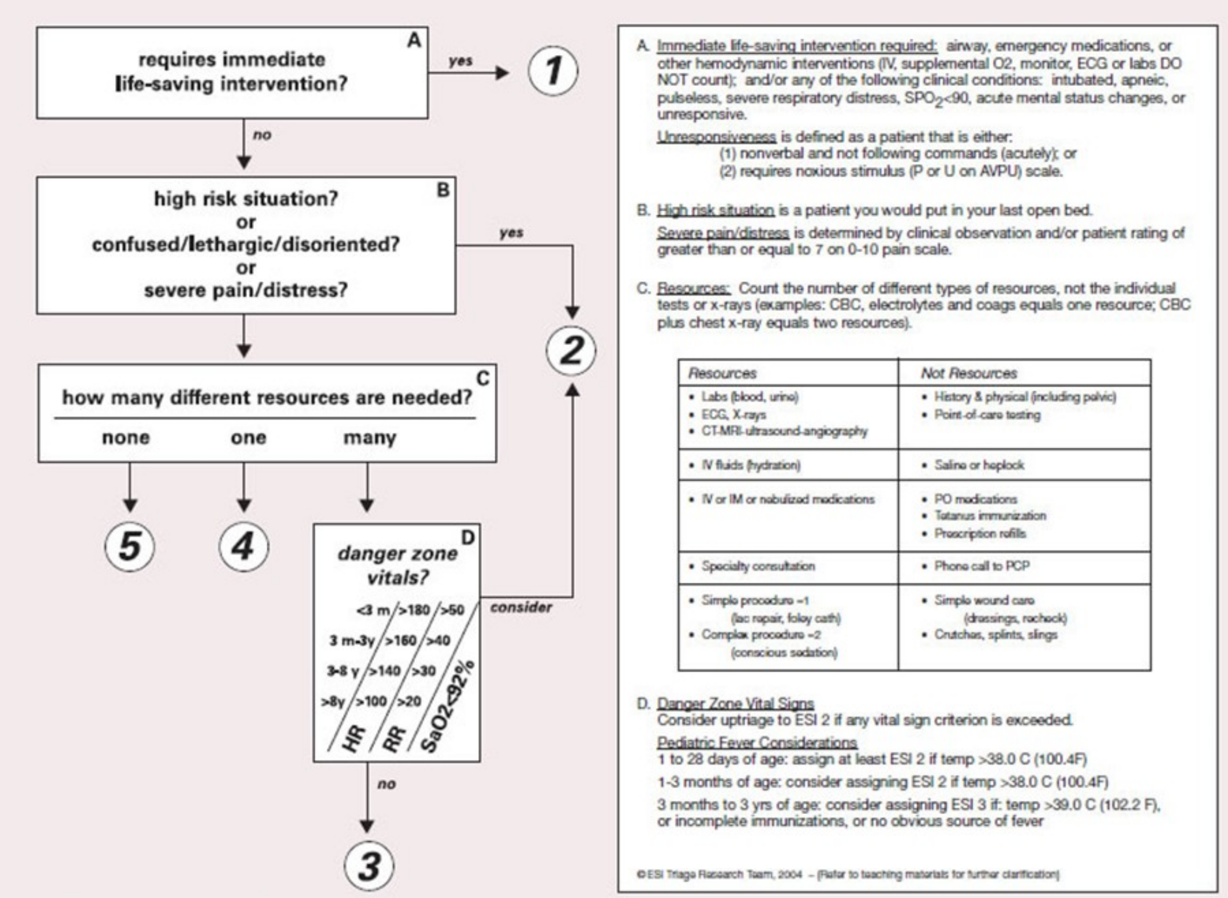
Week 9

- ABC assessment prioritization
    - Airway/Cervical spine
    - Breathing
    - Circulation
- Primary Survey
    - Components
        - A primary survey is a rapid assessment of life-threatening conditions
        - The primary survey should be completed systematically so life-threatening conditions are not missed
        - Standard precautions- gloves, gowns, eye protection, face masks, and shoe covers- must be worn to prevent contamination with bodily fluids
        - Guide the primary survey with ABCDE
    - Performing on a client
- ESI Triage
    - 5 level triage system that incorporates concepts of illness severity and resource utilization to determine who should be treated first
    - Includes a triage algorithm that directs you to assign an ESI level to patients coming into the ED
        - Assess acuity level
        - Prioritize patients based on CC and presentation
    - 5 Level triage system
        - Resuscitation- level 1
            - Cardiac Arrest
        - Emergent- level 2
            - Chest Pain with cardiac history
        - Urgent- level 3
            - Abdominal pain
        - Less Urgent- level 4
            - Laceration
        - Nonurgent- level 5
            - Simple rash
        - Psych patients always level 2



©ESI Triage Research Team, 2004. Reproduced with permission.

