EMERGENT CARE

EMERGENCY NURSING
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EMERGENT

• DEFINITION
  - Life-threatening or potentially life-threatening injuries or illness requiring immediate treatment
  - Traumatic
  - Non-traumatic
     - Medical Emergencies

Traumatic Injuries

• TRAUMA – Is a disease characterized by injury to the body caused by intentional or unintentional acute exposure to mechanical, thermal, electrical, or chemical energy.

• INCIDENCE / IMPACT
  - Leading cause of death for those < 44
  - Major cause of disability
  - Significant health care cost
  - 434.8 billion dollars spent on injury in 1995
  - 75.1 billion in medical care
  - 222.4 billion in lost wages and productivity

TRIAGE “to sort”

<table>
<thead>
<tr>
<th>NURSES</th>
<th>EMT’S in Disasters</th>
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<tbody>
<tr>
<td>IN HOUSE</td>
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<tr>
<td>- EMERGENT</td>
<td>- EMERGENT</td>
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<tr>
<td>- IMMEDIATE</td>
<td>- Red</td>
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<tr>
<td>- URGENT</td>
<td>- Yellow</td>
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<tr>
<td>- FAST-TRACK</td>
<td>- URGENT</td>
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<td>- Walk-in’s</td>
<td>- Green</td>
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<td>- BLUE</td>
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<tr>
<td>- BLACK</td>
<td>- Psychological support</td>
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<td>- Dead or dying</td>
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Prehospital Care

• EMERGENCY PERSONNEL
  - Lay groups
  - Emergency Medical Technicians (EMT’s)
  - Paramedics
  - Firefighters
  - Police
  - Others

Emergency Medical Systems (EMS)

• Has had a great impact on morbidity and mortality of trauma victims in prehospital settings.
• Moved from haphazard and inexperienced process to an organized and sophisticated system of care.
• Supported by the “Golden Hour” research that showed increased survival in trauma victims if care was initiated in the first minutes to hour after injury.
### Factors that increase survival during “Golden Hour”

- Early activation of EMS
- Identification of problem and appropriate and immediate care before and during transit to ED.
- Care at a well-equipped, well-staffed ED or trauma center.
- Appropriate on-site care.

### Mortality Trimodal Distribution

- **1st peak**
  - Death occurs in first seconds or minutes after injury
- **2nd peak**
  - Within 1-2 hours of injury
  - Significant number of lives saved with accurate prehospital and initial hospital treatment
- **3rd peak**
  - Days to weeks after injury

### Essential Components of Emergency Medical Care

- **COMMUNICATION**
  - Gathering and relaying pertinent facts related to accident and extent of injuries
- **EVACUATION**
  - Remove victim from the scene as quickly as possible to prevent further injury or delay of treatment
- **TRANSPORT**
  - Quickly to an appropriate treatment center
- **STANDARDIZED TREATMENT ALGORITHMS**
  - Used by emergency personnel in all settings
  - Based on positive outcomes research

### Available Facilities to Treat Emergency Conditions

- **EMERGENT CARE CENTERS**
- **EMERGENCY ROOM**
- **EMERGENCY DEPARTMENT**
- **TRAUMA CENTERS**

### Nurses in Emergent Care

- **EMERGENCY NURSES**
  - Gain expertise in quickly identifying and prioritizing treatment of patient problems in a crisis situation.
  - Recommended that 50% of ED nurses be currently verified by TNCC
  - Trauma Nursing Core Course

### Nurses play a critical role in the assessment, management, ongoing monitoring, and planning care for trauma patients. Expert care of trauma patients requires a combination of training, education, skills, and expertise.
Goals of ED Care

- Preserve life
- Prevent deterioration before treatment can be given
- Restore the patient to optimal function

Care of the Trauma Victim

- Initial Assessment and Management
  - Systematic evaluation by trauma team whose roles are defined and who have planned for all contingencies.
  - Pre-established guidelines and protocols are a necessity
- Predictors of Injury Severity
  - Trauma Scores – useful in grading the severity of injury and somewhat predictive of care needed and outcomes.
  - Numerical grading of cardiac and neurological function/injury. Lower scores more serious.

