

ETT & EMT - Emergency Trauma Technician & Emergency Medical Technician

Not NCAP Approved

Mt. Edgecumbe High School
PE/Health
Grades 10 - 12, Duration 1 Semester, 1 Credit
Elective Course

Description

This course leads to eligibility for certification as an Emergency Medical Technician-I and as an EMT-Basic with the National Registry of Emergency Medical Technicians. Students who are not 18 years of age may instead earn Alaska ETT certification.

Topics included in the course are: roles and responsibilities of the EMT; medico-legal considerations of EMS; respiratory and cardiac emergencies; CPR; practical use of airway adjuncts; bleeding and shock; trauma management; medical emergencies and their management; environmental emergencies; emergency childbirth; pediatrics; geriatrics; exposure to hazardous situations; introduction to hazardous materials; psychological emergencies; patient packaging and triage; stabilization and transport of the sick and injured; and communications and report writing. Also included in the course is content from the Alaska Skill Sheets, the Alaska Cold Injuries Guidelines, the Alaska Trauma Guidelines, the Alaska Burn Protocols, and certain Alaska statutes and regulations specifically related to Emergency Medical Services.

Certification as an EMT-I with the Alaska Department of Health and Social Services, or as a EMT-Basic with the National Registry of Emergency Medical Technicians, requires meeting additional qualifications for certification which include the successful completion of written and practical examinations for certification.

Scope and Sequence

Timeframe	Unit	Instructional Topics
1 Day(s)	INTRODUCTION TO EMS	
2 Day(s)	WELL-BEING OF THE EMT	
2 Day(s)	MEDICOLEGAL & ETHICAL ISSUES	
3 Day(s)	THE HUMAN BODY	
3 Day(s)	LIFTING AND MOVING PATIENTS	
3 Day(s)	AIRWAY	
2 Day(s)	PATIENT ASSESSMENT	
1 Day(s)	COMMUNICATIONS	
1 Day(s)	DOCUMENTATION	
1 Day(s)	GENERAL PHARMACOLOGY	
2 Day(s)	RESPIRATORY EMERGENCIES	
2 Day(s)	CARDIOVASCULAR EMERGENCIES	
1 Day(s)	ALTERED MENTAL STATUS	
1 Day(s)	ALLERGIES	
1 Day(s)	EPOISONING AND OVERDOSE	
2 Day(s)	ENVIRONMENTAL EMERGENCIES	
1 Day(s)	BEHAVIORAL EMERGENCIES	
1 Day(s)	ABUSE AND ASSAULT	
2 Day(s)	OBSTETRICS AND GYNECOLOGY	
2 Day(s)	BLEEDING AND SHOCK	
2 Day(s)	SOFT TISSUE INJURIES	

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2 Day(s)	CHEST AND ABDOMINAL EMERGENCIES
4 Day(s)	MUSCULOSKELETAL CARE
2 Day(s)	INJURIES TO THE HEAD AND SPINE
2 Day(s)	INFANTS AND CHILDREN
1 Day(s)	AMBULANCE OPERATIONS
1 Day(s)	GAINING ACCESS
2 Day(s)	DISASTERS AND HAZARDOUS MATERIALS

Materials and Resources

Required:

EMT-Basic Textbook
State of Alaska Skill Sheets

Recommended:

Guide for EMTs in Alaska
State of Alaska Cold Injuries Guidelines
State of Alaska Burn Protocols
State of Alaska Trauma Guidelines
How to Take the Written and Practical Examinations for EMT Certification

Prerequisite (What do you need to take before this)

Students must be certified in CPR
We will do this in class before the course begins

Dual Credit

Dual Credit is Available through the University of Alaska - SE
6 Semester Credits with successful completion of course and eligible for EMT certification
4 Semester Credits if only eligible for ETT certification

Location

Field House Room 201

Course Details

UNIT: INTRODUCTION TO EMS -- 1 Day(s)

Description

EMS is a growing and dynamic field. Out-of-hospital care plays a significant role in the emergency health care system. After this section, students should have an appreciation of EMS history and thoughts about the future. They should have a clear understanding of roles, responsibility, and where the EMT fits into the health care system

Essential Questions

1. Based on what you know about the job of an EMT, what is one of the most common injuries forcing EMTs to stop working on an ambulance?
2. Why would these injuries exist?

