

SUBJECT: MONITORED ANESTHESIA CARE (MAC)

EFFECTIVE DATE: 06/21/12

REVISED DATE: 06/20/13, 06/19/14

POLICY NUMBER: 7.03.02

PAGE: 1 OF: 5

CATEGORY: Technology Assessment

- *If the member's subscriber contract excludes coverage for a specific service it is not covered under that contract. In such cases, medical policy criteria are not applied.*
- *Medical policies apply to commercial and Medicaid products only when a contract benefit for the specific service exists.*
- *Medical policies only apply to Medicare products when a contract benefit exists and where there are no National or Local Medicare coverage decisions for the specific service.*

Note: This policy addresses monitored anesthesia care for gastrointestinal endoscopy, bronchoscopy, and interventional pain procedures only.

For purposes of this policy, monitored anesthesia care refers to the use of dedicated, qualified anesthesia personnel being present during the proposed procedure.

POLICY STATEMENT:

- I. Based upon our criteria and assessment of peer-reviewed literature, monitored anesthesia care has been medically proven effective and is therefore **medically appropriate** for upper and lower gastrointestinal endoscopy, bronchoscopy and interventional pain procedures when any of the following risk factors/medical conditions are present:
 - A. Increased risk for complications due to severe co-morbidity (ASA class 3 physical status or greater; *see guidelines section below*);
 - B. Severe sleep apnea that requires use of a positive pressure airway device during sleep;
 - C. Increased risk of airway obstruction due to anatomic variation (e.g., abnormalities of the oral cavity, neck or jaw, dysmorphic facial features);
 - D. Inability to follow simple commands due to cognitive dysfunction or psychological impairment;
 - E. Spasticity or movement disorder complicating procedure;
 - F. History or anticipated intolerance to standard sedatives due to chronic opioid or benzodiazepine use;
 - G. Active medical problems related to drug or alcohol abuse;
 - H. Age younger than 18 years;
 - I. Pregnancy;
 - J. Documented history of previous problems with anesthesia or sedatives (e.g., failure of moderate sedation);
 - K. Prolonged or therapeutic procedure requiring deep sedation; or
 - L. Acutely agitated or uncooperative patients (e.g., delirium, organic brain disease, dementia).
- II. Based upon our criteria and assessment of peer-reviewed literature, use of monitored anesthesia care in the average-risk patient (e.g., absence of any of the above mentioned risk factors/medical conditions) for upper and lower gastrointestinal endoscopy, bronchoscopy and interventional pain procedures does not improve patient outcomes and is therefore considered **not medically necessary**.

POLICY GUIDELINES:

The American Society of Anesthesiologists' (ASA) physical status classification for assessing a patient prior to surgery includes the following:

- I. Normal, healthy patient- ASA physical status 1;
- II. Patient with mild systemic disease- ASA physical status 2;
- III. Patient with severe systemic disease- ASA physical status 3;
- IV. Patient with severe systemic disease that is a constant threat to life- ASA physical status 4;
- V. Moribund patient who is not expected to survive without the operation-ASA physical status 5;
- VI. Patient declared brain dead whose organs are being harvested for donor purposes- ASA physical status 6.

SUBJECT: MONITORED ANESTHESIA CARE (MAC) POLICY NUMBER: 7.03.02 CATEGORY: Technology Assessment	EFFECTIVE DATE: 06/21/12 REVISED DATE: 06/20/13, 06/19/14 PAGE: 2 OF: 5
--	--

DESCRIPTION:

Adequate sedation and analgesia are important components of many diagnostic and therapeutic procedures. Various levels of sedation and analgesia/anesthesia may be utilized depending on the procedure being performed and the patient's condition. The American Society of Anesthesiologists' define four levels of sedation as follows:

Minimal sedation (anxiolysis): is a drug-induced state during which patients respond normally to verbal commands. Although cognitive function and coordination may be impaired, ventilator and cardiovascular function are unaffected.

