

# GB - Gallbladder Disorders

## GB-AP ANATOMY AND PHYSIOLOGY

**OUTCOME:** The patient will have a basic understanding of where the gallbladder is in the body and its function in digestion.

### STANDARDS:

1. Discuss that the gallbladder is a small bag found under the liver.
2. Explain that the function of a normal gallbladder is to store bile, concentrate it by removing water and empty this concentrated bile into the intestine when fatty foods are eaten.
3. Explain that the gallbladder empties through the cystic duct into the common bile duct which then empties into the small intestine. Explain that the common bile duct also drains the liver and the pancreas.
4. Explain that the bile helps to digest the fat in the foods.

## GB-C COMPLICATIONS

**OUTCOME:** The patient/family will understand the complications of untreated or progressed gallbladder disease. (Please choose from the following standards as they apply to this patient's specific disease process.)

### STANDARDS:

1. Explain that if the amount of bile and other chemicals inside the gallbladder get out of balance gallstones can form. Most gallstones are cholesterol gallstones and form when too much cholesterol is secreted into the gallbladder from the liver.
2. Explain that gallstones usually don't cause a problem if they stay in the gallbladder. Approximately 80% of people with gallstones have no symptoms at all.
3. Explain that sometimes gallstones move into the ducts that drain the gallbladder and that this may lead to pain, infections, diseases of the liver, disease of the pancreas and may lead to gangrene or perforation of the gallbladder.
4. Empyema of the gallbladder (pus in the gallbladder) is a serious complication of acute cholecystitis and can result in death in about 25% of cases. Empyema is relatively rare, however, it does occur in about 2% of cases of acute cholecystitis.
5. Explain that patients with choledocholithiasis (stones in the common bile ducts) may get cholangitis (infection of the bile ducts). This is very serious and may be treated with antibiotics and may require surgery. Choledocholithiasis may also result in pancreatitis. **Refer to PC.**

6. Explain that risk of serious complications can be reduced by seeking prompt medical attention.

## **GB-DP      DISEASE PROCESS**

**OUTCOME:** The patient/family will understand the causes and symptoms of the patient's gallbladder disease. (Please choose from the following standards as they apply to this particular patient.)

### **STANDARDS:**

1. Explain that gallstones (cholelithiasis) can cause problems when a gallstone gets lodged in either the cystic duct or the common bile duct. This can result in right upper quadrant abdominal pain, nausea, vomiting, heartburn, and back pain.
2. Explain that gallstones in the common bile duct can also result in jaundice or pancreatitis. This condition is called choledocholithiasis.
3. Explain that biliary colic is a mild form of gallbladder disease and results in right upper quadrant abdominal pain several hours after eating a fatty meal. The pain is not relieved by changing position, taking over-the-counter medications, or passing gas. It will usually spontaneously resolve in 1–5 hours.
4. Explain that acute cholecystitis is similar to biliary colic but is more severe. It results from inflammation of the gallbladder. Infection is often present. The pain with cholecystitis is more severe and often patients complain of pain with breathing. This is a severe condition which can progress to perforation of the gallbladder or gangrene. Patients with acute cholecystitis should seek immediate medical attention.
5. Explain that chronic cholecystitis results from long-term inflammation of the gallbladder with or without stones and results in scarring of the gallbladder. Patients with chronic cholecystitis will often have gas, nausea, or abdominal discomfort after meals.
6. Explain that gallbladder disease is more common in the following groups of people:
  - a. Women
  - b. People over 40
  - c. Women who have been pregnant (especially women with multiple pregnancies)
  - d. People who are overweight
  - e. People who eat large amounts of dairy products, animal fats, and fried foods, e.g., high fat diet
  - f. People who lose weight very rapidly
  - g. People with a family history of gallbladder disease
  - h. Native Americans (especially Pima Indians), Hispanics, and people of Northern European descent

- i. People with sickle-cell anemia, cirrhosis, hypertriglyceridemia (especially with low HDL cholesterol), or diabetes

#### **GB-FU FOLLOW-UP**

**OUTCOME:** The patient/family will understand the importance of follow-up in the treatment of gallbladder disorders.

#### **STANDARDS:**

1. Discuss the importance of follow-up care.
2. Discuss the procedure for obtaining follow-up appointments and that follow-up appointments should be kept.
3. Emphasize that full participation of the treatment plan is the responsibility of the patient/family.
4. Discuss signs/symptoms that should prompt immediate follow-up.
5. Discuss the availability of community resources and support services and refer as appropriate.