Assessments

Chapter Quiz
Case Study Presentation

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Resources

- Computer and projector
- Chapter 1 PowerPoint presentation
- State guidelines defining EMS practice
- Copy of local protocols
- Virtual Patient Encounters (VPE)
- Set up a visit from the local medical director
- Copies of EMS journals, such as JEMS

Vocabulary

Advanced emergency medical technician (p. 8)
Biotelemetry (p. 4)
Emergency medical responder (p. 7)
Emergency medical technician (p. 2)
Medical direction (p. 6)
Offline medical direction (p. 16)
Online medical direction (p. 6)
Paramedic (p. 8)
Personal protective equipment (p. 10)
Quality improvement (p. 15)

UNIT: WELL-BEING OF THE EMT -- 2 Day(s)

Description

The job of an EMT, either paid or volunteer, can be rewarding and challenging. It is important for the EMT to have an appreciation for the aspects of the job that can be physically and mentally injurious. Some injuries may limit or end the career of an EMT.

Essential Questions

1. What type of physical and emotional toll may be experienced while working in EMS as an EMT?
2. What actions should be taken by the EMT responding to a crime scene to preserve evidence?

Assessments

Unit Quiz
Case Studies

Resources

- Computer with projector
 - PowerPoint presentation for Chapter 2
 - Information about local CISM teams
 - Virtual Patient Encounters (VPE)
- LESSON CHECKLIST

Vocabulary

Body substance isolation (p. 26)
Carrier (p. 23)
Chain of evidence (p. 40)
Communicable (p. 23)
Communicable period (p. 24)
Dependent lividity (p. 45)
Exposure (p. 24)
HAZMAT (p. 21)
High-efficiency particulate air (HEPA)
Host (p. 23)
Immunity (p. 26)
Incubation period (p. 24)
Infection control (p. 23)
Microorganisms (p. 23)

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Pandemic flu (p. 37)
Personal protective equipment (PPE) (p. 32)
Placard (p. 40)
Respirator (p. 32)
Self-contained breathing apparatus (SCBA) (p. 40)
Sharps container (p. 35)
Source (p. 23)
Standard precautions (p. 26)
Transmission (p. 23)
Transmission-based precautions (p. 26)
Turnout gear (p. 39)
Universal precautions (p. 34)
Vaccination (p. 26)
Vector (p. 25)

UNIT: MEDICOLEGAL & ETHICAL ISSUES -- 2 Day(s)

Description

In addition to the technical skills learned in an EMT program the EMT must learn the laws governing their practice. In addition, the EMT must appreciate the ethical obligations held by those given the trust of the community to work in EMS

Essential Questions

1. What are the moral, ethical, and legal obligation present in EMS?
2. What can an EMT do to protect the privacy of the patient?

Assessments

Unit Quiz
Case Study

Resources

- Computer and projector
- PowerPoint presentation for Chapter 3
- Virtual Patient Encounters (VPE)
- Copies of state approved DNR forms
- I CARE cards obtained from www.ICAREvalues.org
- Medical identification jewelry

Vocabulary

Abandonment (p. 56)
Advance directives (p. 58)
Assault (p. 56)
Battery (p. 56)
Breach of duty (p. 54)
Casual connection (p. 54)
Chain of evidence (p. 60)
Do not resuscitate (DNR) (p. 58)
Duty to act (p. 54)
Emancipated minor (p. 56)
Expressed consent (p. 55)
Healthcare proxy (p. 59)
HIPPA (p. 52)
Implied consent (p. 56)
Informed consent (p. 55)
Malpractice (p. 54)
Negligence (p. 54)
Protocols (p. 54)
Scope of practice (p. 52)

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Standard of care (p. 52)

UNIT: THE HUMAN BODY -- 3 Day(s)

Description

The EMT is responsible for treating sick and injured patients. It is imperative they have a strong working knowledge of the anatomy of the body and the associated terminology. Knowledge of structure location is a must if students are going to begin identifying diseases and determining severity of injury. A basic understanding of physiology should be introduced. Knowing how structures work and interact with each other will help the EMT student with concepts later in the class. Students should understand they are being introduced to the basics of anatomy and physiology

Essential Questions

1. How does the physiology of cells effect our practice of Emergency Medicine?
2. Why is it important to understand the A and P of humans?

