

- **ABC assessment prioritization**

- o **Airway**
- o **Breathing**
- o **Circulation**

- **Primary Survey**

- o Rapid assessment of life-threatening conditions
- o Should be completed systematically
- o Use standard precautions
- o Guide primary survey with ABCDE principle

- o **Performing on a client**

- Airway and C-spine
- Breathing
- Circulation
- Disability
- exposure

- **ESI Triage-** 5 level triage system that incorporated concepts of illness severity and resource utilization to determine who should be treated first.

- o **Assess acuity level**

- **Resuscitation** **Level 1** **cardiac arrest**
- **Emergent** **Level 2.** **CP with cardiac history**
- **Urgent.** **Level 3** **abdominal pain**
- **Less urgent** **Level 4.** **Laceration**
- **Nonurgent** **Level 5.** **Simple rash**

- o **Prioritize patients based on CC and presentation**

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Definition	ESI-1	ESI-2	ESI-3	ESI-4	ESI-5
Stability of vital functions (ABCs)	Unstable	Threatened	Stable	Stable	Stable
Life threat or organ threat	Obvious	Likely but not always obvious	Unlikely but possible	No	No
How soon patient should be seen by HCP	Immediately	Within 10 min	Up to 1 hr	Could be delayed	Could be delayed
Expected resource intensity	<ul style="list-style-type: none"> High resource intensity Staff at bedside continuously Often mobilization of team response 	<ul style="list-style-type: none"> High resource intensity Multiple, often complex diagnostic studies Frequent consultation Continuous monitoring 	<ul style="list-style-type: none"> Medium to high intensity Multiple diagnostic studies Complex procedures 	<ul style="list-style-type: none"> Low resource intensity One simple diagnostic study 	<ul style="list-style-type: none"> Low resource intensity Examination only
Examples	Cardiac arrest, intubated trauma patient, overdose w/ bradypnea, severe respiratory distress	Chest pain probably resulting from ischemia, multiple trauma unless responsive	Abdominal pain or gynecological disorders unless in severe distress, hip fracture in older patient	Closed extremity trauma, simple laceration, cystitis	Cold symptoms, minor burn, recheck (e.g. wound), prescription re

• Opioid overdose

- o Treatment: naran/ naloxone (IM/ IV/ IN)
 - Support RR/ heart functioning
 - IV line, draw blood -- > chemical toxicologic analysis
 - **Duration of action of Narcan is shorter than opioi**
 - o additional dosages could be needed
- o mX patient as they could easily slip into coma again rapidly

• Acetaminophen OD (Tylenol)

o Manifestations

- **Phase 1 w/in 24 hours-** malaise, diaphoresis, N/V
- **Phase 2 24-48 hours-** RUQ abdominal pain, decreased urinary output, diminished N/V elevated LFT
- **Phase 3 72- 96 hours-** N/V malaise, jaundice, hypoglycemia, enlarged liver, possible coagulopathies, including DIC

- **Phase 4** 7-8 days after= recovery, resolution of symptoms or permanent liver damage, LFTs remain high

- o **Treatment**

- Activated charcoal
- N-acetylcysteine (oral form may cause vomiting)

- **Hypothermia-** systemic

- o **Manifestations**

- Age
- Duration of exposure
- Environmental temperature
- Homelessness
- Pre-existing conditions
- Drugs that suppress shivering (opioids, anti-emetics)
- Alcohol intoxication

- **Frostbite-** localized. Usually ears, nose, fingers, and toes

- o **Nursing Interventions**

- Restore normal body temperature
- Remove constricting/wet clothes/jewelry
- - Cardiac monitoring, bear hugger (warming blanket) on direct skin (no barriers), Warm fluids
- Controlled rapid warming
- Restore normal body temp
- Circulating bath/whirlpool bath for 30-40mins at a time
- Analgesics given for pain during warming period; elevate body part once warmed to control edema
- Sterile gauze/cotton placed in between pt's fingers/toes and bulky dressing placed on extremity
 - via use aseptic technique
 - Escharotomy to prevent further damage to tissue and allow for normal circulation and joint motion

