# Benchmarks in Oral and Maxillofacial Surgery Education and Training



## Benchmarks in Oral and Maxillofacial Surgery Education and Training

These Benchmarks are offered for use in evaluation of oral and maxillofacial surgery residents in the context of their participation in a residency training program. These Benchmarks are intended as a basis for the assessment of a resident's progress in various practice domains specific to the specialty.

This project was initiated in response to the desire to increase the use of outcomes measurement in assessment of the oral and maxillofacial surgery residency educational process. There has also been a perceived need, in some institutions, to assess oral and maxillofacial surgery residents in a manner consistent with other graduate medical education programs.

This document was a collaborative effort between the AAOMS Committee on Residency Education and Training and the OMS Faculty Section Executive Committee and has been reviewed by the AAOMS Board of Trustees.

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A general interpretation of each level for oral and maxillofacial surgery is as follows; this may vary by Practice Domain:

**Critical Deficiencies**: These learner behaviors are not within the spectrum of developing competence. Instead, they demonstrate significant deficiencies in a resident's performance.

Level 1: Describes behaviors of an early learner.

Medical Knowledge: Basic knowledge
Patient Care: Participates

Level 2: Describes behaviors of a resident who is advancing and demonstrating improvement in performance related to benchmarks.

Medical Knowledge: Intermediate knowledge

Patient Care: Provides with supervision or assistance

**Level 3**: Describes behaviors of a resident who substantially demonstrates the benchmarks identified for an oral and maxillofacial surgeon who is ready for unsupervised, independent practice. This level is designed as the minimal graduation target, but a resident may achieve these benchmarks at any point during residency. In addition to the provided language, the *OMS Parameters of Care* may serve as additional guidelines for the medical knowledge and patient care outcomes expected of Level 3.

Medical Knowledge: Advanced knowledge
Patient Care: Provides independently

**Level 4**: Describes behaviors of a resident who has advanced beyond the minimal benchmarks that describe unsupervised independent practice. These benchmarks reflect the competence of a role model. It is expected that exceptional residents will demonstrate these benchmark behaviors.

Medical Knowledge: Expert knowledge

Patient Care: Provides complex care independently

#### **Additional Notes**

**Level 4** is the aspirational goal of training, but does not represent the minimal requirements for graduation.

Decisions about readiness for graduation are the purview of the residency program director.

Some benchmark descriptions include statements about ability to perform independently. These activities must occur in conformity with institutional and program supervision policies and guidelines.

The diagram below presents an example set of Benchmarks for Practice Domain in the same format as the Benchmark evaluations. For each reporting period, a resident's performance on the benchmarks for each Practice Domain will be indicated by:

- selecting the benchmark level that best describes the resident's performance Or
- selecting the "Critical Deficiencies" response option

<b>Practice Domain</b>	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
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Practice Domain	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Anesthesia and Medicine	Medical Knowledge	The resident lacks a basic understanding of medicine and anesthesia beyond that expected of a general dentist.	Demonstrates intermediate knowledge of anesthetic pharmacology  Demonstrates intermediate knowledge of common medical conditions  Demonstrates intermediate knowledge of difficult airway management  Achieves ACLS certification	Demonstrates advanced knowledge of anesthetic pharmacology  Demonstrates advanced knowledge common medical conditions  Demonstrates advanced knowledge difficult airway management  Demonstrates intermediate knowledge of complex and uncommon medical conditions	Demonstrates expert knowledge of anesthetic pharmacology  Demonstrates expert knowledge of common medical conditions  Demonstrates expert knowledge of difficult airway management  Demonstrates advanced knowledge of complex and uncommon medical conditions  Achieves PALS certification	Engages in outcomes based research
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Pre-anesthetic Assessment of Adult Patients	Patient Care	The resident obtains an inaccurate or incomplete medical history.  The resident performs an inaccurate or incomplete physical examination.  The resident fails to recognize critical components of the medical history or key findings in the physical examination.  The resident fails to recognize patients that are inappropriate candidates for office based anesthesia.	Performs comprehensive medical history and physical examination of routine patients with assistance  Performs targeted physical examination to assess a patient's airway with assistance  Selects appropriate diagnostic studies and consultations with assistance	Independently performs comprehensive medical history and physical examination of routine patients  Independently performs targeted physical examination to assess a patient's airway  Independently obtains appropriate diagnostic studies and consultations	Independently performs comprehensive medical history and physical examination of complex patients  Integrates information between medical history and physical examination  Independently interprets diagnostic studies  Independently recognizes need for pre-anesthetic optimization of patients, when appropriate	Models and teaches performance of comprehensive medical history and physical examination
		Comments:				

