Here are your *breadcrumbs*...

Blunt trauma leads to damage and internal bleeding. When intra-abdominal pressure is sustained at 12 mm Hg or higher, the patient is now experiencing IAH. If the problem is not corrected, it may lead to ACS, MODS, and death.



Assessments should be thorough and constant with regular re-evaluation.

History: AMPLE assessment, accident/trauma details

Physical Exam: ABCDE primary survey, detailed secondary survey, special attention to abdominal assessment

Consider *psychosocial needs* during and after treatment.

Diagnosis 1: Ineffective breathing pattern/Impaired gas exchange/Impaired spontaneous ventilation related to pain from fractured ribs, lung contusions, sedation, high blood alcohol content, and intra-abdominal hypertension

Interventions: Ensure patent airway, administer oxygen via non-rebreather mask, monitor ventilator settings, oxygenation status, and acid/base balance (SpO2, ABGs, lactic acid, pH, base deficit, etc.), provide pain medication

Diagnosis 2: Risk for deficient fluid volume related to blood volume loss (hypovolemic shock) *Interventions:* Start two large bore IVs to administer blood products (fresh frozen plasma, red blood cells, platelets, cryoprecipitate), fluids, and medications, assess circulation regularly (HR, BP, capillary refill, skin color and elasticity, level of consciousness, urine output, weight), place arterial line to monitor hemodynamics

Diagnosis 3: Ineffective peripheral, renal, gastrointestinal, and cerebral tissue perfusion related to low cardiac output, decreased blood flow to abdominal organs and kidneys, and decreased cerebral perfusion pressure due to increased intra-abdominal pressure

Interventions: Hemodynamic monitoring (SVR, MAP, CVP, CI, SvO2, ABGs, lactic acid, base deficit), renal function (urinary output, glomerular filtration rate, BUN, creatinine blood and urine test), intracranial pressure monitoring (level of consciousness, cerebral perfusion pressure)

Diagnosis 4: Decreased cardiac output related to decreased blood volume (internal bleeding/hypovolemic shock)

Interventions: Start two large bore IVs to administer blood products (fresh frozen plasma, red blood cells, platelets, cryoprecipitate), fluids, and medications, assess circulation regularly (HR, BP, capillary refill, skin color and elasticity, level of consciousness, urine output, weight), place arterial line to monitor hemodynamics.

Case Study 9: Blunt Abdominal Trauma

Here are your *breadcrumbs*...

- Presence of sustained, elevated intra-abdominal pressure is the definitive diagnostic criteria for abdominal compartment syndrome (ACS).
- Urinary bladder pressure is an accurate proxy to measure intra-abdominal pressure and can be done in two ways:
- Continuous assessment and re-evaluation of patient status.
- Administer medications as needed to maintain hemodynamic parameters.
- Work with PT, OT, Social Work, Providers, and Pharmacy.
- Patient education and discharge teaching.
- Ensure that your workplace has decided on a device to measure IAP
- Implement the WSACS Assessment Algorithm to screen all suspected patients for IAH
- Continuing Education resources can be found in the journal Critical Care Nurse

NUSRING ROLE