



Standard Operating Procedure For Performing a Gastroscopy

SOP GI-086
Release 3
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Standard Operating Procedure for Performing a Gastroscopy GI-086, Release 2

SOP Scope: Medical Board of California (MBC)

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Author: Alyssa Miller

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Approved by:

Name	Approval Date
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1. PURPOSE

This Standard Operating Procedure (SOP) describes the process to be followed by the gastroenterologist when performing a gastroscopy.

2. SCOPE

This SOP applies to performing both routine and non-routine gastroscopies with the use of sedation according to regulations dictated by the Medical Board of California. This SOP does not apply to gastroscopies done in other states in the U.S. or internationally. This SOP does not include the procedure for capsule gastroscopies.

3. RESPONSIBILITY

3.1 Gastroenterologist is responsible for:

- 3.1.1 Evaluating the patient and their need for a gastroscopy.
- 3.1.2 Informing the patient about what needs to be done prior to the gastroscopic procedure.
- 3.1.3 Informing the patient about what to expect during and after the gastroscopic procedure.
- 3.1.4 Performing the gastroscopy.
- 3.1.5 Taking biopsies, treating ulcers, cauterizing blood vessels, removing polyps or foreign objects, and widening a narrow esophagus during the gastroscopy.
- 3.1.6 Diagnosing any illnesses or medical conditions that are observed during the gastroscopy.
- 3.1.7 Ensuring patient comfort before, during, and after the gastroscopy.
- 3.1.8 Providing medication to treat any illnesses or medical conditions that are diagnosed during the gastroscopy.

3.2 Patients are responsible for:

- 3.2.1 Informing the gastroenterologist about any medical concerns.
- 3.2.2 Following any guidelines given by the gastroenterologist before the gastroscopy.
- 3.2.3 Filling out patient information form, medical history form, and health insurance policy form.
- 3.2.4 Providing a list of current medications and vitamins/supplements as well as a list of any allergies.
- 3.2.5 Following any guidelines given by the gastroenterologist after the gastroscopy and taking any prescribed medications as dictated by the gastroenterologist following the procedure.

4. ASSOCIATED FORMS

- Informed Consent Form
- Patient Information Form
- Medical History Form
- List of Current Medications and Vitamins/Supplements
- List of Allergies
- Health Insurance Policy Form

5. DEFINITIONS

- **Gastroscopy**- Refers to a procedure in which an endoscope is used to look inside the esophagus, stomach, and duodenum.
- **Esophagus**- The muscular tube that connects the throat to the stomach
- **Duodenum**- The first part of the small intestine that connects to the stomach
- **Polyps**- Small tissue growths that occur within the internal organs that can cause irritation, inflammation, and bleeding.
- **Ulcers**- Sores on the lining of the stomach, intestine, or esophagus.
- **Vitals**- Refers to a patient's vital signs of life such as heart rate, blood pressure, and breathing.
- **Propofol**- A drug used as a sedative.
- **Naloxone**- A drug used to specifically counteract the sedative effects of Propofol
- **Esophageal Dilation**- The process of stretching out a narrow esophagus.
- **Biopsy**- The process of scraping tissue or cells from a part of the body to examine it for disease.
- **Endoscope**- A small flexible tubular instrument with an illuminated optical used to look inside the esophagus, stomach, and duodenum during a gastroscopy. The illuminated optical has a camera and a light to help see inside the body.
- **Endoscopic Heater Probe**- An endoscopic attachment used to cauterize ruptured blood vessels, or bleeding from tears during a gastroscopy.
- **Endoscopic Injection Tool**- An endoscopic attachment used to inject medicine into ulcers or sites of inflammation during a gastroscopy.
- **Endoscopic Snare**- An endoscopic attachment used to slip over a polyp and remove it during a gastroscopy.
- **Endoscopic Forceps**- An endoscopic attachment used to grasp onto and remove foreign objects and to collect biopsies during a gastroscopy.
- **Dilating Balloon**- A tiny balloon attached to a guiding wire and attached to an endoscope and used to dilate the esophagus during a gastroscopy.
- **Plastic Dilator**- A small plastic tube that inflates and that is attached to an endoscope
- **Video Monitor**- A computer monitor which shows the video feed of the endoscope. The gastroenterologist looks at the monitor to help guide them through the body during a gastroscopy.
- **Vital Signs Monitor**- A machine that measures and monitors a patient's vital signs such as heart rate, blood pressure, and oxygen levels through a clip that is placed on the patient's finger.

6. REFERENCES

- 6.1 It is important that the patient refrain from eating and drinking for at least 4-8 hours before the gastroscopy to prevent aspiration caused by food or drink during the procedure.
- 6.2 Certain medications such as blood thinners should not be taken by the patient before the procedure because they can increase the risk of bleeding if biopsies or removal of polyps occur during the gastroscopy.
- 6.3 The endoscope should be guided through the esophagus and digestive tract with extreme care and precision to avoid tearing in the esophagus, stomach, or duodenum and the rupturing of blood vessels.
- 6.4 It is important that the patient have someone bring them to their gastroscopy and drive them home afterwards because it is dangerous to drive after having been under sedation.

