

2.6 PARACENTESIS

Paracentesis, the aspiration of fluid from the peritoneal cavity, is frequently performed in the diagnosis and management of patients with ascites from various causes. Currently, paracentesis may be underused in hospitalized patients with ascites, and evidence suggests that this procedure may be associated with reduced short-term mortality.¹ Hospitalists may identify ascites during the history and physical examination and should use clinical expertise and evidence-based decision-making to determine whether paracentesis is indicated in the diagnosis or management of the patient's illness.

KNOWLEDGE

Hospitalists should be able to:

- Describe the normal anatomy of the abdomen and pelvis.
- Define and differentiate pathophysiologic processes that may lead to the development of ascites.
- Explain indications and contraindications for paracentesis including potential risks, benefits, and complications.
- Describe the accuracy of physical examination maneuvers in the evaluation of ascites.
- Differentiate among the indications for a diagnostic and therapeutic paracentesis.
- Describe the indications for the use of additional modalities such as ultrasonography to assess and/or guide paracentesis.
- Explain the appropriate diagnostic tests to accurately characterize ascitic fluid.
- Define the serum ascites albumin gradient and its role in the evaluation of ascites.
- Explain the indications for administration of albumin in conjunction with paracentesis.
- Recognize the indications for specialty consultations, which may include interventional radiology or gastroenterology.

SKILLS

Hospitalists should be able to:

- Elicit a thorough and relevant history to identify comorbid conditions and risk factors for the development or complications of ascites.
- Perform a physical examination to evaluate for signs of the primary condition responsible for the development of ascites.
- Assess patients for increased risk of complications and use appropriate preventive measures.

- Demonstrate the optimal patient positioning during paracentesis.
- Select the necessary equipment to perform a paracentesis safely at the bedside.
- Perform a time-out before the procedure.
- Use appropriate sterile technique and necessary precautions throughout the procedure to minimize the risk of complications for patients and providers.
- Order and interpret the results of ascitic fluid analyses to determine an appropriate management plan.
- Anticipate and manage complications of paracentesis after the procedure, which may include bleeding, leakage, or infection.
- Obtain informed consent and effectively communicate with patients and families to explain the procedure, its expected diagnostic or therapeutic benefits, and potential complications.

ATTITUDES

Hospitalists should be able to:

- Demonstrate awareness of and ability to address periprocedural emotional and physical discomfort.

SYSTEM ORGANIZATION AND IMPROVEMENT

To improve efficiency and quality within their institutions, hospitalists should:

- Lead, coordinate, and/or participate in multidisciplinary initiatives to optimize resource use.
- Lead, coordinate, and/or participate in efforts to develop strategies to minimize institutional complication rates of paracentesis.
- Lead, coordinate, and/or participate in patient safety and quality improvement programs to monitor hospitalists' performance and/or supervision of procedural competence.
- Lead, coordinate, and/or participate in patient safety programs designed to coordinate care transition and the handoff of pending test results at the time of hospital discharge.

References

1. Orman ES, Hayashi PH, Bataller R, Barritt AS 4th. Paracentesis is associated with reduced mortality in patients hospitalized with cirrhosis and ascites. *Clin Gastroenterol Hepatol.* 2014;12(3):496-503.