



Clinical Policy Bulletin: Anesthesia Services for Gastrointestinal Endoscopy

Policy

Aetna considers moderate sedation/analgesia, provided by or under the direction of the endoscopist, to be appropriate and adequate for average risk individuals undergoing standard upper or lower endoscopic procedures. Consequently, Aetna considers not medically necessary the attendance of an anesthesiologist or anesthesiologist for average risk individuals undergoing standard upper or lower endoscopic procedures.

Aetna considers the use of general anesthesia, monitored anesthesia care (MAC) or deep sedation and the attendance of an anesthesiologist or anesthesiologist medically necessary for upper or lower gastrointestinal endoscopic procedures in individuals with any of the following sedation-related risk factors when requested by the attending physician:

I. Significant medical conditions:

- American Society for Anesthesia Physical Status Class P3 to P5 (see appendix); *or*
- Pregnancy; *or*
- Epilepsy; *or*
- Children and adolescents (18 years of age or younger); *or*
- Elderly persons (65 years of age or older).

II. Danger of airway compromise:

- History of sleep apnea or stridor; *or*
- Persons with dysmorphic facial features, such as Pierre-Robin syndrome or Down syndrome; *or*
- Persons with oral abnormalities, such as small opening (less than 3 cm in adult); protruding incisors; high arched palate; macroglossia; tonsillar hypertrophy; *or* a non-visible uvula; *or*
- Persons with neck abnormalities, such as obesity involving the neck and facial structures, short neck, limited neck extension, spinal cord instability, decreased hyoid-mental distance (less than 3 cm in adult), neck mass, cervical spine disease or trauma, disorders of cranial nerves IX or X, tracheal deviation, *or* advanced rheumatoid arthritis; *or*
- Persons with jaw abnormalities, such as micrognathia, retrognathia, trismus, *or* significant malocclusion; *or*
- Morbid obesity (BMI greater than 40 *or* BMI greater than 35 with comorbid medical conditions (refractory hypertension, obstructive sleep apnea, coronary heart disease, type 2 diabetes)).

III. Persons with anticipated intolerance of standard sedatives:

- Persons with previous problems with anesthesia or sedation; or
- Dependence on opiates, sedatives, or hypnotics; or
- Drug or alcohol abuse.

IV. Situations in which deep sedation or general anesthesia may be required:

- Uncooperative or combative persons (e.g., persons with dementia, psychiatric disorders, young children, etc.); or
- Complex procedures or invasive therapeutic procedures (e.g., endoscopic retrograde cholangiopancreatography (ERCP), endoscopic ultrasound (EUS), upper gastrointestinal stenting, emergency therapeutic procedures).

Background

Moderate sedation/analgesia is defined as 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. Clinicians frequently administer moderate sedation because there are fewer side effects, including less nausea than deep sedation or general anesthesia. Moderate sedation provides a partial level of amnesia so that patients do not remember the procedure.

At present, the vast majority of patients undergoing gastrointestinal endoscopy in the United States receive intravenous medication, usually a combination of a narcotic and benzodiazepine, with a very low reported incidence of sedation-induced complications (see, e.g., Cohen, et al., 2006). Although both upper endoscopy (Froelich, et al., 1995; al-Atrakachi, et al., 1989; de Gregorio, et al., 1997; Tan, et al., 1996; Solomon, et al., 1994; Dhir, et al., 1997; Schutz, et al., 1994) and colonoscopy (Rex, et al., 1999; Seow-Choen, et al., 1994; Herman, 1990; Cataldo, 1996; Ristikankare, et al., 1999) may successfully be performed in the absence of systemic medication, randomized prospective trials involving gastroscopy suggest that sedation enhances patient tolerance of endoscopic examination (ASGE, 2004; Abraham, et al., 2004). Similar data regarding colonoscopy is not yet available.

There is evidence that the anesthetic agent propofol can be administered as safely as standard sedatives (Qadeer, et al., 2005), and that propofol provides faster onset and deeper sedation than standard benzodiazepines and narcotics, although the results of clinical studies have not consistently demonstrated this benefit (Patterson, et al., 1991; Koshy, et al., 2000; Cohen, et al., 2004; Carlsson, et al., 1995; Sipe, et al., 2002; Koshy, et al., 2000; Ulmer, et al., 2003). A review of the evidence comparing propofol sedation to standard sedatives by Faigel, et al. (2002) for the American Society for Gastrointestinal Endoscopy found that studies of the use of propofol in short endoscopic procedures, such as upper and lower endoscopy, have had “conflicting results.”

