Anesthesia in the Center for Digestive Disease (GI Endoscopy)

Anesthesia Guideline
University of Washington Medical Center
Department of Anesthesiology & Pain Medicine

Overview

The Endoscopy Suite

Location: Digestive Diseases is located on the 3rd floor of the Pavilion, directly above the Pavilion operating suites. Most anesthesia cases are in X-ray Room 6.

Anesthetic and Monitoring Equipment

1) An anesthesia machine and full monitoring equipment is available.
2) The anesthesia technicians will provide an anesthesia cart and any other equipment that is required. In addition, they offer support for turnover of the room between cases.
3) Docusys is available in rooms 4-6; paper charting is need for procedures in rooms 1-3.
4) The SAME standards of anesthesia and monitoring should apply in the Endoscopy suite as in the ORs.

GENERAL CONSIDERATIONS

Pre-operative Assessment

- All patients presenting for routine procedures will have been through the anesthesia preoperative clinic and will have a "preanesthesia evaluation"
- Patients who present as urgent/emergent, or add on cases must have a pre-operative evaluation documented in ORCA.
- Additional attention should be paid to these patients’ NPO status as they may have impaired gastric emptying and/or have received a bowel prep.

Equipment and Environmental Considerations

- The endoscopy suite is in a remote location for the anesthesia team
- The anesthesia team must be shielded from X-ray exposure during applicable procedures.
- Fluoroscopy is often utilized during these procedures requiring the patient to be on a mobile X-ray table. During these procedures, there is very little space and may require you to move your anesthesia machine and anesthesia cart to allow room for the endoscopists equipment and personnel.
- ECG leads, electrodes, and monitoring wires are radio-opaque so take care to prevent their appearance on the X-ray images.
The Procedures

Endoscopic Retrograde Cholangiopancreatography (ERCP)

Overview: Endoscopic retrograde cholangiopancreatography (ERCP) combines the use of endoscopy and fluoroscopy to diagnose and treat problems of the biliary or pancreatic ductal systems. The endoscope is passed through the patient’s mouth to the stomach and duodenum and radio contrast dye is injected to visualize the ducts of the biliary tree and pancreas via fluoroscopy. ERCP is used primarily to diagnose and treat conditions such as obstructive jaundice, chronic pancreatitis, gallstones, bile duct tumors, pancreatic tumors, and/or to assess iatrogenic injuries such as integrity of anastomoses following liver transplantation. Therapeutic interventions include endoscopic biliary and pancreatic sphincterotomy, removal of stones, drainage of pancreatic pseudocyst, placement of stents, and dilation of strictures (such as anastomotic strictures after liver transplantation).

INTRAOPERATIVE CONSIDERATIONS:
The patient will be prone so place the IV in the left arm if possible. Once intubated, the nurse will give you a bite block that the ETT can be threaded through. To keep the circuit out of the endoscopist’s way, thread the ETT on the right side of the bite block: alternatively, an oral rae may be considered. Once prone, the patient’s head will be turned sideways and padded with a blue “donut” and additional chest rolls as needed to maintain alignment. You may assist the endoscopist to intubate the esophagus by flexing the patient’s neck. The procedure can vary in length so communicate with your staff accordingly. Antibiotics may be ordered: the admitting nurse will fax the order to pharmacy and place it at the patient’s bedside preoperatively.

Double Balloon Enteroscopy (DBE)

Overview: Double balloon enteroscopy involves the use of a balloon at the end of a special enteroscope camera and an overtube, which is a tube that fits over the endoscope, and which is also fitted with a balloon. The enteroscope and overtube are inserted through the mouth and passed into the small bowel. Following this, the enteroscope is advanced a small distance in front of the overtube and the balloon at the end is inflated. Using the assistance of friction at the interface of the enteroscope and intestinal wall, the small bowel is accordioned back to the overtube. The overtube balloon is then deployed, and the enteroscope balloon is deflated. The process is then continued until as much of the small bowel can be visualized. DBE is primarily used to diagnose when there is ongoing anemia with normal colonoscopy and gastroscopy.

INTRAOPERATIVE CONSIDERATIONS:
The patient will usually be left lateral so place the IV in the right arm. Once intubated, the nurse will give you a bite block that the ETT can be threaded through. To keep the circuit out of the endoscopist’s way, thread the ETT on the right side of the bite block: alternatively, an oral rae may be considered. If they need to be prone, the patient’s head will be turned sideways and padded with a blue “donut” and additional chest rolls as needed to maintain alignment. You may assist the endoscopist to intubate the esophagus by flexing the patient’s neck. The procedure can vary in length so communicate with your staff accordingly.
Esophagogastrroduodenoscopy (EGD)

Overview: Esophagogastrroduodenoscopy is a diagnostic endoscopic procedure that allows the visualization of the upper part of the gastrointestinal tract to the proximal duodenum. EGD is used to diagnose unexplained anemia, hematemesis or melena, persistent dyspepsia, Barrett's esophagus, persistent vomiting, dysphagia, or surveillance of any ongoing gastrointestinal disease. Therapeutic interventions during EGD may include treatment of esophageal varices, removing tissue with snare devices (e.g. polyps), cautery to bleeding tissue, removal of foreign bodies, diagnostic biopsies, and placement or removal of a duodenal feeding tube.

INTRAOPERATIVE CONSIDERATIONS:

A patient may require anesthesia for an EGD due to a complex medical history or because they have “failed” conscious sedation so it may be helpful to review prior records. A MAC may be appropriate, though if the patient has failed sedation a deep MAC or general anesthetic with an ETT may be necessary.

The patient will be in the lateral tilt position, with the exception of PEG placements where they are supine, and remain on the gurney. All other considerations as above apply. This procedure can be very fast so communicate closely with your endoscopist.

Colonoscopy/Sigmoidoscopy

Overview: Colonoscopy is a diagnostic endoscopic examination of the colon and distal ileum. A sigmoidoscopy is an examination of only the final two feet of colon. Both are used to diagnose gastrointestinal bleeding or unexplained changes of bowel habits, as well as screening for suspicion of malignancy, inflammatory bowel disease, or ulcerative colitis.

INTRAOPERATIVE CONSIDERATIONS:

A patient may require anesthesia for lower endoscopy due to a complex medical history or because they have “failed” conscious sedation so it may be helpful to review prior records. MAC is appropriate with supplemental oxygen and carbon dioxide monitoring via a simple face mask.

The patient will be in the left lateral position and remain on the gurney. All other considerations as above apply. This procedure can be very fast so communicate closely with your endoscopist.

References