Name:

**Practice Domain** 

**Pre-anesthetic** 

Assessment of

**Pediatric Patients** 

Competency

**Patient Care** 

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Anesthetic Plan and Administration for Adult Patients	Patient Care	The resident fails to complete a pre-anesthetic checklist of drugs, equipment or instrumentation.  The resident fails to formulate or implement an appropriate anesthetic plan.  The resident fails to recognize the need for pre-anesthetic optimization of patients and consultations, when necessary.  The resident fails to recognize critical monitoring data.  The resident fails to recognize patients that are inappropriate candidates for office based anesthesia.	Assembles and utilizes appropriate anesthetic armamentarium with assistance  Formulates customized anesthetic plan with assistance  Performs routine moderate sedation with supervision	Independently assembles and utilizes appropriate anesthetic armamentarium  Independently formulates customized anesthetic plan for adult patients  Performs all levels of routine anesthetics for adult and pediatric patients with supervision  Independently recognizes anesthetic complications	Independently performs appropriate anesthetic for complex patients  Independently interprets data from standard monitors  Independently manages routine anesthetic complications  Performs successfully in simulated crisis management	Engages in outcomes based research
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Anesthetic Plan and Administration for Pediatric Patients	Patient Care	The resident fails to complete a pre-anesthetic checklist of drugs, equipment or instrumentation.  The resident fails to formulate or implement an appropriate anesthetic plan.  The resident fails to recognize the need for pre-anesthetic optimization of patients and consultations, when necessary.  The resident fails to recognize critical monitoring data.  The resident fails to recognize patients that are inappropriate candidates for office based anesthesia.	Assembles and utilizes patient appropriate anesthetic armamentarium with assistance in pediatric patients  Appropriately customizes monitor alarm limits for pediatric patients  Determines appropriate weight based dosages of anesthetic agents in pediatric patients	Independently assembles and utilizes patient appropriate anesthetic armamentarium in pediatric patients  Formulates customized anesthetic plan for pediatric patients with assistance  Performs routine moderate sedation with supervision in pediatric patients	Independently formulates customized anesthetic plan for pediatric patients  Independently interprets data from standard monitors for pediatric patients  Performs all levels of routine anesthetics for pediatric patients with supervision  Independently recognizes anesthetic complications in the pediatric patient  Performs successfully in simulated crisis management	Independently performs all levels of routine anesthetics for pediatric patients  Independently manages routine anesthetic complications in pediatric patients  Engages in outcomes based research
		Comments:				

