Advanced Training Program in Oral and Maxillofacial Surgery: Overview and Learning Outcomes

Oral and Maxillofacial Surgery is the specialty of dentistry which includes the diagnosis, surgical and adjunctive treatment of diseases, injuries and defects involving both the functional and aesthetic aspects of the hard and soft tissues of the oral and maxillofacial regions. The following learning outcomes have been developed and adopted by the Commission on Dental Accreditation and the faculty in oral and maxillofacial surgery at Denver Health. The goals, skills, and knowledge every graduate must demonstrate to qualify for graduation are assessed through the outpatient clinic, hospital operating rooms, mock Board exercises, seminars, presentations, and one-on-one discussions.

The graduate in oral and maxillofacial surgery will be able to demonstrate applied knowledge and clinical skills following completion of the courses and rotations outlined below.

Oral Maxillofacial Surgery Resident Program Goal and Objectives:

The primary goal of this program is to produce an Oral Maxillofacial Surgeon who will be competently trained in practicing this area of surgery, and be qualified to take and pass the American Board of Oral and Maxillofacial Surgery Board Examinations. The broad objectives of this Oral and Maxillofacial Surgery Program are to increase the resident’s competence and proficiency in the clinical areas of oral maxillofacial surgery, medicine, surgery and anesthesia along with advanced abilities in diagnosis, treatment planning, decision making, and to maximize the resident’s ability to interact with other health care providers in treating patients. Other objectives are to inculcate a critical appreciation for the professional literature, the value of scholarly activity and professional service.

YEAR 1

Clinical Rotations:

- Anesthesia: 2 months
- Medicine: 2 months
- Pediatric Emergency Medicine: 1 month
- Oral & Maxillofacial Surgery: 7 months

YEAR 2

Clinical Rotations:

- General Surgery / Surgical ICU / Neurosurgery: 6 months
- Adult Emergency Medicine: 1 month
- Cardiology: 1 month
- Oral & Maxillofacial Surgery: 4 months

YEAR 3

Clinical Rotations:

- Plastic Surgery: 1 month
- Anesthesia: 3 months
- Otolaryngology/ Head & Neck Surgery: 1 month
- Oral and Maxillofacial Surgery: 7 months

YEAR 4

Clinical Rotations:
Oral & Maxillofacial Surgery: 12 months (at the chief level)

Anesthesia

(5 months total: 2 months during the first year and 3 months during the third year)

Objectives:

1. To become proficient in patient evaluation and determination of anesthetic risk
2. To obtain competence in the evaluation and treatment of anesthesia complications or emergencies such as CPR, airway maintenance, management of transfusion reactions, etc.
3. To review basic pulmonary and cardiovascular physiology in dynamic situations
4. To understand the clinical effects of pharmacologic agents utilized in anesthesia and sedation management
5. To acquire knowledge of rapid sequence induction as well as standard induction and intubation techniques
6. To obtain mastery of the practical skills of general and regional anesthetics including the use of ventilators for patient management
7. To provide exposure to the management of both geriatric and pediatric patients in the normal course of anesthesia delivery at a large training institution

Duties:

In order to meet the objectives of the rotation, the residents spend five months on the anesthesia service. The oral and maxillofacial surgery resident, after a suitable period of supervision as determined by the anesthesia faculty, is assigned their own room and given the responsibility for pre-operative patient evaluation and intra-operative management of patient general anesthetic. The responsibilities of the oral and maxillofacial surgery resident on the anesthesia rotation are equivalent with those of an anesthesia resident.

Medicine (Including Cardiology)

Objectives:

1. To gain experience in the inpatient management of patients with general internal medicine and cardiology conditions
2. To develop competence in physical diagnosis and the interpretation of EKGs and other cardiac investigations

Duties:

In order to meet the objectives of the rotation, the residents spend two months on the inpatient internal medicine service and one month on the cardiology service. The responsibilities of the oral and maxillofacial surgery resident during the medicine rotation are equivalent with those of an intern on the medicine service.

Emergency Medicine (Adult and Pediatric)

Objectives:

1. To gain experience in the assessment and treatment of acutely ill children and adults
2. To develop competence in the assessment and management of acute injuries of hard and soft tissues

Duties:

In order to meet the objectives of the rotation, the residents spend one month on the adult emergency medicine service and one month on the pediatric emergency service. The responsibilities of the oral and maxillofacial surgery resident during the emergency medicine rotation are equivalent with those of an intern on the emergency medicine service.
Oral & Maxillofacial Surgery

(1st - 4th years when not on an off-service rotation)

**Objectives:**

1. To gain experience in outpatient oral and maxillofacial surgery procedures including the management of simple and surgical extractions, the placement of dental implants, the removal of impacted teeth and the management of oral pathologies under local anesthesia, intravenous sedation and outpatient anesthesia
2. To gain exposure to the management of patients within the operating room
3. To gain experience in airway management under general anesthesia
4. To gain full scope oral and maxillofacial surgery experience in the operating room
5. To gain experiences in the management of the multi-system trauma patient at a Level I Trauma center