According to guidelines from the American Society for Gastrointestinal Endoscopy (ASGE) (Faigel, et al., 2002), clinically important benefits of propofol have not been consistently demonstrated in average-risk patients undergoing standard upper and lower endoscopy. “The routine use of propofol in these patients cannot currently be endorsed” (Faigel, et al., 2002). However, ASGE guidelines state that, for prolonged therapeutic procedures, these agents have been demonstrated to be superior to standard benzodiazepine/narcotic sedation and their use should be considered (Faigel, et al., 2002). This conclusion was based upon studies demonstrating more clinically substantial advantages over standard sedatives when used for prolonged and therapeutic procedures (e.g., Jung, et al, 2000; Wehrmann, et al., 1999; Vargo, et al., 2002; see also Geller, 2005; Chen, et al., 2005).

A joint position statement by the American Gastroenterological Association, the American College of Gastroenterology and the American Society for Gastrointestinal Endoscopy (2004) states that “[t]he routine assistance of an anesthesiologist/anesthetist for average risk patients undergoing standard upper and lower endoscopic procedures is not warranted.” Guidelines from the American Society for Gastrointestinal Endoscopy (Waring, et al., 2003) state that “[t]he routine assistance of an

anesthesiologist for average risk patients undergoing standard upper and lower endoscopic procedures is not warranted and is cost-prohibitive.”

The services of an anesthesiologist may be necessary in caring for persons with sedation-related risk factors undergoing endoscopic procedures. Available guidelines have identified risk factors that increase the risks of sedation during gastrointestinal endoscopy. Guidelines from the American Society for Gastrointestinal Endoscopy (Faigel, et al, 2002) state that “[t]he assistance of anesthesiologists should be considered in patients undergoing prolonged procedures requiring deep sedation, those with anticipated intolerance with standard sedatives, and those at increased risk for sedation-related complications, such as patients with severe comorbidities or with anatomic variants increasing the risk of airway obstruction.”

American Society of Anesthesiologists (ASA) Taskforce guidelines (2002) observe that the presence of one or more sedation-related risk factors, coupled with the potential for deep sedation, will increase the likelihood of adverse, sedation-related events. According to guidelines from the ASGE (Waring, et al., 2003), in this situation, if the practitioner is not trained in the rescue of patients from general anesthesia, then an anesthesiologist should be consulted. According to ASA guidelines (2002), sedation-related risk factors include:

- Significant medical conditions, such as:
 - Extremes of age,
 - Severe pulmonary, cardiac, renal, or hepatic disease,
 - Pregnancy
 - Drug or alcohol abuse
- Uncooperative patients
- Potentially difficult airway for intubation
 - Patients with a history of stridor, snoring, or sleep apnea
 - Patients with dysmorphic facial features, such as Pierre-Robin syndrome or trisomy-21
 - Patients with oral abnormalities, such as small opening (less than 3 cm in adults), edentulous, protruding incisors, loose or capped teeth, high arched palate, macroglossia, tonsillar hypertrophy, or non-visible uvula;
 - Patients with neck abnormalities, such as obesity involving the neck and facial structures, short neck, limited neck extension, decreased hyoid-mental distance (less than 3 cm in adults), neck mass, cervical spine disease or trauma, tracheal deviation, or advanced rheumatoid arthritis
 - Patients with jaw abnormalities, such as micrognathia, retrognathia, trismus, or significant malocclusion.
- Patients with previous problems with anesthesia or sedation.

ASA guidelines for sedation and analgesia by non-anesthesiologists (2002) state that, “[w]henver possible, appropriate medical specialists should be consulted before administration of sedation to patients with significant underlying conditions. The choice of specialists depends on the nature of the underlying condition and the urgency of the situation.” The guidelines state that, “[f]or severely compromised or medically unstable patients (e.g., anticipated difficult airway, severe obstructive pulmonary disease, coronary artery disease, or congestive heart failure), or if it is likely that sedation to the point of unresponsiveness will be necessary to obtain adequate conditions, practitioners who are not trained in the administration of general anesthesia should consult an anesthesiologist.”

