

In the Name of God

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

**Neuroanesthesia
Degree: Fellowship**

Introduction:

Today, the Fellowship courses of Neuroanesthesia and Neurointensive care have been established in many centers around the world. Our understanding of neuroscience is steadily increased and inevitably led to changes in our practice in this area. It is expected that all service providers have the same understanding of physiology, pharmacology, and anatomy of the central nervous system in order to provide their services in this specialized area in a way that patients enjoy the maximum benefit. Management of anesthesia is more important in some neurosurgeries. Therefore, specific individuals must be trained for this purpose to minimize the medical errors during the surgery.

Duration and Definition of training program :

Neuroanesthesia fellowship is a branch of anesthesiology in which the graduates are involved in preparation of patients before surgery, anesthetic management, post-anesthesia care and prevention, providing intensive care to patients requiring neurosurgery, and management of acute and chronic pain in the relevant neurological diseases.

Course Duration is 18 months.

AIMS:

1-To train knowledgeable, competent, and responsible specialists for service provision in neurosurgeries with their knowledge and experiences in the areas of anesthesia and neurointensive care and provide the best services with the minimal harm to the patient.

2-In the next 10 years, we will have the highest standards in the areas of education and diagnostic-therapeutic services and Iran will be among the top countries in the Middle East in terms of science production.

General Competencies*

Procedural Skills (Diagnostic-Therapeutic Procedures):

Anesthetic management in different types of surgeries

Anesthesia for neurosurgery in Trauma patients

Anesthesia for surgery of patients with brain tumors

Anesthesia for neurologic diseases and ECT

Anesthesia for patients requiring cerebrovascular surgery

Anesthesia for patients requiring spine surgery

Anesthesia for surgery of patients with epilepsy, Parkinsonism, dystonia, and ...

Anesthesia for patients with metabolic disorders

Anesthesia for patients requiring neurosurgery in a sitting position

Anesthesia for stereotactic surgery

Skills:

Working with ventilators

Inserting a CV-Line

Inserting an arterial line

Tracheostomy

CPR

Laryngoscopy and fiberoptic bronchoscopy

Video laryngoscopy

ICP Monitoring

Evoked Potentials Monitoring

EEG

EMG

BIS monitoring

Neuromuscular monitoring

central venous cannulation and nerve blocks Ultrasound

Nerve block using a nerve locator

Monitoring the core body temperature

Transeusophageal echocardiography in the operating room

Transthoracic Doppler

Educational Strategies, Methods and Techniques*

Student Assessment:

Assessment Method :

Global Rating Form

Log Book

Portfolio

Dopd

OSCE

MCQ

CBD

Periods of Assessment:

Logbook assessment continuously and every three months

GRF at the end of each rotation

Ethical Considerations*

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

Overall Structure of the Course:

Educational ward, unit, or area	Syllabus- measures	Duration (month)
Anesthesia consultation clinic	Preparing patients for surgery- Responding to requested consultations, Requesting paraclinical measures- completing the medical record- obtaining informed consent from patients-	Twice a week during the operating room course
Operating room	Anesthesia for neurosurgery and spine surgery- monitoring and care before, during, and after surgery- participation with the surgeon in determining the patient's condition for surgery	10 months
Neurosurgery ward and clinic	Introduction to examinations of patients requiring neurosurgery-	1 month
Neurosurgery intensive care unit	Participation in diagnosis and management of inpatients - assisting in patient's cerebral, respiratory, and cardiac resuscitation- patient care and monitoring- planning for patients ' nutrition through consultation with dieticians-	2 months independently and during the course
Pain clinic	Management of acute and chronic pain in neurosurgeries	1 month
Radiography	Introduction to x-ray, ultrasound, and interpretation of CT-Scan, MRI, and the Doppler related to the course	1 month and during the course
Neurological and Psychiatric ward	Neuromonitoring, anesthesia in ECT	2 months
Optional ward	According to the selected ward	1 month

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