7. SAFETY

- 7.1 One dose of Naloxone according to the patient's height and weight should be kept on hand at all times to use to reverse the effects of the sedative Propofol in the event of an emergency.
 - 7.1.1 If the patient's heart rate or blood pressure significantly increase or decrease, or the patient stops breathing, administer the dose of Naloxone immediately.
- 7.2 If while performing the gastroscopy you accidentally tear the lining of the esophagus, stomach, or duodenum, cauterize any bleeding using the endoscopic heater probe tool and stop the procedure immediately.
 - 7.2.1 Administer the dose of Naloxone to counteract the effects of sedation and wake the patient up.
 - 7.2.2 Check patient's safety.

8. MATERIALS AND EQUIPMENT

- 8.1 Materials
 - 8.1.1 Propofol- 1 dose according to patient's height and weight for sedation.
 - 8.1.2 Naloxone- 1 dose according to patient's height and weight for emergency reversal of the effects of sedation.
- 8.2 Equipment
 - 8.2.1 Endoscope
 - 8.2.2 Video monitor
 - 8.2.3 Vital signs monitor
- 8.3 Tools
 - 8.3.1 Endoscopic heater probe
 - 8.3.2 Endoscopic injection tool
 - 8.3.3 Endoscopic forceps
 - 8.3.4 Endoscopic snare
 - 8.3.5 Dilating balloon

9. PROCEDURE

9.1 Preparing for the Gastroscopy

9.1.1 Be sure to ask the patient about any existing medical conditions before the procedure

9.1.1.1 High blood pressure and heart conditions increase the risk for complications during the procedure and must be monitored closely.

9.1.2 Inform the patient that they must abstain from eating and drinking for at least 4-8 hours before the gastroscopy

9.1.3 Inform the patient that they must stop taking any medications that will interfere with the gastroscopy at least 3 days before the procedure.

9.3.1.1 Blood thinners should not be taken for at least 3 days before the gastroscopy because they will increase the risk of bleeding during the procedure.

9.1.4 Inform the patient that they will need someone to drive them home after the procedure.

9.2 Performing the Gastroscopy

9.2.1 Put a vital signs monitor on the patient.

9.2.2 Administer a dose of propofol to sedate the patient.

9.2.3 Once the patient is sedated and their vitals are stable, carefully guide the endoscope into the patient's mouth.

9.2.4 With the help of the video monitor, guide the endoscope slowly and carefully through the esophagus being sure not to create any cuts or tears in the lining of the esophagus.

9.2.5 Make sure there are no signs of ulcers, scarring from burns, or tears.

9.2.5.1 If a tear or ruptured blood vessel exists, cauterize it using the endoscopic heater probe.

9.2.5.2 If the esophagus is too narrow perform esophageal dilation using a dilating balloon over a guiding wire

9.2.5.3 If an esophageal ulcer exists use the endoscopic injection tool to administer medicine to treat it.

9.2.6 Use the endoscopic forceps to gently scrape off a biopsy of esophageal cells.

9.2.7 Check on the patient's vitals to make sure their blood pressure and heart rate are stable.

9.2.8 After the esophagus, carefully guide the endoscope through the stomach being careful not to create any tears or cuts in the lining of the stomach. Use the video monitor to help guide your way.

9.2.8.1 At this point the patient might appear to be experiencing discomfort from the pressure of the endoscope in their stomach.

9.2.8.2 Guide the endoscope very slowly and with caution through the stomach and comfort the patient.

9.2.9 Check for ulcers and inflammation in the lining of the stomach.

9.2.9.1 If ulcers or inflammation are present use the endoscopic injection tool to administer medicine to treat the ulcer or inflammation.

9.2.10 Use the endoscopic forceps to gently scrape off a biopsy of stomach cells.

9.2.11 Check on the patient's vitals to make sure their blood pressure and heart rate are stable.

9.2.12 Finally, guide the endoscope through the duodenum being careful not to create any tears or cuts in the lining of the duodenum. Use the video monitor to help guide your way.

9.2.13 Check for polyps, ulcers, and inflammation in the duodenum.

9.2.13.1 If ulcers or inflammation are present use the endoscopic injection tool to administer medicine to treat the ulcer or inflammation.

9.2.13.2 If polyps are present use the endoscopic snare to remove them.

9.2.14 Use endoscopic forceps to gently scrape off a biopsy of intestinal cells.

9.2.15 Check on the patient's vitals to make sure their blood pressure and heart rate are stable.

9.2.16 Slowly and carefully guide the endoscope back through the digestive tract and out of the patient's body being careful not to create any cuts or tears in the lining of the duodenum, stomach, or esophagus. Use the video monitor to help guide your way.

9.2.17 Monitor the patient for up to 2 hours after the procedure to ensure the sedative wears off and that no complications from the gastroscopy exist.

