Overview

This Coverage Policy addresses the use of monitored anesthesia care (MAC)/general anesthesia and associated facility charges in conjunction with dental surgery or procedures performed by a dentist, oral surgeon or oral maxillofacial surgeon. This includes services in a properly-equipped and staffed office, a hospital or outpatient surgery center.

Coverage Policy

Facility and/or monitored anesthesia care (MAC)/general anesthesia services provided in conjunction with dental treatment may be impacted by benefit plan language and governed by state mandates. Please refer to the applicable benefit plan document to determine benefit availability and the terms and conditions of coverage.

MAC/general anesthesia and associated facility charges in conjunction with dental surgery or procedures performed by a dentist, oral surgeon or oral maxillofacial surgeon normally excluded under the medical plan are considered medically necessary when there is an appropriately trained and licensed professional to both administer and monitor MAC/general anesthesia in EITHER of the following locations:
• a properly-equipped and staffed office
• a hospital or outpatient surgery center

for ANY of the following:

• individual age seven years or younger
• individual who is severely psychologically impaired or developmentally disabled
• individual with American Society of Anesthesiologists (ASA) Physical Status Classification* of P3 or greater
• individual who has one or more significant medical comorbidities which:
  - preclude the use of either local anesthesia or conscious sedation OR
  - for which careful monitoring is required during and immediately following the planned procedure

• individuals in whom conscious sedation would be inadequate or contraindicated for any of the following procedures:
  - removal of two or more impacted third molars
  - removal or surgical exposure of one impacted maxillary canine
  - surgical removal of two or more teeth involving more than one quadrant
  - routine removal of six or more teeth
  - full arch alveoplasty
  - periodontal flap surgery involving more than one quadrant
  - radical excision of tooth-related lesion greater than 1.25 cm or ½ inch
  - tooth-related radical resection or ostectomy with or without grafting
  - placement or removal of two or more dental implants
  - tooth transplantation or removal from maxillary sinus
  - extraction with bulbous root and/or unusual difficulty or complications noted
  - removal of exostosis involving two areas
  - removal of torus mandibularis involving two areas

**Anesthesia and/or associated facility charges for dental and oral surgery services which are of a cosmetic nature are considered not medically necessary.**

*See page four in the General Background for definitions of American Society of Anesthesiologists (ASA) Physical Status Classification

**General Background**

Deep sedation, or general anesthesia services, may be required to receive comprehensive dental care for some patients who have special challenges related to their age, behavior, developmental disabilities, medical status, intellectual limitations, or special needs. Oral conditions, such as caries and periodontal diseases, if left untreated, can result in loss of function, infection, and pain (American Academy of Pediatric Dentistry [AAPD], 2005).

Sedation and anesthesia procedures performed on dental patients in nontraditional settings have increased over the past several years. These services could be provided in an office, outpatient facility, or hospital. This care should be provided by qualified and appropriately trained individuals and in facilities accredited in accordance with state regulations and professional society guidelines (AAPD, 2012b; American Society of Anesthesiologists [ASA], 2014b; ASA, 2013; American Dental Association [ADA], 2012a; Nick, et al., 2003).

A carefully obtained and reviewed preoperative medical history, physical examination, and laboratory tests (as necessary), designed to identify high-risk patients with potential medical contraindications to office-based anesthesia, is recommended to prevent anesthetic emergencies by applying strict inclusion criteria (AAPD, 2006;
Perrott, et al., 2003; D’eramo, et al., 2003; Iverson, 2002; Hoeöfflin, et al., 2001). Office-based facilities must ensure timely access to the healthcare system for complications that may occur during, or days after, the surgery (AAPD, 2012b; ASA, 2014b; Fleisher, et al., 2004).

It is recommended that facilities that administer general anesthesia be equipped with anesthesia emergency drugs, appropriate resuscitation equipment, and properly trained staff to quickly and skillfully respond to anesthetic medical emergencies (Doyle and Colletti, 2006; ASA, 2013). Outpatient surgery studies have generally reported a low incidence of surgery-related morbidity with proper patient selection. However, studies of adverse events following outpatient surgery suffer from limitations associated with selection bias, incomplete reporting and limited follow-up. For example, a recent study from Florida, one of few states that requires the central reporting of adverse events, observed a 10-fold increase of adverse events with surgeries performed in doctors’ offices when compared to ambulatory surgical centers (Vila, et al., 2004). Factors known to be associated with adverse events include patient age (with high risk among the very young and very old), the length of the procedure, health status, the type of procedure, provider qualifications and facility accreditation (Fleisher, et al., 2004).