Practice Domain	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Anesthesia – Airway Skills and Parenteral Access in Patients	Patient Care	The resident fails to recognize airway obstruction.  The resident fails to successfully ventilate the routine airway.  The resident fails to assemble the appropriate airway armamentarium.  The resident fails to recognize an infiltrated intravenous line	Independently places oropharyngeal and nasopharyngeal airways  Performs laryngeal mask airway placement with supervision  Performs placement of intravenous catheters in routine patients with supervision  Independently prepares intravenous fluids for administration	Performs endotracheal intubation with supervision  Independently performs laryngeal mask airway placement  Independently performs placement of intravenous catheters	Independently performs endotracheal intubation  Performs advanced airway techniques (e.g., fiberoptic intubation, awake intubation) with supervision  Independently performs prolonged mask ventilation  Performs advanced techniques to secure access to administer drugs (e.g., intraosseous)	Independently performs advanced airway techniques (e.g., fiberoptic intubation, awake intubation)
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Anesthesia – Airway Skills and Parenteral Access in Pediatric Patients	Patient Care	The resident fails to recognize anatomical airway differences in a pediatric patient.  The resident fails to recognize airway obstruction.  The resident fails to successfully ventilate the routine airway.  The resident fails to assemble the patient appropriate airway armamentarium in the pediatric patient.  The resident fails to recognize an infiltrated intravenous line	Independently places oropharyngeal and nasopharyngeal airways  Performs laryngeal mask airway placement with supervision  Performs placement of intravenous catheters in routine patients with supervision  Independently prepares intravenous fluids for administration	Performs endotracheal intubation with supervision  Independently performs laryngeal mask airway placement  Independently performs placement of intravenous catheters  Performs intramuscular injections with supervision	Independently performs endotracheal intubation  Performs advanced airway techniques (e.g., fiberoptic intubation, awake intubation) with supervision  Independently performs prolonged mask ventilation  Independently performs intramuscular injections  Performs advanced techniques to secure access to administer drugs (e.g., intraosseous)	Independently performs advanced airway techniques (e.g., fiberoptic intubation, awake intubation)
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Pain Management	Medical Knowledge	The resident lacks a level of understanding of opioid and non-opioid analgesic pharmacology beyond that expected of a general dentist.	Demonstrates intermediate knowledge of opioid and non-opioid analgesic pharmacology  Demonstrates intermediate knowledge of the pathophysiology of acute and chronic pain	Demonstrates advanced knowledge of opioid and non- opioid analgesic pharmacology  Demonstrates advanced knowledge of the pathophysiology of acute and chronic pain	Demonstrates expert knowledge of opioid and non-opioid analgesic pharmacology  Demonstrates expert knowledge of the pathophysiology of acute and chronic pain	Demonstrates expert knowledge of medical and pharmacological management of chronic facial pain
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Pain Management	Patient Care	The resident fails to recognize or treat procedural pain.  The resident fails to recognize impact of prescribing practices and substance use disorders.	Independently manages uncomplicated procedural pain.  Recognizes substance seeking behavior	Manages complex procedural pain with assistance  Recognizes chronic pain conditions	Independently manages complex procedural pain  Independently manages uncomplicated chronic pain conditions  Recognizes the need for consultation with pain management specialist	Independently manages complicated chronic pain conditions
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Dentoalveolar and Pre-Prosthetic Surgery	Medical Knowledge	The resident lacks the level of understanding of dentoalveolar surgery, local anesthetics or radiographic interpretation beyond that expected of a general dentist.	Demonstrates basic knowledge of the pertinent head and neck anatomy  Demonstrates basic knowledge of appropriate indications for antibiotic prophylaxis  Demonstrates basic knowledge of normal radiographic anatomy (e.g., panoramic views, periapical views)  Demonstrates basic knowledge of the pathophysiology of periapical pathology  Demonstrates advanced knowledge of the use of local hemostatic techniques (e.g., cellulose, fibrin sprays)	Demonstrates advanced knowledge of the common complications associated with dentoalveolar/pre- prosthetic surgery and the appropriate treatment options  Demonstrates advanced knowledge of pathologic radiographic anatomy (e.g., panoramic and periapical views)  Demonstrates advanced knowledge of the management of impacted teeth (including orthodontic management)	Demonstrates expert knowledge of bone healing and complications associated with radiation and anti-resorptive medications  Demonstrates expert knowledge of care of patients receiving radiation/chemotherapy  Demonstrates advanced knowledge of advanced hemostatic techniques (e.g., transfusion products)  Demonstrates expert knowledge of provision of surgical care in patients with complex medical conditions  Demonstrates expert knowledge of hard and soft tissue grafting techniques and wound healing	Educates colleagues and other professionals  Engages in outcomes based research
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Dentoalveolar and Pre-Prosthetic Surgery	Patient Care	The resident lacks the level of skill in dentoalveolar surgery beyond that expected of a general dentist.	Independently performs routine dental extractions  Independently performs routine intraoral suturing  Provides routine post-operative care  Performs surgical extractions with assistance when indicated  Obtains appropriate routine radiographs  Recognizes common surgical complications	Independently performs routine procedures (e.g., biopsy, incision and drainage of abscess)  Independently performs hard tissue procedures (e.g., alveoloplasty, tori removal)  Independently performs surgical extractions  Manages surgical complications with assistance	Independently formulates treatment plans and performs pre- prosthetic surgeries  Manages surgical complications  Formulates a treatment plan for patients with complex medical issues and collaborates care with other providers  Independently performs complex procedures (e.g., vestibuloplasty, gingival grafts)	Models and teaches dentoalveolar surgical skills.  Engages in outcomes based research
		Comments:				

