Course Prefix and Number: EMS 137  Credits: 1

Course Title: Trauma Care

Course Description: Prepares the student to assess and manage injured patients, developing his/her problem-solving ability in the treatment of trauma involving various body systems. Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128. Corequisite: EMS 138. Lecture 1 hour per week.

General Course Purpose: The purpose of this course is to introduce the student to a variety of common traumatic injuries, including pathophysiology, signs, symptoms, and treatments.

Course Prerequisites and Co-requisites:
Prerequisites: EMS 121, EMS 123, EMS 125, EMS 126, EMS 127, EMS 128
Corequisite: EMS 138

Student Learning Outcomes:
Upon completing the course, the student will be able to
a. Identify types of chest injuries, assessment, and treatment;
b. Identify types of abdominal injuries, assessment, and treatment;
c. Discuss the care of a patient suffering from an amputation;
d. Describe the assessment and treatment of a patient with a pelvic fracture;
e. Explain the pathophysiology, assessment, and treatment of a patient with compartment syndrome;
f. Identify types of soft tissue injuries, assessment, and treatment;
g. Identify types of burns, assessment, and treatment;
h. Identify types of facial injuries, assessment, and treatment;
i. Explain the pathophysiology, assessment, and treatment of a patient with a laryngotracheal injury;
j. Identify types of brain injuries, assessment, and treatment;
k. Describe the kinetics of trauma and related injury patterns; and
l. Identify types of environmental injuries, assessment, and treatment.

Major Topics to Be Included:

a. Chest Injuries
   - Traumatic aortic disruption
   - Pulmonary contusion
   - Blunt cardiac injury
   - Hemothorax
   - Open pneumothorax
   - Simple pneumothorax
- Tension pneumothorax
- Cardiac tamponade
- Rib fractures
- Flail chest
- Commotio cordis

b. Abdominal Injuries
   - Closed abdominal trauma
   - Penetrating/Open abdominal trauma
   - Considerations in abdominal trauma

c. Amputations
   - Location of amputation
   - Tearing versus cutting amputations
   - Assessment of amputated part
   - Care of the amputated part
   - Use of tourniquets

d. Pelvic Fractures
   - Types of fractures
   - Pelvic instability
   - Specialized pelvic immobilization devices
   - Management of blood loss

e. Compartment Syndrome
   - Pathophysiology of injuries resulting in compartment syndrome
   - Special assessment findings
   - Management of patients with compartment syndrome

f. Soft Tissue Injuries
   - Closed soft tissue injury
   - Open soft tissue injury
   - General assessment
   - General management

g. Burns
   - Complications of burns
   - Depth classification of burns
   - Body surface area of burns
   - General assessment of burn injuries
   - General management
   - Specific burn injury management considerations

h. Facial Fractures
   - Types of facial injuries
   - Unstable facial fractures
   - Assessment considerations in facial and eye injuries
- Management considerations in facial and eye injuries
  i. Laryngeotracheal Injuries
     - Pathophysiology
     - Specific assessment considerations
     - Specific management considerations
  j. Traumatic Brain Injury
     - Pathophysiology
     - Specific assessment considerations
     - Special management considerations
  k. Kinematics of Trauma
     - Definition of kinematics of trauma
     - Multi-system trauma
     - Blast injuries
  l. Environmental Injuries
     - Submersion incidents
     - Temperature-related illness
     - Special assessment considerations
     - Special management considerations
     - Bites and envenomation
     - Electrical injury – lightning strikes
     - High altitude illness

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