- Fasciotomy: tx for compartment syndrome; use if escharotomy unsuccessful
- Don't massage bc pt may not be able to feel it
- Lower extremity affected – don't ambulate

• **Consent-** required to examine and treat any patient

- o **Unresponsive patients-** if brought in unconscious this should be documented

• **Heat Stroke-** most serious form of heat stress

- o **Manifestations**

- Core temperature >105.3
- Altered mental status
- Absence of perspiration
- Circulatory collapse
- Neurologic symptoms d/t brain sensitivity to thermal injuries
- Hallucinations
- Loss of muscle coordination
- Combativeness
- Death directly r/t amount of time the patient's body temperature remains elevated
- **Goal is to reduce temperature**

• **Airway obstruction**

- o Manifestations
 - Can't speak, breathe or cough
 - Universal distress signal
 - Choking, apprehensive, refusing to lie flat, stridor, labored breathing, accessory muscles, flaring nostrils, anxiety, restless, confusion
 - Cyanosis and LOC = late sx

• **RACE acronym for fire**

- o **Rescue**
- o **Alarm**
- o **Contain**
- o **Evacuate**

- **Carbon monoxide poisoning**

- o **Manifestations**

- Dyspnea
 - HA
 - Tachypnea
 - Confusion
 - Impaired judgement
 - Cyanosis
 - Respiratory depression

- **Nursing roles during a disaster**

- Perform duties outside of their areas of expertise and may take on responsibilities normally held by physicians or advanced practice nurses
 - May serve as triage officer
 - New settings and atypical roles for nurses arise during disasters

- **Triage officers during a disaster-** any nurse can lead the triage. Done by delegating to others in a disaster

- **HICS** – used by both hospitals and law enforcement agencies.

HICS incident commander is hospital's emergency preparedness

Oversees and coordinates reports the event

Makes sure people get to where they need to be

Identifies responsibilities

- **Disaster Triage-** goal is to treat the most people
 - **Assign tag color**
 - **Red 1 sucking chest wound**
 - **Yellow 2 stable abdominal wounds**
 - **3 green minor burns, fractures**
 - **4 black unresponsive**
 - **Prioritize by acuity – who can be treated the fastest before moving on.**

- **ABC assessment prioritization**
 - Airway, breathing, circulation= responsive
 - Circulation, airway, breathing= unresponsive

- **Emergency preparedness kits**
 - **Items to include**
 - Personal identification, clean clothes, sturdy footwear, pocket knife, 3 day supply of water, 3 day supply of non perishable food, blankets/sleeping bag, pillow, first aid kit, prescription medication, battery operated radio, flashlight and batteries, credit card/cash/travelers checks, extra set of keys, full tank of gas in car, cell phone, toiletries, matches in waterproof container

- **Burns:** an injury to the tissues of the body caused by heat, chemicals, electrical current, radiation. Most are preventable

- **Escharotomy**- incision through the eschar relieves pressure from the constricting force of fluid buildup under circumferential burns on the extremity or chest and improves circulation
- Patient education

- **Wound care**

- **Nursing interventions**
 - Premediate 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 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, then rinse with room temperature water. Encourage client to exercise during hydrotherapy
 - Enzymatic- apply a topical enzyme to break down and remove dead tissue. Add collagenase to the wound daily during dressing change.
 - Ensure that the client does not become hypothermic during treatment

- Use surgical asepsis while applying thin layer of topical antibiotic ointment and cover it with a dressing

- **Emergent phase-**

- required to resolve the immediate, life-threatening problems resulting from burn injury.
- Lasts up to 72 hours from the time the burn occurred
- Primary concerns= onset of hypovolemic shock and edema formation.