Practice Domain	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Maxillofacial Infection	Medical Knowledge	The resident lacks an understanding of the pertinent anatomy, microbiology, immunology and pharmacology.	Demonstrates basic knowledge of the signs and symptoms of serious maxillofacial infection  Demonstrates basic knowledge of the principles of airway management in patients with serious odontogenic infections  Appropriately interprets laboratory values	Demonstrates intermediate knowledge of the postoperative progress of patients with maxillofacial infection  Demonstrates intermediate knowledge of the management of serious maxillofacial infection	Demonstrates advanced knowledge of the management of the critically ill infection patient  Demonstrates advanced knowledge of the criteria for extubation of patients with serious maxillofacial infection  Demonstrates advanced knowledge of the pathophysiology of sepsis	Demonstrates expert knowledge of the management of the critically ill infection patient
		Comments:				

Practice Domain	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Maxillofacial Infection	Patient Care	The resident is unable to recognize a potentially compromised airway or life threatening infection.  The resident fails to seek higher level management, when indicated, in a timely manner.	Independently recognizes a potentially compromised airway or life threatening infection  Selects appropriate antibiotic therapy  Independently manages patients with simple infections  Participates in the initial management of patients with serious maxillofacial infection	Manages acute airway compromise with assistance  Utilizes anatomic knowledge and imaging to plan appropriate surgery  Provides routine inpatient and outpatient care following incision and drainage procedures  Independently and accurately assesses infection severity and initiates necessary level of care	Independently manages or coordinates interdisciplinary care of acute airway compromise  Coordinates comprehensive multidisciplinary management of the serious maxillofacial infection  Independently performs surgery for serious maxillofacial infections	Manages the critically ill maxillofacial infection patient (e.g., sepsis, ventilatory support, nutrition)
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Maxillofacial Trauma	Medical Knowledge	The resident lacks a basic understanding of pertinent anatomy.  The resident lacks an understanding of basic surgical principles of hard and soft tissue management.  The resident lacks a basic understanding of wound healing.	Demonstrates basic knowledge of common facial fracture patterns and classification systems  Demonstrates basic knowledge of the incidence and management implications of other concomitant injuries  Demonstrates basic knowledge of the routine use of maxillomandibular fixation devices  Demonstrates basic knowledge of the principles of the surgical treatment of hard and soft tissue injuries and osteosynthesis	Demonstrates intermediate knowledge of appropriate use of imaging modalities in maxillofacial trauma  Demonstrates intermediate knowledge of the etiology and incidence of the late effects of maxillofacial injury  Demonstrates intermediate knowledge of the trauma survey  Demonstrates intermediate knowledge of the trauma survey  Demonstrates intermediate knowledge of the relevant anatomy of common approaches to the facial skeleton	Demonstrates advanced knowledge of the principles of treatment sequencing in panfacial trauma  Demonstrates advanced knowledge of the surgical principles of complex procedures  Achieves ATLS certification	Demonstrates advanced knowledge of the management of late sequelae and complications of facial trauma
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Maxillofacial Trauma	Patient Care	The resident is unable to perform an adequate history and physical examination.  The resident fails to recognize concomitant injuries.  The resident is unable to treat dentoalveolar or minor soft tissue injuries.  The resident is unable to recognize airway compromise.  The resident is unable to recognize common postoperative problems.	Orders appropriate diagnostic and imaging studies  Accurately interprets imaging studies for minor maxillofacial trauma  Requests appropriate consultation for concomitant injuries  Provides routine post-operative care  Participates in the surgical management of the complex maxillofacial trauma patient	Manages acute airway compromise with assistance  Accurately interprets imaging studies  Independently formulates a treatment plan for routine facial trauma  Independently performs routine procedures (e.g., closed reduction)  Manages complications with assistance	Independently manages or coordinates interdisciplinary care of acute airway compromise  Independently performs complex procedures  Independently manages complications  Independently formulates a treatment plan for patients with complex injuries, polytrauma and comorbidities	Independently manages complex secondary deformities
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Skeletofacial Deformities and Obstructive Sleep Apnea	Medical Knowledge	The resident lacks a basic understanding of skeletofacial deformities or obstructive sleep apnea.  The resident lacks a basic understanding of the pertinent anatomy.	Demonstrates basic knowledge of the growth and development of the craniofacial skeleton  Demonstrates basic knowledge of the classification of skeletofacial deformities  Demonstrates basic knowledge of the role of multidisciplinary treatment of skeletofacial deformities  Demonstrates basic knowledge of essential cephalometric landmarks  Demonstrates intermediate knowledge of the pathophysiology of obstructive sleep apnea	Demonstrates intermediate knowledge of cephalometric analysis  Demonstrates intermediate knowledge of surgical concepts used to treat skeletofacial deformities  Demonstrates intermediate knowledge of the principles of occlusion and treatment planning  Demonstrates intermediate knowledge of common complications of the surgical correction of skeletofacial deformities  Demonstrates advanced knowledge of the pathophysiology of obstructive sleep apnea	Demonstrates advanced knowledge of the vascular supply to the maxillofacial region and its implications for surgical treatment  Demonstrates advanced knowledge of the management of complications of surgical correction of skeletofacial deformities  Demonstrates expert knowledge of the pathophysiology of obstructive sleep apnea	Demonstrates advanced knowledge of maxillofacial anatomy and its implications for complex surgical treatment  Demonstrates advanced knowledge of the role of multidisciplinary treatment of skeletofacial deformities and obstructive sleep apnea
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Skeletofacial Deformities and Obstructive Sleep Apnea	Patient Care	The resident is unable to perform basic datagathering techniques.  The resident is unable to perform an accurate history and physical.  The resident is unable to recognize common postoperative problems.	Performs an accurate facial analysis and evaluation  Performs basic cephalometric analysis  Performs model surgery or virtual surgical planning techniques with assistance  Performs adequate clinical photography	Independently performs model surgery or virtual surgical planning techniques  Performs surgical procedures with assistance  Prescribes or refers for non-surgical management, obstructive sleep apnea patients, when appropriate	Integrates cephalometric and clinical analysis to formulate treatment plans  Actively participates in multidisciplinary treatment planning of skeletofacial deformities and obstructive sleep apnea patients  Independently manages and performs routine orthognathic procedures  Independently manages postoperative complications	Formulates and implements surgical treatment plans for complex skeletofacial deformities  Independently manages and performs complex orthognathic procedures
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Cleft and Craniofacial Deformities	Medical Knowledge	The resident lacks a basic understanding of cleft and craniofacial syndromes.  The resident lacks a basic understanding of the pertinent anatomy.	Demonstrates basic knowledge of craniofacial genetics and the growth and development of the craniofacial skeleton  Demonstrates basic knowledge of the classification of cleft deformities  Demonstrates basic knowledge of the role of multidisciplinary treatment of cleft and craniofacial deformities	Demonstrates basic knowledge of the broad rationale of treatment sequencing for cleft/craniofacial deformities  Demonstrates intermediate knowledge of characteristics of common cleft/craniofacial syndromes	Demonstrates advanced knowledge of vascular supply to the maxillofacial region and its implications for surgical treatment  Demonstrates advanced knowledge of surgical concepts and procedures used to treat cleft/craniofacial deformities	Demonstrates advanced knowledge of maxillofacial anatomy and its implications for complex surgical treatment  Models and teaches the rationale of treatment sequencing for cleft/craniofacial deformities  Demonstrates advanced knowledge of the role of multidisciplinary treatment of cleft/craniofacial deformities
		Comments:				

