

In the Name of God

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

Course Title in English

Hospital Dentistry Fellowship

Program Description

This fellowship course has been designed, for the first time at Tehran University of Medical Sciences, for pediatric dentistry graduates to master in advanced training skills regarding best treatment in younger children, disabled person, special health care needs and systemic diseases who can not tolerate routine treatment without sedation and general anesthesia.

Definition

One year fellowship program for advanced training for behavioral management, premedication, special care needs and patient treatment plan in both upper and deeper level.

Program Objectives

The Main Purpose:

The purpose of implementing this educational program is to train skilled specialists of pediatric dentistry with higher level of awareness and knowledge, clinical skills believes, and professional behaviors who are able to provide preventive and therapeutic services with the desired quality in their specialized field.

Expected Competencies at the End of the Program

***General Competencies**

Specific Competencies and Skills

- Organize all their services related to providing, maintaining and improving oral and dental health of patients, and consider the above-mentioned cases in children and adolescents with whom there is no or little possibility of communication [young children - people with mental disabilities].
- ,Have the knowledge to prevent the occurrence of oral and dental diseases especially in the children and adolescents with special disabilities, and have ,the ability to diagnose and treat oral and dental problems in young children mentally retarded children, and children with special health care needs.
- Have adequate knowledge of the physiology and physiopathology of the important organs of the body and be able to coordinate the relationship of various diseases in children with the necessary dental treatments.
- Know the pharmacology and effects of sedatives and general anesthesia, and be aware of the interaction effects of these drugs with the other used drugs.
- Be aware of the different stages of sedation and general anesthesia and know the necessary restrictions in dental treatments under the above-mentioned conditions.
- Know the principles of dental procedures under sedation and general anesthesia and be able to coordinate well with colleagues and anesthesiologists.
- Master all treatment methods of pediatric dentistry, especially complicated and difficult treatments, and manage time by following the sequence of dental treatments, and provide the most complete and comprehensive treatment in the shortest time.
- Know how to work as a team in necessary cases and be able to cooperate well with other dental specialists in performing the treatment plans of the patients.
- Know and manage the impact of special conditions and diseases in children by providing necessary changes in dental treatment plans.
- Have a very good knowledge of the principles and stages of CPR and know the effects of the necessary drugs well.
- Be familiar with the research studies of this field that have been published in domestic and foreign valid journals, and be able to do proper research if necessary.

Main Services for Graduates

Diagnosis and treatment plan for children and special health care needs patients in hospital services under sedation or general anesthesia .

Main Field

Pediatric Dentistry

Course Duration

12 Months

Admission Requirements

1. Board-certificate pediatric dentistry with no legal problems for continuing their education
2. Passing the entrance exam and interview

Educational Strategies, Methods and Techniques

Lecture
Problem Base Learning [PBL]
Journal Club
Group Discussion
Demonstration
Case Presentation
Subjective Systematic Review

Overall Structure of the Course

Program Details

This program is offered in 1343 hours, including 221 theoretical hours and 1122 practical hours.

Course Titles [general, basic or clinical]

68 hours

- **Dependent Courses**

102 hours

- **Specialized and Practical Courses**

51 hours

General Structure of the Fellowship Course

1. Theoretical Units: 51

2. Specific Practical Units: 1122

Department Ward ,U nit, or E ducation Setting	Syllabus- Measures Content -Actions
Pediatric Dentistry Department	<ul style="list-style-type: none"> • ,Principles of behavioral management (behavioral, physical (drug and anesthesia guidance • Principles of prevention and health care in pediatric dentistry with emphasis on patients under general anesthesia • Principles of dental treatment planning in patients under sedation and general anesthesia • Familiarity with the principles of equipping and setting up outpatient departments and dental operating rooms in relevant medical centers • Objective seminar: one seminar per semester • Cases presentation: one case per semester • Clinical pediatric Dentistry
Anesthesia Department	<ul style="list-style-type: none"> • Getting to know the principles of working in the operating room and anesthesia equipment • Getting to know the anesthesia machine and participating in the anesthesia process under the supervision of an anesthesiologist • Practical knowledge of drugs that are used in the process of anesthesia and sedation • Preoperative assessment and preparation: Knowing the vital signs, the principles of preparing the necessary radiographs and related experiments, fixing the medical consultation • Care during anesthesia and sedation of dental patients • Getting to know the hospital environment:(related ,departments, current rules in hospitals and operating room recovery, how to accept and discharge), type of hospitalization in patient, Out patient • Patient post up principles

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| | <ul style="list-style-type: none">• knowing the medical emergencies in hospitals and operating room• Sedation contraindications-• ,Drug administration methods: IM-IV-Oral and their features ,education of different type of injection and venipuncture knowing and handling different types of serums |
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Evaluation of students

Formative assessments including

- Assessments during the course through written exams or interviews
- Practical assessments including diagnosis, treatment plan and patient follow up
- Evaluating the quality of treatments performed during the course
- Evaluation of the number of treated patients

Summative assessments including

- Presentation and evaluation of the Log Book indicating the completion of educational programs
- Presentation of selected cases of sedation and anesthesia methods in PowerPoint
- Presentation and defense of the thesis in the presence of the jury and presenting the article for publication in a prestigious English-language journal
- Presenting a Systematic Review and getting the acceptance of the publication in a prestigious English-language journal

References

A. Main textbooks

	Title	Authors
1	McDonald and Avery's Dentistry for the Child and Adolescent 11th Edition - 2021	,Mc Donald R, David R Jeffry A
2	Pediatric Dentistry: Infancy Through Adolescence. 6th 2019	,Casamassimo Ps, Fiels Hw Mctigue Dj, Nowak Aj
3	Malomed (Medical Emergencies in the (Dental Office	Stanley Malamed
4	Conscious Sedation	Wiener J, Gropper M
5	Miller Basic Of Anesthesia	

A fellowship resident should participate in ...

The fellowship residents are required to have regular and active participation in theoretical classes, treatment sessions in the hospital operating room, attending the relevant departments in the hospital for the patient post-up, treatment sessions in the pediatric dentistry department fellowship and departments related to dependent science courses

A fellowship resident is also highly recommended to ...

- Participate in the rounds of pediatric dentistry and anesthesia departments and other educational, practical and research activities according to the departments program
- Have active participation in pediatric dentistry and anesthesia departments

Minimum academic staff needed for running fellowship course

At least three faculty members are needed

1. Anesthesiologist for children medical center operating room
2. Anesthesiologist for the operating room of the faculty
3. Visiting professors from basic science departments to teach relevant courses

Well-informed staff required to run this program

Anesthesia Technician	2 persons
Operating room nurse	1 person
Nurse for recovery	1 person
Employee for admission in the faculty department	1 person

Requirements

- Special room for studying which is equipped with computer and internet
- At least one dental unit which is allocated to the residents for full time
- The necessary facilities in the pediatric dentistry and anesthesia departments for the presence of a fellowship resident