Assessments

Unit Quiz
Worksheets
Anatomy ID Activity

Resources

- Computer and projector
- PowerPoint presentation for Chapter 4
- Companion DVD
- DVD Player
- Virtual Patient Encounters (VPE)

Vocabulary

Abduction (p. 67)
Accessory muscles (p. 82)
Adduction (p. 102)
Adrenaline (p. 97)
Anterior (p. 67)
Artery (p. 72)
Bilateral (p. 67)
Flexion (p. 67)
Hypoperfusion (p. 93)
Inferior (p. 67)
Insulin (p. 97)
Lateral (p. 67)
Medial (p. 67)
Midaxillary (p. 67)
Midclavicular (p. 67)
Midline (p. 67)
Perfusion (p. 93)
Peripheral (p. 67)
Posterior (p. 67)
Prone (p. 67)
Proximal (p. 82)
Shock (p. 93)

Capillary (p. 88)
Cardiac arrest (p. 87)
Central (p. 67)
Diastolic blood pressure (p. 93)
Distal (p. 67)
Dorsal (p. 67)

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Superior (p. 67)
Supine (p. 67)
Systolic blood pressure (p. 93)
Tidal volume (p. 82)
Trachea (p. 80)
Vein (p. 88)
Ventral (p. 67)
Vertebrae (p. 71)

UNIT: LIFTING AND MOVING PATIENTS -- 3 Day(s)

Description

Back injuries are a leading cause on injury in EMS. Many of these injuries are career ending. The EMT student must understand the importance of proper lifting techniques. Improper lifting techniques can result in injury to the EMT and injury to the patient if dropped.

Essential Questions

1. How much lifting is required when working on an ambulance as an EMT?
2. How could improper lifting techniques endanger the patient?

Assessments

Unit Quiz
Skill Sheets
1. Long Spine Board
2. KED

Resources

- Computer and projector
- PowerPoint presentation for Chapter 5
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Basket stretcher (p. 112)
Blanket drag (p. 109)
Body mechanics (p. 106)
Clothes drag (p. 190)
Emergency move (p. 109)
Extremity lift (p. 110)
Flexible/rescue stretcher (p. 113)
Foot drag (p. 109)
Fowler's position (p. 113)
Lateral recumbent position (p. 113)
Locked-in position (p. 107)
Log roll (p. 108)
Long spine board (p. 112)
One-handed carrying technique (p. 107)
Portable stretcher (p. 111)
Power grip (p. 107)
Power lift (squat lift) (p. 107)
Rapid extrication procedure (p. 109)
Recovery position (p. 113)
Scoop stretcher (p. 112)
Shock position (p. 113)
Short spine board (p. 112)
Stair chair (p. 111)

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Trendelenburg position (p. 113)
Wheeled cot stretcher (p. 110)

UNIT: AIRWAY -- 3 Day(s)

Description

The EMT student must appreciate the importance of airway assessment and management. They must be familiar with the anatomy and physiology of the respiratory system. They must be able to recognize respiratory distress and failure. They must be familiar with the airway adjuncts used to maintain a patent airway including the use of suction. Students must understand when and how to administer oxygen. Help the students understand if the patient's airway is not managed appropriately, other treatments may be in vain.

Essential Questions

1. How does an EMT recognize abnormal breathing?
2. What are some of the conditions and EMT might encounter that cause abnormal breathing?
3. What steps must be taken to correct abnormal breathing?