<b>Practice Domain</b>	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Cleft and Craniofacial Deformities	Patient Care	The resident is unable to perform basic datagathering techniques.  The resident is unable to perform an accurate history and physical.  The resident is unable to recognize common postoperative problems.	Performs an accurate craniofacial analysis and evaluation  Performs adequate clinical photography	Independently performs model surgery or virtual surgical planning techniques  Performs alveolar cleft grafting with assistance  Manages complications with supervision  Ensures multidisciplinary care of the cleft/craniofacial patient from birth to maturity	Integrates cephalometric and clinical analysis to formulate treatment plans  Independently manages common postoperative complications  Manages complex postoperative complications with assistance  Actively participates in multidisciplinary treatment planning  Independently performs alveolar cleft grafting	Formulates and implements surgical treatment plans for craniofacial deformities  Independently manages patients and performs surgery for primary cleft and craniofacial procedures  Independently manages complex postoperative complications
		Comments:				

<b>Practice Domain</b>	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Facial Cosmetic Surgery	Medical Knowledge	The resident lacks a basic understanding of facial aging and common facial cosmetic deformities.	Demonstrates basic knowledge of the pertinent anatomy  Demonstrates basic knowledge of the effects of aging on the face  Demonstrates basic knowledge of the use of clinical photography	Demonstrates intermediate knowledge of the concepts of facial aging and basic surgical and nonsurgical treatments for the aging face  Demonstrates intermediate knowledge of the normal relationships, and proportions in facial analysis  Demonstrates intermediate knowledge of the impact of psychological factors and patient expectations on outcomes in facial cosmetic surgery	Demonstrates advanced knowledge of the indications for various treatment options for addressing the aging face  Demonstrates advanced knowledge of the anatomy and principles of basic surgical and non- surgical facial cosmetic procedures  Demonstrates advanced knowledge of the complications of facial cosmetic surgery	Demonstrates expert knowledge of the anatomy and principles of complex facial cosmetic procedures
		Comments:				