#### **GB-L LITERATURE**

**OUTCOME:** The patient/family will receive literature about gallbladder disease.

#### **STANDARDS:**

1. Provide the patient/family with literature on gallbladder disease.
2. Discuss the content of the literature.

#### **GB-M MEDICATIONS**

**OUTCOME:** The patient/family will understand the medications to be used in the management of gallbladder disease.

#### **STANDARDS:**

1. Explain as indicated that some medications may be used to dissolve small gallstones.
2. Explain the regimen to be implemented in pain control as indicated.
3. Explain the medications to be used in this patient including the dosage, timing, proper use and storage of the medication, important and common side-effects of the medication, including drug-drug and drug-food interactions.

#### **GB-MNT MEDICAL NUTRITION THERAPY**

**OUTCOME:** The patient/family will understand the specific nutritional intervention(s) needed for treatment or management of this condition, illness, or injury.

**STANDARDS:**

1. Explain that Medical Nutrition Therapy (MNT) is a systematic nutrition care process provided by a Registered Dietitian (RD) that consists of the following:
  - a. Assessment of the nutrition related condition.
  - b. Identification of the patient's nutritional problem.
  - c. Identification of a specific nutrition intervention therapy plan.
  - d. Evaluation of the patient's nutritional care outcomes.
  - e. Reassessment as needed.
2. Review the basic nutrition recommendations for the treatment plan.
3. Discuss the benefits of nutrition and exercise to health and well-being.
4. Assist the patient/family in developing an appropriate nutrition care plan.
5. Refer to other providers or community resources as needed.

**GB-N NUTRITION**

**OUTCOME:** The patient/family will understand ways diet relates to gallbladder disease.

**STANDARDS:**

1. Explain that a diet that is high in fat and simple sugars can contribute to the formation of gallstones.
2. Explain that rapid weight loss should be avoided as it may contribute to formation of gallstones. Encourage overweight persons to undertake a rational approach to weight loss that includes exercise and moderate dietary limitation under the consultation of a physician.

**GB-P PREVENTION**

**OUTCOME:** The patient/family will understand and will make a plan for the prevention of gallbladder disease.

**STANDARDS:**

1. Explain that maintaining a normal body weight and avoiding fats are keys to reducing the risk of gallstones.
2. Explain that a low-fat diet will help prevent gallbladder disease.
3. Explain that regular vigorous exercise reduces the risk of gallbladder disease. Exercises that seem most helpful are brisk walking, jogging, and racquet sports.

**GB-PM PAIN MANAGEMENT**

**OUTCOME:** The patient/family will understand the plan for pain management.

**STANDARDS:**

1. Explain that pain management in gallbladder disease is specific to the disease process of this particular patient and may be multifaceted.
2. Explain that often antispasmodics may be helpful.
3. Explain that short term use of narcotics may be helpful in pain management.
4. Explain that other medications may be helpful to control the symptoms of nausea and vomiting.
5. Explain that administration of fluids may help with pain relief and resolution of symptoms.
6. **Refer to PM.**

**GB-PRO PROCEDURES**

**OUTCOME:** The patient/family will understand the proposed procedure(s) as well as risks, benefits, and alternatives to the proposed procedure(s). **Refer to SPE.**

**STANDARDS:**

1. Explain the specific procedure to be performed including the risks and benefits both of doing the procedure and adverse events which might result from refusal of the procedure.
2. Discuss alternatives to the proposed procedure including expectant management, as appropriate.

**GB-TE TESTS**

**OUTCOME:** The patient/family will understand the test(s) to be performed, the potential risks, the expected benefits, and the risks of non-testing.

**STANDARDS:**

1. Explain test(s) that have been ordered (explain as appropriate):
  - a. method of testing
  - b. necessity, benefits, and risks of test(s) to be performed
  - c. any potential risk of refusal of recommended test(s)
  - d. any advance preparation and instructions required for the test(s)
  - e. how the results will be used for future medical decision-making
  - f. how to obtain the results of the test
2. Explain test results:
  - a. meaning of the test results
  - b. follow-up tests may be ordered based on the results

- c. how results will impact or effect the treatment plan
- d. recommendations based on the test results