CAUTION: Prior to use, read complete instructions inside carton.

1. Spike saline bag (Do not use a pressurized bag).
2. Prime system by flushing saline through tubing and transducer.
3. Place sterile drape under patient’s Foley/drain bag connection. Clamp Foley to prevent urine leakage. Prep Foley/drain bag connection with antiseptic solution, then disconnect using aseptic technique. Tear perforation on AbViser AutoValve protective bag. Attach Foley and drain bag connection to AbViser AutoValve. Un-clamp Foley. Apply blue tape (included) at AbViser AutoValve/Foley connection to prevent inadvertent disconnection during infusion.
4. Mount transducer to patient or pole at the level of the iliac crest in the mid-axillary line (level of the urinary bladder). Plug cable into AbViser IAP monitor or any ICU monitor that can display CVP or other single pressure channel.
5. Zero transducer by turning stopcock “off” to patient. Vent stopcock cap and push the “zero” button on the monitor. Retighten stopcock cap and turn handle back so that the transducer is open to the patient.
6. Be sure patient is in the supine position before measuring their IAP. Retract the plunger until 20 mL (for adult patients) of fluid is in the syringe. Compress the syringe plunger within 10 seconds infusing the fluid into the bladder. **Pediatric Patients:** Briskly infuse 1 mL/Kg + 2 mL, not to exceed 20 mL.
7. Allow the system to equilibrate and then note the pressure reading on the monitor at end-expiration. This IAP reading will last approximately 2 minutes, at which point the valve will automatically open (drain). Confirm that the AutoValve has opened and urine is draining normally.
8. Record the infused saline in the I/Os to adjust for proper urine output.
9. Repeat steps 6-8 every 1-2 hours or as required.

**Interpreting Intra-Abdominal Pressure:**

<table>
<thead>
<tr>
<th>IAP Pressure</th>
<th>Interpretation*</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-7 mm Hg</td>
<td>Normal in critically ill patients.</td>
</tr>
<tr>
<td>6-11 mm Hg</td>
<td>Minimal elevation, commonly found in critically ill patients</td>
</tr>
<tr>
<td>12-15 mm Hg</td>
<td>Mild to Moderate Intra-Abdominal Hypertension</td>
</tr>
<tr>
<td>16-20 mm Hg</td>
<td>Moderate to Severe Intra-Abdominal Hypertension. Beware of ACS. Significant pathophysiologic changes may be present.</td>
</tr>
<tr>
<td>&gt; 20 mm Hg</td>
<td>ACS – if patient has a sustained IAP &gt; 20 mm Hg that is associated with new organ dysfunction or failure.</td>
</tr>
</tbody>
</table>

* These are general guidelines. Patient comorbidities and clinical parameters will influence the clinical significance of these measurements and the onset of clinically apparent abdominal compartment syndrome.

**References:**

**Risk Factors for IAH / ACS**

1. Diminished abdominal wall compliance
   - Acute respiratory failure, especially with elevated intrathoracic pressure
   - Abdominal surgery with primary fascial or tight closure
   - Major trauma/burns
   - Prone positioning, head of bed >30 degrees
   - High body mass index (BMI), central obesity
2. Increased intra-luminal contents
   - Gas tro paresis
   - Ileus
   - Colonic pseudo-obstruction
3. Increased abdominal contents
   - Hemoperitoneum/pneumoperitoneum
   - Ascites/liver dysfunction
4. Capillary leak/ fluid resuscitation
   - Acidosis (pH < 7.2)
   - Hypotension
   - Hypothermia (core temperature < 33°C)
   - Polytransfusion (>10 units of blood/24 hrs)
   - Coagulopathy (platelets <55,000/mm³) OR prothrombin time (PT)>15 seconds OR partial thromboplastin time (PTT)>2 times normal OR international standardised ratio (INR) > 1.5
5. Major trauma/burns
6. Acute respiratory failure, especially with new or progressive organ failure
7. Measured in the absence of active abdominal muscle contractions
8. The choice (and success) of the medical management strategies listed below is strongly related to both the etiology of the patient’s IAH / ACS and the patient’s clinical situation. The appropriateness of each intervention should always be considered prior to implementing these interventions in any individual patient.

**IAH Assessment Algorithm**

- Patients should be screened for IAH and ACS risk factors upon ICU admission and with new or progressive organ failure.
- If two or more risk factors are present, a baseline IAP measurement should be obtained.
- If IAH is present, serial IAP measurements should be performed throughout the patient’s critical illness.

**IAH/ACS Medical Management Algorithm**

- The choice (and success) of the medical management strategies listed below is strongly related to both the etiology of the patient’s IAH / ACS and the patient’s clinical situation. The appropriateness of each intervention should always be considered prior to implementing these interventions in any individual patient.
- The interventions should be applied in a stepwise fashion until the patient’s IAP decreases.
- If there is no response to a particular intervention, therapy should be escalated to the next step in the algorithm.

**IAH** – Intra-abdominal Hypertension

**ACS** – Abdominal Compartment Syndrome

**IAP** – Intra-abdominal Pressure

**APP** – Abdominal Perfusion Pressure

Adapted from Figure 1. Nonoperative intra-abdominal hypertension/abdominal compartment syndrome (IAH/ACS) management algorithm (Pg 1117) as originally published in the article, Nonoperative Management of Intra-abdominal Hypertension and Abdominal Compartment Syndrome; World Journal of Surgery. Algorithm reprinted with permission from the World Society on Abdominal Compartment Syndrome and Springer Healthcare. ©Société Internationale de Chirurgie 2009. All rights reserved.

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