

# **NURSING 202: ADVANCED CONCEPTS OF NURSING**

## **UNIT VI: TRAUMA AND EMERGENCY NURSING**

### **AT THE COMPLETION OF THE UNIT, THE STUDENT:**

1. Identifies the principles of disaster nursing, emergency nursing, and triage in an emergency situation.
2. Explains the priorities of emergency management in the patient with multiple injuries.
3. Analyzes priority assessments for patients with urgent needs.
4. Identifies modes of emergency transport and classification of trauma centers.
5. Compares and contrasts pathophysiology, treatment, and nursing care of the patient with hypovolemic, neurogenic, and septic shock.
6. Explains the nursing responsibilities for complications encountered during the intensive and extended care of the trauma patient.
7. Demonstrates and interprets assessments for patients with multisystem failure.
8. Discusses the pathophysiology and treatment of the metabolic response to injury.
9. Explains the nursing care of the patient with enteral and total parenteral nutritional support therapy.
10. Discusses the nursing care of the patient with a burn injury.
11. Relates how trauma affects specific populations.
12. Explains variations in procedures/techniques when resuscitating the pregnant client.
13. Describes the emergency nursing care of the patient with acute injury, i.e., facial, throat, thoracic, abdominal, renal, musculoskeletal, or extremity trauma.
14. Describes the emergency nursing care associated with perfusion emergencies, penetrating wounds, traumatic wounds, exposure injuries, poisoning, drug-related emergencies, water emergencies, and rape trauma.
15. Applies evidence-based practice/best practice standards related to care of the trauma patient.
16. Discusses the role of the case manager when working with and discharging a patient brought in for a trauma.
17. Identifies the uses of capnography pre-hospital and in the acute care setting.

CONTENT	HOURS	TEACHING STRATEGY	ATI SUPPORTING ACTIVITY AND/OR RESOURCE	EVALUATION METHOD
<p><b>Unit VI: Trauma and Emergency Nursing</b></p> <p>A. Introduction</p> <ol style="list-style-type: none"> <li>1. Disaster Nursing</li> <li>2. Emergency Nursing</li> <li>3. Violence Prevention &amp; Awareness</li> <li>4. Capnography</li> </ol> <p>B. Triage in the Emergency Situation</p> <p>C. Assessment of the Emergency Patient</p> <p>D. Trauma Systems</p> <ol style="list-style-type: none"> <li>1. Levels of Care</li> <li>2. Primary and Secondary Survey</li> <li>3. Trauma Systems in Delaware</li> </ol> <p>E. Emergency Transport</p> <ol style="list-style-type: none"> <li>1. Stabilization of the Patient</li> <li>2. Transport Methods               <ol style="list-style-type: none"> <li>a. Ambulance</li> <li>b. Helicopter</li> </ol> </li> <li>3. Role of the Transport Coordinator</li> </ol> <p>F. Complications of the Trauma Patient</p> <ol style="list-style-type: none"> <li>1. Shock               <ol style="list-style-type: none"> <li>a. Hypovolemic</li> <li>b. Septic</li> </ol> </li> <li>2. Acute Gastrointestinal Ulceration</li> <li>3. Hypermetabolism</li> <li>4. Multi-system Organ Failure (MSOF)</li> </ol> <p>G. Nutritional Provision</p> <ol style="list-style-type: none"> <li>1. Nutritional Needs</li> <li>2. Nutritional Support               <ol style="list-style-type: none"> <li>a. TPN</li> </ol> </li> </ol>	<p>T = 22.5 CP = 10</p> <p>2.0 – CP</p> <p>3.5 – CP 2.5 - T</p> <p>3.0 – T</p> <p>3.0 – T</p> <p>0.5 – CP</p>	<p>Interactive Lecture: Guest Speakers Situational Awareness Stop the Bleed Campaign ALICE Training: Healthstream</p> <p>Experiential Learning: Simulation- Turning a patient with a cervical alignment</p> <p>Classroom Assessment Techniques: In-class Test Questions</p> <p>Cooperative &amp; Collaborative Learning: Group Work- Think-Pair-Share</p> <p>Flipped Classroom Activities: Self-learning packet</p> <p><i>Lecture and Tour of Christiana Care Emergency Department and Helicopter Transport system – on hold 2022</i></p> <p>Classroom Assessment Techniques: Muddiest Point</p> <p>Interactive Lecture: Read and Review/ Handouts</p> <p>Visual-Based Active Learning: Video: “Sepsis” &amp; handouts/ YouTube videos</p> <p>Case Study Analysis: Case Study- SIRS/MODS</p>		<p>Class Preparation Clinical Anecdotal Unit Quiz Unit Exam Final Exam</p>