Literature Review
Perrott et al. (2003) conducted a prospective cohort study to provide an overview of current anesthetic practices of oral and maxillofacial surgeons in the office-based ambulatory setting. The patients received local anesthesia, conscious sedation, or deep sedation/general anesthesia. The predictor variables were categorized as demographic, anesthetic technique, staffing, adverse events, and patient-oriented outcomes. The sample comprised 34,191 patients, 71.9% of whom received deep sedation/general anesthesia. A total of 14,912 patient satisfaction forms were completed by patients who had deep sedation/general anesthesia. The overall complication rate was 1.3 per 100 cases, and the complications were minor and self-limiting. The lowest complication rate (0.4%) was associated with the use of local anesthesia, and the highest complication rate was with deep sedation/general anesthesia (1.5%). The conscious sedation complication rate was (0.9%) (p<0.001). Two patients who both received deep sedation/general anesthesia experienced complications requiring hospitalization. The patients receiving deep sedation/general anesthesia were overwhelmingly satisfied, with 95.8% reporting extreme or moderate satisfaction.

Coté et al. (2000) developed a database consisting of descriptions of adverse sedation events in pediatric patients, derived from the Food and Drug Administration’s adverse drug event reporting system, from the U.S. Pharmacopeia, and from a survey of pediatric specialists. A total of 95 cases were reviewed for factors that may have contributed to adverse sedation events, ranging from death to no harm. Thirty-two of the 95 cases involved sedation/anesthesia for dental procedures, most in a nonhospital-based venue. Twenty-nine cases resulted in death or permanent neurological injury. Three cases resulted in prolonged hospitalization without injury or no harm. The authors stated this may be a result of the fact that general dentists have little pediatric training, particularly in drugs used for sedation/analgnesia. The training and skills of the dental specialists was not clear from the case reports. Inadequate resuscitation was often associated with a nonhospital-based setting. In all venues, inadequate and inconsistent physiologic monitoring contributed to poor outcomes. Other issues included: inadequate presedation medical evaluation, lack of an independent observer, medication errors, and inadequate recovery procedures. The authors recommended that uniform, specialty-independent guidelines for monitoring children during and after sedation are needed. Appropriate equipment and medications for resuscitation should be immediately available, regardless of where the child is sedated. Also, all healthcare providers who sedate children should have advanced airway assessment and management training with resuscitation skills to safely rescue patients if an adverse sedation event occurs.

Professional Organizations/Societies
American Society of Anesthesiologists (ASA): The ASA definition of levels of sedation/analgnesia (ASA, 2014):

- Minimal sedation (i.e., anxiolysis) is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, airway reflexes, and ventilatory and cardiovascular functions are unaffected.
- Moderate sedation/analgnesia (i.e., conscious sedation) is a drug-induced depression of consciousness during which patients respond purposefully* to verbal commands, either alone or accompanied by light
tactile stimulation. No interventions are required to maintain a patent airway and spontaneous ventilation is adequate. Cardiovascular function is usually maintained.

- Deep sedation/analgesia is a drug-induced depression of consciousness during which patients cannot be easily aroused but respond purposefully following repeated or painful stimulation. The ability to independently maintain ventilatory function may be impaired. Patients may require assistance in maintaining a patent airway, and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.

- General anesthesia is a drug-induced loss of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation, drug-induced depression, or neuromuscular function. Cardiovascular function may be impaired.

*Note: Reflex withdrawal from a painful stimulus is not considered a purposeful response.

The ASA states that Monitored Anesthesia Care (“MAC”) does not describe the continuum of depth of sedation, rather it describes “a specific anesthesia service in which an anesthesiologist has been requested to participate in the care of a patient undergoing a diagnostic or therapeutic procedure.”

The ASA has developed a Physical Status Classification System. The ASA states that there is no additional information to further define these categories (ASA, 2014d; 2019):

- ASA 1: normally healthy patient
- ASA II: patient with mild systemic disease
- ASA III: patient with severe systemic disease
- ASA IV: patient with severe systemic disease that is a constant threat to life
- ASA V: moribund patient who is not expected to survive without an operation
- ASA VI: A declared brain-dead patient whose organs are being removed for donor purposes

The ASA position on monitored anesthesia care states that, “Monitored anesthesia care is a specific anesthesia service performed by a qualified anesthesia provider, for a diagnostic or therapeutic procedure. Indications for monitored anesthesia care include, but are not limited to, the nature of the procedure, the patient’s clinical condition and/or the need for deeper levels of analgesia and sedation than can be provided by moderate sedation including potential conversion to a general or regional anesthetic. Monitored anesthesia care includes all aspects of anesthesia care – a preprocedure assessment and optimization, inaprocure care and postprocedure management that is inherently provided by a qualified anesthesia provider as part of the bundled specific service. During monitored anesthesia care, the anesthesiologist provides or medically directs a number of specific services, including but not limited to:

- Preprocedural assessment and management of patient comorbidity and periprocedural risk
- diagnosis and treatment of clinical problems that occur during the procedure
- support of vital functions inclusive of hemodynamic stability, airway management and appropriate management of the procedure induced pathologic changes as they affect the patient’s coexisting morbidities
- administration of sedatives, analgesics, hypnotics, anesthetic agents or other medications as necessary for patient safety
- psychological support and physical comfort
- provision of other medical services as needed to complete the procedure safely

Monitored anesthesia care may include varying levels of sedation, analgesia and anxiolysis as necessary. The qualified anesthesiologist provider of monitored anesthesia care must be prepared and qualified to convert to general anesthesia and respond to the pathophysiology (airway and hemodynamic changes) of procedure and position in the management in induction of general anesthesia when necessary. If the patient loses consciousness and the ability to respond purposefully, the anesthesia care is a general anesthetic, irrespective of whether airway instrumentation is required” (ASA, 2018).
The ASA statement on distinguishing monitored anesthesia care (MAC) from moderate sedation/analgesia (conscious sedation) states that, “This physician service can be distinguished from Moderate Sedation in several ways. An essential component of MAC is the periprocedural anesthesia assessment and understanding of the patient’s coexisting medical conditions and management of the patient’s actual or anticipated physiological derangements during a diagnostic or therapeutic. While Monitored Anesthesia Care may include the administration of sedatives and/or analgesics often used for Moderate Sedation, the qualified anesthesia provider of MAC is focused exclusively and continuously on the patient for any attendant airway, hemodynamic and physiologic derangements. Further, the provider of MAC must be prepared and qualified to convert to general anesthesia when necessary. The proceduralist providing moderate sedation may have their attention diverted to their primary focus, the procedure. Additionally, a provider’s ability to intervene to rescue a patient’s airway from any sedation-induced compromise is a prerequisite to the qualifications to provide Monitored Anesthesia. By contrast, Moderate Sedation is not expected to induce depths of sedation that would impair the patient’s respiratory function or ability to maintain the integrity of his or her airway. These components of Monitored Anesthesia Care are unique aspects of an anesthesia service that are not part of Moderate Sedation (ASA, 2018).

The ASA guidelines for office-based anesthesia state that, compared with licensed ambulatory surgical facilities and acute-care hospitals, offices currently have little or no regulation, oversight, or control by federal, state, or local laws. ASA members must investigate areas taken for granted in the hospital or ambulatory surgical facility, such as organization, governance, construction and equipment; and policies and procedures including: fire, safety, emergencies, drugs, staffing, training, and unanticipated patient transfers (ASA, 2014b; 2019a).

The ASA statement on qualifications of anesthesia providers in the office-based setting recommends that where anesthesiologist participation is not practicable, nonphysician anesthesia providers must, at a minimum, be supervised by the operating practitioner or other licensed physician. The supervising operating practitioner, or other licensed physician, should be specifically trained in sedation, anesthesia, and rescue techniques appropriate to the type of sedation or anesthesia being provided, and to the office-based surgery being performed. The ASA recommends that these guidelines be read in conjunction with the ASA’s guidelines for office-based anesthesia (ASA, 2014c; 2019b).

American Academy of Pediatric Dentistry (AAPD): In 2019, the AAPD and the American Academy of Pediatrics (AAP) published an updated guideline for monitoring and management of pediatric patients before, during and after sedation for diagnostic and therapeutic procedures. This updated statement unifies the guidelines for sedation used by medical and dental practitioners, adds clarification regarding monitoring modalities, provides new information from the medical and dental literature, and suggests methods for further improvement in safety and outcomes. With this guideline, the Joint Commission on Accreditation of Healthcare Organizations, the ASA, the AAP, and the AAPD will use similar language to define sedation categories and the expected physiologic responses. The AAPD and AAP recommend the following:

- Candidates for minimal, moderate, or deep sedation are patients who are in ASA Classes I and II. Children in ASA Classes III and IV, children with special needs, and those with anatomic airway abnormalities or extreme tonsillar hypertrophy present issues that require additional and individual consideration, particularly for moderate and deep sedation. Practitioners are encouraged to consult with appropriate subspecialists and/or an anesthesiologist for patients at increased risk of experiencing adverse sedation events because of their underlying medical/surgical conditions.