<b>Practice Domain</b>	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4		
Facial Cosmetic Surgery	Patient Care	The resident is unable to perform a focused cosmetic evaluation of the face or identify complications of facial cosmetic procedures.	Performs adequate clinical photography  Performs a focused cosmetic evaluation of the face with assistance  Identifies complications of facial cosmetic procedures with assistance	Formulates treatment plans with assistance  Manages common complications of facial cosmetic procedures with appropriate supervision  Assists with facial cosmetic procedures	Performs minimally invasive procedures with supervision  Independently assesses, diagnoses, and formulates treatment plans	Independently performs procedures and manages complex complications of facial cosmetic procedures		
		Comments:						

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Facial Pain and Temporomandibular Disorders	Medical Knowledge	The resident lacks a basic understanding of the pertinent anatomy.  The resident lacks an understanding of the spectrum of temporomandibular disorders and facial pain.	Demonstrates basic knowledge of the pathophysiology of common facial pain disorders  Demonstrates basic knowledge of the importance of multidisciplinary treatment of facial pain and temporomandibular disorders  Demonstrates intermediate knowledge of surgical and non-surgical management of facial pain	Demonstrates basic knowledge of the indications for surgical and nonsurgical treatment  Demonstrates intermediate knowledge of the relevant anatomy of common approaches to the TMJ  Demonstrates basic knowledge of contraindications to surgical management and make appropriate referrals for further care	Demonstrates basic knowledge of the broad rationale of treatment planning and sequencing of TMJ total joint replacement  Demonstrates advanced knowledge of non-surgical and surgical management of temporomandibular disorders and facial pain  Demonstrates expert knowledge of maxillofacial anatomy and its implications for surgical treatment of temporomandibular disorders and facial pain	Demonstrates expert knowledge of medical and pharmacological management of chronic facial pain  Demonstrates expert knowledge of nonsurgical and surgical management of temporomandibular disorders and facial pain
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Facial Pain and Temporomandibular Disorders	Patient Care	The resident is unable to perform basic datagathering techniques.  The resident is unable to perform an accurate history and physical.  The resident is unable to recognize common postoperative problems.	Performs temporomandibular joint evaluation and management with assistance  Independently performs and documents sensory and motor examinations of the head, neck and face  Independently performs and documents detailed TMD examination	Performs temporomandibular joint surgery with assistance Interprets sensory, motor and TMD examination of the head, neck and face with assistance Orders and interprets advanced imaging with assistance	Independently performs routine TMJ arthrotomy  Independently interprets sensory, motor and TMD examination of the head, neck and face  Refers facial pain patients for non- surgical management when appropriate  Independently orders and interprets advanced imaging	Independently performs arthroplasties in complex cases (e.g., total joint replacement, ankylosis)  Independently performs neuroablative procedures for facial pain
		Comments:				

Practice Domain	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Pathology	Medical Knowledge	The resident lacks a basic understanding of common pathologic conditions of the head and neck.  The resident lacks an adequate understanding of the anatomy of the head and neck.	Demonstrates basic knowledge of common benign and malignant diseases and associated complications  Demonstrates basic knowledge of the staging of head and neck cancer  Demonstrates basic knowledge of basic diagnostic and imaging studies	Demonstrates intermediate knowledge of advanced diagnostic and imaging studies  Demonstrates intermediate knowledge of surgical principles of ablative surgery  Demonstrates intermediate knowledge of the role of adjunctive therapies	Demonstrates advanced knowledge of the indications for surgical and non- surgical treatments of benign and malignant disease  Demonstrates basic knowledge of the management of regional metastases  Demonstrates advanced knowledge of complex complications of benign disease	Demonstrates expert knowledge of the management of complex disease and regional and distant metastases  Demonstrates advanced knowledge of complex complications of malignant disease
		Comments:				

