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N202 Unit VI Part 2

Class Preparation Assignment – Trauma Case Study

Patient Profile:

J.B. is a 78-year-old male who was found by his neighbor lying on the ground in his garden. It is unknown how long he has been lying there. It appears he has fallen off the roof while fixing the shingles on his house. His left femur is protruding through the skin. The paramedics report that he was found in a large pool of blood. Additional visible wounds include scattered bruising to the head and abdomen.

Subjective Data:

- N/A – unresponsive, no family at bedside

Objective Data:

- Unresponsive
- BP 60/42, HR 168, RR 14, SpO2 88% on RA, Temperature 94.7 F
- Left femur protruding through skin
- Scattered bruising to the abdomen and head
- Scattered abrasions

Questions:

1. What potentially life-threatening injuries does J.B. have? Why did you come to this conclusion?
   JB potentially has severe hemorrhagic shock due to being found in a large pool of blood with an open femur fracture, TBI due to the bruising on the head and unresponsiveness, internal bleeding due to bruising around the abdomen, and hypothermia due to a body temperature of 94.7 °F. These potential diagnoses are consistent with JB's critical VS with a low BP (60/42), HR high (168), SpO2 (88% on RA), and hypothermia (94.7 °F).

2. What is the priority of care for this patient?
   The priority of care for this patient includes stopping the hemorrhage via a tourniquet applied high and tight, ensuring a patent airway to include intubation if indicated, ensuring adequate respirations that are bilaterally even and unlabored, initiating IV access, and administering IV crystalloid fluids or whole blood for hypotension and hemorrhagic shock, preventing further hypothermia via warming blankets or warmed IV fluids, stabilization of the femur fracture with temporary splinting or traction, and rapid transport to the ED for immediate resuscitation and then the OR for emergent surgical intervention, hemorrhage control, and fracture stabilization.

3. What diagnostic studies (images & labs) do you anticipate being ordered for this client?
   I anticipate a FAST exam being ordered for the abdominal trauma, a CT scan of the head and abdomen for the head trauma, and x-rays of the left femur to assess the

fracture. For labs, I anticipate that a CBC, CMP, PT/INR, aPTT, blood type and crossmatch, ABGs, and lactate levels will be ordered.

4. Once the client is initially stabilized, the nurse begins to consider additional injuries. What other potential complications, syndromes, or injuries may this client be experiencing?
   Other potential complications that the client may be experiencing include compartment syndrome from the potential swelling in the thigh due to the femur fracture, fat embolism syndrome due to a long bone fracture, sepsis due to an open fracture for an unspecified amount of time, and DVT or PE due to immobility, trauma, unresponsiveness, and low SpO2 on RA.

5. For the identified injury or illness above, what clinical manifestations should the nurse assess?
   Compartment syndrome: lower extremity swelling and decreased pulses in the affected extremity.
   Fat embolism syndrome: petechial rash on chest, continued unresponsiveness, and worsening of SpO2 over time.
   Sepsis: increase or continued decrease in temperature, increased HR, hypotension after correction during initial resuscitation, continued unresponsiveness.
   DVT/PE: swelling in extremities, worsening of SpO2, dyspnea, and tachycardia

6. What treatment measures and nursing interventions does the nurse anticipate for this client?
   For this client, the nurse would anticipate immediate resuscitation to include administration of IV crystalloid solutions or whole blood, administering antibiotics and a tetanus shot prophylactically due to the open femur fracture, apply traction or external fixation until definitive treatment in the OR, continuous monitoring of VS with trending, pain management if indicated, arousable to pain, and not unresponsive, possible intubation if unable to support own airway or respirations, prevention of worsening hypothermia with warm blankets and maintaining a warm environment, and assessing for signs and symptoms of deteriorating clinical presentation to include the complications above.