Moderate sedation/analgesia ("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 depression of consciousness during which patients are not arousable, even by painful stimulation. The ability to independently maintain ventilator 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 or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

Monitored anesthesia care (MAC) refers to dedicated anesthesia personnel (e.g., anesthesiologist, nurse anesthetist) being present during a procedure and does not implicitly indicate the level of anesthesia needed. Monitored anesthesia care may include varying levels of sedation, analgesia and anxiolysis as necessary. The provider of monitored anesthesia care must be prepared and qualified to convert to general anesthesia when necessary. Indications for monitored anesthesia care include the nature of the procedure, the patient's clinical condition and/or the potential need to convert to a general or regional anesthetic.

Monitored anesthesia care includes all aspects of anesthesia care: a pre-procedure visit, intra-procedure care and post-procedure anesthesia management. During monitored anesthesia care, the anesthesiologist/anesthetist provides or medically directs a number of specific services including: diagnosis and treatment of clinical problems that occur during the procedure; support of vital functions; administration of sedatives, analgesics, hypnotics, anesthetic agents or other medications as necessary for patient safety; psychological support and physical comfort; and provision of other medical services as needed to complete the procedure safely.

According to the American Society of Anesthesiologists' (ASA) standard for monitoring, MAC should be provided by qualified anesthesia personnel, including physicians and nurse specialists. By this standard, the personnel must be in addition to the proceduralist and must be present continuously to monitor the patient and provide anesthesia care. For patients at high risk of an unsuccessful procedure under moderate sedation, this allows for the safe continuation of the procedure under deep sedation or general anesthesia by trained personnel.

RATIONALE:

Comparative evidence that supports the use of monitored anesthesia care in specific procedures is limited. Patient characteristics, such as comorbidities, airway features, or the ability to cooperate with the proceduralist, are more indicative of the need for this service. Physician-directed moderate sedation is a safe and effective alternative to monitored anesthesia care for the majority of patients undergoing procedures in whom deep sedation or anesthesia is unnecessary, such as gastrointestinal endoscopy, bronchoscopy, and interventional pain procedures.

An extensive review of the literature related to sedation for gastrointestinal (GI) endoscopy was published through the American Gastroenterological Association (AGA) Institute (Cohen, et al. 2007). The review recommended that use of an anesthesia professional should be strongly considered for ASA physical status 3 through 5 patients. They noted that other possible indications for an anesthesia specialist include patients with pregnancy, morbid obesity, neurologic or

SUBJECT: MONITORED ANESTHESIA CARE (MAC) POLICY NUMBER: 7.03.02 CATEGORY: Technology Assessment	EFFECTIVE DATE: 06/21/12 REVISED DATE: 06/20/13, 06/19/14 PAGE: 3 OF: 5
--	--

neuromuscular disorders, a history of alcohol or substance abuse, and patients who are uncooperative or delirious. They also noted that endoscopic procedures that may require an anesthesia specialist include endoscopic retrograde cholangiopancreatography (ERCP), stent placement in the upper GI tract, and complex therapeutic procedures such as application of the cardioesophageal junction.

Guidelines regarding sedation during endoscopy were released by the American Society for Gastrointestinal Endoscopy (Lichtenstein, et al. 2008). These guidelines indicate “Adequate and safe sedation can be achieved in most patients undergoing routine esophagogastroduodenoscopy [EGD] and colonoscopy by using an intravenous benzodiazepine and opioid combination.”

The ASA has a position statement on anesthetic care during interventional pain procedures (approved 2005, amended 2010). In summary, while recognizing that conditions exist which may make skilled anesthesia care necessary, most minor pain procedures, under most routine circumstances, do not require anesthesia care other than local anesthesia.

CODES: Number Description

Eligibility for reimbursement is based upon the benefits set forth in the member's subscriber contract.

CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.

Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates.

