Clinical Review Criteria

Monitored Anesthesia Care (MAC) for Gastrointestinal Endoscopic Procedures

Kaiser Permanente Clinical Review Criteria are developed to assist in administering plan benefits. These criteria neither offer medical advice nor guarantee coverage. Kaiser Permanente reserves the exclusive right to modify, revoke, suspend or change any or all of these Review Criteria, at Kaiser Permanente’s sole discretion, at any time, with or without notice. Member contracts differ in their benefits. Always consult the patient’s Medical Coverage Agreement or call Kaiser Permanente Customer Service to determine coverage for a specific medical service.

Criteria

For Medicare Members
See the Local Coverage Determination (LCD) for Monitored Anesthesia Care (MAC) (L34100).

For Non-Medicare Members

Monitored anesthesia care (MAC) is considered medically necessary during gastrointestinal endoscopic procedures when there is documentation by the operating physician and the anesthesiologist that demonstrates any of the following higher risk situations exist:

- Prolonged or therapeutic endoscopic procedure requiring deep sedation**; or
- A history of or anticipated intolerance to standard sedatives (e.g., patient on chronic high dose narcotics or high dose benzodiazepines, or has an unstable neuropsychiatric disorder which would prevent cooperation); or
- Increased risk for complication due to severe comorbidity. American Society of Anesthesiologists ASA class III physical status or greater (as documented by Anesthesia);
- Pediatric age group (16 years and younger); or
- Pregnancy; or
- History of active drug or alcohol abuse; or
- Morbid obesity (BMI>50); or
- Uncooperative or acutely agitated patients (e.g., delirium, organic brain disease, senile dementia); or
- Spasticity or movement disorder complicating procedure; or
- Increased risk for airway obstruction due to anatomic variant including any of the following:
  - Documented history of previous problems with anesthesia or sedation; or
  - History of stridor or severe sleep apnea requiring oxygen and bipap; or
  - Dysmorphic facial features, such as Pierre-Robin syndrome or trisomy-21; or
  - Presence of oral abnormalities including but not limited to a small oral opening (less than 3 cm in an adult), high arched palate, macroglossia, tonsillar hypertrophy, or a non-visible uvula (not visible when tongue is protruded with patient in sitting position e.g., Mallampati class greater than II) as documented by Anesthesia; or
  - Neck abnormalities including but not limited to short neck, obesity involving the neck and facial structures, limited neck extension, decreased hyoid-mental distance (less than 3 cm in an adult), neck mass, cervical spine disease or trauma, tracheal deviation, or advanced rheumatoid arthritis as documented by Anesthesia; or
  - Jaw abnormalities including but not limited to micrognathia, retrognathia, trismus, or significant malocclusion as documented by Anesthesia


** Having consecutive upper and lower scopes on the same day does not in and of itself qualify as a prolonged endoscopic procedure

Not Medically Necessary:
The routine assistance of an anesthesiologist or Certified Registered Nurse Anesthetist (CRNA) for patients not meeting the above criteria who are undergoing standard upper or lower gastrointestinal endoscopic procedures is considered not medically necessary. (American College of Gastroenterology [ACG], American Gastroenterological Association [AGA] & ASGE, 2004; ASGE, 2002, 2003, 200212).

The following information was used in the development of this document and is provided as background only. It is not to be used as coverage criteria. Please only refer to the criteria listed above for coverage determinations.
Background
Each year in the United States, 145,000 people will be diagnosed with colon cancer; 54,000 will die. Getting recommended colorectal cancer screening could potentially save the lives of up to 60% of these patients. Increasing patient participation in routine screening is a matter of serious concern.

With the increased emphasis on prevention and the importance of the role of colonoscopy as a tool there is a need to evaluate the use of monitored anesthesia care in conjunction with endoscopic evaluation. Kaiser Permanente has developed this policy in response to our findings.

