

PRACTICE GUIDELINE

Effective Date: 8-20-04

Manual Reference: **Deaconess Trauma Services**

TITLE: DIAGNOSTIC PERITONEAL LAVAGE

PURPOSE: To provide a guideline for the indications for a diagnostic peritoneal lavage and the performance of a diagnostic peritoneal lavage.

GUIDELINES:

1. Indications:
 - a. All hemodynamically unstable patients with an altered level of consciousness or para/quadruplegia with the possibility of abdominal trauma.
 - b. All suspected abdominal trauma, associated with hemodynamic instability, especially if abdominal tenderness is present.
 - c. Unexplained fall in hematocrit or an unstable patient.
 - d. Assessment for possible occult hollow viscus injury.
2. Contraindications:
 - a. Previous midline abdominal incision.
 - b. Obvious need for laparotomy.
3. Procedure:
 - a. Insert a NG and Foley catheter unless absolutely contraindicated in the unstable patient.
 - b. The area below the umbilicus is scrubbed with providone-iodine solution and draped appropriately.
 - c. The midline area below the umbilicus is infiltrated with 1% xylocaine with epinephrine.
 - d. An adequate incision is then made in the midline, just below the Umbilicus (with severe pelvic fracture or pregnancy, incision can be made just above the umbilicus in the midline).
 - e. The incision is carried down to the fascia, which is incised longitudinally, exposing the peritoneum. Careful hemostasis must be maintained, as bleeding from the wound may give a false positive tap by contaminating the peritoneal cavity with blood.
 - f. Pick up the peritoneum between two clamps and, while holding the peritoneum, make a small incision in the peritoneum.
 - g. Gently advance the dialysis catheter into the abdominal cavity along the anterior abdominal wall.
 - h. Aim the catheter to the right pelvic gutter.
 - i. Aspirate the catheter, and if gross blood (>10ml) or gastrointestinal contents are not aspirated, infuse 1000ml of isotonic crystalloid solution in an adult (10ml/kg for a pediatric patient).
 - j. Lower the empty infusion bottle to the floor and allow the fluid to return to the bottle, making sure there is no one-way back flow valve in the IV tubing in use.
 - k. If fluid does not return, twist catheter to unplug omentum from it. If return is still poor, infuse another liter of fluid (reduce cell count threshold by half).

1. Send off appropriate mixed fluid to lab for cell count and amylase.
Remove catheter; close incision with suture of choice.

4. Results: a DPL is positive for blunt trauma under the following conditions:
 - a. Gross blood > 10 ml
 - b. >100,000 RBC/mm³
 - c. >500 WBC/mm³
 - d. Amylase >100 units
 - e. Food particles or stool.
 - f. Presence of bacteria on gram staining

5. Results: a DPL is positive for penetrating trauma under the following conditions:
 - a. Clotted blood >5ml
 - b. >5,000 RBC/mm³
 - c. >500 WBC/mm³
 - d. Amylase >100 units

REFERENCES:

- ❖ Advanced Trauma Life Support Manual 8th edition, ABDOMINAL AND PELVIC TRAUMA.
- ❖ Deaconess Trauma Guideline Manual, PENETRATING INJURIES TO THE ABDOMEN.
- ❖ Deaconess Trauma Guideline Manual, BLUNT ABDOMINAL INJURY.
- ❖ Deaconess Trauma Guideline Manual, BLUNT CHEST INJURIES.

REVIEWED DATE	REVISED DATE
JAN 05	
JAN 06	
JAN 07	
JAN 08	
JULY 09	