CPT:	00635 Anesthesia for procedures in lumbar region; diagnostic or therapeutic lumbar puncture 01936 Anesthesia for percutaneous image guided procedures on the spine and spinal cord; therapeutic 01991 Anesthesia for diagnostic or therapeutic nerve blocks and injections (when block or injection is performed by a different provider); other than prone position 00520 Anesthesia for closed chest procedures; (including bronchoscopy) not otherwise specified 00740 Anesthesia for upper gastrointestinal endoscopic procedures, endoscope introduced proximal to duodenum 00810 Anesthesia for lower intestinal endoscopic procedures, endoscope introduced distal to duodenum
-------------	--

Copyright © 2014 American Medical Association, Chicago, IL

HCPCS: No specific codes

ICD9: Multiple diagnosis codes

ICD10: Multiple diagnosis codes

REFERENCES:

Agnostomi M, et al. Adverse events during monitored anesthesia care for GI endoscopy: a 8-year experience. *Gastrointest Endosc* 2011 Aug;74(2):266-75.

*American Society of Anesthesiologists (ASA). ASA position on monitored anesthesia care. Amended Sep 2, 2008. [<http://www.asahq.org/For-Members/Clinical-Information/~/media/For%20Members/documents/Standards%20Guidelines%20Stmts/Monitored%20Anesthesia%20Care.ashx>]

accessed 5/5/14.

American Society of Anesthesiologists (ASA). Levels of sedation/analgesia. Amended Oct 29, 2009. [<http://www.asahq.org/For-Members/Clinical-Information/~/media/For%20Members/documents/Standards%20Guidelines%20Stmts/Continuum%20of%20Depth%20of%20Sedation.ashx>]

accessed 5/5/14.

SUBJECT: MONITORED ANESTHESIA CARE (MAC) POLICY NUMBER: 7.03.02 CATEGORY: Technology Assessment	EFFECTIVE DATE: 06/21/12 REVISED DATE: 06/20/13, 06/19/14 PAGE: 4 OF: 5
--	--

American Society of Anesthesiologists (ASA). Distinguishing monitored Anesthesia care ("MAC") from moderate sedation/analgesia. Amended Oct 21, 2009. [http://www.asahq.org/.../Distinguishing%20Monitored%20Anesthesia%20Care%20From%20Moderate%20Sedation%20Fanalgeisa%20October%202009&src=IF-SearchBox.pdf] accessed 5/5/14.

American Society of Anesthesiologists (ASA). Statement on qualifications of anesthesia providers in the office-based setting. Amended Oct 21, 2009. [http://www.asahq.org/For-Members/Clinical-Information/~/media/For%20Members/documents/Standards%20Guidelines%20Stmts/Qualifications%20of%20Anesthesia%20Providers%20in%20the%20Office.ashx] accessed 5/5/14.

*American Society of Anesthesiologists (ASA). Statement on anesthetic care during interventional pain procedures. Amended Oct 22, 2005. [http://www.asahq.org/For-Healthcare-Professionals/~/media/For%20Members/documents/Standards%20Guidelines%20Stmts/Anesthetic%20Care%20During%20Interventional%20Pain%20Procedures.ashx] accessed 5/5/14.

American Society of Anesthesiologists (ASA). Statement of the safe use of propofol. Amended Oct 2009. [http://www.asahq.org/publicationsAndServices/standards/37.pdf] accessed 5/5/14.

Basta B, et al. Systemic adverse events during 2005 phacoemulsifications under monitored anesthesia care: a prospective evaluation. Minerva Anesthesiol 2011 Sep;77(9):877-83.

Berzin TM, et al. A prospective assessment of sedation-related adverse events and patient and endoscopist satisfaction in ERCP with anesthesiologist-administered sedation. Gastrointest Endosc 2011 Apr;73(4):710-7.

BlueCross BlueShield Association. Monitored Anesthesia Care (MAC). Medical Policy Reference Policy #7.02.01. 2013 Feb 14.

*Cohen LB, et al. AGA Institute review of endoscopic sedation. Gastroenterology 2007;133(2):675-701.

Cooper GS, et al. Complications following colonoscopy with anesthesia assistance: a population-based analysis. JAMA Intern Med 2013 Apr 8;173(7):551-6.

Coté GA, et al. Incidence of sedation-related complications with propofol use during advanced endoscopic procedures. Clin Gastroenterol Hepatol 2010;8(2):137-42.

