

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 للجراحة Scientific Council of Surgery

### دليل اختصاص جراحة الأطفال Guidebook of Pediatric Surgery

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## مقدمة

تعتبر جراحة الأطفال من الجراحات الدقيقة الهامة والتي تعني بالجراحات العامة في الأطفال وجراحات حديثي الولادة وتأتي أهمية التخصص من النسبة العالية لهذه الشريحة العمرية في العالم العربي إذ تبلغ هذه النسبة 60% من عدد السكان ومشاكلها الجراحية ذات العلاقة بالعيوب الخلقية.

وكان لزاما التركيز على قيام واستمرار هذا البرنامج والسعي نحو مواكبته للبرامج العالمية الأخرى في ذلك المجال ونسعى لتخريج جراح أطفال متميز علمياً وعملياً.

وبالله التوفيق.

### اللجنة الأكاديمية لجراحة الأطفال بالمجلس العلمي للجراحة

- أ.د. ياسر جمال رئيس اللجنة
- أ.د. عثمان طه نائب الرئيس
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# شهادة الاختصاص في جراحة الأطفال

يمنح المجلس العربي للاختصاصات الطبية شهادة المجلس العربي لجراحة الأطفال

للمتدرب الذي ينهي برنامج التدريب بنجاح ويجتاز الامتحان التحريري والشفوي

والسريري ويطلق عليها:

شهادة المجلس العربي  
لاختصاص جراحة الأطفال العامة

**Certificate of Arab Board  
of General Pediatric Surgery**

**CAB / GPS**

## شروط الالتحاق ببرنامج شهادة المجلس العربي لجراحة الأطفال

الشروط الواجب توافرها في طالب الحصول على شهادة التخصص في  
جراحة الأطفال

يشترط في المتقدم لبرنامج جراحة الأطفال:

- أن يكون حاصلاً على شهادة البكالوريوس في الطب أو ما يعادلها من إحدى الجامعات المعترف بها في البلدان المشتركة في هذا البرنامج أو إحدى كليات الطب المعترف بها عالمياً.
- أن يكون قد أمضى سنة الامتياز بنتيجة مرضية.
- أن يكون المتقدم طبيباً ممارساً.
- تقديم ثلاثة توصيات من استشاريين عمل معهم ويفضل أن يكون أحدهم في جراحة الأطفال متضمناً حسن السيرة والسلوك.
- أن يتقدم بطلب الانضمام للبورء العربي في جراحة الأطفال متضمناً الالتزام بقوانين المجلس العربي والالتزام بدفع الرسوم المقررة من المجلس العربي.
- استيفاء الشروط العامة للمجلس العربي.

## أهداف البرنامج

### أولاً: العلوم الأساسية

حصول الخريج على المعلومات للعلوم الجراحية التطبيقية في جراحات الأطفال مع تأهيله علمياً في العلوم الأساسية اللازمة لممارسة جراحة الأطفال وأهمها:

- علم التشريح و الأجنة التطبيقي مع نبذة عن التطور الجنيني لأجهزة الجسم المختلفة وعلاقة ذلك بالعيوب الخلقية التي تصيب هذه الأجهزة.
- علم وظائف الأعضاء التطبيقي وخاصة الدورة الدموية واللمفاوية و فسيولوجيا التنفس و فسيولوجيا أجهزة الجسم المختلفة وربطها بالأمراض المختلفة.
- علم الأمراض التي تصيب أجهزة الجسم المختلفة.

### ثانياً : المهارات السريرية

يهدف البرنامج الى تمكين الخريج من اكتساب المهارات السريرية اللازمة لأكثر الحالات شيوعاً في جراحة الأطفال التي تصيب أجهزة الجسم المختلفة وطرق التشخيص وبدائل العلاج المتبعة في مراكز جراحة الأطفال في العالم.

### ثالثاً: التدريب العملي ويشمل:

1. التدريب على اتخاذ القرارات الملائمة في الحالات الطارئة والحرية كالحوادث.
2. التدريب على التشخيص والتقييم ورسم العلاج في الحالات غير الطارئة .
3. التدريب على متابعة المرضى في العيادات الخارجية.
4. التدريب على متابعة المرضى وجمع البيانات الإحصائية.
5. الإلمام الكافي واكتساب المهارات اللازمة في معظم العمليات الجراحية التي تجرى في جراحات الأطفال والطرق الجراحية والتقنيات الحديثة في مجال التخصص

**رابعاً: البحث العلمي:**

1. تنمية مهارات المتدرب لمتابعة البحث والاطلاع وتحضير حلقات المناقشة.
2. متابعة ما ينشر في الدوريات في فرع التخصص.
3. التشجيع على كتابة بحث علمي محكم.
4. تنمية مهارات التثقيف الصحي للمجتمع.

## INTENDED LEARNING OUTCOMES (ILOS)

### General Competencies:

1. **Patient Care:** compassionate, appropriate, and effective treatment of children's health problems and promotion of their health.
2. **Medical Knowledge:** about established and evolving biomedical, clinical, and cognate sciences and application of this knowledge to children's care.
3. **Practice-Based Learning and Improvement** that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in children's care.
4. **Interpersonal and Communication Skills** that result in effective information exchange and teaming with patients, their patients' families, and other health professionals.
5. **Professionalism** as manifested through commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse pediatric patient population.
6. **Systems-Based Practice** as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

## Professional Information

### Program aims

- The aim of the program is to develop competent pediatric surgeons with high professional standards, who are well prepared to face, respond to, and solve various surgical problems in the pediatric age group (neonates, infants, children and adolescents)
- The graduate will be trained to implement evidence based practice, and to cope with the future challenges through life long learning and conducting the necessary medical research.
- The program will support acquisition of basic knowledge of normal and abnormal growth and development (physical, physiologic, psychosocial), and its clinical application from birth through adolescence
- The program will enable the development and application of appropriate professional attitudes, communication and problem solving skills.
- The graduate will understand the unique anatomic, pathophysiologic, and genetic conditions that affect children.
- The graduate will learn the principles of stabilization, appropriate preoperative diagnosis, and preparation of the sick child.



- The graduate will understand the anatomic and physiologic principles which guide successful operative repair of pediatric diseases.
- The graduate will understand principles of routine postoperative care and postoperative critical care management.

## Intended Learning Outcomes (ILOs)

### **I- Knowledge & Understanding**

*By the end of the program, the graduate will have acquired scientific knowledge & understanding of:*

- I. 01.** The normal growth and development of the human body, and the embryological background of surgically manageable congenital anomalies.
- I. 02.** The surgical anatomy of various parties of the body with special considerations relevant to children at various age groups.
- I. 03.** The surgical pathology of various diseases that require surgical intervention in pediatric age group.
- I. 04.** The principles of genetics and its role in various surgical problems in children particularly in congenital anomalies, as well as, the basics of genetic counseling.
- I. 05.** The principles and international guidelines of management of various congenital anomalies, traumatic, and other conditions in children.
- I. 06.** The scientific basis and interpretation of common diagnostic studies with emphasis on their prioritization in management plans
- I. 07** The principles of infection control in hospital particularly in Operating rooms, neonatal and pediatric Intensive care units.
- I. 08** The principles governing ethical decision making in clinical practice and the major ethical dilemmas in pediatric patients, with its relevant medico-legal aspects.
- I. 09** The Arabic medical terminology and its use in communicating medical information to patients, their relatives and authority.
- I. 10** Basic computer knowledge needed to support literature retrieval and learning.
- I. 11** The basic principles of medical statistics, research methodology, and critical evaluation of evidence.
- 12** The global Arab Board national health care system

**Competency-Based Knowledge Objectives:** 



**Junior Level (specialized training years 3,4):**

1. Describe the development of children in terms of the following criteria:
  - a. Weight, length, and head size
  - b. Nutritional requirements
  - c. Renal function
  - d. Hormonal influences on development
  - e. Response to stress and infection
  
2. Classify congenital malformations of the newborn by type, origin, and the need for surgical intervention:
  - a. Head and neck: thyroglossal duct cyst, lymphadenopathy, cystic hygroma
  - b. Gastrointestinal: pyloric stenosis, appendicitis
  - c. Respiratory: tracheal lesions
  - d. Abdominal wall defects: omphalomesenteric and urachal malformations
  - e. Genitourinary: polycystic kidneys, undescended testis, torsion of the testis
  - f. Inborn and genetic errors: trisomy 13, trisomy 18, Down's syndrome
  - g. Orthopedic anomalies which commonly occur with other malformations
  
3. Summarize the basic approach to the diagnosis and management of more common surgical problems of infancy and childhood, such as:
  - a. Pyloric stenosis
  - b. Perforated appendicitis
  - c. Intussusception
  
4. Identify the technical aspects of the following procedures:
  - a. Excision of skin and subcutaneous lesions
  - b. Incision and drainage of abscesses
  - c. Lymph node biopsy
  - d. Chest tube placement
  - e. Oral intubation
  - f. Herniorrhaphy in older children
  
5. Describe the fundamental considerations in the pre- and post- operative care of infants and children in the cases listed above.
  