Guidelines on sedation for gastrointestinal procedures from the Australian and New Zealand College of Anaesthetists, the Gastroenterological Society of Australia, and the Royal Australasian College of Surgeons (2004) also outline sedation related risk factors that may require the involvement of an anesthesiologist or anesthetist. These guidelines state that patients with special risks require the presence of an anesthetist, “such as patients in ASA Grades P-3 to P-5, including the elderly and those with severely limiting heart disease, cerebrovascular disease, significant lung disease, liver failure, acute gastrointestinal bleeding and cardiovascular compromise, severe anaemia, morbid obesity, and shock.”

Appendix:

American Society of Anesthesiologists (ASA) Physical Status Classification System:

- P1 A normal healthy patient
- P2 A patient with mild systemic disease
- P3 A patient with severe systemic disease
- P4 A patient with severe systemic disease that is a constant threat to life
- P5 A moribund patient who is not expected to survive without the operation
- P6 A declared brain-dead patient whose organs are being removed for donor purposes.

CPT Codes / HCPCS Codes / ICD-9 Codes	
CPT codes covered if selection criteria are met:	
00740	
00810	
Modifier G9	
Modifier P3	
Modifier P4	
Modifier P5	
Other CPT codes related to the CPB:	
43200 - 43272	
44360 - 44397	
45300 - 45392	
Modifier G8	
Modifier QS	
Modifier 99	
Other HCPCS codes related to the CPB:	
G0105	Colorectal cancer screening; colonoscopy on individual at high risk
G0106	Colorectal cancer screening; alternative to G0104, screening sigmoidoscopy, barium enema
G0120	Colorectal cancer screening; alternative to G0105, screening colonoscopy, barium enema
G0121	Colorectal cancer screening; colonoscopy on individual not meeting criteria for high risk
ICD-9 codes covered if selection criteria are met:	
038.0 - 038.9	Septicemia
150.0 - 150.9	Malignant neoplasm of esophagus
161.0 - 162.9	Malignant neoplasm of larynx, trachea, bronchus, and lung
195.0	Malignant neoplasm of head, face, and neck
242.00 - 242.91	Thyrotoxicosis with or without goiter

250.02 - 250.03	Diabetes mellitus without mention of complication, type II or unspecified type, uncontrolled or type I [juvenile type], uncontrolled
250.10 - 250.13	Diabetes with ketoacidosis, type II or unspecified type, uncontrolled or type I [juvenile type], uncontrolled
250.22 - 250.23	Diabetes with hyperosmolarity, type II or unspecified type, uncontrolled or type I [juvenile type], uncontrolled
250.32 - 250.33	Diabetes with other coma, type II or unspecified type, uncontrolled or type I [juvenile type], uncontrolled
250.42 - 250.43	Diabetes with renal manifestations, type II or unspecified type, uncontrolled or type I [juvenile type], uncontrolled
250.52 - 250.53	Diabetes with ophthalmic manifestations, type II or unspecified type, uncontrolled or type I [juvenile type], uncontrolled
250.62 - 250.63	Diabetes with neurological manifestations, type II or unspecified type, uncontrolled or type I [juvenile type], uncontrolled
250.72 - 250.73	Diabetes with peripheral circulatory disorders, type II or unspecified type, uncontrolled or type I [juvenile type], uncontrolled
250.82 - 250.83	Diabetes with other specified manifestations, type II or unspecified type, uncontrolled or type I [juvenile type], uncontrolled
250.92 - 250.93	Diabetes with unspecified manifestations, type II or unspecified type, uncontrolled or type I [juvenile type], uncontrolled
251.0	Hypoglycemic coma
251.3	Postsurgical hypoinsulinemia
253.0	Acromegaly and gigantism
253.3	Pituitary dwarfism
253.5	diabetes insipidus
254.0 - 254.8	Diseases of thymus gland
255.0	Cushing's syndrome
255.12 - 255.14	Conn's syndrome, Bartter's syndrome, and androgenital disorders
255.3 - 255.6	Other corticoadrenal overactivity, corticoadrenal insufficiency, medulloadrenal hyperfunction
276.51 - 276.7	Dehydration, hypovolemia, fluid overload, and hyperpotassemia
278.01	Morbid obesity
290.0 - 293.82	Dementias, alcohol induced mental disorders, drug induced mental disorders, delirium due to conditions classified elsewhere, subacute delirium, psychotic disorder with delusions in conditions classified elsewhere, and psychotic disorder with hallucinations in conditions classified elsewhere, and mood disorder in conditions classified elsewhere
294.0 - 294.8	Persistent mental disorders due to conditions classified elsewhere
295.00 - 298.9	Schizophrenic disorders, episodic mood disorders, delusional disorders, and other nonorganic psychoses
300.01	Panic disorder without agoraphobia
300.21 - 300.22	Agoraphobia with panic disorder and agoraphobia without mention of panic attacks

