

In the Name of God

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

Pediatric Pulmonology Degree: Subspecialty

Introduction:

Lung diseases and pulmonary infections are the most common cause of death worldwide. Relevant curricula have been developed and implemented by the World Health Organization for many years. Increasing incidence of pulmonary diseases and the consequent primary and secondary effects cause many physical disabilities throughout the life of the child. Many pulmonary diseases can be prevented by timely and appropriate diagnosis and treatment. Furthermore, decreased side effects will improve the quality of life and reduce the psycho-economic burden. Since most diseases originated from organs such as heart, kidneys, immune system, and connective tissue involve the lungs as well, the importance of these pediatric pulmonary diseases becomes more obvious. Diseases of the lung and other organs and respiratory emergencies, such as airway obstruction as the main causes of child mortality can be prevented. This curriculum aims to create better conditions for education and research in the field of pediatric pulmonary diseases by providing respiratory services to children and society.

Definition and Duration of the Training Program:

Pediatric pulmonology is a subspecialty of pediatrics, whose graduates are responsible for providing, maintaining, and promoting respiratory health.

Duration of the training program is 24 months.

Aims:

1. To train subspecialists who can provide related medical services, and education and research services by observing the highest standards possible.
2. We are expected to be prominent in the Middle East in providing education and research services.

Expected Competencies at the End of the Program

General Competencies*

Procedural Skills (Diagnostic-Therapeutic Procedures):

- Fiberoptic bronchoscopy (under anesthetic monitoring)
- Bronchoalveolar lavage
- Removing foreign bodies from the respiratory system of children (using fiberoptic bronchoscopy under anesthetic monitoring)
- Bronchi and lung biopsy
- Bronchography
- Bronchoalveolar lavage using different fluids
- Endoscopy by contrast injection into tracheal and esophageal fistulas
- Thoracentesis and pleural tap (therapeutic and diagnostic)
- Chest tube insertion
- Pleural biopsy
- Performing sputum induction
- N.G Tube insertion
- Preparation of sputum and secretion samples using deep throat swabs
- Tracheal puncture

- Emergency needle cricothyroidotomy
- Oxygen therapy and using the relevant devices
- Using nebulizers and aerosol related devices
- Challenge spirometry
- Taking an ABG
- Chemical pleurodesis
- Intubation
- Working with ventilators
- Performing tuberculin tests and BCG
- Gram staining
- Prick test

Educational Strategies, Methods and Techniques*

Student Assessment

Assessment Methods:

- Self-assessment or portfolio assessment of at least 50 patients per year, electronically if possible
- Bedside examination: (observing the behavior and performance of the fellow with patients and their families in diagnosis and management of patients)
- MCQ and explanatory short answer question written exams
- Oral exams
- Procedural skill assessment

Periods of Assessment:

- Written evaluation once a year
- Portfolio assessment every six months
- Oral assessment at the end of each course, procedural skill assessment at the end of each course
- Final assessment at the end of the third year (evaluating dissertations, annual exams and board exam, and in-person evaluation)

Ethical Considerations*

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

The Overall Structure of the Course (a 24-month course)

Ward, unit, or educational setting	Syllabus- Measures	Duration (month)
Pediatric pulmonology ward	Visiting inpatients, performing diagnostic-therapeutic procedures, providing consultations and participating in educational activities according to the curriculum	7.5 months
NICU-PICU	According to the curriculum organized by the ward and the curriculum attached	3 months
Spirometry unit	Performing and interpreting respiratory tests	1 month
Bronchoscopy unit	Performing fiberoptic bronchoscopy and rigid observation and the relevant diagnostic-therapeutic procedures	Training for 1 month and repeating it during the course according to the curriculum organized by the ward
Pediatric tuberculosis ward	According to the curriculum organized by the ward	1 month
Pediatric cardiac ward	According to the curriculum organized by the ward and the curriculum attached	1 month
Pediatric radiology ward	According to the curriculum organized by the ward and the curriculum attached	1 month
Immunology/allergy unit	According to the curriculum organized by the ward and the curriculum attached	1 month
Pathology and microbiology unit	According to the curriculum organized by the ward and the curriculum attached	15 days
Otolaryngology ward	According to the curriculum organized by the ward and the curriculum attached	1 month
NICU-PICU	According to the curriculum organized by the ward and the curriculum attached	2 months
Elective ward	According to the curriculum organized by the ward and the curriculum attached	1 month
Pediatric pulmonology ward	Inpatient visit, performing diagnostic-therapeutic procedures, providing consultations and participating in educational and managerial activities	3 months

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