- **Nursing Interventions**

- Secure the airway, supporting circulation and organ perfusion by fluid replacement
- Manage pain
- Prevent infection through wound care
- Maintain body temperature
- Provide emotional support

- Airway management- early endotracheal intubation to reduce need for emergency tracheotomy

- **Assessing severity of burns**

- Percentage of total body surface area- use standardized charts for age groups to identify the extent of the injury and calculate medication doses, fluid replacement volumes, and caloric needs
 - Depth of burn- classify burns according to layers of skin and tissue involved, superficial, partial, full, and deep full thickness
 - Body location of burn- in areas where the skin is thinner there is more damage to underlying tissue (any part of the face, hand, perineum, feet)
 - Age- young clients and older clients have less reserve capacity to deal with a burn injury. Skin thins with aging so more damage to underlying tissue can occur.
 - Causative agent- thermal, chemical, electrical, or radioactive
 - Presence of other injuries- fractures or other injuries increase the risk of complications
 - Involvement of the respiratory system- inhalation of deadly fumes, smoke, steam, and heated air can cause respiratory failure or airway edema. Carbon monoxide poisoning also can occur, especially if the injury took place in an enclosed area.
 - Overall health of the client- who has chronic illness has a greater risk of complications and a worse prognosis.
- **ABC assessment prioritization**
 - Burn do CAB= circulation, airway, breathing
 - Unresponsive=CAB
 - Responsive=ABC
 - Burn patients need 2 IVs. Fluid replacement, antibiotics.
 - Monitor all VS
 - Edema at site of burn so elevate extremities that are burnt

- **Rule of Nine's**

- Head 9% (front 4.5% back 4.5%)
- Trunk 36% total (front 18% back 18%)
- Whole arm 9% (front 4.5%, back 4.5%)
- Whole leg 36% (one leg 18% or both sides 18%)
- Front of body 50.5%
- Both arms and trunk 27%

- **Calculate TBSA affected**

- Head 9% (front 4.5% back 4.5%)
- Trunk 36% total (front 18% back 18%)
- Whole arm 9% (front 4.5%, back 4.5%)
- Whole leg 36% (one leg 18% or both sides 18%)
- Front of body 50.5%
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- **Prioritize nursing interventions based on TBSA**

- Assess for airway
- Administer oxygen as prescribed
- Obtain vital signs
- Initiate IV line and begin fluid replacement as prescribed
- Elevate extremities if not fractures are obvious

- Keep the client warm and place the client on NPO status
- Tetanus toxoid may be prescribed for prophylaxis
- **PRIMARY GOAL FOR BURN INJURY IS TO MAINTAIN A PATENT AIRWAY, ADMINISTER IV FLUID TO PREVENT HYPOVOLEMIC SHOCK, AND PRESERVE VITAL ORGAN FUNCTIONING**
- **Fluid resuscitation- first 24 hours after a burn**

- **Fluids used, over what timeframes**
 - Modified Brooke- 5% albumin in isotonic saline
 - Lactated ringer. 0.5mL to 15mL/kg/TBSA burn
 -
- **Calculate using Parkland Baxter formula**
 - Crystalloid only (Lactated Ringer). 4mL/kg/TBSA burns
 - Application
 - $\frac{1}{2}$ of total in 1st 8 hours
 - $\frac{1}{4}$ of total in 2nd 8 hours
 - $\frac{1}{4}$ of total in 3rd 8 hours

- **Signs of adequate replacement = cap refill >3 seconds.**

- **Facial burns**
- Priority assessment -maintain patent airway

- **Anticipated electrolyte imbalances**

- **Na**
- **K+**
- **Inhalation injury:** smoke or chemical

- **Treatment**
 - Contact poison control if chemical

- **Nursing interventions**
 - Put patient on oxygen as needed
 - Intubation
 - Monitor LOC, VS HR, O2

- **Circumferential burns-** burn all around
- **Nursing interventions**
 - Escharotomy
 - Intubation & mechanical ventilation

- **Medication calculation**
 - **4ml/kg/TBSA**