6. Explain the principles of diagnosis and treatment for common causes of gastrointestinal hemorrhage in the neonate, infant, child, and adolescent.

### **Senior Level (specialized training years 5,6):**

The senior-level resident should function as an effective consultant to the nursery, and be able to provide expertise in the evaluation and definitive treatment of elective surgical conditions as well as be able to perform emergent surgical procedures (including but not limited to vascular access, orotracheal intubation, tube thoracostomy, exploratory laparotomy, and exploratory thoracotomy) with little or no immediate supervision. The senior level resident should be prepared to direct the management of the pediatric surgical service, including the education of junior residents and medical students on surgical clerkships.

Learn the embryology, anatomy, and physiology of basic and advanced neonatal surgical diseases. The resident is responsible for all conditions listed above in junior-level objectives, plus:

- a. Explain the approach to surgical management, (i.e., diagnosis, perioperative care, surgical therapy, and postoperative follow-up) of more complex surgical procedures for infants and children such as:
  - a. Large skin grafts and musculocutaneous flaps
  - b. Thoracotomy for pulmonary resection and vascular cardiac repair
  - c. Flexible endoscopy
  - d. Antireflux procedure
  - e. Bowel resection
  - f. Repair of hepatic, biliary, and pancreatic injury
  - g. Splenectomy and splenorrhaphy
  - h. Management of the seriously injured patient
1. Analyze the pathophysiology, diagnosis, and management options in the treatment of short-gut syndrome.
2. Demonstrate an understanding of the special psychological, social, and education issues confronting selected pediatric trauma/ postoperative patients.

### **Neonatal Surgery Knowledge**

1. Understand the unique anatomic, pathophysiologic, and genetic conditions that affect the fetus and neonate.
2. Classify congenital malformations of the newborn by type.
3. Learn principles of stabilization, appropriate preoperative diagnosis, and preparation of the sick neonate.
4. Understand the anatomic and physiologic principles which guide successful operative repair of neonatal diseases.
5. Learn principles of routine postoperative care and postoperative critical care management.
6. Describe capabilities and limitations of various diagnostic modalities used in neonatal care.

7. Formulate a care plan for neonates with problems such as respiratory distress, gastroesophageal reflux, jaundice, bilious emesis, bloody diarrhea, abdominal distention<sup>[SEP]</sup>
8. Understand how new techniques such as fetal surgery may offer alternatives for treatment of certain neonatal diseases<sup>[SEP]</sup>
9. Diagnose common neonatal problems and describe surgical procedures for their correction<sup>[SEP]</sup>

### **Pediatric Surgery Knowledge:**<sup>[SEP]</sup>

1. Understand the unique anatomic, pathophysiologic, and genetic conditions that affect children<sup>[SEP]</sup>
2. Learn the principles of stabilization, appropriate preoperative diagnosis, and preparation of the sick child<sup>[SEP]</sup>
3. Understand the anatomic and physiologic principles which guide successful operative repair of pediatric diseases <sup>[SEP]</sup>
4. Describe the development of children in terms of: weight, length, head size; nutritional requirements; renal function; hormonal influences on development; response to stress and infection<sup>[SEP]</sup>
5. Demonstrate knowledge of anatomic variations of anal atresia and malrotation<sup>[SEP]</sup>
6. Differentiate between pediatric and adult trauma resuscitation<sup>[SEP]</sup>
7. Summarize the basic approach to the diagnosis and management of more common surgical problems of infancy and childhood such as: pyloric stenosis, perforated appendix, intussusception <sup>[SEP]</sup>
8. Understand pathophysiology of surgical conditions in children including esophageal arrests, congenital diaphragmatic hernia<sup>[SEP]</sup>
9. Differentiate characteristics of Hirschprung's disease, intestinal atresia, intussusception, Wilms tumor, neuroblastoma <sup>[SEP]</sup>
10. Explain the approach to surgical management of more complex surgical procedures such as: large skin grafts and musculocutaneous flaps; thoracotomy for pulmonary resection and vascular cardiac repair; flexible endoscopy; antireflux procedure; bowel resection; repair of hepatic, biliary, and pancreatic injury<sup>[SEP]</sup>
11. Analyze the pathophysiology, diagnosis, and management options in the treatment of short-gut syndrome <sup>[SEP]</sup>
12. Understand the principles of early and late follow-up for complex surgical problems of childhood<sup>[SEP]</sup>
13. Understand the differences between omphalocele and gastroschisis

### **Skills**

#### **II A- Intellectual & professional skills:**

*By the end of the program, the graduate will have acquired the skills to:*

**IIA.01** Obtain and document a complete or focused medical history in the outpatient, inpatient or emergency settings.

**IIA.02** Perform and document a complete or focused physical and mental examination.

**IIA.03** Interpret patient's symptoms and physical signs in terms of anatomic, pathologic and functional diagnostic significances.

**IIA.04** Identify problems and select the most appropriate and cost effective diagnostic procedures for each problem.

**IIA.05** Interpret the results of commonly used diagnostic procedures (laboratory and radiological).

**IIA.06** List a differential diagnosis with prioritization of the common possibilities for each problem.

**IIA.07** Exhibit clinical decision analysis skills that weighs the pros and cons of the proposed interventions.

**IIA.08** Recognize patients with life / organ threatening conditions and institute first aid and initial therapy.

**IIA.09** Apply principles of sterilization and infection control regulations on hospital and community levels.

**IIA.10** Perform independently common surgical procedures in neonates infants and older children.

**IIA.11** Recognize the essential steps and possible complications of common interventions.

## **II B- General and transferable skills:**

*By the end of the program, the graduate will have acquired needed skills to:*

**II B.01** Conduct patient and/ or parents interviews that are characterized by patience and attentive listening.

**II B.02** Perform verbal and written communication with patients and/or their parents and colleagues with competence..

**II B.03** Explain to patients and their families the clinical investigations's findings in relation to possible courses of therapy including indications, risks, benefits and alternatives as well as plans for follow up.

**II B.04** Achieve consensus and obtain informed consent from the patient or the parents for the treatment plan.

**II B.05** Know when and how to ask for senior consultation.

**II B.06** Give accurate and clear oral summaries of the patient's illness.

- IIB.07** Work collaboratively with other health professionals in other disciplines to maximize patient benefits and minimize the risk of errors.
- IIB.08** Write clear and concise medical records including: admission sheets, progress notes, and physician' orders, referrals for consultation, discharge summaries and follow up notes.
- IIB.09** Identify his/her personal weaknesses through accurate self-assessment and/or supervisors and colleagues and actively set a clear learning plan to address these weaknesses.
- IIB.10** Utilize the resources of biomedical information including the available electronic facilities to update his/her knowledge

**Attitude:**

*Graduates must possess those characteristics, values and attitudes needed to provide high standard medical care for all patients. At the completion of the program, the graduate must be able to demonstrate:*

- III.01** Ability to deliver compassionate and non-judgmental care for all patients with respect for their privacy and dignity.
- III.02** Awareness of the ethical behavior expected of doctors towards patients with recognition of patients' rights, particularly with regard to confidentiality and informed consent.
- III.03** Honesty and integrity in all interactions with patients, families, colleagues and others with whom the physician must interact in their professional life.
- III.04** Awareness of potential conflicts of interest that may arise in caring of the patients and a commitment to advocate the interest of one's patients over one's own interests at all times (physician must be altruistic).
- III.05** The ability to treat the patient as a person, not as a disease and understand that patients are human beings with beliefs, values, goals and concerns which must be respected.
- III.06** The ability to maintain a professional image in manner, dress, speech and interpersonal relationships that is consistent with the accepted contemporary medical profession standards.
- III.07** The ability to provide care to patients who are unable to pay and advocate access to health care for members of the underserved populations.
- III.08** An understanding of, and respect for, the role of other health care professionals, and the need to collaborate with others in caring of individual patients.
- III.09** The ability to recognize her/his limits of knowledge and experience.

- III.10** The ability to do continued self assessment of their current medical practice aiming to update and improve it.

