Definitions:

Intra-abdominal Pressure (IAP): Pressure within the abdominal cavity. Can increase with several conditions; such as the following:
- Severe sepsis/shock
- Large volume resuscitation in the operating room (>4L)
- Coagulopathy requiring large blood transfusion in the operating room
- Large ventral hernia repair
- Abdominal trauma
- Core hypothermia
- Mechanical ventilation with PEEP >10
- Mesenteric ischemia
- Intractable intracranial hypertension (ICP >20 despite medical management)

Abdominal compartment syndrome (ACS): IAP>20mmHg and new organ dysfunction

Method:
Bladder pressure measured with fluid infused into a urinary catheter via closed pressure system administered by bedside RN; mmHg measurement relayed to telemetry monitor in a waveform. Measuring IAP is only accurate on non-spontaneously breathing patients.

Consider measuring IAP in:
- Use of massive transfusion
- Severe sepsis/shock requiring >4L fluid
- Large ventral hernia repair including closure of open abdomen
- Damage control laparotomy/open abdomen
- Intractable intracranial hypertension ICP >20

Patient meets criteria for measurement/or is requested by primary surgical team. Follow this algorithm and measure q1-2 hours

<table>
<thead>
<tr>
<th>&lt;12mmHg</th>
<th>12-15mmHg</th>
<th>16-20mmHg</th>
<th>&gt;20mmHg</th>
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</table>
| New insult or indications To measure IAP IAP q4-6H x24H | Consider:
- Reverse trendelenberg
- Optimize fluid management
- Optimize abdominal perfusion pressure
- Beware CVP/PAWP falsely elevated
- Optimize alveolar recruitment (PEEP >IAP) | Consider:
- All considerations in the 12-15 mmHg range
- Obtain volumetric data
- Deeper sedation
- Paralysis
- Paracentesis
- Decompress GI tract with:
  - Prokinetics (Reglan, EES)
  - Enemas
  - NGT or colon/rectal tube
  - Colonoscopy
  - Diuresis/dialysis/ultrafiltration | With evidence of Organ Dysfunction: Consider early surgical decompression or removal or open abdomen dressing An IAP >20mmHg indicates abdominal compartment syndrome |
| <12mmHg?  Discontinue Continue Q1-2 hours until <12mmHg | Continue Q1-2 hours until <12mmHg | Continue Q1-2 hours until <12mmHg |

References:
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