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<p>H. Trauma in Special Populations</p> <ol style="list-style-type: none"> <li>1. Trauma in Pregnancy               <ol style="list-style-type: none"> <li>a. Pathophysiology</li> <li>b. Resuscitation Guidelines</li> <li>c. CPR of the Pregnant Patient</li> </ol> </li> <li>2. Trauma in Children</li> <li>3. Trauma in the Elderly</li> <li>4. Diabetic Emergencies               <ol style="list-style-type: none"> <li>a. DKA</li> <li>b. Hypoglycemia</li> </ol> </li> </ol> <p>I. Specific Conditions/Injuries</p> <ol style="list-style-type: none"> <li>1. Chest Trauma</li> <li>2. Facial and Eye</li> </ol> <p>J. Burns</p> <ol style="list-style-type: none"> <li>1. Etiology, Incidence               <ol style="list-style-type: none"> <li>a. Statistics</li> <li>b. Population at Risk</li> <li>c. Types of Burns                   <ol style="list-style-type: none"> <li>1) Thermal</li> <li>2) Radiation</li> <li>3) Electrical</li> <li>4) Chemical</li> </ol> </li> </ol> </li> <li>2. Severity of Burns               <ol style="list-style-type: none"> <li>a. Depth of Damage                   <ol style="list-style-type: none"> <li>1) Superficial Partial Thickness = 1<sup>st</sup> Degree</li> <li>2) Partial Thickness = 2<sup>nd</sup> Degree</li> <li>3) Full Thickness = 3<sup>rd</sup> &amp; 4<sup>th</sup> Degree</li> </ol> </li> <li>b. Percentage of Burned Surface Area (BSA) and Methods to Calculate                   <ol style="list-style-type: none"> <li>1) Rule of Nines</li> <li>2) Lund and Browder Chart</li> </ol> </li> </ol> </li> </ol>	<p>1.0 – T</p> <p>1.0 – T</p> <p>1.0 – T</p> <p>1.0 – T</p> <p>0.5 – T</p> <p>4.0 – CP</p> <p>1.0 – T</p>	<p>Flipped Classroom Activities: Self-learning packet</p> <p>Experiential Learning: Role Play Case Study Analysis: Case Scenario</p> <p>Independent Read and Review Independent Review – Chest Drainage Systems</p> <p>Interactive Lecture: Crozer Burn Seminar</p> <p>Cooperative &amp; Collaborative Learning: Group Math Calculations</p>	<p>ATI Skills Module: Chest Drainage System</p>	

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<ul style="list-style-type: none"> <li>c. Major/Minor Burns</li> <li>d. Other Considerations               <ul style="list-style-type: none"> <li>1) Past Medial History</li> <li>2) Other Trauma</li> <li>3) Special Burned Areas</li> <li>4) Age</li> </ul> </li> <li>3. Pre-Hospital Care               <ul style="list-style-type: none"> <li>a. Assessment/Care                   <ul style="list-style-type: none"> <li>1) Stop the Burning Process</li> <li>2) Cool the Burn</li> <li>3) Airway, Breathing, Circulation</li> <li>4) Smoke Inhalation</li> <li>5) Eye Care</li> <li>6) Chemical Burns</li> </ul> </li> <li>b. IV Access                   <ul style="list-style-type: none"> <li>1) Fluid Resuscitation</li> <li>2) Pain Control</li> </ul> </li> </ul> </li> <li>4. Pathophysiology of Fluid/ Electrolyte Imbalances               <ul style="list-style-type: none"> <li>a. Fluid Accumulation Phase – Shock Phase</li> <li>b. Fluid Remobilization Phase – Diuresis Phase</li> <li>c. Convalescent Phase</li> </ul> </li> <li>5. Hospital Care               <ul style="list-style-type: none"> <li>a. Fluid Resuscitation                   <ul style="list-style-type: none"> <li>1) Parkland Formula</li> <li>2) Intake and Output</li> <li>3) Foley</li> </ul> </li> <li>b. Tetanus Prophylaxis</li> <li>c. Pain Management</li> <li>d. Prevention of Infection/Sepsis</li> </ul> </li> </ul>				

