects and knowledge scope is present separately from this booklet.

3) TRAINING CENTRE REQUIREMENTS:

3-a) Regional Program:
A regional program should have at least 3 accredited training centers in order to be able to operate independently.

Each of these centers must fulfill the criteria set by the Central Committee for Plastic Surgery Training Program to be an accredited center.

3-b) Training Center:
Each training center must fulfill the criteria for accreditation by the Saudi Council for Health Care Specialties.

Each center must fulfill the separate requirements set forth by the Plastic Surgery Specialty Program Central Committee, these are provided separately.
4) ADMISSION REQUIREMENTS

To be accepted in the training programme, the candidate has to comply with the following requirements:

4-a. A Medical Degree (MBBS) or equivalent from a recognized university.

4-b. Successful completion of rotating internship for 12 months.

4-c. Passing an admission examination of the SCHS.

4-d. Passing an evaluation by the Plastic Surgery Selection Committee.

4-e. Presenting of three (3) recommendation letters from three consultant physicians, preferably plastic surgeons that the candidate is of good standing and is suitable for training in plastic surgery.

4-f. Provision of a letter from sponsoring organization approving that the candidate can join a full-time training for the whole period of the programme (6 years).

4-g. Signature of an obligation to abide by the rules and regulations of the training programme and the Saudi Board of Surgery.

4-h. Registration as a trainee at the Saudi Council for Health Specialties.

4-i. Applicant should have satisfactory moral and ethical standing.

4-j. Payment of admission and training fee.

4-k. Other conditions and requirements could be requested as needed from the central committee.
5) TRAINING REQUIREMENTS

5-a. Training is a full-time commitment. Residents shall be enrolled in continuous full time training for the whole period of the programme.

5-b. Training is to be conducted in institutions accredited for training by the Saudi Board of Surgery – Committee of Plastic Surgery.

5-c. Training shall be comprehensive and includes in patient, ambulatory and emergency room care.

5-d. Trainee shall be actively involved in patient care with gradual progression of responsibility.

5-e. Trainees shall abide by the training regulations and obligations as set by the Saudi Board of Surgery.

5-f. Trainees should not be working in any other institution private or governmental during the full period of training programme. Violation of this rule can lead to suspension or dismissal from the Program.
6) STRUCTURED TRAINING PROGRAMME:

This is a national graduate six (6) year program of structured training in plastic surgery which shall be allocated for rotations in various surgical specialties.

The program is structured into blocks:

6-a) The first two (2) years (Core Surgical Years)

This is structured into 3 months rotation. It should be carried out only in approved sites for training program in each subspecialty.

Objectives:
- provide basic surgical skills and knowledge
- provide residents with exposure to surgical specialties that is important for plastic surgeons to be familiar with

a) Mandatory rotations:
- 3 Months accident and emergency
- 3 Months intensive care unit
- 3 Months orthopedic surgery
- 3 Months plastic surgery
- 6 Months general surgery

a) Elective rotations:
The resident can choose Two rotations of any of the following:
- 3 Months vascular surgery
- 3 Months pediatric surgery
- 3 Months ENT
- 3 Months oral surgery
- 3 Months neurosurgery

Applicants who fulfill the above rotations successfully advance to the 3rd year of plastic surgery residency.

N.B. During these 2 years, the trainees are required to attend the plastic surgery programme activities.
6-b) **Four (4) years plastic surgery:**

a) **R3 and R4 Junior resident rotation in plastics:**

The resident will rotate for 3 Months rotations in the approved centers of the regional program. He can however, rotate in the same center more than once based on the requirements of the program.

**Objectives:**

- expose the resident to all fields of plastic surgery
- supervise the resident performing simple and less complicated procedures
- allow the resident to participate in major plastic procedures

The resident must pass the first part of Saudi Specialty Examination before being promoted to R4.

b) **R5 and R6 Senior resident rotation in plastic surgery:**

The resident rotates for a minimum of 6 month rotations in the approved centers of the regional program. He can however, rotate in the same center more than once based on the requirements of the program.

