

2021 Critical Care Skills Day
Abdominal Pressure Monitoring

Normal IAP is 0-5 mm Hg. Typical critically ill averages 5-7 mm Hg

Intraabdominal HTN (IAH) and abdominal compartment syndrome (ACS) occur when the abdominal contents expand in excess of the capacity of the abdominal cavity, compromising abdominal organ perfusion and resulting in organ dysfunction or failure and associated with mortality

Five Major categories of risk are associated with development of IAH and ACS

1. Diminished abdominal wall compliance
 2. Increased intestinal intraluminal contents
 3. Increased peritoneal cavity contents
 4. Capillary leakage into the bowel wall and mesentery/ fluid resuscitation
 5. Misc/other
- **IAH is sustained or repeated pathological elevation of IAP \geq 12 mmHg**
IAH Severity Grade:
Grade I: 12-15 mm Hg
Grade II: 16-20 mm Hg
Grade III: 21-25 mm Hg
Grade IV: \geq 25 mm Hg
 - **ACS is an IAP \geq 20 mmHg that is associated with new organ dysfunction or failure**
There are 3 types relevant to condition:
 1. Primary: associated with injury or disease in the abdominopelvic region that requires frequent early surgical or interventional radiological intervention
 2. Secondary: condition does not originate abdominopelvic region. Recurrent develops from previous invasive
 3. Both IAH and ACS may compromise perfusion to the visceral organs represented by the parameter **perfusion pressure: APP= MAP-IAP (a target of at least 60mmHg is correlated with improved survival from IAH and ACS; (elevated IAP reduces blood flow to abdominal viscera**

RN's role:

1. Why would you perform IAP?
 - a. Abdominal distension; suspect for compartment syndrome
2. Obtain order and frequency
3. Set-up
 - a. Review order for IAP and frequency
 - b. Attain set from clean utility room
 - c. Hand-hygiene
 - d. Notify patient of test
 - e. Open packaging and clamp urinary catheter
 - f. Turn on monometer to zero/calibrate (not connected to anything)
 - g. Connect clamp
 - h. Connect tubing to opposite side of monometer & prime with saline
 - i. Sterilize and connect monometer to sample port of urinary catheter (aseptic technic)
 - j. Connect syringe
 - k. Level the monometer at the iliac crest
 - l. RN delivers 20ml within 10 seconds (instructor will have to support the clamping of the drainage tubing and press gently on bladder to simulate elevated abdominal pressure
 - m. Note the numeric value and the consistent value seen is the IAP
 - n. Release clamp and disconnect monometer if needed with sterile cap
 - o. Document IAP in vitals flowsheet adding IAP row, Intake & Notify MD if abnormal (looking at trend)

Charting:

- Flowsheets > Vital Signs Complex > Vital Signs > Additional Vitals (expand) > scroll down to Intra-Abdominal Pressure

Flowsheets

File Add Rows LDA Avatar Add Col Insert Col Data Validate Hide Device Data Last Filed Reg Doc Graph

Critical Care Adult P... Vital Signs Complex Infusion Titration Intake/Output LDA Active Progressive Mobility... Quickchart

Search (Alt+Comma) Accordion Expanded View All

Hide All Show 10m 15m 30m 1h 2h 4h 8h 24h Interval Start: 0700 Reset Now

Vitals Intra-Abdominal... Oxygen Therapy Pain/Comfort Cardiac ECG Height and weight Orthostatic VS PONV Risk Screening Nausea/Vomiting Sc...

ED to Hosp-Admission (Current) from 9/27/2021 in HOAG MEMORIAL HOSPITAL NEWP...
9/27/21

	1530	1536	1540	1541	1636	1638
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Vitals

Heart Rate Source						
Resp	20	23	21	19		
BP	120/79	128/79		133/89		! 143/...
MAP	92	94		102		107
BP Method						
BP Location						
SpO2	96	97	96	97		
ETCO2						
IPI						
BIS (Bispectral Index)						
Additional Vitals						
MEWS Total Score	1	2	2	1		1

Intra-Abdominal Pressure

Intra-Abdominal Pressure (mm...)						
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Oxygen Therapy

Flow (l/min)						
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