**Competency-Based Performance Objectives:** 



**Junior Level (specialized training years 3,4):**

1. Evaluate surgical conditions in the pediatric population through a comprehensive history, physical examination, and appropriate diagnostic studies.
2. Participate in the management of simple surgical problems in the pediatric population, including:
  - a. Integument
    - i. Excision of skin and subcutaneous lesions
    - ii. Incision and drainage of abscesses
  - b. Head and Neck
    - i. Excision of dermoid cysts and small skin lesions
    - ii. Lymph node biopsy
  - c. Thoracic
    - i. Chest tube placement
  - d. Cardiovascular
    - i. Central venous catheter placement
    - ii. Venous cutdown
    - iii. Arterial line placement
  - e. Gastrointestinal
    - i. Pyloromyotomy
    - ii. Appendectomy
    - iii. Herniorrhaphy (umbilical; inguinal in patients 2 years and up)
  - f. Genitourinary
    - i. Circumcision
    - ii. Orchiopexy
  - g. Gynecology
    - i. Oophorectomy, simple
    - ii. Vaginoscopy for foreign body or biopsy
  - h. Musculoskeletal
    - i. Ganglion cyst excision
    - ii. Excision of supernumerary digit
    - iii. Muscle biopsy

3. Develop a working relationship with members of the pediatric intensive care unit in managing postoperative pediatric patients.



### Senior Level (specialized training, years 5,6):

1. Evaluate pediatric patients for problems requiring more complex surgical intervention.
2. Participate in preoperative, operative, and postoperative care of more complex problems in pediatric surgery such as:
  - a. Integument
    - i. Pedicle graft
    - ii. Large skin grafts for burns
    - iii. Subcutaneous mastectomy
  - b. Craniocervical
    - i. Branchial cleft and thyroglossal duct cysts
    - ii. Cystic hygroma
  - c. Thoracic
    - i. Laryngoscopy, bronchoscopy, esophagoscopy
    - ii. Tracheostomy
    - iii. Thoracotomy for biopsy, lung resection
    - iv. Diaphragm repair
  - d. Cardiovascular
    - i. Resection of small vascular cutaneous lesions such as (A-V) malformation, hemangioma, or lymphangioma
    - ii. Repair of patent ductus arteriosus
    - iii. Repair of aortic anomaly/injury
    - iv. Support of a child with extracorporeal membrane oxygenation (ECMO)
  - e. Gastrointestinal
    - i. Flexible endoscopy
    - ii. Antireflux procedure
    - iii. Bowel resection for inflammatory bowel disease, intussusception, intestinal duplications
    - iv. Hodgkin's staging
    - v. Biopsy of tumor (open, laparoscopic or endoscopic)



- vi. Laparotomy for trauma
  - vii. Splenectomy (laparoscopic or open), splenorrhaphy
  - viii. Repair of hepatic injury, renal and/or bladder injury
  - ix. Cholecystectomy (open or laparoscopic)
  - x. Omphalomesenteric duct and urachal anomalies
- f. Oncologic
- i. Neuroblastoma
  - ii. Wilms' tumor
  - iii. Rhabdomyosarcoma
  - iv. Teratomas
  - v. Germ cell tumors
  - vi. Hepatoblastoma
  - vii. Sarcomas
  - viii. Hodgkin's and non-Hodgkin's lymphomas
  - ix. ALL
- g. Genitourinary
- i. Polycystic kidney
  - ii. Ambiguous genitalia
- h. Musculoskeletal
- i. Torticollis

### 3. Skills Objectives:

#### **Neonatal Surgery Skills:**

1. Perform a comprehensive evaluation of a neonate with suspected surgically correctable conditions
2. Establish percutaneous venous and arterial access in neonates over 2 kg
3. Assist or perform under supervision: peripheral venous and arterial cutdown access, placement of umbilical catheters, placement of central venous access, tube thoracostomy, incision and drainage of cysts and abscesses, hernia reduction
4. Participate in perioperative care of the neonate by recording appropriate assessments and treatment plans in daily progress notes
5. Manage illnesses including airway obstruction, necrotizing enterocolitis, congenital anomalies of the abdominal wall, GI tract, chest and diaphragm, solid tumors
6. Demonstrate management of gastrostomy tubes and advancement of feeds
7. Assist or perform surgical repairs of congenital diseases
8. Perform or assist in all major surgical procedures performed on the pediatric surgical service
9. Conduct comprehensive preoperative evaluation and postoperative management for all critically ill neonates

### **Pediatric Surgery Skills:**

1. Participate in preoperative assessment involving regular attendance of the outpatient clinic, provision of inpatient and emergency room consultation
2. Provide preoperative assessment of all pediatric surgical patients, both inpatient and outpatient
3. Organize assessment protocols for patients with abdominal pain, abdominal mass, respiratory distress, gastrointestinal bleeding
4. Manage the stable neonate
5. Manage critically ill children
6. Stabilize and assess pediatric trauma patient airway management in older children
7. Provide venous access in younger children
8. Interpret specialized radiologic studies including upper GI series, barium enema, CT scan, MRI, radionuclide scans
9. Assist in surgery for pyloric stenosis and inguinal hernia in infants
10. Demonstrate appropriate examination for appendicitis
11. Perform complicated appendectomy and vascular access in infants; intestinal obstruction in older children
12. Participate in preoperative, operative, and postoperative care of more complex problems in pediatric surgery such as: pedicle graft, large skin grafts for burns, subcutaneous mastectomy; branchial cleft and thyroglossal duct cysts, cystic hygroma; laryngoscopy, bronchoscopy, esophagoscopy; tracheostomy; thoracotomy for biopsy, lung resection; diaphragm repair
13. Assure continuity of care including active participation in preoperative assessment and diagnostic workup, postoperative care, and long-term follow-up in outpatient clinics and emergency room for more severe and urgent surgical problems
14. Develop a working relationship with members of the pediatric intensive care unit in managing postoperative pediatric patients
15. Develop a system to provide cost-efficient surgical care for children

### **5. INTERPERSONAL & COMMUNICATION SKILLS:**

1. Establish rapport with patients and their families.
2. Perform a patient-centered medical interview.
3. Engage patients in shared decision-making, when appropriate, and participate in family discussions.
4. Effectively and considerately communicate with team staff in a manner that promotes care coordination.
5. Discuss patient and parent fears regarding outcome of surgery.
6. Discuss patient's fear of deformity and its impact on self-image.

**4. PROFESSIONALISM:** [SEP]

1. Demonstrate respect and compassion for all patients. [SEP]
2. Exhibit competency in working with patients regarding advanced directives, DNR status, futility, and withholding/withdrawing therapy. [SEP]
3. Understand and compassionately respond to issues of culture, age, sex, sexual orientation, and disability for all patients and their families. [SEP]
4. Identify patient's and parent's fear associated with the diagnosis of childhood cancers [SEP]
5. Identify and assist with the psychological stress of patients and their families with chronic disease as it affects their personal life, their family life, and their socioeconomic environment.

**5. PRACTICE-BASED LEARNING:** [SEP]

1. Exhibit self-directed learning [SEP]
2. Demonstrate improvement in clinical management of patients by continually improving pediatric surgery knowledge and skills during the rotation

المناهج المطلوبة لامتحان تخصص جراحة الأطفال  
**Curriculum Contents  
of General Pediatric Surgery**

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- 29 - Gastroesophageal Reflux
- 30 - Lesions of the Stomach
- 31 - Duodenal and Intestinal Atresia and Stenosis
- 32 - Malrotation
- 33 - Meconium Disease
- 34 - Necrotizing Enterocolitis
- 35 - Hirschsprung's Disease
- 36 - Imperforate Anus and Cloacal Malformations
- 37 - Fecal Incontinence and Constipation
- 38 - Acquired Anorectal Disorders •- 39 - Intussusception
- 40 - Alimentary Tract Duplications
- 41 - Meckel's Diverticulum
- 42 - Inflammatory Bowel Disease and Intestinal Cancer
- 43 - Appendicitis
- 44 - Biliary Tract Disorders and Portal Hypertension

- 45 - Solid Organ and Intestinal Transplantation
- 46 - Lesions of the Pancreas
- 47 - Splenic Conditions
- 48 - Congenital Abdominal Wall Defects
- 49 - Umbilical and Other Abdominal Wall Hernias
- 50 – Laparoscopy

• **Section 5 - Inguinal Region And Scrotum**

- 51 - Inguinal Hernias and Hydroceles
- 52 - Undescended Testes and Testicular Tumors
- 53 - The Acute Scrotum

• **Section 6 - Urology**

- 54 - Developmental and Positional Anomalies of the Kidneys
- 55 - Ureteral Obstruction and Malformations
- 56 - Urinary Tract Infection and Vesicoureteral Reflux
- 57 - Bladder and Urethra
- 58 - Posterior Urethral Valves
- 59 - Bladder and Cloacal Exstrophy
- 60 - Hypospadias
- 61 - Circumcision
- 62 - Prune-Belly Syndrome
- 63 - Disorders of Sexual Differentiation
- 64 - Urologic Laparoscopy
- 65 - Renovascular Hypertension

• **Section 7 - Neoplasms**

- 66 - Principles of Adjuvant Therapy in Childhood Cancer
- 67 - Renal Tumors
- 68 - Neuroblastoma
- 69 - Lesions of the Liver
- 70 - Teratomas, Dermoids, and Other Soft Tissue Tumors
- 71 - Lymphomas
- 72 – Rhabdomyosarcoma

• **Section 8 - Skin and Soft Tissue Diseases**

- 73 - Nevus and Melanoma
- 74 - Vascular Anomalies
- 75 - Head and Neck Sinuses and Masses

• **Section 9 - Other**

- 76 - Pediatric and Adolescent Gynecology
- 77 - Breast Diseases

- 78 - Endocrine Disorders and Tumors
- 79 - Bariatric Surgical Procedures in Adolescence
- 80 - Evidence-Based Medicine

## التدريب

### شروط الاعتراف بمراكز التدريب

يتم التدريب في مراكز علمية معترف بها من قبل المجلس العلمي للجراحة ويشترط في وحدة جراحة الأطفال في المركز الآتي:  
أن تشتمل الوحدة على عشرين سريراً بما فيها أسرة الحالات اليومية ويتم قبول المتدربين بمعدل متدرب واحد لكل عشرة أسره.