- The pediatric patient should be accompanied to and from the treatment facility by a responsible person (e.g., parent or legal guardian). It is recommended that two or more adults accompany children who are in car safety seats if transportation to and from a treatment facility is provided by one of the adults.

- The practitioner who uses sedation must have immediate available facilities, personnel, and equipment to manage emergency and rescue situations. The most common serious complications of sedation involve compromise of the airway or depressed respirations resulting in airway obstruction, hypoventilation, hypoxemia, and apnea. Hypotension and cardiopulmonary arrest may occur, usually
A protocol for access to back-up emergency services shall be identified, with an outline of the procedures necessary for immediate use. For nonhospital facilities, a protocol for ready access to ambulance service and immediate activation of the emergency medical system for life-threatening complications must be developed and maintained. The availability of emergency medical services does not replace the practitioner’s responsibility to provide initial rescue in managing life-threatening complications.

An emergency cart or kit must be immediately accessible and contain equipment to provide the necessary age- and size-appropriate drugs and equipment to resuscitate a nonbreathing and unconscious child. The contents of the kit must allow for the provision of continuous life support while the patient is being transported to a medical facility or to another area within a medical facility. All equipment and drugs must be checked and maintained on a scheduled basis. Monitoring devices must have a safety and function check on a regular basis as required by local or state regulation.

The time and condition of the child at discharge from the treatment area or facility should be documented; this should include documentation that the child’s level of consciousness and oxygen saturation in room air have returned to a state that is safe for discharge as recognized by the following criteria:

- Cardiovascular function and airway patency are satisfactory and stable
- Patient is easily arousable, and protective reflexes are intact
- Patient can talk (if age-appropriate)
- Patient can sit up unaided (if age-appropriate)
- For a very young or handicapped child incapable of the usually expected responses, the preseadation level of responsiveness or a level as close as possible to the normal level for that child should be achieved
- State of hydration is adequate

The AAPD guideline on the use of anesthesia providers in the administration of in-office deep sedation/general anesthesia to the pediatric patient recommends the guideline is to be used to assist the dental provider who elects to use an anesthesia care provider for the administration of deep sedation/general anesthesia for pediatric dental patients in a dental office or other facility outside of an accredited hospital or ambulatory surgical center. The guideline addresses personnel, facilities, documentation, and quality assurance mechanisms required to provide responsible and optimal care to the pediatric dental patient. The guideline states that deep sedation/general anesthesia techniques in the dental office require the presence of the following individuals throughout the procedure: licensed anesthesia provider who is independent of performing or assisting with the dental procedure; and the operating dentist (AAPD, 2012b; 2017; 2018, 2019).

The AAPD clinical guideline on management of dental patients with special health care needs addresses behavior guidance recommending that, “Because of dental anxiety or a lack of understanding of dental care, children with disabilities may exhibit resistant behaviors. These behaviors can interfere with the safe delivery of dental treatment. With the parent/caregiver’s assistance, most patients with physical and mental disabilities can be managed in the dental office. Protective stabilization can be helpful in patients for whom traditional behavior guidance techniques are not adequate. When protective stabilization is not feasible or effective, sedation or general anesthesia is the behavioral guidance armamentarium of choice. When in-office sedation/general anesthesia is not feasible or effective, an out-patient surgical care facility might be necessary” (AAPD, 2016b).

American Dental Association (ADA): The 2016a ADA guideline for the use of sedation and general anesthesia by dentists recommends that to administer deep sedation or general anesthesia, the dentist must have completed:

- An advanced education program accredited by the ADA Commission on Dental Accreditation that affords comprehensive and appropriate training necessary to administer and manage deep sedation or general
anesthesia, commensurate with the deep sedation or general anesthesia clinical guidelines in this ADA guideline

- a current certification in Basic Life Support for Healthcare Providers and either current certification in Advanced Cardiac Life Support (ACLS) or completion of an appropriate dental sedation/anesthesia emergency management course on the same re-certification cycle that is required for ACLS

The guideline states that administration of deep sedation or general anesthesia by another qualified dentist or independently practicing qualified anesthesia healthcare provider requires the operating dentist and his/her clinical staff to maintain current certification in BLS Course for the Healthcare Provider.

The ADA guideline recommends that patients must be evaluated prior to the start of any sedative/anesthetic procedure. Healthy or stable patients (i.e., ASA I or II) may require only a review of their medical history, including medication use. Patients who are medically unstable, or who have a significant health disability (i.e., ASA III or IV), may require consultation with their primary physician, or consulting medical specialist. The guidelines state that a minimum of three individuals must be present: a qualified dentist to administer and monitor the deep sedation/general anesthesia; two individuals who are competent in basic life support, or its equivalent; another individual trained in patient monitoring, if the same individual administering deep sedation/general anesthesia is performing the dental procedure. The guidelines recommend that suitable equipment must be on the premises to provide advanced airway maintenance and advanced life support along with in-line oxygen analyzers for intubated patients. Further recommendations address strict monitoring, documentation, recovery, and discharge criteria (ADA, 2012a).