303.00 - 303.02	Acute alcohol intoxication, unspecified, continuous, or episodic
303.90 - 303.92	Other and unspecified alcohol dependence, unspecified, continuous, or episodic
304.00 - 304.02	Opioid dependence, unspecified, continuous, or episodic
304.10 - 304.12	Sedative, hypnotic or anxiolytic dependence, unspecified, continuous, or episodic
304.20 - 304.22	Cocaine dependence, unspecified, continuous, or episodic
304.30 - 304.32	Cannabis dependence, unspecified, continuous, or episodic
304.40 - 304.42	Amphetamine and other psychostimulant dependence, unspecified, continuous, or episodic
304.50 - 304.52	Hallucinogen dependence, unspecified, continuous, or episodic
304.60 - 304.62	Other specified drug dependence, unspecified, continuous, or episodic
304.70 - 304.72	Combinations of opioid type drug with any other, unspecified, continuous, or episodic
304.80 - 304.82	Combinations of drug dependence excluding opioid type drug, unspecified, continuous, or episodic
305.00 - 305.02	Alcohol abuse, unspecified, continuous, or episodic
305.20 - 305.22	Cannabis abuse, unspecified, continuous, or episodic
305.31 - 305.32	Hallucinogen abuse, continuous or episodic
305.41 - 305.42	Sedative, hypnotic or anxiolytic abuse, continuous or episodic
305.51 - 305.52	Opioid abuse, continuous or episodic
305.61 - 305.62	Cocaine abuse, continuous or episodic
305.70 - 305.72	Amphetamine or related acting sympathomimetic abuse, unspecified, continuous, or episodic
305.81 - 305.82	Antidepressant type abuse, unspecified, continuous, or episodic
305.90 - 305.92	Other, mixed, or unspecified drug abuse, unspecified, continuous, or episodic
312.02 - 312.03	Undersocialized conduct disorder, aggressive type, moderate or severe
312.34 - 312.35	Disorders of impulse control, not elsewhere classified, moderate or severe
317 - 319	Mental retardation
324.0	Intracranial abscess
327.21 - 327.29	Organic sleep apnea
331.0 - 331.7	Alzheimer's disease, frontotemporal dementia, senile degeneration of brain, communicating hydrocephalus, and cerebral degeneration in diseases classified elsewhere
331.81 - 331.82	Reye's syndrome and dementia with Lewy bodies
331.89	Other cerebral degeneration, unspecified
332.0 - 332.1	Parkinson's disease
333.0	Other degenerative diseases of the basal ganglia
333.2 - 333.79	Myoclonus, tics of organic origin, Huntington's chorea, other choreas, and acquired torsion dystonia