• أن تشتمل الوحدة على أو تكون مرتبطة بوحدة عناية مركزة للحالات الحرجة في الأطفال.

• أن يتم إجراء العمليات الجراحية بمعدل 10 - 20 عملية أسبوعياً.

• أن يشرف على التدريب استشاريين (2) أكفاء وذوي خبرة في التعليم والتدريب الطبي.

. أن يستوفي المركز الشروط العامة للمجلس العربي للاعتراف  
بالمستشفى

**مدة التدريب:**  
ستة سنوات

## The Structure of the Pediatric Surgery Training Program

### تركيب البرنامج

سنتين في الجراحة العامة وأربع سنوات في جراحة الأطفال العامة وتكون على النحو  
التالي:

**أ) الجراحة العامة : 24 شهر (R1&R2) وتكون موزعة على النحو التالي:**

فترات اجبارية

#### **Mandatory rotations:**

- 6 Months general surgery
- 3 Months accident and emergency
- 3 Months intensive care unit
- 3 Months urology

- 3 Months pediatric surgery

فترات اختيارية

**Elective rotations:**

The resident can chose Two rotations of any of the following:

- 3 Months vascular surgery
- 3 Months pediatric surgery
- 3 Months Anaesthesia
- 3 Month Plastic Surgery
- 3 Months orthopedic
- 3 Months endoscopy

**The resident must pass the first part examination before being promoted to R4.**

**(ب) تدريب تخصصي في جراحة الأطفال 48 شهرا وتكون موزعة على النحو التالي :**

- a) **R3 and R4 Junior resident rotation in Pediatric Surgery:** (24 months)  
The resident will rotate for 3 or 6 Months rotations in the approved centers

**Objectives:**

- The trainee must get adequate exposure to most fields of pediatric surgery
- The trainee must be supervised and then allowed to perform simple and none complicated procedures
- The trainee must participate in major pediatric surgery procedures
- The 24 months of the early training consist of

12 Months General pediatric surgery

6 Months pediatric urology

3 Months in NICU & PICU

3. Months Elective in one of the following specialties

Medical pediatric

Pediatric plastic surgery

Neurosurgery



Histopathology  
Anesthesia

- b) **R5 and R6 Senior resident rotation in pediatric surgery:**  
c) The resident rotates for 3 Or 6 months rotations in any of the approved centers.

**Objectives:**

- The trainee must be supervised and then allowed to perform most of the pediatric surgery procedures independently
- During the Senior residency rotations must acquire the experience in supervising the juniors and developed the leadership in pediatric surgery by taking the role of Chief resident of the division of pediatric surgery in the hospital for 3-6 months period
- The trainee must actively participate and supervise clinical and academic activities
- The 24 months of the senior training consist of  
12 Months general pediatric surgery  
6 Months pediatric Urology  
3 Months elective  
3 Months pediatric accident and emergency

## التدريب السريري

(1) متابعة المرضى بالعيادات الخارجية مرتين أسبوعياً  
**Outpatient clinic**

(2) إجراء العمليات الجراحية يومين أسبوعياً  
**Operative session** (3)  
(4)

(5) المناوبات للطوارئ مرتين أسبوعياً  
**On-Call**

(6) زيارات سريرية تعليمية مرة أسبوعياً على الأقل تحت إشراف الأستاذ المدرب  
**Bedside Clinical Round**

(7) مدارس مرة في الأسبوع تعتمد على مواضيع وأبحاث معينة  
**Grand Round**

(8) ندوة المجلات مرة شهرياً على الأقل  
**Journal Club**

9) اجتماع لبحث المضاعفات والوفيات مرة أو مرتين في الشهر.  
**Morbidity & Mortality Conference**

10) اجتماع الباثولوجيا الجراحية مرة في الشهر  
**Surgical Pathology Conference**

11) الاجتماع الجراحي والشعاعي مرة في الشهر  
**Surgical-Radiological Conference**

12) الحد الأدنى للحضور لا يقل عن 75%

## واجبات المتدرب

1. يناط بالمتدرب القيام بكتابة المعلومات التالية في ملف كل مريض :
  - تعبئة صحيفة الاستجواب تعبئة كاملة مع الفحص السريري.
  - نتائج الفحوصات المخبرية – الدم – الفحوصات التصويرية – الخ.
  - حفظ برنامج علاج المريض قبل وبعد إجراء العملية الجراحية.
  - ملاحظات الجراح قبل العملية.
  - مذكرات الاستفسارات الطبية الأخرى.
  - نموذج الموافقة على العملية من قبل المريض.
  - تقرير العملية الجراحية.
  - ورق المتابعة اليومية.

- ورقة العلاج.
- خلاصة الحالة المرضية عند إخراج المريض من المستشفى.
- 2. يعاود المتدرب في العيادة الخارجية مرة في الأسبوع على الأقل لفحص وعلاج المرضى.
- 3. يحتفظ بعلاقات حسنة مع المريض وعائلته والهيئة الطبية والتمريضية والإدارية وكل من له علاقة بعلاج المريض.
- 4. الحفاظ على أسرار المريض confidentiality
- 5. يدون المتدرب في سجل دائم LOG BOOK نشاطه العملي يعتمد من الأستاذ المشرف وهذا يحتوي على:
  1. العمليات – نوعها وعددها وتاريخها واسم المريض ورقم سجله الطبي.
  2. حضور الجلسات العلمية السابقة الذكر.
  3. يؤدي المتدرب واجباته تحت إشراف الأستاذ المسنول الذي يقوم بتقييمها.

# Weekly Activities

(Applied to all years of training)

Title	Number of Days
Morning endorsement & ward round	Daily
Outpatient Department	2
Operating Room	2
Emergency Department	1

Clinical Grand Round and other Scientific Activities (morbidity & mortality meeting – lectures – journal club– case presentation – audit .....)	1
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*This structure is partially applicable for the rotation in the ICU according to the relevant activities.*

<b>Candidates of first &amp; second years of specialized training (year 3 &amp;4) must successfully complete the following courses:</b>
<ol style="list-style-type: none"><li>1. Basic neonatal Surgical Skills (including intestinal &amp; vascular anastomoses)</li><li>2. Basics of pediatric Laparoscopy</li><li>3. Basic neonatal and pediatric Life Support</li></ol>

## **Trainees Duties & Responsibilities**

(during the specialized trading in pediatric surgery, years 3-6)

### **3<sup>rd</sup> Year**

#### **1. INPATIENT DEPARTMENT**

- Clerking all admissions (history & physical examination)
- Attend then perform daily rounds
- Supervised investigation requests
- Follow & obtain results of investigations & report to seniors
- Plan the treatment under supervision
- Follow up referrals & consultations to other specialties
- Observe seniors while informing patient about their illness, treatment, prognosis & taking consent for procedures
- Prepare patients for surgery

- Follow the post-surgical course of patients and manage appropriately under supervision
  - Check completeness of patient medical records & complete when needed
  - Arrange patient discharge, post-discharge treatment & follow up appointments
2. **OUTPATIENT DEPARTMENT**
- Attend OPD
  - Examine patients under supervision
  - Ask for investigations & prescribe treatment under supervision
3. **EMERGENCY ROOM**
- Assistance to the first on call
  - Conduct Iry assessment & order treatment under supervision
  - Suggest admission of patients
4. **OPERATING ROOM**
- Follow the surgical procedure schedule distributed on the three years
  - Write operative notes & postoperative treatment
5. **SCIENTIFIC ACTIVITIES**
- Attend daily & grand rounds
  - Case presentation in daily rounds
  - Attend morbidity & mortality meetings
  - Participate in journal clubs
  - Attend lectures

## 4<sup>th</sup> - 6<sup>th</sup> Years

1. **INPATIENT DEPARTMENT**
- Clerking all admissions (history & physical examination)
  - Perform daily rounds
  - Request investigation
  - Modify treatment according to investigation results
  - Plan the treatment
  - Ask for referrals & consultations to other specialties
  - Inform patients about their illness, treatment, prognosis & taking consent for procedures
  - Prepare patients for surgery
  - Follow the post-surgical course of patients and manage appropriately and ask for consultation of seniors if required
  - Check completeness of patient medical records & complete when needed
  - Discharge patients, plan post-discharge treatment & follow up
2. **OUTPATIENT DEPARTMENT**
- Attend OPD
  - Examine patients