Medical Technology Assessment Committee (MTAC)
Monitored Anesthesia Care (MAC) for Gastrointestinal Endoscopic Procedures
2/22/2010: MTAC REVIEW

Evidence Conclusion: The following are conclusions based on a review of several systematic reviews, meta-analyses, randomized controlled trials, and published internal data on sedation involving propofol compared to standard sedation: There is good evidence of improved patient satisfaction and reductions in discharge and recovery times with propofol used alone or in combination with other agents compared to standard sedation for colonoscopy exams. There is fair evidence from a KP SCAL-based comparative study of improved cecal intubation rates with propofol used as a single agent for sedation during colonoscopy. The evidence is of insufficient quantity or quality to draw definitive conclusions on differences in polyp detection. There is less comparative data on EGD procedures, but some evidence of improved recovery and patient satisfaction with propofol sedation. The evidence is of insufficient quantity and/or quality to draw definitive conclusions on comparative risk of serious adverse events, including death, neurologic injury, endotracheal intubations, bleeding, and colonic perforations during these procedures. There does not appear to be a significant difference in the risk of cardiopulmonary and respiratory events with propofol compared to standard sedation and no evidence of greater risk for serious adverse events for either colonoscopy or EGD procedures in lower risk patients (ASA I or II). Following the review of one systematic review and two comparative observational studies, the evidence is of insufficient quantity and quality to draw definitive conclusions on the safety of anesthesiologist-directed versus non-anesthesiologist-directed or administered propofol sedation in GI endoscopy. Controlled prospective studies with standardized protocols, patient selection, and reporting are needed. Serious Adverse Events. The best available comparative evidence from the United States is a large observational registry study that suggests comparable rates of serious adverse events for anesthesiologist-directed propofol under monitored anesthesia care and gastroenterologist-administered propofol during colonoscopy procedures (0.16% and 0.14%) but a significantly increase risk of serious adverse events with gastroenterologist-administered propofol for upper endoscopy procedures, including EGDS (0.16% vs 0.5%). However, it is likely that these events differentially occurred in higher risk patients (ASA III) who were also included in the study. Overall Cardiopulmonary Adverse Events. There is evidence from the same study of a significant increased risk of overall cardiopulmonary events with endoscopic-administered propofol in ASA I or II patients undergoing colonoscopy and upper endoscopy. The majority of the cardiopulmonary events are most likely to be of minor clinical consequence, but the challenge remains to identify which cardiopulmonary events are more likely to result in serious adverse events and what risk factors are specific to upper versus lower endoscopy procedures. The evidence is of insufficient quantity and quality to draw conclusions on the safety of RN-administered propofol as compared to standard sedation for colonoscopy and EGD in ASA I and II patients. Based on a review of several systematic reviews and randomized controlled trials, there is no evidence of a significant increase in risk of adverse events with propofol compared to standard sedation and the risks appear to be comparable. However, these studies were not adequately sampled to detect or compare rates of serious adverse events. Comparative data from large and well-designed observational studies is needed. The existing series of RN-administered propofol are large and report low rates of adverse events.

deep sedation versus propofol in combination with opioids and/or benzodiazepines and titrated to moderate 
Lieberman DA, Eisen GM. Risk factors for cardiopulmonary events during propofol-mediated upper endoscopy 
DK, Kwo PY. Position statement: Nonanesthesiologist administration of propofol for GI endoscopy. Am J 
DK, Kwo PY. Position statement: Nonanesthesiologist administration of propofol for GI endoscopy. Am J 
DK, Kwo PY. Position statement: Nonanesthesiologist administration of propofol for GI endoscopy. Am J 
Hornslet P, Simmons H, Hammering A, Clemetens P. [Propofol sedation administered by nurses for endoscopic 
administered propofol sedation without anesthesia specialists in 9152 endoscopic cases in an ambulatory surgery 
administered by nurse for the sedation during coloscopies in a national hospital in Lima - Peru]. Rev 

MDCRPC voted to adopt the Kaiser evidence review conclusions.

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<tr>
<th>Date</th>
<th>Date Reviewed</th>
<th>Date Last Revised</th>
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<tr>
<td>09/10/2012</td>
<td>10/02/2012</td>
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<td>MDCRPC</td>
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<td>03/01/2016 MPC</td>
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MDCRPC = Medical Director Clinical Review and Policy Committee   MPC = Medical Policy Committee

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<tr>
<th>Revision History</th>
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<tr>
<td>05/05/2015</td>
<td>Slight changes were made to the existing policy, which included the following:</td>
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<td>• Removal of the 70 age limit</td>
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<td>• Definition of pediatric age group as 16 years and younger</td>
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<td>• Clarification of “high dose” &amp; “unstable”</td>
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<td>• “as documented by anesthesia” language was added</td>
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<tr>
<td>09/08/2015</td>
<td>Revised LCD L34100</td>
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<td>10/3/2016</td>
<td>Added prolonged procedure clarification</td>
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Codes
CPT: 00740, 00810, 99151, 99152, 99153, 99156, 99157, G05000