- Opioid overdose
    - Treatment
        - Narcan?
- Acetaminophen OD
    - Manifestations
        - Phase 1 (w/in 24 hrs of ingestion): malaise, diaphoresis, N/V
        - Phase 2 (24-48 hrs after ingestion): RUQ abd pain, decreased UO, diminished nausea, elevated LFTs
        - Phase 3 (72-96 hrs after ingestion): N/V, malaise, jaundice, hypoglycemia, enlarged liver, possible coagulopathies including DIC
        - Phase 4 (7-8 days after ingestion): recovery, resolution of symptoms or permanent liver damage, LFTs remain high
    - Treatment
        - Activated charcoal, N-acetylcysteine (oral form may cause vomiting, IV form can be used)

- Hypothermia (systemic)
    - Manifestations
- Frostbite (localized)
  - Usually ears, nose, fingers, and toes
    - Nursing Interventions
      - Restore normal blood temperature
- Consent
    - Unresponsive patients
      - If the patient is unconscious upon arrival this should be documented
      - Additional consent for procedure should be obtained when necessary
- Heat Stroke
    - Manifestations
    - Loss of muscle coordination, tachypnea, hallucinations, 105.3 temp, AMS, absence of perspiration, circulatory collapse.
    - Neurologic symptoms due to brain sensitivity to thermal injuries: hallucinations, loss of muscle coordination, combativeness
      - Heat cramps
        - Severe cramps in large muscle groups fatigued by heavy work
        - Nausea, tachycardia, pallor, weakness, and profuse diaphoresis are often present
        - Common in athletes with inadequate fluid intake
      - Heat exhaustion
        - Usually, individuals engaged in strenuous activity in hot, humid weather, but also seen in sedentary individuals
        - Hypotension, tachycardia, elevated body temp, dilated pupils, mild confusion, ashen color, & profuse diaphoresis are manifestations
- Airway obstruction
    - Manifestations
    - Not awake or responsive
- RACE acronym for fire
  - Rescue
  - Activate
  - Close
  - Extinguish

- Carbon monoxide poisoning
    - Manifestations
    - Dyspnea, respiratory depression, tachypnea leads to cyanosis leads to confusion and impaired judgement
        - Dyspnea, headache, tachypnea, confusion, impaired judgement, cyanosis, respiratory depression
- Important/underlined in powerpoint
    - Patients and families waiting or assistance may be emotionally volatile -> often waiting rooms are the sites where feelings of dissatisfaction, fear, and anger are channeled violently
    - Safety is the first priority
    - Triage system identifies and categorizes patients so that the most critical are treated first
    - IM Epi first (every 3 minutes)
    - Drug addicts don’t shiver (they take opioids, and antiemetics)

<u>Week 10:</u>

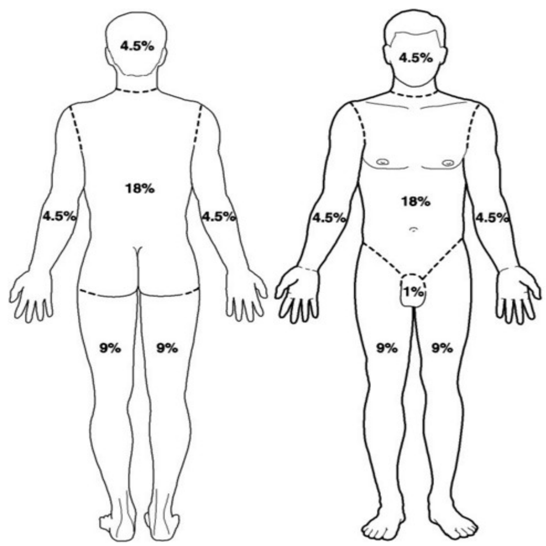
- Nursing roles during a disaster
    - Nurses may be asked to perform duties outside their areas of expertise and may take on responsibilities normally held by physicians or advanced practice nurses
    - <u>A nurse may serve as the triage officer</u>
- Triage officers during a disaster
    - A nurse may serve as the tirage officer
- HICS
    - Hospital incident command system
    - <u>A modification of the ICS (Incident command system) that is used by both hospitals and law enforcement agencies</u>
    - HICS incident commander is the hospital emergency preparedness coordinator who oversees and coordinates all efforts surrounding the event
    - HICS identifies facility responsibilities and channels of reporting
- Disaster Triage
    - Assign tag color
        - Black-deceased
        - red - immediate (Sucking chest wound)
        - Yellow- delayed (stable abdominal wounds)
        - Green- minor (walking around wounded)

        - Prioritize by acuity
    - ABC assessment prioritization
        - Airway
        - Breathing
        - Circulation
    - Emergency preparedness kits
        - Items to include
            - Backpack, personal identification, clean clothing, sturdy footwear, pocket knife, 3 day supply of water, 3 day supply of non perishable food, blankets/sleeping bag/pillow, first aid kit, adequate supply of prescription medications, battery operated radio, flashlight and batteries, credit card/cash/traveler's checks, extra set of keys and full tank of gas in the car; cell phone, toiletries, matches in waterproof container
- Underlined in powerpoint/notes
    - It is no longer a question of whether or not a disaster or terrorist event will lead to mass casualties, but when such an event will occur
    - Difference between internal and external disasters
    - Level 1: Massive disaster involves significant damage and results in a presidential declaration with major federal involvement and full engagement of federal, regional, and national resources
    - All disaster relief is free
    - Must practice emergency preparedness plans twice a year
    - Information found on a disaster tag
        - Name
        - Injury
        - DOB
        - Vitals/time
        - Meds/time
        - Any treatment given
        - Allergies
    - Decontamination
        - To be effective must include a minimum of two steps
            - 1. Removal of the patients clothing and jewelry and then rinsing the patient with water
            - 2. Consists of thorough soap and water wash and rinse
    - Nuclear radiation exposure