- Ask for investigations & prescribe treatment
- 3. **EMERGENCY ROOM**
  - Attend as first on call (2<sup>nd</sup> year) & second on call (3<sup>rd</sup> year)
  - Conduct 1ry & 2ry assessments & order treatment
  - Admit patients
- 4. **OPERATING ROOM**
  - Follow the surgical procedure schedule distributed on the three years
  - Write operative notes & postoperative treatment
- 5. **SCIENTIFIC ACTIVITIES** ▪ Perform daily rounds
  - Attend grand round
  - Case presentation in scientific meetings
  - Prepare morbidity & mortality meetings
  - Prepare journal clubs
  - Prepare & conduct lectures
  - Participate in local & international conferences
  - Job Descriptions

## المشرفون على التدريب

### مشرف البرنامج

#### صفاته:

- 1) يجب أن يكون من الاختصاصيين المؤهلين (بورده أو زمالة أو ما يعادلها) وله من الخبرة العملية والعلمية والتعليمية ما لا يقل عن ست سنوات بعد حصوله على المؤهل العلمي.
- 2) يجب أن يكون متفرغاً كلياً **FULL TIMER** للعمل بالمستشفى كلما أمكن ذلك مع استمراره بالقيام بمهامه كجراح.

التزاماته:

- 1) التقييم الدوري والمستمر للمتدرب بالمراقبة العملية والامتحانات.
- 2) تأمين زيادة المسؤولية للمتدرب حسب كفاءته وسنوات تدريبه.
- 3) ترتيب النشاطات العملية للمتدرب والعمل على توثيق ذلك في سجله  
**LOG BOOK**
- 4) خلق المناخ العلمي للتدريب بدعوة الفعاليات والكفاءات المحلية أو العالمية وبتنظيم دورات تنشيطية مركزة للمتدربين بالاختصاصات المختلفة بمساعدة لجنة التدريب والمجلس العلمي للاختصاصات الطبية.
- 5) الإشراف على تطبيق البرنامج من قبل المدربين ومتابعة أعمالهم.
- 6) إرسال تقرير عن السجل العلمي **LOG BOOK** إلى لجنة التدريب بفترة لا تقل عن ثلاثة أشهر قبل موعد الامتحان النهائي.

## التوصيف الوظيفي

### المدرّب

صفاته:

- 1) يجب أن يكون من الاختصاصيين المؤهلين ( بورد أو زمالة أو ما يعادلها) وله من الخبرة العلمية والتعليمية ما لا يقل عن ثلاث سنوات بعد الحصول على المؤهل.
- 2) يجب أن يكون متفرغاً **FULL-TIMER** للعمل بالمستشفى للتدريب ما أمكن ذلك مع استمراره بالقيام بمهامه كجراح.

## التزاماته:

- 1) التقييم الدوري والمستمر للمتدرب بالمراقبة العملية والامتحانات.
- 2) تأمين زيادة المسؤولية للمتدرب حسب كفاءته وسنوات تدريبيه.
- 3) ترتيب النشاطات العلمية للمتدرب والعمل على توثيق ذلك في سجله  
**.LOG BOOK**
- 4) أن يكون مسؤولاً أمام مشرف البرنامج لتنفيذ ما جاء أعلاه.

## **I. JOB DESCRIPTION OF THE TRAINER**

1. Agree with the trainee on the rotation learning objectives and Fill out the Learning Agreement Record
2. Provide training & teaching for the trainees according to the provided curriculum & intended learning outcomes
3. Supervise various activities of the trainees
4. Structure the rotation plan of the trainees in the different surgical specialties
5. Insure fulfillment of the logbook activities according to year of training & the required level of competence & signing them
6. Monthly evaluation of the trainees on work place based assessment, with feedback to the trainee, and filling out the assessment form which is submitted to the Arab Board Board Headquarter



7. Attend meeting with the educational supervisor every three months to discuss learning progress and problems

## II. JOB DESCRIPTION OF THE EDUCATIONAL SUPERVISOR

1. Check & evaluate the progress of the training program at the assigned training center.
2. Evaluate the trainers monthly reports & propose remedial actions for any deficiencies
3. Meeting with the trainers every three months to discuss learning progress & problems
4. Ensure that all training activities are running according to the curriculum
5. Assess the need for training of trainers
6. Advise on educational condensed clinical & theoretical courses for trainees
7. Arrange for/ participate in monthly clinical teaching for trainees
8. Assess the logbook activities of each trainee & provide needed remarks for both trainer & trainees
9. Ensure the adherence to the rotation plan of the trainees in the different surgical specialties
10. Report to the scientific committee the performance of both trainers & trainees, and decide the trainees legibility to sit for the exam
11. Coordinate with hospital authorities the administrative affairs of the trainee

## التدريب للمهارات الجراحية

العمليات الجراحية الواجب القيام بها والمساعدة فيها أثناء فترة التدريب:

### Required Operative experience

Operation	AS SURGEON	AS ASSISTANT
Inguinal Herniotomy	50	50
Hydrocele ligation	50	50
Undescended testis	30	30

Umbilical hernia	<b>30</b>	<b>30</b>
Major Abdominal wall defect	<b>5</b>	<b>5</b>
Appendectomy	<b>30</b>	<b>30</b>
Pyloromyotomy	<b>5</b>	<b>5</b>
Operative Reduction of intussusception	<b>10</b>	<b>10</b>
Laparotomy	<b>20</b>	<b>20</b>
Bowel resection and Anastomosis	<b>20</b>	<b>20</b>
Ano-rectal Anomalies (low type)	<b>10</b>	<b>10</b>
High Anorectal Anomalies	<b>5</b>	<b>5</b>
Hirschsprung's disease pullthrough	<b>5</b>	<b>5</b>
G.I.T. endoscopy (upper& lower)	<b>10</b>	<b>10</b>
Hepatobiliary surgery	<b>10</b>	<b>10</b>
G.I.T stoma Gastrostomy Ileostomy Colostomy Closure of Stomas	<b>20</b>	<b>20</b>
Excision of skin and soft tissue swellings Lymph node biopsy Thyroglossal cyst & fistula Branchial cyst & fistula Incisional&excisional biopsies of skin lesions Open liver biopsy	<b>50</b>	<b>50</b>

Peripheral cutdown&central venous access	<b>25</b>	<b>25</b>
Thoracic Surgery Diaphragmatic hernia T.O.F Lung & Pleura	<b>20</b>	<b>20</b>
<b>Circumcision</b>	<b>50</b>	<b>50</b>
Hypospadias repair (Distal penile)	<b>10</b>	<b>10</b>
Repair of Hypospadias (Proximal penile)	<b>5</b>	<b>5</b>
Diagnostic Cystoscopy	<b>10</b>	<b>10</b>
Urinary diversion	<b>15</b>	<b>15</b>
Ureteric Re-Implantation	<b>0</b>	<b>5</b>
Pyeloplasty (P.U.J obstruction)	<b>3</b>	<b>3</b>
Nephrectomy	<b>5</b>	<b>5</b>
Cleft lip and palate		<b>5</b>
<i>Minimal invasive</i>	<b>10</b>	<b>30</b>
<i>Pediatric tumors</i>	<b>5</b>	<b>20</b>
Miscellaneous	<b>20</b>	<b>20</b>
<b><i>Total</i></b>		

## **Details of required surgical Procedures** (during the specialized training in pediatric surgery, years 3-6)

**Table Key: Five point scale (level of contribution)**

<b>F1</b>	Has observed
<b>F2</b>	Has assisted
<b>F3</b>	Can do with assistance
<b>F4</b>	Can do whole but may need assistance

<b>F5</b>		Competent to do whole without assistance, including managing complications					
<b>Code</b>	<b>Subject</b>	<b>3<sup>rd</sup>&amp;4<sup>th</sup> year</b>		<b>5<sup>th</sup> year</b>		<b>6<sup>th</sup> year</b>	
		<b>No</b>	<b>Level</b>	<b>No</b>	<b>Level</b>	<b>No</b>	<b>Level</b>
<b>1</b>	<b>Head &amp; Neck</b>						
1.1	Excision of thyroglossal cyst/ Fistula	2	F2	1	F4	1	F4
1.2	Excision of branchial cyst	2	F2	2	F4	2	F4
1.3	Excision of branchial fistula	2	F2	1	F4	1	F4
1.4	Cervical lymph node biopsy	5	F2	5	F4	5	F4
1.5	Excision of cystic hygroma of the neck	2	F2	1	F3	1	F3
1.6	Submandibular sialadenectomy	2	F2	1	F3	1	F3
1.7	Parotidectomy	1	F1	1	F2	1	F2
<b>2</b>	<b>Skin &amp; soft tissue</b>						
2.1	Drainage of abscess	10	F3	5	F4	5	F4
2.2	Excision of subcutaneous mass	3	F3	2	F4	2	F4