9.3 After the Gastroscopy

9.3.1 The patient may experience some soreness after the procedure, this is normal.

9.3.2 Send out the biopsy samples taken during the gastroscopy for lab testing to ensure the patient doesn't have any underlying illnesses.

9.3.3 Inform the patient about the results from the lab testing of their biopsies.

9.3.3.1 If the results show that the patient has any illnesses or medical conditions, diagnose them and inform them about the illness or medical condition.

9.3.3.2 Provide treatment options and prescribe medication if needed.

10. DOCUMENTATION

10.1 Informed Consent Form must be signed by the patient and the gastroenterologist before the procedure. A copy of the form will be given to the patient for their own safekeeping and documentation, and another copy will be given to the gastroenterologist's office to hold the gastroenterologist accountable for following all appropriate protocols of the procedure.

10.2 Patient Information Form must be completed by patient and given to the gastroenterologist's office before the procedure. The form will be stored in the patient's medical history file.

10.3 Patient Medical History Form must be completed by patient and given to the gastroenterologist's office before the procedure. The form will be stored in the patient's medical history file.

Standard Operating Procedure
 For
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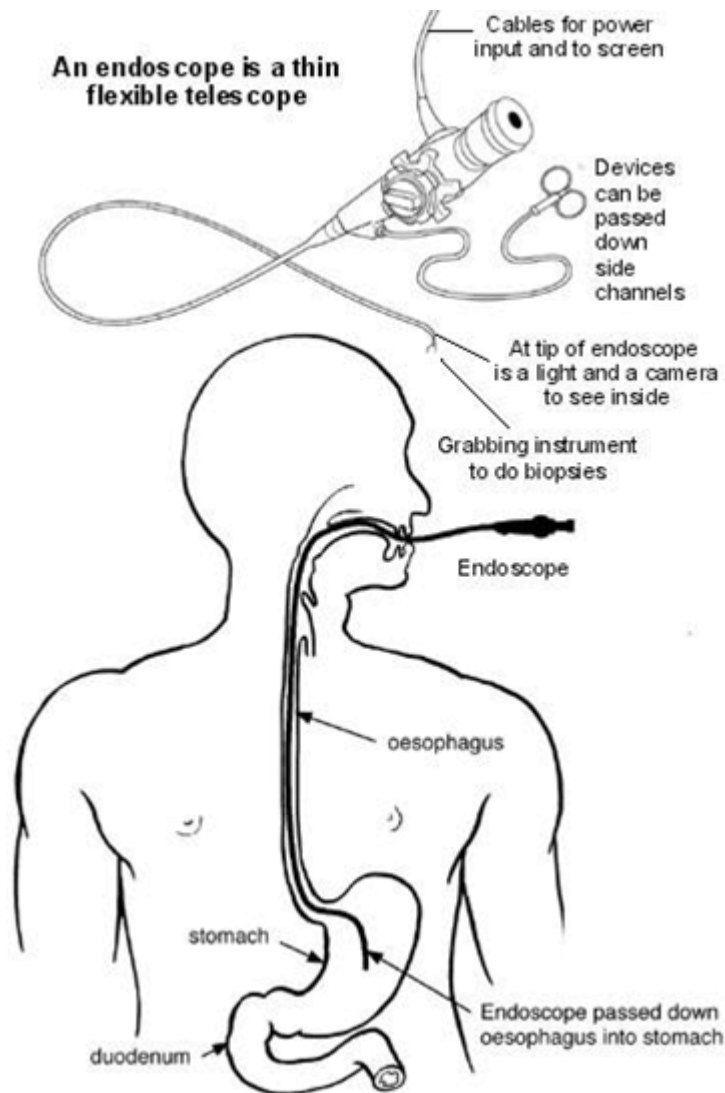
- 10.4 Patient Health Insurance Policy Form must be completed by patient and given to the gastroenterologist's office before the procedure. The form will be used to cover the patient's medical procedure costs and stored in the patient database of gastroenterologist's office. A copy of the form will also be sent to the patient's insurance provider.
- 10.5 A list of all the patient's current medications and vitamins/supplements must be completed by the patient and given to the gastroenterologist before the procedure. The list will be input into and stored in the patient's medical history file.
- 10.6 A list of any of the patient's allergies to medications must be completed by the patient and given to the gastroenterologist before the procedure. The list will be input and stored in the patient's medical history file.

11. HISTORY

<u>Release No.</u>	<u>Effective Date</u>	<u>Reason/Justification for Change</u>
1	10/18/2021	New
2	10/31/2021	Revised after peer-review. Revised formatting, use of active voice, edited safety measures section, added details to documentation section, and added a definitions and a references section
3	«effective_date»	Revised after instructor-review. Added informed consent form to associated forms and documentation section. Restored code in history section. Intertwined safety precautions and mentions of the video monitor throughout procedure.

12. ATTACHMENTS

12.1 Attachment A: Diagram of Gastroscopic Procedure



12.2 Attachment B: Diagram of Endoscope and Endoscopic Attachments