    - The longer a person is within the radiation area, the higher the exposure
    - Decontamination
      - Triage outside the hospital is the most effective means of preventing contamination of the facility itself
  - Personal and professional preparedness
    - Plan a meeting place for family members
    - Identify where to go if an evacuation is necessary
    - Determine when and how to turn off water, gas , and electricity at main switches
    - Locate the safe spot in the home for each type of disaster
    - Replace stored water supply every 3 months and stored food supply 6 months
- Burns:
  - Escharotomy
    - Patient education
      - Incision through the eschar relieves pressure from the constricting force of fluid buildup under circumferential burns on the extremity or chest and improves circulation
  - Wound care
    - Nursing interventions
      - Premedicate the client with an analgesic
      - Remove all previous dressings
      - Assess for odors, drainage, and discharge. Assess for sloughing, eschar, bleeding, and new skin cell regeneration
      - Cleanse the wound thoroughly, removing all previous ointments
      - Assist with debridement
        - Mechanical: Use scissors and forceps to cut away the dead tissue during the hydrotherapy treatment
        - Hydrotherapy: Assist the client into a warm tub of water or use warm running water, as if to shower, to cleanse the wound

            - Use mild soap or detergent to wash burns gently, and then rinse with room temperature water
            - Encourage the client to exercise his joints during the hydrotherapy treatment
        - Enzymatic: Apply a topical enzyme to break down and remove dead tissue
            - Apply topical enzyme agents such as collagenase to the wound during a dialy dressing change
        - Ensure that the client does not become hypothermic during the treatment
        - Use surgical asepsis while applying a thin layer of topical antibiotic ointment and cover it with a dressing
- Emergent phase
    - Nursing Interventions
        - Care predominantly focuses on airway management, fluid therapy, and wound care
        - Airway management
            - Early endotracheal intubation to reduce the need for emergency tracheostomy
            - Escharotomy in circumferential burns to neck and or chest
            - If not intubation, 100% humidified O2 and place in high fowlers
            - Encourage to turn cough and deep breathe
        - Fluid therapy
            - Parkland formula
                - Crystalloid only(Lactated Ringer’s)
                - 4mL/kg/%TBSAburn
            - If electrical burn they require both fluids and mannitol to increase urine output and overcome high levels of myoglobin and hemoglobin in the urine
            - Assess for the adequacy of fluid resuscitation using clinical parameters:

- Urine output-> 0.5-1.0/kg/hr; 75-100 mL/hr for electrical burns
- Cardiac parameters-> MAP>65, SBP>90, HR <120]

- Assessing the severity of burns
    - Determined by:
        - Depth
        - Extent
        - Location
        - Patient risk factors
- ABC assessment prioritization
    - Airway
    - Breathing
    - Circulation
- Rule of Nine's
    - Calculate TBSA affected
    - 

- Prioritize nursing interventions based on TBSA
    - Face and neck and circumferential burns to the chest or back
        - Interferes with breathing
        - Smoke injury or inhalation injury
    - Hands, feet, joints, and eyes
        - Self-care is difficult
    - Hand and feet
        - Challenging to manage because of superficial vascular and nerve supply systems that must

be protected while the burn wounds are healing

- Ears and nose
  - Great risk for infection due to the skin is very thin and the underlying skeleton is frequently exposed
- Buttocks or perineum
  - High risk for infection from urine or feces contamination
- Circumferential burns to extremities
  - Can cause circulation problems distal to the burn, with possible nerve damage to the affected extremity
  - Patients may also develop compartment syndrome from dir1ect heat damage to the muscles, swelling and or preburn vascular problems

- Fluid resuscitation
  - Fluids used, over what timeframes
    - Administer half of the total 24-hr IV fluid volume within the first 8 hr and the remaining volume over the next 16 hr
    - Infuse isotonic crystalloid solutions such as 0.9% sodium chloride or lactated Ringer's
    - Infuse colloid solutions, such as albumin or synthetic plasma expanders, after the first 24 hr of burn recovery
  - Calculate using Parkland Baxter formula
  - Signs of adequate replacement
- Facial burns
  - Priority assessment
    - Airway`
- Anticipated electrolyte imbalances
  - Major electrolyte shifts of sodium and potassium
  - Hyperkalemia
  - hyponatremia
- Inhalation injury:
  - Treatment
    - Provide humidified supplemental oxygen

            - Mechanical ventilation and paralytic medication
        - Nursing interventions
            - Assess
            - Tracheostomy care
            - Monitor chest tubes
            - Instruct client to cough, deep breathe, and use IS every hour
            - Suction every hour
    - Circumferential burns
        - Nursing interventions
            - Assess pulses distal to burn
    - Medication calculation
    - 2 IVs for burn victims