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LARGE VOLUME PARACENTESIS – PROCEDURE CHECKLIST

Confirm Indication	1. Symptoms from abdominal distention (pain, dyspnea, or early satiety) 2. Intra-abdominal hypertension with AKI
Contraindications	1. Absence of a safe pocket (>3cm in 3D) 2. Overlying skin infection *Bowel obstruction – increased risk of perforation *Intraperitoneal adhesions – unlikely to evacuate all fluid *At risk of hepato-renal syndrome (e.g., AKI, GIB, sepsis, dehydration) *Increased risk of bleeding with full AC, INR>2 or Plt<50K. Consider smaller bore catheter.
Obtain Consent	Explain in simple terms & confirm patient's understanding 1. Procedural process 2. Risks & techniques to mitigate them 3. Potential benefits 4. Risks of not performing & alternatives
Positioning	Lying supine with HOB at 30^0, rotated 15^0 toward proceduralist with support
Ultrasound Confirmation of Safe Insertion Site	Using low-frequency transducer at depth of ≥8cm, scan lateral to abdominus rectus on both sides of the abdomen, to identify the largest accessible fluid pocket in the lower quadrant, roughly 2cm superior and anterior to anterior iliac spine: 1. Identify abdominal wall, peritoneum, liver/spleen, and bowel. 2. Measure distance (cm) from skin to peritoneum 3. Measure peritoneum to nearest intraperitoneal structures, confirming >3cm in all 3 dimensions. 4. Use a high-frequency transducer with color flow Doppler ultrasound to confirm the absence of abdominal wall blood vessels at the targeted insertion site. 5. Mark insertion site with surgical pen or indentation.
Supplies	See reverse side for details
Timeout	Confirm name, DOB, procedure, location, allergies
Sterile Prep	1. Apply chlorhexidine scrubbing for >30sec with circumference > drape aperture 2. Apply sterile drape with perforation over sterilized skin
Draw-up Lidocaine	1. If lidocaine cap was previously removed, clean with EtOH swab. 2. Aspirate 5-10cc of lidocaine using appropriate needle/catheter not intended for use on the patient
Anesthetize Tract	**Anesthetize the tract using a 22-25g needle and form a dermal 'wheal'.** If no fluid is aspirated, use a longer needle to continue advancing under negative pressure and anesthetizing tract, until ascitic fluid is aspirated. Pull needle back slightly and deposit ~2cc just superficial to peritoneum.
Make Nick	Advance #11 blade to ~½ the width of blade along same trajectory as anesthetized tract
Catheter Insertion	1. Attach 5-10cc syringe to catheter hub, **advance needle and catheter FIRMLY** through skin nick 2. Apply **pressure ONLY using syringe hand** and use the other hand to guide catheter. **Continuously apply negative pressure** while advancing until fluid is aspirated. 3. Then **advance an additional 0.5-1cm** until the catheter (not just the needle) is in the peritoneum 4. Anchor arm holding syringe to maintain position of needle and **advance catheter into peritoneum until hub** is at the skin. Then remove needle.
Collect Sample	If indicated, connect 60cc syringe to side port and obtain >30cc of ascites to be sent for studies.
Remove ascites	Attach long tubing to side port and hand the free end to non-sterile assistant. Once the free end is connected to the vacutainer and clamps are released, position stopcock to allow flow toward vacutainer. Once full, clamp IV tubing and connect another vacutainer, and unclamp, until desired volume is removed.
Troubleshoot interrupted drainage	1st: Stop negative pressure, and reposition abdomen. 2nd: Stop negative pressure and withdraw catheter to a depth with nearest perforation still 1-2cm deep to the peritoneum. Avoid re-advancing catheter at any point. 3rd: Stop negative pressure, briskly flush side port with 5-10cc of sterile fluid.
Catheter Extraction	Stop negative pressure, remove catheter, and apply pressure with gauze before placing band aid.
Albumin Infusion	If high risk for AKI or > 5L are removed, order 50-100g of 25% albumin to be delivered by IV.

Procedure video

All teaching resources