Diagnostic Approach to Ascites – Paracentesis, Inpatient Hospitalist-performed
Clinical Standardization - Updated: February 8, 2023

Clinical Algorithm: Diagnostic Approach to Ascites - Paracentesis

Indications for paracentesis:
- New onset ascites
- Cirrhosis and hospitalized
- Clinical deterioration
- Concern for infection

If concern for infection: Consider empiric treatment for SBP with 2g of ceftriaxone while awaiting cell count and cultures. If high suspicion or sepsis, give albumin day 1 and day 3 per HRS prophylaxis guidelines.

For recommendations on management of anticoagulation or antiplatelet agents, see link to pathway below

Order Paracentesis with Hospitalist Procedure Team or with IR

ALL PARACENTESIS: Order at least cell count and differential and protein concentration with albumin

If concern for:
- SBP: Gram stain and culture
- Secondary peritonitis: glucose and LDH, anaerobic culture
- Malignancy: cytology
- Pancreatic origin: amylase
- Indolent infection or TB: fungal and/or AFB smear and culture
- Lymphatic injury: triglycerides

Interpretation of SAAG
- Serum Ascites Albumin Gradient
  - < 1.1 = Not due to portal hypertension, consider malignancy or infection
  - > 1.1 = Due to portal hypertension, consider cirrhosis, heart failure, or renal disease

Calculate SAAG

- Ascitic Protein < 2.5 g/dL
  - Cirrhosis
  - Heart failure
  - Budd-Chiari
  - IVC obstruction
  - Obstruction
  - Volume overload

- Ascitic Protein > 2.5 g/dL
  - Malignancy
  - Nephrotic syndrome
  - Pancreatitis
  - Tuberculosis
  - Biliary Leak

Treat for spontaneous bacterial peritonitis until cultures negative or other etiology more likely. Consider gastroenterology consultation.
Clinical Pathway Summary

CLINICAL PATHWAY NAME: Diagnostic Approach to Ascites – Paracentesis, Inpatient Hospitalist-performed

PATIENT POPULATION AND DIAGNOSIS:

- Inpatient Adults
- Diagnosis of Ascites with indications for paracentesis:
  - New onset ascites
  - Cirrhosis and hospitalized
  - Clinical deterioration
  - Concern for infection

APPLICABLE TO: Butterworth Hospital

BRIEF DESCRIPTION:

- Algorithms and guidelines for Hospitalist-performed procedures, to standardize clinical pathways and communicate best practices
- Anticoagulation guidelines related to Paracentesis and Thoracentesis procedures

OPTIMIZED EPIC ELEMENTS (if applicable): Orders: Paracentesis Performed by Hospitalist, Thoracentesis Performed by Hospitalist

IMPLEMENTATION DATE: 12/28/2022

LAST REVISED: 2/8/2023

Clinical Pathways Clinical Approach

TREATMENT AND MANAGEMENT:

- All patients with new-onset ascites should undergo diagnostic paracentesis for evaluation
- In patients with cirrhosis, ascitic fluid should be sampled with each hospitalization, especially in the setting of severe illness, to rule out SBP
- The serum ascites albumin gradient (SAAG) is the primary method by which ascites due to portal hypertension can be differentiated from ascites due to intraperitoneal causes
- A cell count and differential and ascitic fluid culture should be obtained to evaluate for infection in nearly all cases

Pathway Information

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EXPERT IMPROVEMENT TEAM (EIT): Hospitalist Quality EIT

CLINICAL PRACTICE COUNCIL (CPC): Acute Health CPC
CPC APPROVAL DATE: 2/7/2023

OTHER TEAM(S) IMPACTED: ED, Specialty Health

References:
