

AL-AZHAR UNIVERSITY
FACULTY OF MEDICINE

PROGRAM SPECIFICATIONS FOR DOCTRATE
DEGREE IN CARDIOTHORACIC SURGERY

2015/2016

BASIC INFORMATION

Program Type: Doctorate Degree in Cardio-Thoracic Surgery (MD Degree)
Program code: 07-700-Cardiothorac
Department offering the Program: Department of Cardio-Thoracic Surgery
Academic year: 2015/2016
Program Coordinator:

PROFESSIONAL INFORMATION

I. AIMS OF THE PROGRAM

This program aims to produce a specialist who will have the clinical knowledge, the surgical expertise and the professional skills necessary for:

- a. The diagnosis, evaluation and management of diseases of the heart, lungs, esophagus and chest.
- b. Undertaking surgical treatment of a wide range of serious conditions some of them may require major and complex procedures.
- c. Mastering the technology that is required to support these operations such as cardiopulmonary bypass, invasive monitoring and minimally invasive equipment.
- d. Proficiency in all aspects of postoperative care of patients in the intensive care unit.
- e. Working closely with colleagues in Cardiology, Respiratory Medicine, Oncologic Medicine, Anesthesia and Intensive care. He should be able to develop and apply appropriate professional attitude , ethical principles and communication skills.

II. INTENDED LEARNING OUTCOMES (ILOs)

By the end of the program the candidate should be able to:

1. KNOWLEDGE AND UNDERSTANDING

- 1) Diagnose cardiac and thoracic surgical problems based on clinical methods.
- 2) Describe the etiology, pathogenesis, clinical features, complications and management of cardiothoracic surgical conditions.
- 3) Interpret relevant laboratory, radiologic and cardiologic investigations for the purpose of diagnosis.
- 4) Arrive at a treatment plan/s based on 1 & 2 and discuss pros and cons with the patient and his family.
- 5) Describe the operative details of cardiothoracic surgical operations and explain the principles of major operations.

- 6) Discuss the principles and practice of preoperative preparation and postoperative care.
- 7) Be able to carry out surgical operations for cardiac and thoracic emergencies after quickly assessing the patient and synthesizing available clinical and investigational information.
- 8) Describe the anatomy of surgically important regions, organs and structures of the thorax.
- 9) Describe the surgical pathology of organs and structures of the thorax.
- 10) Recognize the legal and ethical aspects of cardiothoracic practice.
- 11) Keep abreast of current knowledge and recent advances in the field.
- 12) Attend continuing education programs for updating the knowledge.
- 13) Teach the undergraduate medical students as well as nursing, physiotherapy, occupational therapy and perfusion students.
- 14) Carry out research and publications in the field.
- 15) Be able to design scientific research methods and choosing proper methods for statistical analysis of data.

2. INTELLECTUAL SKILLS

- 1) Interpret patient's symptoms and physical signs in terms of their anatomic, pathologic and functional diagnostic significance in relation to cardiothoracic surgery.
- 2) Identify common clinical cardiothoracic surgical problems.
- 3) Analyze common cardiothoracic problems.
- 4) Solve common cardiothoracic problems.
- 5) Select and prioritize the appropriate investigations needed for every cardiothoracic patient.
- 6) Integrate the results of clinical and investigational findings to formulate the appropriate diagnosis.
- 7) Formulate management strategies for common clinical cardiothoracic surgical problems.
- 8) Manage the preoperative workup of patients undergoing elective procedures.
- 9) Perform diagnostic and therapeutic procedures.
- 10) Perform emergent surgical procedures for trauma.
- 11) Perform planned elective open and closed cardiac procedures as well as thoracic surgical procedures.
- 12) Effectively manage the patient in postoperative intensive care.

3. PROFESSIONAL AND PRACTICAL SKILLS

- 1) Obtain accurate and complete cardiothoracic surgical history.
- 2) Document accurate and complete cardiothoracic surgical history.
- 3) Examine the patient systematically as well as locally with proper note taking.
- 4) Perform emergency-directed examination for patients with common cardiothoracic surgical emergencies.
- 5) Perform bedside tests.
- 6) Identify the clinical manifestations of all cardiothoracic surgical diseases including emergencies.
- 7) Identify pathological lesions in jars containing postoperative surgical specimens of common and important cardiothoracic surgical conditions.
- 8) Examine various radiological and echocardiographic features of cardiothoracic surgical diseases.
- 9) Comment on various radiological and echocardiographic features of cardiothoracic diseases.
- 10) Identify cardiothoracic surgical instruments and link between these instruments and surgical operations.
- 11) Apply the principles of sterile techniques and infection control guidelines.
- 12) Assess first aid measures and initial therapy for injured and acutely ill cardiothoracic surgical patients.

- 13) Perform first aid measures and initial therapy for injured and acutely ill cardiothoracic surgical patients.
- 14) Demonstrate how to perform basic technical procedures such as Basic Life Support (BLS), Advanced Life Support (ALS), airway management and oxygenation (mask ventilation and endotracheal intubation) and insertion of IV lines.
- 15) Perform all cardiothoracic surgical maneuvers.

4. GENERAL AND TRANSFERABLE SKILLS

- 1) Adopt ethical practices in dealing with patients, colleagues, subordinates, superiors and health care workers.
- 2) Develop communication skills to interact with patients, relatives, colleagues and paramedical staff.
- 3) Communicate effectively with patients and their families.
- 4) Communicate effectively with colleagues, paramedical staff and other health care providers and work cooperatively in a team.
- 5) Write patients' records and present them in a proper way.
- 6) Establish professional relations with patients, their families and the community.
- 7) Conduct reliable and responsible behaviors.
- 8) Respect patients' will, privacy and dignity.
- 9) Discuss professional errors in an honest way.
- 10) Permit cordial interpersonal relations.
- 11) Perform a team.
- 12) Learn to be a leader when the need arises.
- 13) Learn to order investigations and prescribe drugs rationally.
- 14) Be aware of ethical issues in human and animal research.

III. ACADEMIC STANDARDS

The standards comply with the National academic Reference standards (NARS) of the National Authority of Quality Assurance and Accreditation of Education (NAQAAE)

A) Comparison of Provision (Educational Program) to External References

PROGRAM ILOs	NARS
KNOWLEDGE AND UNDERSTANDING	
A.1	2.1.1
A.3	2.1.3 - 2.1.6
A.4	2.1.2
A.5	2.1.5 - 2.1.4
INTELLECTUAL SKILLS	
B.1	2.2.1
B.2	2.2.2
B.3	2.2.3
B.4	2.2.4
B.5	2.2.6 - 2.7 - 2.2.9
B.9	2.2.5 - 2.2.8
PROFESSIONAL AND PRACTICAL SKILLS	
C.1	2.3.1
C.3	2.3.3
C.4	2.3.2
C.6	2.3.4 - 2.3.5
GENERAL AND TRANSFERABLE SKILLS	
D.1	2.4.1
D.2	2.4.2
D.5	2.4.3 - 2.4.4 - 2.4.5
D.7	2.4.6 - 2.4.7

B) Number of hours per week:

- lectures : 18 hours/week
- Clinical/practical : 24 hours/week
- Total: 42 hours/week

IV. PROGRAM ADMISSION REQUIREMENTS

According to the regulations and unified internal bylaws of Al-Azhar University faculties of medicine.

These will be attached to the program specifications.

**V. EVALUATION OF PROGRAM INTENDED LEARNING
OUTCOMES**