Assessments

- Unit Quiz
- Skill Sheets
- 1. OPA/NPA
- 2. BVM
- 3. FROPD
- 4. Oxygen Administration
- 5. Suctioning

Resources

- Computer and projector
- PowerPoint presentation for Chapter 6
- Companion DVD
- DVD Player
- Virtual Patient Encounters (VPE)

Vocabulary

- Accessory muscles of respiration (p. 135)
- Agonal breathing (p. 138)
- Asthma (p. 134)
- Bag-mask device (p. 144)
- Chronic obstructive pulmonary disease (p. 151)
- Cricoid pressure (p. 144)
- Cyanosis (p. 140)
- Dyspnea (p. 136)
- Emphysema (p. 134)
- Epiglottis (p. 133)
- Flow-restricted, oxygen-powered ventilation device (p. 145)
- Grunting (p. 140)
- Laryngectomy (p. 149)
- Minute volume (p. 136)
- Nasal cannula (p. 147)
- Nasal flaring (p. 139)
- Nasopharyngeal airway (p. 142)
- Nonrebreather mask (p. 147)
- Oropharyngeal airway (p. 142)
- Pin Index safety system (p. 146)
- Pleuritic chest pain (p. 134)
- Positive-pressure ventilation (p. 143)
- Pulse oximetry (p. 148)

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Rescue breathing (p. 143)
Respiratory arrest (p. 138)
Respiratory distress (p. 136)
Respiratory failure (p. 136)
Retractions (p. 139)
Seesaw breathing (p. 139)
Stoma (p. 149)
Stridor (p. 140)
Tachypnea (p. 138)
Tracheostomy (p. 133)
Wheezing (p. 140)

UNIT: PATIENT ASSESSMENT -- 2 Day(s)

Description

Patient assessment is one of the most important skills an EMT will learn. It is through the assessment of the patient the EMT will identify the patient's chief complaint and attempt to determine the cause of the complaint. A thorough assessment will help the EMT to establish a treatment plan and then notify the receiving facility appropriately. After initial treatment, it must be understood by the student that patient presentation can change. Reassessment is vital. The EMT student must understand and appreciate that poor, incomplete assessment will result in poor, incomplete treatment

Essential Questions

1. How important is the physical assessment in the care of patients?
2. How would a partial assessment affect the outcome of a patient?

Assessments

Unit Quiz
Skill Sheets:
Medical Assessment
Trauma Assessment
Vital Signs Assessment

Resources

Computer and projector
• PowerPoint presentation for Chapter 7
• Companion DVD
• DVD player
• Virtual Patient Encounters (VPE)
• Blood pressure cuff
• Stethoscope
• Pen light

Vocabulary

Abrasion (p. 203)
Advanced life support (ALS) intercept (p. 180)
Auscultation (p. 197)
AVPU (p. 182)
Blood pressure (p. 197)
Capillary refilling time (p. 185)
Chief complaint (p. 187)
Conjunctiva (p. 195)
Constrict (p. 198)
Contusion (p. 200)
Crepitus (p. 200)
Crowing (p. 193)
Cyanosis (p. 195)
DCAP/BTLS (p. 203)

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Deformity (p. 200)
Detailed physical examination (p. 192)
Dilated (p. 198)
Dorsalis pedis (p. 205)
Focused physical examination (p. 192)
Focused (secondary) assessment (p. 172)
Gasping (p. 193)
General impression (p. 181)
Grunting (p. 193)
Gurgling (p. 193)
Head-to-toe survey (p. 189)
History (p. 187)
History of the present illness (p. 187)
Hypertension (p. 192)
Initial (primary) assessment (p. 172)
Jaundice (pp. 185, 196)
Jugular venous distention (p. 204)
Laceration (p. 203)
Mechanism of injury (p. 172)
Multiple-casualty incident (p. 180)
Nasal flaring (p. 193)
Nature of illness (p. 177)
Ongoing assessment (p. 206)
Onset (p. 189)
OPQRST (p. 189)
Oral mucosa (p. 195)
Orientation (p. 182)
Palpation (p. 197)
Posterior tibial (p. 205)
Priapism (p. 204)
Provocation (p. 189)
Puncture (p. 203)
Quality (p. 189)
Radiation (p. 189)
Retractions (p. 193)
SAMPLE (p. 187)
Scene safety (p. 172)
Scene size-up (p. 172)
Severity (p. 189)
Sign (p. 183)
Snoring (p. 193)
Sphygmomanometer (p. 197)
Stridor (p. 193)
Subcutaneous emphysema (p. 204)
Symptom (p. 187)
Tenderness (p. 203)
Time (p. 190)
Tracheal deviation (p. 204)
Traffic delineation devices (p. 175)
Trend (p. 207)
Triage (p. 172)
Tripod position (p. 193)
Vital signs (p. 192)
Wheezing (p. 19)