**Objectives:**

- The resident will be a Senior resident rotating in that center and as such he will be fulfilling the role as Chief resident of the division of plastic surgery in the hospital for at least 3 months period
- To guide the resident and allow him to perform most of the plastic surgery procedures and acquire independence
- Supervise junior residents clinical and academic activities

7) **NUMBER OF RESIDENT'S POSITIONS:**

The number of available slots of training and the level which they are accepted in will be decided at the beginning of each year by the regional committee, this is in order to ensure that senior resident positions (R5 & R6) currently and in the future will not exceed significantly the number of training center in the region and as such ensure that each senior resident will have adequate chance of practical experience.
8) FACILITIES:
The residents will have access to all teaching facilities provided by all participating hospitals, the residents will also have access to outpatient clinics, operating rooms, outpatient surgery of the hospital he/she is attached to during the rotation.

9) RESPONSIBILITIES:
1. Trainees shall be responsible for the patient care including clerking, follow-up completion of medical history, physical examination investigations & follow-up of their results, plan of management preparation for surgery including consents, operative record and post operative orders and discharge summaries.
2. Trainees shall attend the specialty surgical out patient clinics at least once weekly and participate in management plans of surgical patients under supervision of senior staff members.
3. Trainees shall attend and participate in the operative sessions conducted in the operating rooms, out patient or day surgery units.
4. Trainees shall maintain healthy relation with patient, relatives, colleagues and hospital staff.
5. Trainees shall maintain confidentiality and ethics of the profession.
6. Trainees shall have the ability to communicate with the patients and other healthcare providers. It is an essential part of becoming a consultant. Along with that, is the attitude towards self-teaching and self-motivation, towards learning and performing clinical research.
7. Publications
During the training, the resident is expected to publish at least one retrospective chart review and one case report.
10) CONTENT OF TRAINING:

Upon completion of the training programme, the trainee should have gained sound and solid knowledge in the principles of surgery and the pathophysiology of surgical illnesses. He should have gained enough clinical and technical experiences to practice as a safe and competent plastic surgeon especially in the management of emergency and urgent surgical illnesses. He should be able to assess, evaluate and diagnose general problems and safely manage them. The contents of training include the following:

10-a) Academic and Clinical Activities
Trainees are required to attend and participate in the academic and clinical activities of the department, such as ward rounds, grand rounds, journal club, surgical pathology, radiology and other activities. Attendance and participation should not be less than 75% of the activities within any training rotation/period.

During these rotations, the resident is expected to show a progress towards independent care in all facets of plastic surgery including the diagnosis, investigations, management plans for both acute and chronic care.

10-b) Operative Procedures and Skills
Competence in the technical aspects of plastic surgery as it applies in the ward or in the operating room is an essential part of the training. These technical skills should be based on sound clinical judgment and training will be supervised by the consultant, throughout the years.
11) LOGBOOK

The trainee shall be required to keep a logbook wherein he shall record all activities and skills performed and learned during the training programme. The activities should be dated and categorized to the period/rotation of training and to whether it has been performed by the trainee himself or as an assistant or participant. Each activity registered in the logbook should be countersigned by the trainer, and an evaluation of rotation to be countersigned by the Programme Director when deemed complete.

Contents of the logbook include:
1. Operative procedures and technical skills acquired during the training period.
2. Major invasive and non-invasive diagnostic, monitoring procedures performed or learned.
3. Participation and attendance of symposia, conferences, workshops and training courses.
   a) Research Activity (Optional)
      During the residency, the resident would be expected to:
      1. Conduct one retrospective chart review and submit the finding for publication.
      2. Submit one case report for publication.
   b) Conferences
      The resident is encouraged to attend all conferences held by the Plastic Surgical Section and the Department of Surgery, including surgical grand rounds, mortality and morbidity conferences, plastic surgical pathology conferences and Riyadh Surgical Club meetings.

      The resident will be responsible in presenting cases to case references and to give lectures and grand rounds on topics of his/her interest.
12) VACATIONS, HOLIDAYS AND ON-CALLS

12-a) Residents are entitled to four (4) weeks vacation annually and a maximum of seven (7) days for both Eid holidays and emergency leave.