<b>Code</b>	<b>Subject</b>	<b>3<sup>rd</sup>&amp;4<sup>th</sup> year</b>		<b>5<sup>th</sup> year</b>		<b>6<sup>th</sup> year</b>	
		<b>No</b>	<b>Level</b>	<b>No</b>	<b>Level</b>	<b>No</b>	<b>Level</b>
2.3	Fine Needle Aspiration Cytology	3	F3	2	F4	2	F4

<b>3</b>	<b>Vascular &amp; Lymphatic Surgery</b>						
3.1	Central Vascular access	10	F2	10	F3	10	F4
3.2	Cutaneous Haemangioma	5	F2	1	F3	1	F3
<b>4</b>	<b>Plastic Surgery</b>						
4.1	Repair of cleft lip	5	F2	1	F3	1	F3
4.2	Repair of cleft palate	5	F2	1	F3	1	F3
<b>5</b>	<b>Endocrine Surgery</b>						
5.1	Thyroidectomy	2	F1	1	F2	1	F2
<b>6</b>	<b>Cardiothoracic Surgery</b>						
6.1	Chest tube insertion	5	F2	5	F3	5	F3
6.2	Repair of diaphragmatic defects	5	F2	2	F3	2	F3
6.3	Repair of esophageal atresia and TEF	5	F2	2	F3	2	F3
6.4	Thoracotomy (lung resection, biopsy, decortication ....)	2	F2	2	F2	1	F3
<b>7</b>	<b>Oncology</b>						
7.1	Wilms tumor	2	F2	1	F3	1	F3
7.2	Neuroblastoma	2	F2	1	F3	1	F3
7.3	Teratoma	2	F2	1	F3	1	F3

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7.4	Other tumors	2	F2	1	F3	1	F3
8	Inguino scrotal / genitalia						

Code	Subject	3 <sup>rd</sup> &4 <sup>th</sup> year		5 <sup>th</sup> year		6 <sup>th</sup> year	
		No	Level	No	Level	No	Level
8.1	Inguinal herniotomy	10	F2	5	F3	5	F4
8.2	Hydrocele	10	F2	5	F3	5	F4
8.3	Undescended testis	10	F2	5	F3	5	F4
8.4	Circumcision/ buried penis	10	F2	10	F3	10	F4
4.3	Hypospadias	6	F2	2	F3	2	F3
8.5	Feminizing genitoplast	2	F1	1	F2	1	F2
8.6	Musculizing genitoplasty	2	F1	1	F2	1	F2
<b>9 GIT &amp; Abdominal Surgery</b>							
9.1	Exploratory laparotomy	10	F2	10	F3	10	F3
9.2	Pyloromyotomy	5	F2	2	F3	2	F3
9.3	Gastrostomy	2	F2	1	F3	1	F3
9.4	Ileostomy/ colostomy	5	F2	2	F3	2	F3
9.5	Surgery for intestinal atresia	5	F2	2	F3	2	F3
9.6	Pull through for Hirschsprung's disease	5	F2	2	F3	2	F3
9.7	Repair of Anorectal malformations	5	F2	2	F3	2	F3
9.8	Splenectomy	2	F1	1	F2	1	F3
9.9	Cholecystectomy/ choledochal cyst, biliary atresia	5	F2	2	F3	2	F3
9.10.	Closure of ileostomy, colostomy	5	F2	2	F3	2	F3
9.11	Appendectomy	5	F2	2	F3	2	F3
<b>10 Urogenital Procedures</b>							
10.1	Nephrectomy	2	F1	1	F2	1	F3
10.2	Nephrolithotomy/ Nephrostomy	2	F1	1	F2	1	F3
10.3	Cystoscopy	2	F1	1	F2	1	F3



Code	Subject	3 <sup>rd</sup> &4 <sup>th</sup> year		5 <sup>th</sup> year		6 <sup>th</sup> year	
		No	Level	No	Level	No	Level
10.4	Repair of Bladder exstrophy	2	F1	2	F2	2	F2
10.5	Pyeloplasty	2	F1	1	F2	1	F3
10.6	Ureteric re implantation	2	F1	1	F2	1	F3
<b>11 Miscellaneous Procedures</b>							
11.1	Endotracheal intubation	2	F1	1	F2	1	F3
11.2	Tracheostomy	2	F1	1	F2	1	F3
11.3	Abdominal paracentesis	2	F1	2	F2	3	F3
11.4	Others						

## التقييم والامتحانات

تطبق القواعد العامة والشروط المعمول بها في امتحانات شهادة المجلس العربي  
لاختصاص الجراحة العامة.

### التقييم أثناء البرنامج WORKPLACE BASED ASSESSMENT

#### التقييم السنوي 50 MCQ

المراجعة السنوية لسجل العمليات للأداء الإكلينيكي وحضور العيادات والأنشطة  
العلمية.

امتحان الجزء الأول (يشترط اجتيازه في النصف الأول من البرنامج)  
ويخضع للقواعد المعمول بها في الجراحة العامة في امتحان الجزء الأول.

#### التقييم النهائي

1. التقييم النهائي لمخلص سجل العمليات
2. شهادة إكمال التدريب بنجاح
3. الامتحانات النهائية:  
أ- الامتحان الكتابي:

ويتكون من ورقتين كل ورقة تتكون من:

#### 100 MCQs (Single best answer type)

ب- الامتحان الشفوي والسريري

الامتحان الشفوي (60 دقيقة)

ويتكون من لجنتين كل لجنة تتكون من ممتحنين

ومدة كل لجنة 30 دقيقة

الامتحان السريري (60 دقيقة) ويتكون من:

**ONE LONG CASE (30 min) &**

**TWO SHORT CASES OR OSCE ( 30 min)**

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# ASSESSMENT METHODS

## Pediatric Surgery exams, marking schedules and Marks & Standards Document

### **FIRST PART EXAM:**

The candidate is allowed to enter this exam after the end of a three years training program and is allowed for re-sit exam 3 times maximum. Duration between each reset for the exam is 6 months.

### **FINAL ASSESSMENT**

#### **A. WORKPLACE BASED ASSESSMENT**

The surgical skills will be assessed through:

- The log book (LB), in which 70% of all its items concerning the clinical attendance, the observation, assistance or performance of surgical procedures should be fulfilled.
- Procedure based assessment forms
- Trainee assessment forms
- Supervisor reports

#### **B. Final Assessment Report of Completion of Training Program:**

Based on Workplace Assessment

#### **C. FINAL EXAMINATIONS**

Candidate is only allowed to sit for the final exam after acceptance of his /her log book, which will be assessed 6 months before the exam. The exam is divided into two parts.

##### **1. Final Written Exam**

Formed of two Papers Each of  
100 MCQs (Single best answer type)

##### **2. Final Oral & Clinical Examinations**

###### **a. Oral examination including**

Two Sessions (15 min each)

One session on principle of Pediatric Surgery and Surgical Pathology.  
One session on Operative surgery and emergency lasting for 30 minutes.

###### **b. Clinical examination including**

One long case (30 min.)

**Long clinical case:** examination lasts for 30 minutes. The Candidate will be examined by two examiners who will be observing him all through the exam. The Candidate is supposed to take a full history relevant to the case. Then do a complete general and a meticulous local exam relevant to the case. Then he is going to present a summary of the history and the clinical findings to the

examiners. He is supposed to make a sensible provisional clinical diagnosis. he should mention the possible differential diagnosis. Prioritize the investigations he would like to do. Finally explain his plan of treatment. During the 30 minutes of discussion, (15 min of each examiners) one examiner is to going to ask some questions while the other examiner is going to listen to his answers and V.V.

**Two short cases or OSCE (30 min.)**

Each case will last for 20 minutes and you be examined by two examiners: Candidate may be asked to take few questions or to look for some general physical signs relevant to the case. Then a meticulous local examination of the case is required. And he will present the physical findings and provide a provisional clinical diagnosis. You may be asked about the necessary investigations and he will explain his plan of management. Each examiner will ask him for 10 minutes while the other examiner listens and V.V.  
OR Alternatively OSCE Stations.

Candidate who fail to pass the second part exam are allowed to re-sit for 2<sup>nd</sup> part only 3 times maximum. Duration between each time is 6 months.

## WORKPLACE BASED ASSESSMENT FORMS

### 1. Learning Agreement

<b>2. Learning Agreement Record</b>		Specialty:	<b>Pediatric Surgery</b>
Trainee Name:		Start of Training:	/ /20
Training Number:		End of Training:	/ /20

**This is an official document.** The original is the property of the Arab Board Fellowship Board. After completion it should be passed to the Specialty coordinator who will collate and scrutinize all reports relating to the program, before making them available to the ARP committee.