American Association of Oral and Maxillofacial Surgeons (AAOMS): In the 2012 AAOMS Parameters of Care: Clinical Practice Guidelines for Oral and Maxillofacial Surgery section on Patient Assessment the authors state, “In all cases of ASA class II or greater patients, consideration should be given to consultation with a physician for medical clarification of the patient’s physiologic condition clearance to assist the OMS in determining the appropriateness for outpatient OMS procedures that may include sedation or general anesthesia”. The authors state that, “The practitioner’s selection of a particular technique for controlling pain and anxiety during a specific procedure has to be individually determined for each patient, considering the risks and benefits for each case”. The section addressing Anesthesia in Outpatient Facilities discusses three subpopulations of individuals (i.e., children, pregnant women and individuals with obesity) who are at higher risk of anesthesia complications due to anatomical and physiological variations. Additionally, numerous health conditions are identified that may be impacted by anesthesia. The authors identify specific factors affecting risk for deep sedation/general anesthesia including:

- loss of the ability to respond purposefully to physical stimulation or verbal command and/or loss of protective
- cardiopulmonary reflexes and the ability to maintain an airway independently
- factors compromising airway patency
- factors compromising cardiovascular function
- noncompliance with or conditions affecting NPO requirements
- psychological aversion to intravenous or intramuscular injections and/or anesthetic mask
- presence of intraoral abscess or cellulitis
- presence of facial anomalies and anatomical variations that might prevent or impede adequate airway management
- presence of a recent or active upper respiratory infection
- regulatory and/or third-party decisions concerning access to care, indicated therapy, drugs, devices, and/or materials
- special needs patients

Use Outside of the US
No relevant information.
Medicare Coverage Determinations

| NCD | National | No NCD found |  
| LCD | National | No LCD found |  

Note: Please review the current Medicare Policy for the most up-to-date information.

Coding/Billing Information

Note: 1) This list of codes may not be all-inclusive.
   2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement.

The scope of this policy is limited to medical plan coverage of the facility and/or monitored anesthesia care (MAC)/general anesthesia services provided in conjunction with dental treatment, and not the dental or oral surgery services. The professional dental procedure codes listed are for reference only and do not imply coverage of dental procedures.

Considered medically necessary when used to report facility charges for dental procedures performed outpatient:

<table>
<thead>
<tr>
<th>CPT® Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01999</td>
<td>Unlisted anesthesia procedure(s)</td>
</tr>
<tr>
<td>41899</td>
<td>Unlisted procedure, dentoalveolar structures</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CDT® Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D7140</td>
<td>Extraction, erupted tooth or exposed root (elevation and/or forceps removal)</td>
</tr>
<tr>
<td>D7230</td>
<td>Removal of impacted tooth partially bony</td>
</tr>
<tr>
<td>D7240</td>
<td>Removal of impacted tooth completely bony</td>
</tr>
<tr>
<td>D7241</td>
<td>Removal of impacted tooth completely bony, with unusual surgical complications</td>
</tr>
<tr>
<td>D7250</td>
<td>Removal of residual tooth roots (cutting procedure)</td>
</tr>
<tr>
<td>D7272</td>
<td>Tooth transplantation (includes reimplantation from one site to another and splinting and/or stabilization)</td>
</tr>
<tr>
<td>D7310</td>
<td>Alveoplasty in conjunction with extractions - four or more teeth or tooth spaces, per quadrant</td>
</tr>
<tr>
<td>D7321</td>
<td>Alveoplasty not in conjunction with extractions - one to three teeth or tooth spaces, per quadrant</td>
</tr>
<tr>
<td>D7471</td>
<td>Removal of lateral exostosis (maxilla or mandible)</td>
</tr>
<tr>
<td>D7473</td>
<td>Removal of torus mandibularis</td>
</tr>
<tr>
<td>D9222</td>
<td>Deep sedation/general anesthesia – first 15 minutes</td>
</tr>
<tr>
<td>D9223</td>
<td>Deep sedation/general anesthesia – each subsequent 15 minute increment</td>
</tr>
</tbody>
</table>

**Code on Dental Procedures and Nomenclature (CDT®) ©2019 American Dental Association, Chicago, IL.

References