Practice Domain	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Pathology	Patient Care	The resident is unable to perform an accurate history and physical.  The resident is unable to recognize common postoperative sequelae or complications.	Performs an accurate history and physical of an uncomplicated patient with head and neck pathologic conditions  Recognizes common lesions of the hard and soft tissues of the head and neck  Provides routine postoperative care	Recognizes common complications  Appropriately prescribes postoperative rehabilitation  Independently performs minor procedures (e.g., biopsy, fine needle aspiration)  Independently interprets diagnostic studies	Independently formulates a treatment plan  Independently performs excision and reconstruction of benign disease  Manages complex complications	Independently manages patients with malignant disease  Independently performs excision and reconstruction of malignant disease  Actively participates in a multidisciplinary head and neck cancer team
		Comments:				

Practice Domain	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Reconstructive Surgery	Medical Knowledge	The resident lacks a basic understanding of common reconstructive surgery.  The resident lacks an understanding of head and neck anatomy.	Demonstrates basic knowledge of the surgical anatomy of donor sites for hard and soft tissue flaps and grafts  Demonstrates basic knowledge of hard and soft tissue wound and graft healing	Demonstrates intermediate knowledge of the surgical treatments for hard and soft tissue defects  Demonstrates intermediate knowledge of the clinical and imaging assessment of patients for reconstructive surgery  Demonstrates intermediate knowledge of prosthetic reconstructive options  Demonstrates intermediate knowledge of prosthetic reconstructive options	Demonstrates advanced knowledge of the surgical principles of hard and soft tissue reconstruction  Demonstrates advanced knowledge of the effects of prior treatment modalities on reconstructive options  Demonstrates advanced knowledge of the classification of nerve injuries	Demonstrates advanced knowledge of the management of complex head and neck defects with advanced techniques in hard and soft tissue flaps and grafts
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Reconstructive Surgery	Patient Care	The resident is unable to perform an accurate history and physical.  The resident is unable to recognize common postoperative problems.	Provides routine postoperative care  Requests and interprets appropriate imaging  Able to discuss the indications, risks, benefits and alternatives of reconstructive surgical procedures	Performs routine reconstructive procedures with assistance  Manages common postoperative complications of reconstructive surgery with assistance  Independently performs a focused neurologic examination to diagnose nerve injury	Formulates a treatment plan for complex reconstructive surgery Independently performs routine reconstructive procedures  Performs complex reconstructive procedures with assistance  Independently manages common complications	Independently formulates complex treatment plans for reconstructive patients with comorbidities and prior treatments  Independently performs complex reconstructive procedures  Independently manages complex complications  Independently performs nerve repair surgery
		Comments:				

Practice Domain	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Dental and Craniomaxillofacial Implant Surgery	Medical Knowledge	The resident lacks the level of understanding of implant surgery and anatomy beyond that expected of a general dentist.	Demonstrates basic knowledge of hard and soft tissue site preparation  Demonstrates basic knowledge of hard and soft tissue wound healing  Demonstrates basic knowledge of fundamentals of osseointegration, osteoinduction, osteoconduction and osteogenesis	Demonstrates intermediate knowledge of clinical and imaging assessment of patients for implant surgery  Demonstrates intermediate knowledge of restorative options  Demonstrates intermediate knowledge of the risk factors and complications associated with implant surgery	Demonstrates expert knowledge of the principles of implant surgery (e.g., immediate placement, immediate load and soft tissue management)  Demonstrates expert knowledge of esthetic principles as they relate to implant surgery	Engages in outcomes based research
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Dental and Craniomaxillofacial Implant Surgery	Patient Care	The resident lacks the level of skill in implant surgery beyond that expected of a general dentist.	Performs history and focused evaluation of the implant candidate  Participates in routine implant procedures  Recognizes common postoperative problems	Performs routine implant procedures with supervision  Recognizes and treats common postoperative complications of implant surgery with supervision.	Independently performs complex implant procedures  Independently performs hard and soft tissue site preparation procedures  Independently manages hard and soft tissue complications including peri- implantitis and failures	Independently performs craniomaxillofacial implant surgery  Engages in outcomes based research
		Comments:				