Hospital	Year of training	Start date: / / 20
Trainer	Subspecialty	End date: / / 20

#### EDUCATIONAL OBJECTIVES AND ASSESSMENTS

	Objectives	Assessment	
	1. Start of post meeting date / /20	2. Mid-point review meeting date / /20	3. End of post meeting date / /20
<b>Applied clinical knowledge</b>			

	Objectives	Assessment
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<b>Applied clinical skills</b>			
<b>Applied surgical skills</b>			
<b>Scientific activities</b>			
	<b>Trainer</b>	<b>Trainee</b>	<b>Date</b>
<b>Signatures</b>			/ /20

## 2- Trainee Assessment

<b>2- Trainee Assessment Form</b>			<b>Specialty:</b>	<b>Pediatric Surgery</b>
<b>Trainee Name:</b>			<b>Start of Training:</b>	/ /20
<b>Training Number:</b>			<b>End of Training:</b>	/ /20

This is an official document. A separate form is to be completed at the end of a placement by each trainer (forms are to be completed every 6 months and must be completed within a month of finishing the placement). The original is the property of the Arab Board Fellowship Board. Signed and completed forms are to be returned to the Board offices.

<b>Hospital</b>	<b>Year of training</b>	<b>Start date:</b> / /20
<b>Trainer</b>	<b>Subspecialty</b>	<b>End date:</b> / /20

**Guidelines for Supervisor:** Please enter your mark (scored 1-5) in the column provided; which best reflects your assessment using the prompts as a guide.

<b>POOR</b> = 1	<b>DEFICIENT</b> = 2	<b>SATISFACTORY</b> = 3	<b>ABOVE AVERAGE</b> = 4	<b>EXCELLENT</b> =5
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<b>Aspect of performance</b>	<b>Marks</b>	<b>Poor</b>	<b>Satisfactory</b>	<b>Excellent</b>
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<p><b>Knowledge</b></p>		<ul style="list-style-type: none"> <li>▪ Below the level of basic textbook</li> <li>▪ Fail to apply knowledge in patient management</li> </ul>	<ul style="list-style-type: none"> <li>▪ At the level of basic textbook</li> <li>▪ Apply knowledge in patient management under supervision</li> </ul>	<ul style="list-style-type: none"> <li>▪ Has comprehensive Knowledge on scientific basis</li> <li>▪ Apply knowledge in patient management.</li> </ul>
<p><b>Clinical Skills</b></p>		<ul style="list-style-type: none"> <li>▪ Unable to take proper history and physical exam.</li> <li>▪ Illogical conclusion from clinical data</li> </ul>	<ul style="list-style-type: none"> <li>▪ Satisfactory clinical skills for history taking and physical exam.</li> <li>▪ Appropriate conclusion from clinical data</li> </ul>	<ul style="list-style-type: none"> <li>▪ Excellent clinical experience &amp; able to spot out the unusual and rarity.</li> <li>▪ Excellent analytical power</li> </ul>
<p><b>Surgical Skills</b></p>		<ul style="list-style-type: none"> <li>▪ Rough handling of soft tissue</li> <li>▪ Doesn't know his limitations</li> <li>▪ Improper use of instruments</li> </ul>	<ul style="list-style-type: none"> <li>▪ Gentle handling of tissues</li> <li>▪ Knows his limitations</li> <li>▪ Safe handling of sharp instrument</li> </ul>	<ul style="list-style-type: none"> <li>▪ Always plan before surgery</li> <li>▪ Prompt reaction &amp; knows what to do in difficult &amp; unexpected situations</li> </ul>
<p><b>Attitude &amp; Behavior</b> ▪ Doctor Patient relationship ▪ Relation with colleagues</p>		<ul style="list-style-type: none"> <li>▪ Poor communication &amp; shows no empathy to patients</li> <li>▪ Doesn't like teamwork &amp; shows no respect to colleagues</li> </ul>	<ul style="list-style-type: none"> <li>▪ Good communication &amp; shows empathy to patients</li> <li>▪ Prefer to work in team &amp; shows respect to colleagues</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inspires confidence for patient</li> <li>▪ Patient delighted to be under his/her care</li> </ul>





<b>Trainer Name:</b>	<b>Signature:</b>	<b>Date:</b> / / 20
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## Post Assessment

<b>3- Training Post Assessment Form To be filled by trainees during ARP</b>		Specialty:	<b>Pediatric Surgery</b>
Trainee Name:		Start of Training:	/ /20
Training Number:		End of Training:	/ /20

**This is an official document.** The original is the property of the Arab Board Fellowship Board. After completion it should be passed to the Specialty coordinator who will collate and scrutinize all reports relating to the programme, before making them available to the ARP committee.

Hospital	Year of training	Start date: / / 20
Trainer	Subspecialty	End date: / / 20

### NOTES TO ACCOMPANY THE FELLOWSHIP BOARDS TRAINING POST ASSESSMENT FORM

1. Assessment Form is CONFIDENTIAL once completed, and must be handled accordingly.
2. The following guidelines are for trainees completing the form.
  - a. Complete as fully as possible the post details at the top of the form.

- b. Complete assessment by circling one box only against each criterion, with comments at the end if desired. The following guidelines are offered for use in grading criteria.

	YOUR RATING			DEFICIENT	SATISFACTOR Y	GOOD
<b>Out patients Clinics</b>	D e f i c i e n t	Sa t i s f a c t o r y	G o o d	<ul style="list-style-type: none"> <li>Do not see new patients.</li> <li>No time for / interest in discussion with consultant. Do not learn / use any special investigations / techniques. Often work alone.</li> <li>Large number of patients. Poor organization.</li> </ul>		<ul style="list-style-type: none"> <li>* See new &amp; old patients.</li> <li>Time for discussion with consultant.</li> <li>* Opportunity to learn special investigations / techniques. Often work with consultant.</li> <li>Multidisciplinary.</li> <li>* Reasonable time with patient. Well organized.</li> </ul>
<b>Ward Rounds</b>	D e f i c i e n t	Sa t i s f a c t o r y	G o o d	<ul style="list-style-type: none"> <li>Rarely consultant led. Rapid decisions, little discussion. Junior views not listened to.</li> </ul>		<ul style="list-style-type: none"> <li>Usually consultant led. In-depth presentation / discussion of patients. Adequate time allowed.</li> </ul>
<b>Operating Room</b>	D e f i c i e n t	Sa t i s f a c t o r y	G o o d	<ul style="list-style-type: none"> <li>Usually left to do minor surgery. Less than 4 sessions / month. Only assists and rarely performs more major cases.</li> <li>Works on own. Poor senior support. Not shown / taught new or more advanced techniques.</li> <li>Consultant rarely present in same or adjoining theatre. Cannot readily summon senior assistance if in difficulty. No clear guidelines.</li> </ul>		<ul style="list-style-type: none"> <li>Mix of Major &amp; minor elective surgery. More than 4 sessions / month. Exposure to day surgery, and minimal invasive surgery.</li> <li>Taken through procedures. Shares cases with consultant. Video teaching films. New technique workshops / courses encouraged.</li> <li>Consultant usually present in same or adjoining theatre. Assistance at senior level readily available. Given clear guidelines as to when to call/ inform/discuss with consultant.</li> </ul>
<b>Accidents &amp; Emergency Department</b>	D e f i c i e n t	Sa t i s f a c t o r y	G o o d	<ul style="list-style-type: none"> <li>Advice / help not easy to obtain. Consultant difficult to find / contact. Also not keen to come in / assist.</li> </ul>		<ul style="list-style-type: none"> <li>Advice / help readily available. Consultant always happy to be phoned / consulted / give advice.</li> </ul>