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<p>6. Local Care of Burns</p> <ol style="list-style-type: none"> <li>a. Dressing Techniques</li> <li>b. Topical Agents</li> <li>c. Hydrotherapy</li> <li>d. Debridement</li> <li>e. Escharotomy</li> <li>f. Fasciotomy</li> <li>g. Grafting CEA (Cultured Epithelial Autograph)</li> <li>h. Special Area Problems</li> </ol> <p>7. Complications</p> <ol style="list-style-type: none"> <li>a. Contractures</li> <li>b. Hypertrophic Scarring</li> <li>c. Stress Ulcers</li> <li>d. Paralytic Ileus</li> <li>e. Nutritional Deficits</li> </ol> <p>8. Psychological Considerations</p> <p>9. Rehabilitation</p> <p><b>K. Emergency Nursing Care of the Patient with Specific Conditions/Injuries</b></p> <ol style="list-style-type: none"> <li>1. Perfusion Emergencies <ol style="list-style-type: none"> <li>a. Hypertensive Crisis</li> <li>b. Anaphylactic Shock</li> </ol> </li> <li>2. Penetrating Wounds <ol style="list-style-type: none"> <li>a. Gunshot Wounds</li> <li>b. Penetrating Neck Injuries</li> <li>c. Fishhook Injuries &amp; removal</li> <li>d. Puncture wounds &amp; Tetanus</li> </ol> </li> <li>3. Abdominal Trauma</li> <li>4. Renal/Pelvic Trauma</li> <li>5. Traumatic Wounds <ol style="list-style-type: none"> <li>a. Traumatic Amputations</li> <li>b. Crush Injuries</li> <li>c. Animal Bites &amp; Rabies</li> <li>d. Control of Bleeding</li> <li>e. TXA</li> </ol> </li> <li>6. Exposure Injury</li> </ol>	8.5 – T	<p>Experiential Learning: Student Emergency Nursing Reports</p>		<p><b>EXAM #6</b></p> <p>Emergency Report Project</p> <p>Class Preparation</p> <p>Quiz</p> <p>Unit Exam</p>

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<ul style="list-style-type: none"> <li>a. Heat (cramps, exhaustion, stroke)</li> <li>b. Cold (hypothermia, frostbite)</li> <li>7. Water Emergencies -               <ul style="list-style-type: none"> <li>a. Submersion - Near Drowning</li> <li>b. Decompression Sickness</li> </ul> </li> <li>8. Poisoning               <ul style="list-style-type: none"> <li>a. Ingested                   <ul style="list-style-type: none"> <li>1) Corrosives &amp; Hydrocarbons</li> </ul> </li> <li>b. Injected                   <ul style="list-style-type: none"> <li>1) Hymenoptera Stings</li> <li>2) Snake Bites</li> <li>3) Spider Bites</li> <li>4) Jelly Fish Stings</li> <li>5) Ticks and tickborne diseases</li> </ul> </li> <li>c. Inhaled                   <ul style="list-style-type: none"> <li>1) Carbon Monoxide &amp; chlorine</li> <li>2) Inhalant Abuse                       <ul style="list-style-type: none"> <li>a. Toluene, butane, solvents</li> </ul> </li> </ul> </li> <li>d. Poisonous Plants                   <ul style="list-style-type: none"> <li>1) Ivy, oak, sumac, foxglove</li> </ul> </li> </ul> </li> <li>9. Drug Overdose               <ul style="list-style-type: none"> <li>a. Aspirin &amp; acetaminophen</li> <li>b. Club drugs &amp; cocaine</li> <li>c. Opioids &amp; prescription drugs</li> <li>d. Alcohol</li> </ul> </li> <li>10. Active Shooter</li> <li>11. Rape Trauma               <ul style="list-style-type: none"> <li>a. Emergency Room Treatment</li> <li>b. Role of the ED Nurse</li> <li>c. Rape Trauma Syndrome</li> <li>d. Teaching/Referral</li> </ul> </li> </ul>		<p>Flipped Classroom Activities: Self-learning packet</p>		<p><b>EXAM #8</b></p>