Practice Domain	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Quality Improvement	Practice-Based Learning and Improvement	The resident lacks interest or the ability to learn from the results of his or her practice.  The resident fails to recognize the impact of errors and adverse events in patient care.  The resident does not accept constructive criticism.	Participates in Morbidity and Mortality and/or other Quality Improvement conferences  Acknowledges gaps in personal knowledge and expertise and frequently asks for feedback from teachers and colleagues  Appropriately responds to feedback	Continually seeks and incorporates feedback to improve performance	Accurately assesses areas of competencies and deficiencies and identifies areas for continued improvement	Applies self- assessment and life-long learning behaviors for practice improvement
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Research and Teaching	Practice-Based Learning and Improvement	The resident is unable to critically evaluate the literature.  The resident does not communicate effectively as a teacher (e.g., is disorganized, is inattentive, uses language unsuitable for the level of the learner, discourages and disregards questions).	Describes basic concepts in clinical epidemiology, biostatistics, and clinical reasoning  Accurately categorizes research study design  Participates in the education of patients, families, residents and/or students	Critically evaluates research outcomes  Teaches patients, families, residents and/or students	Formulates a valid research question and describes a plan to investigate it  Teaches colleagues and other health professionals in both formal and informal settings  Assesses and provides feedback to residents and/or students  Demonstrates evidence of other scholarly activity	Executes a research project  Develops and organizes educational activities at the programmatic level
		Comments:				

Practice Domain	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Communication with Patients and Families	Interpersonal and Communication Skills	The resident is not able to clearly, accurately and respectfully communicate basic healthcare information with patients and families.  The resident is unable to communicate effectively with other healthcare providers.	Ensures that communication with patients, families and other healthcare providers is understandable and respectful	Customizes communication to individual patient characteristics  Provides timely updates to patients and families during hospitalizations and office visits	Demonstrates sensitivity towards patients and families  Discusses complications and untoward events with patients and families  Actively participates in interdisciplinary conferences	Capable of negotiating and managing conflict among patients and families  Organizes, coordinates and facilitates family/healthcare team conferences
		Comments:				

Practice Domain	Competency	Critical Deficiencies	Level 1	Level 2	Level 3	Level 4
Personal and Ethical Behavior	Professionalism	The resident displays undesirable or unethical behaviors, including being impolite or disrespectful, breaching patient confidentiality and privacy.  The resident lacks integrity or fails to take responsibility for patient care activities or his or her actions.	Demonstrates polite and respectful behavior toward patients, their families, and other health care professionals  Responds to pages and consultation requests promptly  Honest and trustworthy  Respects patient confidentiality and privacy	Maintains composure in accordance with ethical principles even in stressful situations  Demonstrates a commitment to continuity of care by taking personal responsibility for patient care outcomes  Exhibits compassion and empathy toward patients and their families  Recognizes the limits of his or her knowledge and seeks assistance as appropriate	Ensures patient care responsibilities are performed and continuity of care is maintained  Accepts responsibility for errors in patient care and initiates corrective actions  Consistently demonstrates integrity in all aspects of care and professional relationships	Serves as a role model for ethical behavior  Consistently places the interests of patients ahead of self-interests
		Comments:				

Practice Domain	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Coordination of Care	Systems Based Practice	The resident lacks a basic understanding of the resources available for coordinating patient care.	Demonstrates intermediate knowledge of the resources available for coordinating patient care within the healthcare system	Actively participates in the coordination of care across multidisciplinary teams  Utilizes the necessary resources to provide optimal patient care	Arranges, consistently and efficiently, disposition planning and interdisciplinary care  Coordinates post-discharge ambulatory care	Coordinates complex disposition planning, (e.g., home healthcare, skilled nursing facility care etc.)
		Comments:				

<b>Practice Domain</b>	Competency	<b>Critical Deficiencies</b>	Level 1	Level 2	Level 3	Level 4
Patient Safety	Systems Based Practice	The resident lacks understanding of patient safety protocols.  The resident fails to recognize adverse events.  The resident fails to intervene in the management or prevention of an adverse event.	Demonstrates intermediate knowledge of patient safety protocols  Demonstrates basic knowledge of common causes of medical errors  Complies with department and institutional safety policies  Demonstrates basic knowledge of team approach in preventing adverse events	Uses protocols to prevent adverse events (e.g., checklists, huddles and briefings)  Describes the common system causes for errors	Reports problematic behaviors, processes, and devices (including errors and near misses)  Actively participates in morbidity and mortality conferences to improve patient safety	Formally analyzes shared team experiences to prevent future errors using proven analysis techniques (e.g., root cause analysis, failure mode effects analysis)  Leads team by promoting situational awareness and input by all team members
		Comments:				