<b>Clinical Meetings</b>	D e f i c i e n t	Sa t i s f a c t o r y	G o o d	<ul style="list-style-type: none"> <li>Poor consultant support. Badly attended. Rigid non innovative programme. Not multidisciplinary. Held outside normal working hours. Little input from consultants.</li> </ul>	<ul style="list-style-type: none"> <li>Consultant led. Well attended by all grades. Varied programme. Often multidisciplinary. Regularly held in normal session time. Juniors encouraged presenting / taking part.</li> </ul>
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<b>Scientific Activities</b>	D e f i c i e n t	Sa t i s f a c t o r y	G o o d	<ul style="list-style-type: none"> <li>No in-depth review of clinical practice / problems. Does not lead to change in clinical practice. Retrospective data.</li> <li>Juniors expected to collect all data. Non constructive / threatening atmosphere. Juniors expected to do all journals reviewing.</li> <li>Poor consultant attendance. Didactic discussion?</li> </ul>	<ul style="list-style-type: none"> <li>Scientific session properly utilized. Leads to change in clinical practice. Prospective data collection.</li> <li>Juniors assisted with data collection. Friendly, nonconfrontational atmosphere.</li> <li>Equal consultant / junior participation. Journal articles reviewed and discussed.</li> </ul>
<b>Trainer Trainee Relationship (Career Advice)</b>	D e f i c i e n t	Sa t i s f a c t o r y	G o o d	<ul style="list-style-type: none"> <li>Trainer not interested in trainee or his career.</li> </ul>	<ul style="list-style-type: none"> <li>Trainer offers advice / help. Directs trainee to source of advice / help.</li> </ul>
<b>Feedback</b>	D e f i c i e n t	Sa t i s f a c t o r y	G o o d	<ul style="list-style-type: none"> <li>Poor or absent appraisal. No specified protected time for discussion of trainee's performance. Consultant not frank about performance. Mainly critical. Rarely praises.</li> </ul>	<ul style="list-style-type: none"> <li>Regular appraisals sessions in clearly specified time. Consultants open about strengths / weaknesses / areas for improvement.</li> </ul>
<b>GENERAL</b>	D e f i c i e n t	Sa t i s f a c t o r y	G o o d	<ul style="list-style-type: none"> <li>No objectives. All clinical work. Poor education / learning.</li> </ul>	<ul style="list-style-type: none"> <li>Clear objectives for trainee. Good balance / clinical / teaching / learning / research.</li> </ul>

**Strengths of unit/department:**

<b>Weaknesses of unit/department:</b>
<b>Suggestions for improvement:</b>

**Signatures**

Trainee:	Date:
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## Educational Supervisor Report

<b>4- Educational Supervisor's Report</b>			Hospital	
Educational Supervisor Name			Visit date (s)	
Specialty	<b>General Surgery</b>			

**This is an official document.** The original is the property of the Arab Board Fellowship Board. After completion, it should be passed to the Specialty Coordinator who will collate and scrutinize all reports relating to the programme, before making them available to the ARP committee. A copy of the report shall be posted to the respective trainer/s and the hospital director / administration.

<b>Trainer's Names</b>	<b>Number of trainees with each trainer</b>	<b>Period covered by report</b> <b>From:</b> <b>To:</b>

### Training Opportunity

Activity	Rating			Comments
<b>Outpatient Clinics</b>	Deficient	Satisfactory	Good	
<b>Ward Rounds</b>	Deficient	Satisfactory	Good	
<b>Operating Theatre</b>	Deficient	Satisfactory	Good	
<b>Emergency Room</b>	Deficient	Satisfactory	Good	
<b>Clinical &amp; Scientific Activities</b>	Deficient	Satisfactory	Good	
<b>Trainees' Logbooks</b>	Deficient	Satisfactory	Good	

Trainee's Name	YIT <sup>1</sup>	Previous ARP outcome <sup>2</sup>	Logbook		Attendance at scientific activities <sup>3</sup>	Periodical exam mark	Rotation plan followed	Remarks
			Checked	Uptodate				

**Guidelines for Supervisor:**

<sup>1</sup> Year in Training

<sup>2</sup> ARP= Annual Review Process      A = Satisfactory to progress B = Targeted  
 Training C = Official warning      D= Unsatisfactory

<sup>3</sup> Recorded as percentage of attendance at teaching activities during the report period (both local & Central Teaching Days + Conferences & other scientific events)



<b>Strengths of unit/department:</b>		
<b>Weaknesses of unit/department:</b>		
<b>Suggestions for improvement:</b>		
Educational supervisor Name:	Signature	Date:

## 5. Annual Review Process (ARP)

<b>Date of Review</b>	<b>Period Covered</b>	<b>Year in Training</b> (please encircle)
/ / 20	From: To:	1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> 4 <sup>th</sup> 5 <sup>th</sup> 6 <sup>th</sup>
<b>Previous ARP outcome</b>	1 <sup>st</sup> year ARP: 2 <sup>nd</sup> year ARP: 3 <sup>rd</sup> year ARP:	4 <sup>th</sup> year ARP: 5 <sup>th</sup> year ARP 4 <sup>th</sup> year ARP:

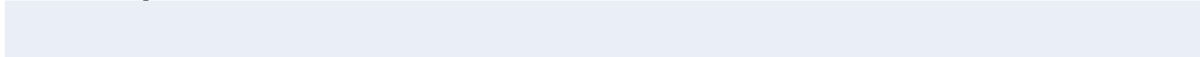
### Posts under review

Hospital	Period (from – to) Start date: / / 20 End date: / / 20	Subspecialty	Trainer

**ARP is based on the following criteria** (referring to the training manual):

1. Log book completion (up-to-date & signed by trainer)
2. Weekly activities (working in the different clinical settings)
3. Surgical procedures
4. Scientific & Clinical activities
5. Rotations Plan followed
6. Trainee Assessment Forms
7. Educational Supervisors Reports
8- Learning Agreement Records

**Summary conclusion& review outcome**



**Comments from REVIEWER :**

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ARP “A+”: Successfully completed training & Eligible to sit final exam

ARP “A”: Satisfactory in all aspects to proceed

ARP “B”: Satisfactory to proceed, but the following areas for improvement have been identified and must be addressed in the next placement (detail areas for improvement - please extend to an attached sheet if necessary –attached sheets must be signed and dated by Council director)

ARP “C”: Official warning, may be expelled if problems not rectified during next placement

ARP “D”: Unsatisfactory and should be referred for advice about choosing an alternative career pathway

<b>5- Annual Review Process (ARP)</b>			Specialty:	<b>General Surgery</b>
Trainee Name:			Start of Training:	/ /20
Training Number:			End of Training:	/ /20

This is an official document. A separate form is to be completed at each ARP meeting indicating the evidence for and outcome of the review process. The original is the property of the Arab Board Fellowship Board. Signed and completed forms are to be returned to the Board offices.

**Signatures**

Council Director:	Reviewer	Date:
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## كتب ومراجع ودوريات مقترحة للقراءة

### **Textbooks of Pediatric Surgery:**

1. Pediatric surgery O" Niel
2. Principles of Pediatric Surgery : Coran et al
3. Ashcraft's pediatric surgery: Holcomb et al
4. Pediatric Surgery: Puri and Hollworth
5. Pediatric Surgery and Urology: Stringer et al
6. Rob & Smith operative Surgery : Pediatric surgery
7. Operative Pediatric Surgery: Azizkhan et al
8. Pediatric Laparoscopy: lobe

### **Journals:**

1. Journal of Pediatric Surgery
2. Annals of Pediatric Surgery
3. Pediatric Surgery International
4. Seminars in Pediatric Surgery
5. Pediatric Urology



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		صغرى • • • • • •
		كبى • • • • • •

## سجل حضور اللقاءات العلمية

اسم المتدرب: .....

اسم المركز: .....

اسم المشرف: .....

اسم وإمضاء المشرف	التاريخ	اللقاءات العلمية

## استمارة تقييم المتدربين

الاسم :  
المرتبة :  
الفترة من / / إلى / /  
الاختصاص :  
مدة التقييم :

E	D	C	B	A	عناصر التقييم
					1 - المعلومات في العلوم الأساسية
					2 - المعلومات السريرية
					3 - السريريات من خلال المعالجة وحل المشكلات
					4 - المهارات في العمليات والقدرات الفنية
					5 - الاعتماد والمسؤولية تجاه الاعتناء بالمريض
					6 - الاهتمام والاندفاع
					7 - الاستقامة الشخصية والتمامية
					8 - العلاقات بالهيئة التدريسية ، الأطباء المقيمين .الطلاب ، المرضات
					9 - العلاقات والتفاني في خدمة المرضى
					10- الاهتمام والقدرة التدريسية
					<b>المعدل العام للتقييم</b>

ملاحظات

### المقيمين

الاسم التوقيع التاريخ

-1

-2

المشرف على التدريب في المركز  
الاسم

التوقيع التاريخ / /

في حالة التقييم النهائي

هل قام بإتمام برنامج تدريب المجلس كاملاً وبناجح؟  
نعم  لا



ملاحظات أخرى :  
المتدرب مؤهل لدخول الامتحانات النهائية.

اسم مشرف التدريب في المركز

/ / التاريخ

التوقيع

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## **Academic standards**

### **External references for standards (Benchmarks)**

*The Arab Board fellowship program in Pediatric surgery* will comply with local, national, and international academic standards issued by the following authorities and organizations:

- Arab Board Fellowship standards
- European Association of pediatric Surgeons (EUPSA)
- American Academy of Pediatrics (AAP)

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## **VI. Program admission requirements**

- The candidate should completely finished internship in an approved training center.

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## **VII. Criteria for program completion**

- The candidate must complete the above mentioned 6 years
- The candidate should prove his/her competency in performing all required diagnostic and surgical procedures, which are registered in the log book
- The candidate should pass successfully the theoretical, practical Exams