1. The trainee is entitled to an annual leave of twenty eight days in addition to one of the Eid’s leave.
2. Sick leaves, maternity leaves and exceptional “emergency” leaves for a period not exceeding ninety days shall be compensated for with an equivalent period of days before the trainee is awarded the Certificate of Training Completion.
3. Leaves that are not utilized in due time within the year shall not be shifted to the coming year.
4. The Training Program Supervisor may, in coordination with the chairman of the Regional Training Committee, grant the trainee a special leave for scientific purpose not exceeding seven days per training year to attend (scientific conferences or seminars in the same or similar Specialty), provided that he/she presents the proof for attending such activities.

12-b) Sick and maternity leave shall be compensated for during or at the end of training.

12-c) On-call duty shall be an average of one every three to four nights (minimum of 7 calls per month, 24 hours per call except when working in emergency room). Residents are expected to perform regular duty the day after call and ensure continuity of care for their patients.

12-d) On-call will be in-house call in the first two (2) years (Core Surgical). In the following four (4) years, resident is allowed to take house on call according to rotation.
13) EVALUATION

13-a) End of rotation
At the end of each training rotation, the supervising consultant/team shall provide the training committee with a written evaluation of the resident’s performance during that period/rotation.

13-b) In-training examinations
Programmes shall incorporate annual written clinical/oral examinations as part of the evaluation process of residents.

13-c) Annual overall evaluation
This includes:
1) Summation of end of rotation evaluation for the year (50% minimum).
2) Result of annual in-training examination (50% minimum).
3) The total annual evaluation should not be less than 60% over all marks.

14) PROMOTIONS

14-a) Annual promotion depends on annual overall performance.

14-b) Promotion to senior resident depends on cumulative overall evaluation.

14-c) For promotion from R3 to R4 the resident should have passed part 1 of the board examination.
15) FIRST PART SAUDI SPECIALTY EXAMINATION
(PART 1 EXAMINATION)

I. Objectives:
   a. To assess the level of knowledge of basic & clinical
      subjects relevant to the specialty required for effectively
      pursuing the specialist training
   b. More specific objectives shall be laid down by each
      specialty for meeting its requirements

II. Eligibility:
   a. Valid registration with Saudi Commission for Health
      Specialties
   b. Successful completion of at least 9 months of first year
      residency training programme approved by the local
      regional supervisory committee of the respective
      specialty.

III. General Rules:
   a. The Part 1 Examination shall be held at least once a year
      in September at one or more centers on the same dates
      for all specialties. However, if the number of failure is 20
      or more, the examination shall be repeated in March of
      the following year.
   b. Even if the number of failures is less than 20, it may be
      repeated in March at the discretion of the Specialty Board.
   c. Passing the Part 1 Examination of Saudi Specialty Board
      is a pre-requisite but not the only one for promotion to
      senior level of residency training.
   d. Candidates are allowed a total of three attempts for
      passing this examination. Those failing in the third attempt
      will be dismissed from the programme unless exempted
      from this rule by the Executive Council and allowed a
      fourth chance.

IV. Examination Format:
   a. A written examination consisting of 100 MCQs (Single
      best answer type) shall be attempted in 2 hours.
16) BOARD EXAMINATIONS

This examination is given to candidates after successful completion of training, as evidenced by acceptable final end of training evaluation. Examination is held at least once per year in one or more of the training centers. Candidates are allowed a total of three (3) attempts to pass this examination within a period of three (3) years after completion of training.

The final examination consists of two (2) parts:

1. Written part: designed to evaluate knowledge of principles of plastic surgery and clinical judgment. Only successful candidates in this part are allowed to sit the clinical/oral part.

2. Clinical/oral part: designed to test clinical skills/abilities and judgment in the field of plastic surgery.

17) CERTIFICATION

This examination is Candidates passing the final board examination are awarded the Specialty Certificate, “The Saudi Specialty Certificate in Plastic Surgery”.
Appendix 1

Principles of Surgery

During the residency, emphasis will be made on the principles of surgery as it pertains to plastic surgery. Comprehensive knowledge of the following is essential:

i. The skin – histology, physiology, biochemistry and its adnexa that includes the lymphatic blood vessels. The same applies to the musculo skeletal system – muscles, tendons, ligaments of the bones and nerves.