Dominitz JA, et al. Regional variation in anesthesia assistance during outpatient colonoscopy is not associated with differences in polyp detection or complication rates. Gastroenterology 2013 Feb;144(2):298-306.

Du Rand IA, et al. Summary of the British Thoracic Society guideline for diagnostic flexible bronchoscopy in adults. Thorax 2013;68(8):786-7.

Enestvedt BK, et al. Is the American Society of Anesthesiologists classification useful in risk stratification for endoscopic procedures? Gastrointestinal Endoscopy 2013;77(3):464-71.

Faga E, et al. Safety of propofol in cirrhotic patients undergoing colonoscopy and endoscopic retrograde cholangiography: results of a prospective controlled study. Eur J Gastroenterol Hepatol 2012 Jan;24(1):70-6.

*Fleisher LA, et al. Inpatient hospital admission and death after outpatient surgery in elderly patients: importance of patient and system characteristics and location of care. Arch Surg 2004;139(1):67-72.

Goulson DT, et al. Anesthesia for gastrointestinal endoscopic procedures. Anesthesiol Clin 2009 Mar;27(1):71-85.

Horiuchi A, et al. Low-dose propofol sedation for diagnostic esophagogastroduodenoscopy: results in 10,662 adults. Am J Gastroenterol 2009;104(7):1650-5.

*Lichtenstein DR, et al. Sedation and anesthesia in GI endoscopy. Gastrointest Endosc 2008; 68(5):815-26.

Liu H, et al. Utilization of anesthesia services during outpatient endoscopies and colonoscopies and associated spending in 2003-2009. JAMA 2012 Mar 21;307(11):1178-84.

Poincloux L, et al. A randomized controlled trial of endoscopist vs anesthetist-administered sedation for colonoscopy. Dig Liver Dis 2011 Jul;43(7):553-8.

SUBJECT: MONITORED ANESTHESIA CARE (MAC) POLICY NUMBER: 7.03.02 CATEGORY: Technology Assessment	EFFECTIVE DATE: 06/21/12 REVISED DATE: 06/20/13, 06/19/14 PAGE: 5 OF: 5
--	--

Redondo-Cerezo E, et al. Gastroenterologist-guided sedation with propofol for endoscopic ultrasonography in average-risk and high-risk patients: a prospective series. *Eur J Gastroenterol Hepatol* 2012 May;24(5):506-12.

Rex DK, et al. Endoscopist-directed administration of propofol: a worldwide safety experience. *Gastroenterology* 2009;137(4):1229-37.

Shah B, et al. The changing faces of endoscopic sedation. *Expert Rev Gastroenterol Hepatol* 2010 Aug;4(4):417-22.

Silvestri GA, et al. A phase 3, randomized, double-blind study to assess the efficacy and safety of fospropofol disodium injection for moderate sedation in patients undergoing flexible bronchoscopy. *Chest* 2009;135(1):41-7.

Singh H, et al. Propofol for sedation during colonoscopy. *Cochrane Database Syst Rev* 2011;(4):CD006268.

Vargo JJ, et al. Position statement: Nonanesthesiologist administration of propofol for GI endoscopy. *Am J Gastroenterol* 2009 Dec;104(12):2886-92.

*Wehrmann T, et al. Sedation with propofol for interventional endoscopic procedures: a risk factor analysis. *Scand J Gastroenterol* 2008 Mar;43(3):368-74.

Whippey A, et al. Predictors of unanticipated admission following ambulatory surgery: a retrospective case-control study. *Can J Anaesthesia* 2013;60(7):675-83.

* key article

KEY WORDS:

MAC, Monitored anesthesia care

CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS

There is currently a National Coverage Determination (NCD) for anesthesia in cardiac pacemaker surgery. Please refer to the following NCD websites for Medicare Members: <http://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDID=105&ncdver=1&CoverageSelection=Both&ArticleType=All&PolicyType=Final&s>New+York++Upstate&CptHcpcsCode=36514&bc=gAAAAABAAAAAA&>