UNIT: COMMUNICATIONS -- 1 Day(s)

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Description

An EMT is expected to communicate effectively through several mediums. He or she must be able to clearly describe patients over the radio so that the receiving physician can deliver orders and prepare the emergency department. He or she must be able to communicate with patients and other EMS workers. Communication through documentation is discussed in this chapter. Stress the importance of effective communications. Help the students understand the risks associated with poor communication.

Essential Questions

1. What could happen if an EMT relayed information that was misunderstood by the receiving facility?
2. How might patient care be affected by poor communication?

Assessments

Unit Quiz
Practical Radio Exercise

Resources

- Computer and projector
- PowerPoint presentation for Chapter 8
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Base station (p. 228)
Biotelemetry (p. 229)
Communications center (p. 229)
Computerized mobile data terminal (p. 229)
Dispatcher (p. 228)
Emergency medical dispatch (p. 229)
Federal Communications Commission (FCC) (p. 228)
Mobile two-way radio (p. 228)
Receiving operator (p. 229)
Repeater system (p. 228)
Telemedicine (p. 232)

UNIT: DOCUMENTATION -- 1 Day(s)

Description

The written report created by the EMT is the only report from the scene detailing the presentation of the patient, the care provided by the EMT, the patient response to the care, and destination information. This report becomes part of the patient's record at the hospital, and copies are kept by the EMS agency for billing purposes and quality assurance. The report is read by physicians, nurses, physical therapists, attorneys, and insurance companies. The EMT must write a clear, legible, complete, objective report. The EMT must remember that if his or her actions are questioned, the report can be either helpful or damaging

Essential Questions

1. After a report is written by an EMT, who will potentially read that report?
2. How does a written report affect the care given to a patient ?
3. How does good documentation protect an EMT from liability?

Assessments

Unit Quiz
Practice Run Report

Resources

- Computer and projector
- PowerPoint presentation for Chapter 9
- Companion DVD
- DVD player

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- Virtual Patient Encounters (VPE)

Vocabulary

Continuous quality improvement (CQI) (p. 241)
Dependent lividity (p. 250)
Do not resuscitate (DNR) order (p. 250)
National Emergency Medical Services Information System (NEMSIS) (p. 241)
Objective findings (p. 245)
Patient data (p. 243)
Prehospital care report (PCR) (p. 240)
Rigor mortis (p. 250)
Run data (p. 243)
Special situation report (p. 247)
Subjective findings (p. 245)
Triage tag (p. 248)

UNIT: GENERAL PHARMACOLOGY -- 1 Day(s)

Description

In many situations the EMT may be called to administer medication to a patient or help a patient take their prescribed medication. It is important the EMT have a clear understanding of the indications, doses, side effects, contraindications and routes of administration for the medications within their scope. The EMT should understand the administration of a medication in the wrong circumstances can result in devastating consequences.

Essential Questions

1. What are the ways drugs can be administered?
2. What is a medication?
3. What are the 5 "R"s of drug administration?

Assessments

Unit Quiz
Drug Matching Quiz

Resources

- Computer and projector
- PowerPoint presentation for Chapter 10
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Activated charcoal (p. 255)
Aerosol (p. 257)
Contraindication (p. 257)
Dose (p. 257)
Drug (p. 255)
Drug Interaction (p. 261)
Epinephrine (p. 255)
Gel (p. 257)
Generic name (p. 256)
Indication (p. 257)
Intramuscular (IM) (p. 259)
Medication (p. 255)
Metered-dose inhaler (MDI) (p. 255)
Nitroglycerin (p. 255)
Oral glucose (p. 255)
Route of drug administration (p. 263)

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Side effect (p. 258)
Sublingual (p. 258)
Suspension (p. 257)
Therapeutic dose (p. 258)
Trade name (p. 256)

UNIT: RESPIRATORY EMERGENCIES -- 2 Day(s)

Description

Breathing is a vital life function. Students must understand the importance of recognizing airway and breathing compromise, and the signs of respiratory distress. Students need to be familiar with the anatomy of the respiratory system and should be familiar with different causes of breathing difficulties. They should also be familiar with the medications within their scope used to treat these emergencies.

