

Approval: _____

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MINOR PROCEDURES

(Scope)

TITLE: ERCP (ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY)

PURPOSE: To outline the steps for assisting with ERCP (Endoscopic retrograde cholangiopancreatography)

- SUPPORTIVE DATA:**
1. ERCP is the endoscopic technique for radiologic visualization of the biliary and/or pancreatic ducts.
 2. Indications:
 - a. Jaundice of undetermined etiology
 - b. Extrahepatic biliary obstruction (e.g., stones, tumor, stricture, sclerosing, cholangitis, papillary obstruction.)
 - c. Intrahepatic biliary obstruction
 - d. Suspected or known pancreatic disease
 - e. Pancreatitis - acute, recurrent or chronic
 - f. Suspected pseudocyst
 - g. Pancreatic neoplasm
 - h. Unexplained abdominal pain of suspected biliary or pancreatic origin
 - i. Suspicion of disease in a non-jaundiced patient
 - j. Preoperative evaluation
 - k. Manometric evaluation of ampulla and common bile duct
 - l. For therapeutic biliary or pancreatic procedures (refer to procedures on endoscopic sphincterotomy, biliary stents and drains and nasobiliary catheter drainage)

- CONTRAINDICATIONS:**
1. Uncooperative patient
 2. Patient physically unable to tolerate procedure
 3. Recent MI, unless surgical intervention is required
 4. Acute pancreatitis, unless clinical situation necessitates procedure (e.g., CBD stones causing pancreatitis)
 5. Patient has not been NPO
 6. Coagulopathy
 7. Presence of barium in GI tract
 8. Pregnancy
 9. Severe pulmonary disease
 10. Allergy to contrast medium

EQUIPMENT LIST: Procedure done in X-ray - all equipment that is used must be taken to x-ray and set up there

1. Refer to safety procedure
2. Endoscopy cart (contains all ERCP catheters, sphincterotomes, guide wires, stent sets, balloon stone extractor, gastroscopy brush)
3. Video carts with processor, mavigraph, monitor, ERCP scope and EGD scope with biopsy forceps, formalin, and labels if requested.
4. Automatic vital signs oximeter monitor and printer
5. ERBE with grounding pad/ Valley Lab/ERBE APC
6. Three emesis basins
7. Three chux
8. 3-5g. surgilube tubes
9. Mylicon drops in small medicine cup
10. Renografin - 60 (dye) - usually 1-50cc vial, drawn up and diluted if necessary by x-ray technician
11. Have available approximately 4 tubex syringes of Demerol (1 drawn up), 6 amps of Versed (one

drawn up), 6 amps of Glucagon (one drawn up), 1 amp of Robinul, 1 amp of Narcan, 1 amp of Romazicon, Mylicon drops, and 1 amp of Kinevac

12. Six 10cc syringes - for dye
13. Suction canisters and lids
14. Four 9 ft. suction tubing
15. One Yankauer suction tip
16. Have available 1 standard tip, 1 taper tip, and 1 extended tip ERCP catheter
17. Have available 2-4 3cc syringes with 22g needles
18. Alcohol prep pads
19. 3 barrier gowns
20. 3 sets of disposable gloves
21. 10 - 4x4's
22. Lead aprons and dosimeters
23. One oxygen nasal cannula with two sets of connecting oxygen tubing.

CONTENT:

PROCEDURE STEPS

KEY POINTS

A. PRE-PROCEDURE ASSESSMENT/CARE

1. Refer to safety procedure and Minor Procedure ERCP Check List.
2. Obtain consent from patient.
3. Verify that the patient has someone to drive him home.
4. Obtain and document the patient's brief medical history, as outlined on the Minor Procedure Nursing Record. This includes the current medications, allergies, NPO status, and any medical problems and verify if the barium studies have been done prior to ERCP, all barium is out of GI tract. Check to make sure the patient is not pregnant.
5. Anesthesia is required for all ERCP's. Anesthesia request is mad by physician when booking with scheduling secretary.
6. Obtain necessary lab results. Notify the physician if the patient is currently or has recently been on anticoagulant therapy, aspirin, or non-steroidal, anti-inflammatory agents, or has any abnormal lab values.
7. Obtain and document the baseline vital signs and O₂ saturation.
8. Establish patent IV line and document according to IV protocol.
9. Administer antibiotic prophylaxis if ordered.
10. Check the patient for dentures and remove if present.

11. Explain the purpose and approximate length of the procedure, techniques to be used, sensations the patient is likely to experience, and any additional procedures that may be done during the ERCP, and document teaching and patient comprehension. Explain the position of the patient required during procedure.

12. Check the functioning of all the equipment.

B. RESPONSIBILITIES DURING PROCEDURE

1. Assist the physician with administration of Mylicon drops and document, if ordered.
2. If not previously done, attach the patient to the automatic vital signs monitor and oximeter with printout.
3. Assist the patient with positioning.
4. Suction oral secretions as necessary.
5. Administer conscious sedation medications (initial dose done by the physician), note and document the amounts and patient's response to the medication. Administer additional medication throughout the procedure at the physician's request and document. If anesthesiologist present use guidelines per orders.
6. Prime cannulas with contrast before insertion and insure syringe and cannula are free of air bubbles.
7. At the physician's request, inject the contrast medium, verbally stating the amount injected. The injection should be done slowly to avoid overfilling of the pancreatic duct.

POTENTIAL COMPLICATIONS

1. Air bubbles in the ERCP cannula injected into the CBD duct may be read as a stone.
 2. Sepsis may occur in patients with partial obstruction of either the pancreatic or common bile ducts.
- Follow Conscious Sedation Policy (see Addendum #2)
3. Chemical pancreatitis may occur secondary to pancreatic duct injection. Careful monitoring of the amount of dye injected into the pancreatic duct is advised. If pancreatitis does result, it usually occurs within 2 to 4 hours of the procedure.
 4. Infection.
 5. Aspiration
 6. Bleeding
 7. Perforation
 8. Respiratory depression or arrest.
 9. Cardiac Arrhythmias or arrest.

C. POST-PROCEDURE ASSESSMENT/CARE

1. Refer to the safety procedure (Addendum #1 in structure portion of Minor Procedure Manual) and Minor procedure ERCP Check List.
2. Monitor and document vital signs and O₂ saturation as per physician's orders.
3. Observe for abdominal distention and signs of possible pancreatitis including chills, low grade fever, pain, vomiting, tachycardia, and document any abnormalities noted. Notify the physician if any signs of pancreatitis are noted.
4. Maintain NPO status until the gag reflex returns.
5. Administer antibiotics as ordered.
6. Remove IV line prior to outpatient's discharge.
7. Provide outpatients with written discharge instructions or provide verbal report to nurse responsible for inpatient's care.
8. Discharged patients must have someone to drive them home.
9. Follow up in the 24 hours with a phone call (if outpatient). Post the information obtained to include ERCP Check List.

REFERENCE: Manual of Gastrointestinal Procedures, FIFTH Edition; 2004