**Duties:**

The Chief Resident will bear the responsibility of managing all things related to the clinic schedule, OR schedule, core curriculum and administrative tasks. All residents take call and respond to the emergency room and the surgical intensive care units for facial trauma and Oral and Maxillofacial Emergencies. The residents are involved in patient work ups and patient management during their hospital stay. They participate at conferences on a regular basis

General Surgery - (Gen. Surgery, Neurosurgery, SICU)

General Surgery Rotation - 6 months of second year (total of 6 months combined with neurosurgery and SICU)

**Objectives:**

1. To gain experience in the pre-operative evaluation of the surgical patient
2. To gain experience in pre-operative, inter-operative, post-operative patient care including fluid and electrolytes status, pulmonary care, cardiovascular function and wound care
3. To gain experience in the application of surgical principles of dealing with wound care, wound healing, and wound infection
4. To gain technical skills in the insertion of central venous access lines, insertion and utilization of chest tubes and general surgical skills and techniques

**Duties:**

The residents rotate as surgery residents. They are scheduled in the general surgery rotation so that when they are present on-service, they are given the responsibilities of the general surgery resident, including covering trauma call. The resident performs admission history and physical examinations and assists in the management of all team duties. The resident teaches medical students and takes call. The resident plays a major role in the perioperative management of the team's patients and participates in operating room activity.

Neurosurgery Rotation

(2 months during the 'surgery' rotation)

**Objectives:**

1. The resident will gain experience and recognition in the early management of acute neurology injury
2. The resident will gain experience in the interpretation of cervical spine films
3. The resident will gain experience in the interpretation of other imaging methods
4. The resident will gain experience with the management of critically ill patients within the neurosurgical intensive care unit
**Duties:**

The oral and maxillofacial surgery resident functions as a junior neurosurgery resident. They assume a significant level of responsibility with respect to direction of activity in the neurosurgery intensive care unit including patient management under the supervision of the neurosurgery faculty. The oral and maxillofacial surgery resident takes call on neurosurgery service and answers consultation requests.

**SICU Rotation**

(1 month during the 'surgery' rotation)

**Objectives:**

1. The resident will gain experience in the management of the complex surgical care patient
2. The resident will gain experience in the placement and management of central venous access lines and tracheostomies
3. The resident will actively participate in ventilator management
4. The resident will gain experience in management of the acute trauma patient

**Duties:**

The oral and maxillofacial surgery resident functions as a junior surgery resident. They assume a significant level of responsibility in the surgical intensive care unit including patient management under the supervision of the surgery faculty.

**Otolaryngology/Head and Neck Surgery (ENT)**

(1 months during the third year)

**Objectives:**

1. To gain experience in the management of general otolaryngology/ head & neck surgery patients
2. To gain experience in the management of head and neck oncology
3. To gain experience in the management of head and neck trauma patients from Otolaryngologist’s perspective

**Duties:**

The oral and maxillofacial surgery residents assume the responsibilities of a resident on rotation on the ENT service. They will be directly responsible to the surgery attending faculty. The oral and maxillofacial surgery resident will take call on the ENT service and respond to the emergency room and the surgical intensive care units. The oral and maxillofacial surgery resident will be involved in patient work ups and patient management during their hospital stay.

**Plastic Surgery**

(1 months during the third year)

**Objectives:**

a. To gain experience in the management of general plastic surgery patients
b. To gain experience in the management of wound care and wound healing
c. To gain experience in the management of head and neck trauma patients from a plastic surgeons perspective
d. To gain experience in microvascular reanastomosis techniques

**Duties:**
The oral and maxillofacial surgery residents assume the responsibilities of a plastic surgery resident rotating on the plastic surgery service. They will be directly responsible to the plastic surgery attending faculty. The oral and maxillofacial surgery resident will take call on the plastic surgery service and respond to the emergency room and the surgical intensive care units. The oral and maxillofacial surgery resident will be involved in patient work ups and patient management of patients on the plastic surgery service during their hospital stay.

**Didactic Curriculum Information**

**Objective:**

To provide a standardized curriculum covering the fundamental concepts of oral and maxillofacial surgery and medicine.

**Format:**

The didactic course covers the subjects tested in OMSSAT (Oral and Maxillofacial Assessment Tool) and the written qualifying exam of the ABOMS. A quality assurance component is incorporated within the course. The curriculum will be designed for the maximum benefit of the third and fourth year residents to prepare them for the written qualifying exam of the ABOMS.

**Course Content:**

Each topic is presented in a case based interactive format. The content includes basic and advanced concepts of surgery and medicine. Lectures are presented by faculty, individuals from other disciplines when appropriate, and occasionally by residents.

**Topics:**

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ACLS/ATLS/PALS: These courses are completed in first or second year. Recertification is carried out as required during the duration of the program.

While on off-service residents attend the didactic offerings of their host service.