333.82 - 333.83	Orofacial dyskinesia and spasmodic torticollis
333.89 - 333.92	Other fragments of torsion dystonia, unspecified extrapyramidal disease and abnormal movement disorder, stiff-man syndrome, and neuroleptic malignant syndrome
333.99	Other extrapyramidal diseases and abnormal movement disorders
334.0 - 334.8	Spinocerebellar disease
335.0 - 335.9	Anterior horn cell disease
337.3	Autonomic dysreflexia
345.00 - 345.91	Epilepsy and recurrent seizures
352.2 - 352.3	Other disorders of glossopharyngeal [9th] nerve and pneumogastric [10th] nerve
358.00 - 358.8	Myoneural disorders
359.0 - 359.81	Muscular dystrophies and other myopathies
394.0 - 397.9	Diseases of mitral valve, aortic valve, mitral and aortic valve, and endocardial structures
398.91	Rheumatic heart failure (congestive)
401.0	Essential hypertension, malignant
402.00 - 402.01	Hypertensive heart disease, malignant
402.11	Hypertensive heart disease, benign, with heart failure
402.91	Hypertensive heart disease, unspecified, with heart failure
404.00 - 404.93	Hypertensive heart and chronic kidney disease
405.01	Secondary hypertension, malignant, renovascular
405.91	Secondary hypertension, unspecified, renovascular
410.00 - 410.92	Acute myocardial infarction
411.0 - 411.89	Other acute and subacute forms of ischemic heart disease
413.0 - 413.9	Angina pectoris
414.00 - 414.07	Coronary atherosclerosis
414.10 - 414.9	Aneurysm and dissection of heart
415.0	Acute cor pulmonale
415.11 - 415.19	Pulmonary embolism and infarction
416.0 - 416.9	Chronic pulmonary heart disease
420.0 - 421.9	Acute pericarditis and acute and subacute endocarditis
422.0 - 423.9	Acute myocarditis and other diseases of pericardium
424.0 - 426.9	Other diseases of endocardium, cardiomyopathy, and conduction disorders
427.0 - 427.5	Tachycardia, atrial fibrillation and flutter, ventricular fibrillation and flutter, and cardiac arrest
427.81 - 427.89	Other specified cardiac dysrhythmias
428.0 - 428.43	Heart failure

430 - 432.9	Subarachnoid hemorrhage, intracerebral hemorrhage, and other and unspecified intracranial hemorrhage
433.00 - 436	Occlusion and stenosis of precerebral arteries, occlusion or cerebral arteries, transient cerebral ischemia, and acute, but ill-defined, cerebrovascular disease
437.1 - 437.6	Cerebral atherosclerosis, other generalized ischemic cerebrovascular disease, hypertensive encephalopathy, cerebral aneurysm, nonruptured, cerebral arteritis, Moyamoya disease, and nonpyogenic thrombosis of intracranial venous sinus
438.0 - 438.19	Late effects of cerebrovascular disease, cognitive deficits and speech and language deficits
438.82	Other late effects of cerebrovascular disease, dysphagia
441.1	Thoracic aneurysm, ruptured
441.3	Abdominal aneurysm, ruptured
441.5 - 441.6	Aortic aneurysm of unspecified site and thoracoabdominal aneurysm, ruptured
449	Septic arterial embolism
456.0	Esophageal varices with bleeding
456.20	Esophageal varices in diseases classified elsewhere, with bleeding
474.10 - 474.12	Hypertrophy of tonsils and adenoids
480.0 - 488	Pneumonia and influenza
490 - 508.1	Chronic obstructive pulmonary disease and allied disorders and pneumoconioses and other lung diseases due to external agents
510.0 - 517.3	Empyema, pleurisy, pneumothorax, abscess of lung and mediastinum, pulmonary congestion and hypostasis, postinflammatory pulmonary fibrosis, other alveolar and parietoalveolar pneumonopathy, rheumatic pneumonia, lung involvement in systemic sclerosis, and acute chest syndrome
518.0 - 518.84 519.00 - 519.4	Other diseases of lung and other diseases of respiratory system
524.03 - 524.04	Maxillary and mandibular hypoplasia
524.11 - 524.19	Maxillary asymmetry, other jaw asymmetry, and other specified anomaly of relationship of jaw to cranial base
524.22 - 524.23	Malocclusion, Angle's class II and III
524.51 - 524.53	Abnormal jaw closure, limited mandibular range of motion, and deviation in opening and closing of the mandible
524.59	Other dentofacial functional abnormalities
524.61	Adhesions and ankylosis (bony or fibrous)
524.73 - 524.74	Alveolar maxillary and mandibular hypoplasia
530.3	Stricture and stenosis of esophagus
530.7	Gastroesophageal laceration-hemorrhage syndrome
530.82	Esophageal hemorrhage
531.00 - 531.01	Gastric ulcer, acute with hemorrhage