Essential Questions

1. How would a patient be affected if an EMT failed to recognize signs of respiratory distress?
2. What medications can be administered by the EMT to help a patient in respiratory distress?
3. How does an EMT recognize inadequate breathing?

Assessments

Unit Quiz
Skill Sheets:
Administration of a MDI
BVM
Oxygen Administration

Resources

- Computer and projector
- PowerPoint presentation for Chapter 11
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)
- An anatomy and physiology textbook
- Fundamentals of Lung and Heart Sounds, Wilkins, 3rd edition, Mosby

Vocabulary

Asthma (p. 266)
Chronic bronchitis (p. 277)
Chronic obstructive pulmonary disease (COPD) (p. 276)
Emphysema (p. 277)
Metered-dose inhaler (MDI) (p. 274)
Nebulizer (p. 274)
Respiratory failure (p. 271)
Tripod position (p. 270)

UNIT: CARDIOVASCULAR EMERGENCIES -- 2 Day(s)

Description

Cardiovascular emergencies are a common call for EMS. There have been dramatic advancements in the care of patients with cardiovascular emergencies over the last several years and the American Heart Association reports that patients have the best chance of survival if appropriate care is begun in the prehospital setting by the EMT. The EMT must be able to recognize patients with possible heart attacks, heart failure, cardiac arrest, or a peri-arrest state and begin treatment immediately. Recognition, appropriate prehospital treatment, and transport to the closest most appropriate emergency department can save lives.

Essential Questions

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1. What two medications can be administered by the EMT to treat a patient experiencing a myocardial infarction or angina?
2. What are common signs and symptoms associated with a myocardial infarction?

Assessments

Unit Quiz

Skill Sheets:

Administration of Nitroglycerin

Administration of Aspirin

Resources

- Computer and projector
- PowerPoint presentation for Chapter 12
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Abdominal aortic aneurysm (p. 300)

Acute coronary syndrome (p. 293)

Angina pectoris (p. 293)

Arteriosclerosis (p. 293)

Asystole (p. 301)

Automated external defibrillator (AED) (p. 287)

Defibrillation (p. 287)

Defibrillator (p. 287)

Electrode pads (p. 301)

Heart failure (p. 298)

Implanted cardioverter-defibrillator (ICD) (p. 309)

Ischemia (p. 293)

Ischemic chest pain (p. 295)

Myocardial infarction (p. 293)

Pacemaker (p. 289)

Public access defibrillation (PAD) (p. 287)

Pulmonary embolism (p. 301)

Pulseless electrical activity (p. 301)

Thoracic aortic dissection (p. 299)

Thrombus (p. 293)

Ventricular fibrillation (p. 287)

Ventricular tachycardia (p. 307)

UNIT: ALTERED MENTAL STATUS -- 1 Day(s)

Description

Altered level of consciousness is a common call for EMS with many different etiologies. EMT students should be able to recognize a patient with an altered level of consciousness and be familiar with the more common causes. They must understand the potential for airway compromise and be able to act quickly to control the airway. Some causes of an altered level of consciousness can be reversed by the EMT. The EMT must recognize these cases and act appropriately.

Essential Questions

1. What are the causes of unconsciousness that are, in many cases, reversible by the EMT?
2. What are the different levels of responsiveness evaluated by the EMT?
3. Would it be possible for a patient to have a seizure and the underlying cause be a stroke or hypoglycemia?

