Measuring Intra-Abdominal Pressure

Procedure

1. Set up flush system and connect 60 cc luer lock syringe to stopcock distal to transducer.
2. Clean aspiration port with chlorhexidine
3. Connect flush system to luer lock sample port of foley catheter drainage tubing
4. Place patient flat in supine position.
5. Utilizing a skin marker, mark the level line that corresponds with the symphysis pubis.
6. Zero flush system using CVP connection on monitor at the level of the symphysis pubis
7. Clamp off urinary drainage bag distal to aspiration port
8. Withdraw 20cc normal saline from flush bag and instill into bladder via aspiration port
9. Record measurement reading from the monitor
10. Unclamp foley. Subtract 20cc from the hourly urinary output
11. System may remain attached if scheduled readings are ordered.

Patients at Risk for development of Compartment Syndrome /Intra-abdominal Hypertension

Abdominal trauma/surgery, pelvic fractures, ruptured AAA, fluid resuscitation, ascites, SBO, neoplasm

Effects of Increased IAP

Cardiovascular – IAPs 20-40 may ↑ CVP, PAP, PCWP, and SVR
Renal – IAPs.10-20 may ↓renal blood flow→ ↓GFR→ ↓UO
Pulmonary – IAPs > 40 may ↑ intra-thoracic pressures, peak airway pressures and ↓ tidal volume
Hepatic - ↓ lactate clearance → lactic acidosis