ii. Normal and abnormal wound healing

iii. Acute care of burn injury and rehabilitation of burn victims

iv. Embryology, anatomy, pathophysiology of congenital deformities commonly seen in plastic surgery

v. Pharmacology/therapeutics

vi. Pathology and treatment of neoplasia of the skin and the soft tissues specially in the head and neck region

vii. Sepsis and antisepsis as it applies to operative care

viii. Medico-legal and ethical aspects of plastic surgery

ix. Surgical nutrition, fluid and electrolyte balance

x. Implants and Bio-materials

xi. Flaps and Graphs

Anatomy
Classification
Applications

xii. Anesthesia and critical care

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Appendix 2

Clinical Sciences
During these rotations, the resident is expected to show a progress towards independent care in all facets of plastic surgery including the diagnosis, investigation, management plans for both acute and chronic care.

The resident should take every opportunity to develop his/her operative skills. He/she should be well experienced in the use of plastic and micro surgical instruments, diathermy machines, tissue expanders and endoprostheses. He/she should know the principles of and the dangers and safeguards needed in the surgery of the skin and its appendages.

When his/her training is finished the resident should have good experience and skill in the following:

**Burn/skin**
- Debridement and management of acute burns and old burn contractures and deformities
- Management of skin neoplasia
- Laser surgery

**Reconstructive**
- Understand and be capable of utilizing the constructive ladder
- Reconstruction of breast defects
- Trunk and pressure ulcers reconstruction
- Lower and upper limb reconstruction
- This includes grafts, pedicled and free flaps
- Tissue expansion

**Cosmetic**
- Rhinoplasty
- Augmentation/reduction mammoplasty
- Fat injection
- Dermabrasion
- Blepharoplasty
- Body contouring including liposuction
- Otoplasty
Cranio-facial/clip and palate
Cleft lip and palate repair
Velopharyngeal insufficiency treatment
Alveolar bone grafts
Management of secondary problems in all
Facial fractures management principles
Craniosynostosis principles of management
Distraction oseosynthesis principles

Hand/extremities
Acute hand injuries-lacerations-digital nerve and flexor and extensor
tendon injuries
Simple congenital hand deformities such as syndactyly, duplications
Constrictions bands
Pahlengal, carpal fractures and there management
Tendon and nerve grafting
Principles of tendon transfers
digit replantation, and limb revascularization

He/she should, with assistance, have performed the following:

Cosmetic
Face-lift

Cranio-facial lip and palate
Complex congenital cranio-facial reconstruction
Distraction osteosynthesis

Hand/extremities
Digit transfer
Reconstruction for complex congenital hand abnormalities
tendon and muscle transfer
Brachial plexus surgery

Microsurgery/flap reconstruction
Micro vascular tissue transfer

Trunk reconstruction
Complex thoracic reconstruction
Microsurgery
The resident should attend a course in basic laboratory microscopic surgery and obtain a certificate on his ability to perform micro surgical procedures. Following this, he/she should take part in the following micro surgical procedures for:

Free tissue transfer
Re-plantation
Repair of digital nerves

Pediatric Plastic Surgery
The resident should learn the basic management of pediatric surgical patients. The resident should thus have theoretical knowledge and some practical experience of the surgical treatment of:

Cleft lip and palate
Congenital cranio-facial deformities
Congenital limb abnormalities including syndactyly

Medical Imaging
The resident should be able to interpret investigations done for plastic surgery patients such as:
Plain X-rays
CT scanning
Nuclear magnetic imaging

Oncology
The resident should learn the following:

The biological effects and management of the side effects of external irradiation and chemotherapy

The indications of chemotherapy and immunotherapy for skin tumors

The principles of reconstruction in head and neck and breast cancer
Appendix 3

Recommended readings

Textbooks of Plastic Surgery:

1. Plastic Surgery, A Core Curriculum (Mosby) for juniors R1 and R2
2. Mathes Textbook of Plastic Surgery
3. Aston and Smith
4. Georgade
5. Cohen
6. Green Hand Surgery
7. Grabb’s Encyclopedia of Flaps
8. McCraw and Arnold’s Atlas of Muscle and Musculocutaneous Flaps

Journals:

1. Plastic and Reconstructive Surgeon Journal
2. The Annals of Plastic Surgery
3. The Journal of Hand Surgery
4. British Journal of Plastic Surgery
5. Canadian Journal of Plastic Surgery
7. Selected reading list