

In the Name of God

**Islamic Republic of Iran
Ministry of Health and Medical Education
Deputy for Education**

**Clinical Toxicology
Degree :Fellowship**

Introduction:

Advances in medical sciences and the great improvements in medical knowledge and skills in recent decades have led to the possibility of comprehensive learning of all subjects. Therefore, it is essential to separate different specialties in order to improve education and provide specialized services. According to conducted surveys, the number of patients presenting to the referral hospitals and other health centers had increased during the recent years. Furthermore, most emergency wards throughout the country are dealing with lots of problems in managing poisoned patients due to lack of skilled and efficient workforce, therefore, it appears necessary to educate specialists in clinical toxicology. Furthermore, fast and appropriate services will be provided in all emergency centers at least at provincial level. Because this course is multidisciplinary and requires different disciplines to be involved in developing and implementing of the curriculum, and in performing diagnostic or therapeutic procedures, a committee was formed from the following experts: internal medicine, pediatrics, emergency medicine, forensic medicine, intensive care, pharmaceutical and medical toxicology. This curriculum was developed after searching for existing curricula in the world and using experts' opinions.

Definition and Duration of Training Program:

Fellowship of clinical toxicology is a multidisciplinary course and the graduates are involved in diagnosis, treatment and prevention of death and potential complications of poisoning such as chemical poisoning (occupational, industrial, military, and environmental), pharmaceutical and biological poisoning (toxins of the organisms, plant and animal toxins) and substance abuse.

The clinical toxicology course lasts 18 months.

AIMS:

1-To train knowledgeable, competent and liable specialists in the field of clinical toxicology

2-In the next 10 years, we will be among the top countries of the region in terms of educational standards, research production and providing medical services .

General Competencies*

Procedural skills (diagnostic–therapeutic measures)

Procedure
Inserting simple and multiport central venous catheter
Performing venous cutdown
Chest tube insertion
Tracheal intubation
Working with ventilator (settings of the device)
Hemoperfusion, hemodialysis, peritoneal dialysis and plasmapheresis
Gastric lavage
Full digestive system wash
Endoscopy
Bronchoscopy
Electrodiagnostic tests (EEG-EMG-NCV)
Working with atomic absorption machine
Working with spectrophotometer
Working with gas chromatography
Working with Elisa reader
Working with HPLS
Conducting qualitative tests for 5 common drugs (3 for each)

Educational Strategies Teaching & Learning Methods*

Student Assessment

Assessment Methods

Formative: Continuous assessment by professors and providing feedback to the fellows through continuous assessment of logbook

Summative: written and oral

If needed, methods such as MiniCEX.OSCE, DOPS and 360° test can also be used in both approaches. **Periods of assessment**

Continuous

Twice a year –Final

Ethical Considerations*

*Note: The related document(s) can be found at <http://hcmep.behdasht.gov.ir/>.

The overall structure of the course:

Division, unit or setting	Content-measures	Duration (months)	Type of applicant
Poisoned patients services (Emergency- ICU- PICU and wards)	Visiting emergency and hospitalized patients - performing diagnostic procedures – Participating in medical consultation, responding to requested consultations	2 months	All applicants
Toxicology laboratory, and department laboratory	Introduction to the principles and techniques of toxicology	2 months	All applicants except those with PhD
Toxicology laboratory of Forensic Medicine	Introduction to the principles and techniques of toxicology in forensic medicine	15 days	All applicants except graduates of forensic medicine
Pediatric emergency department	Diagnosis and treatment of pediatric emergencies	1 month	All applicants except graduates of pediatrics and emergency medicine
Endoscopic and bronchoscopic departments	Introduction to endoscopy and bronchoscopy applications in poisoned patients	15 days	All applicants except graduates of internal medicine
Poisoned patients services (Emergency- ICU- PICU and wards)	Visiting emergency and hospitalized patients - performing diagnostic procedures – Participating in medical consultation, responding to requested consultations.....	2 months	All applicants
Radiology department	Interpreting simple x-rays, CT scan and MRI of poisoned patients	15 days	All applicants except graduates of internal medicine, pediatrics and emergency medicine
Pharmaceutical and toxins information Center	Introduction to software, databases, and searching and extracting pharmaceutical information	15 days	All applicants
Departments of dialysis, plasmapheresis and nephrology	Introduction to hemodialysis, hemoperfusion, plasmapheresis and other techniques for increasing the excretion of toxins	15 days	All applicants except graduates of internal medicine
Poisoned patients services (Emergency- ICU- PICU and wards)	Visiting emergency and hospitalized patients - performing diagnostic procedures – Participating in medical consultation, responding to requested consultations	6 months	All applicants
Substance abuse treatment center (addiction)		1 month	All applicants
Department of emergency medicine	Introduction to the medical emergencies and related issues	1 month	All applicants except graduates of internal medicine and emergency medicine
Optional ward	In accordance with selected ward	1.5 to 2 months depending on the major	*

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