531.20 - 531.21	Gastric ulcer, acute with hemorrhage and perforation
531.40 - 531.41	Gastric ulcer, chronic or unspecified with hemorrhage
532.00 - 532.01	Duodenal ulcer, acute with hemorrhage
532.20 - 532.21	Duodenal ulcer, acute with hemorrhage and perforation
532.40 - 532.41	Duodenal ulcer, chronic or unspecified with hemorrhage
532.60 - 532.61	Duodenal ulcer, chronic or unspecified with hemorrhage and perforation
533.00 - 533.01	Peptic ulcer, acute with hemorrhage
533.20 - 533.21	Peptic ulcer, acute with hemorrhage and perforation
533.40 - 533.41	Peptic ulcer, chronic or unspecified with hemorrhage
533.60 - 533.61	Peptic ulcer, chronic or unspecified with hemorrhage and perforation
534.00 - 534.01	Gastrojejunal ulcer, acute with hemorrhage
534.20 - 534.21	Gastrojejunal ulcer, acute with hemorrhage and perforation
534.40 - 534.41	Gastrojejunal ulcer, chronic or unspecified with hemorrhage
534.60 - 534.61	Gastrojejunal ulcer, chronic or unspecified with hemorrhage and perforation
535.01	Acute gastritis, with hemorrhage
535.11	Atrophic gastritis, with hemorrhage
535.21	Gastric mucosal hypertrophy, with hemorrhage
535.31	Alcoholic gastritis, with hemorrhage
535.41	Other specified gastritis, with hemorrhage
535.51	Unspecified gastritis and gastroduodenitis, with hemorrhage
535.61	Duodenitis, with hemorrhage
537.83 - 537.84	Angiodysplasia of stomach and duodenum (with hemorrhage) and diulafoy lesion (hemorrhagic) of stomach and duodenum
569.2	Stenosis of rectum and anus
570 - 571.6	Acute and subacute necrosis of liver
572.0 - 572.4	Liver abscess and sequelae of chronic liver disease
584.5 - 584.9	Acute renal failure
585.3 - 585.6	Chronic kidney disease, Stage III (moderate), Stage IV (severe), Stage V, and End stage renal disease
640.00 - 669.94	Complications mainly related to pregnancy and other indications for care in pregnancy, labor, and delivery
714.0 - 714.9	Rheumatoid arthritis and other inflammatory polyarthropathies
721.0 - 721.1	Cervical spondylosis
722.0	Displacement of cervical intervertebral disc without myelopathy
722.4	Degeneration of cervical intervertebral disc

722.71	Intervertebral disc disorder with myelopathy, cervical region
722.81	Postlaminectomy syndrome, cervical region
722.91	Other and unspecified disc disorder, cervical region
723.0	Spinal stenosis in cervical region
723.6 - 723.7	Torticollis, unspecified
741.01	Spina bifida, with hydrocephalus, cervical region
741.91	Spina bifida, without mention of hydrocephalus, cervical region
744.83 - 744.84	Macrostomia and microstomia
748.2 - 748.3	Web of larynx
749.00 - 749.25	Cleft palate and cleft lip
750.3 - 750.4	Tracheoesophageal fistula, esophageal atresia and stenosis and other specified anomalies of esophagus
754.1	Congenital deformity of sternocleidomastoid muscle
756.0	Anomalies of skull and face bones
758.0	Down's syndrome
780.1 - 780.2	Hallucinations and syncope and collapse
780.39	Other convulsions
785.50 - 785.59	Shock without mention of trauma
786.1	Stridor
799.1	Respiratory arrest
805.00 - 805.18	Fracture of vertebral column without mention of spinal cord injury, cervical
806.00 - 806.19	Fracture of vertebral column with spinal cord injury, cervical
839.00 - 839.18	Dislocation of cervical vertebra
995.0 - 995.1	Other anaphylactic shock and angioneurotic edema
995.4	Shock due to anesthesia
998.31	Disruption of internal operation wound
V14.4 - V14.6	Personal history of allergy to anesthetic, narcotic, or analgesic agent
V22.0 - V23.9	Supervision of pregnancy
V44.0	Tracheostomy status
V46.2	Dependence on supplemental oxygen
V48.7	Disfigurements of neck and trunk
V85.4	Body Mass Index 40 and over, adult

The above policy is based on the following references:

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