Trauma Team

- Trauma surgeon/Team leader
- Additional MD assistance
  - Surgeon, Other ER MD, Anesthesiologist, Radiologist
- Primary RN
  - Other RN’s, LPN, techs
- Additional Nursing Assistant(s)
- Radiology Technician
- Respiratory Therapist

Trauma Room

- Designed to provide immediate access to all equipment necessary to perform a rapid and efficient resuscitation.
  - Large room
  - Adequate lighting
  - All anticipated equipment
  - Protective garb

Medical Emergencies

- Traumatic and/or Non-Traumatic
  - Cardiac
    - AMI, Angina, CHF, HTN
  - Respiratory
    - PE, Pneumothorax, Pneumonia, Asthma, Smoke inhalation, carbon monoxide poisoning, near-drowning
  - Neurological
    - CVA, Seizures
- Abdominal/GI
  - Appendicitis, pancreatitis, intestinal obstruction, acute GI bleed
- Bleeding Disorders
  - Sickle Cell Crisis, Hemophilia
- Metabolic
  - Hypoglycemia, DKA, HHNC, Thyroid storm, Alcohol intoxication
- Poisoning (overdoses)
- Environmental
  - Spider/snake bites, bee/wasp stings
• Genitourinary
  - Acute pyelonephritis, kidney stones, acute urinary retention, testicular or ovarian torsion
• Allergies/Hypersensitivities
  - Anaphylactic shock
• Shock States
  - Hypovolemic, cardiogenic, septic
• Assault/abuse/violent injuries
• Obstetrical Emergencies
  - Placenta previa, abruptio, precipitous delivery

Nursing Process
• Assessment Data (Subjective)
  - Accident History
  - Patient description of what happened
  - Just before, during, and immediately after
  - History of Present Injury/Illness
  - Past medical/surgical history
  - Review of systems r/t injury/illness
  - Current medical treatment/concerns
• Physical Examination (Objective)
  - Primary Survey - seconds
  - Rapid ABC,C2 assessment
  - Secondary Survey - minutes
  - More complete head-to-toe assessment

Diagnoses / Goals
• Focus on life-threatening problems
• Short term goals initially

Treatment Interventions
• Quick and focus on ABC's initially
• Revolve around stabilization and prevention of further injuries
• Infection control for patients and HCW's
• Psychological Support
  - Decrease anxiety initially
  - Full crisis intervention
• Obtain consent for treatment/procedures
• Discharge planning
• Referrals
• Evaluation

Legislation enacted for ED patient transfers
• COBRA
  - Consolidated Omnibus Budget Reconciliation Act – Federal law enacted in 1986
• EMTALA
  - Emergency Medical Treatment and Active Labor Act – combined with COBRA

Legal Issues
• Appropriate Screening
  - Staff to provide medical screening exams on patients that present to ED
• Provision of adequate treatment
  - Need to transfer patient if unequipped to treat
• Transfer of patient
  - Provide reason for transfer and advantages of sending patient to another hospital
  - Ground and/or air ambulance must provide adequate/appropriate personnel and equipment to make safe transfer
  - Patient must be stabilized prior to transfer
• Informed Consent
  - Rests with patient or designated decision-maker
  - Must be given voluntarily
• Implied Consent
  - Provided by state laws
• Legal age for consent
  - State laws identify age at which person can give consent
  - Often, age for medical consent is < legal age
  - Emancipated minors – provide own support
• Competency issues
  - Mental illness
  - Intoxicated (drugs/alcohol)
Reportable ED Conditions/Situations

- GSW, Stabbings, Burns, MVA, Assault
- Child/Domestic/Elder/Spouse Abuse
- Neglect
- Communicable Diseases
  - TB, HIV, Bacterial Meningitis, Syphilis, and others
- Animal bites/Rabies