

## HOSPITAL

### DEPARTMENTAL PROCEDURE

#### TITLE: TRAUMA: ABDOMINAL COMPARTMENT PRESSURE MONITORING

**Date Adopted: 5/15**

**Date Revised:**

**Supersedes:**

**Date Reviewed:**

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#### **DISTRIBUTION:**

Nursing

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#### **STAFF LEVEL:**

RN, GN, LVN, GVN

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Abdominal compartment syndrome is a potentially lethal condition caused by any event that produces intra-abdominal hypertension. The most common cause is blunt abdominal trauma. Increasing intra-abdominal pressure causes progressive hypoperfusion and ischemia of the intestines and other peritoneal and retroperitoneal structures. Abdominal perfusion pressure is a measure of relative adequacy of abdominal blood flow. Intra-abdominal (IAP) >20 mm Hg is considered intra-abdominal hypertension.

Signs and symptoms of intra-abdominal compartment syndrome are:

1. Diminished gut perfusion leading to gut ischemia
2. Decreased urinary output
3. Increase in peak airway pressures and plateau pressures on ventilator
4. Respiratory distress
5. Decreased cardiac output
6. Tense abdomen

#### **PROCEDURE:**

Equipment:

1. Indwelling urinary catheter with urinary drainage bag
2. Hemodynamic line kit with monitor
3. Sterile 16 gauge needle
4. Foley irrigation tray
5. Sterile Normal Saline for irrigation
6. Sterile gloves
7. Two clamps
8. Surgical prep solution
9. Sterile towel

Procedure steps:

1. Position patient supine.
2. Attach 16 G needle to end of hemodynamic line and flush system with NS
3. Zero and calibrate the transducer tubing with a clamp distal to the aspiration port
4. Create a sterile field by placing a sterile towel under the urinary catheter. Use sterile gloves. Disconnect the catheter from the urinary drainage bag and instill 50 to 100 ml NS.
5. Reconnect urine bag to the catheter and slowly release the clamp just enough to allow air to escape and fluid to fill the tubing and then reclamp.
6. Prep the aspiration port
7. Insert 16 G needle which is attached to the transducer tubing through the aspiration port of the urinary catheter tubing.
8. Measure pressure at end expiration.
9. Record the IAP measurement from the monitor.
10. Remove needle. Remove clamp from catheter to reestablish drainage.

Nursing responsibilities:

1. Record abdominal pressures in medical record.
2. Keep drainage tubing unclamped after taking measurement.

Complications:

1. Infection

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**REFERENCES:**

American Association of Critical Care Nurses, *AACN Procedure Manual for Critical Care*, 2010, Sixth Edition, W.B. Saunders Company, Philadelphia, Pennsylvania.

American College of Surgeons, *Advanced Trauma Life Support*, 2014, Seventh Edition, Chicago, Illinois.

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**SIGNATURES:**

Originating department / committee

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