Assessments

Unit Quiz

Skill Sheets:

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Medical Assessment

Resources

- Computer and projector
- PowerPoint presentation for Chapter 13
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Altered mental status (p. 323)
AVPU (p. 323)
Cerebrovascular accident (CVA) (p. 325)
Cincinnati prehospital stroke scale (p. 334)
Diabetes (p. 326)
Diabetic ketoacidosis (DKA) (p. 326)
Epinephrine (p. 327)
Febrile seizure (p. 331)
Glasgow Coma Scale (CGS) (p. 334)
Glucagon (p. 327)
Glucose (p. 326)
Grand mal seizure (p. 330)
Hypoglycemia (p. 326)
Insulin (p. 326)
Los Angeles prehospital stroke screen (p. 334)
Oral glucose (p. 329)
Seizure (p. 330)
Status epilepticus (p. 331)
Stroke (p. 325)
Transient ischemic attack (TIA) (p. 332)

UNIT: ALLERGIES -- 1 Day(s)

Description

Allergic reactions range from irritating, such as hay fever, to life threatening, as in the case of anaphylactic shock. The EMT must understand the basic process behind allergies. The EMT must also be able to identify respiratory distress or anaphylactic shock. He or she must be familiar with the indications and use of epinephrine autoinjectors.

Essential Questions

1. Do all allergic reactions result in life-threatening anaphylaxis?
2. What if an EMT missed the early signs of anaphylaxis and treatment was delayed?

Assessments

Unit Quiz
Skill Sheets
Administration of the Epinephrine

Resources

- Computer and projector
- PowerPoint presentation for Chapter 14
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)
- Fundamentals of Lung and Heart Sounds, Third Edition, Mosby

Vocabulary

Anaphylaxis (p. 351)

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Angioedema (p. 352)
Epinephrine (p. 351)
Urticaria (p. 352)

UNIT: EPOISONING AND OVERDOSE -- 1 Day(s)

Description

Poisonings and overdoses can happen accidentally and intentionally. The EMT student must appreciate the need to try to identify the substance affecting the patient. If the substance was ingested, the EMT must determine if the administration of activated charcoal is warranted. The EMT should also determine whether the overdose was accidental or intentional, as in a suicide attempt.

Essential Questions

1. What are the four ways toxins can enter the body?
2. What is the most frequently abused substance?
3. What is a primary concern for the EMT responding to a patient who has been exposed to carbon monoxide or other gaseous toxin?

Assessments

Unit Quiz
Skill Sheets
Medical Assessment

Resources

- Computer and projector
- Projector for PowerPoint presentation for Chapter 15
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Activated charcoal (p. 367)
Antidote (p. 367)
Asphyxiation (p. 361)
Delirium tremens ("DTs") (p. 370)
Hypnotic (p. 369)
Jaundice (p. 370)
Opioid (p. 369)
Overdose (p. 362)
Poison (p. 362)
Sedative (p. 369)
Stimulant (p. 369)
Toxic (p. 362)
Toxicology (p. 362)

UNIT: ENVIRONMENTAL EMERGENCIES -- 2 Day(s)

Description

Environmental emergencies offer a wide variety of challenges for the EMT. The environmental emergencies encountered by the EMT will be determined on where the EMT works. As the environment changes, the potential emergencies will change. EMT students must have a basic understanding of all environmental emergency types; temperature, altitude, submersion, bites, and stings. Instructors should then focus on the environmental emergencies most common for their area.

Essential Questions

1. What is the most common method of heat loss?
2. What is the most severe reaction when a patient is bitten by an insect?

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Assessments

Unit Quiz
Field Exercise

Resources

- Computer and projector
- PowerPoint presentation for Chapter 16
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Acute mountain sickness (AMS) (p. 403)
Conduction (p. 386)
Convection (p. 386)
Drowning (p. 397)
Evaporation (p. 387)
Frostbite (p. 389)
Frostnip (p. 389)
High-altitude cerebral edema (HACE) (p. 403)
High-altitude pulmonary edema (HAPE) (p. 403)
Hypothermia (p. 389)
Radiation (p. 386)
Submersion episode (p. 397)

UNIT: BEHAVIORAL EMERGENCIES -- 1 Day(s)

Description

EMTs student must come to understand there are few other call types that can cause the confusion, frustration, and danger potentially seen when dealing with behavioral emergencies. EMT students must understand the need to rule out other causes of the behavioral changes such as hypoglycemia. They must learn how to safely approach patients with a behavioral emergency and, if necessary, how to safely restrain a patient. They must appreciate that behavioral emergencies are medical conditions, and patients suffering from them should not be labeled as "just crazy."

Essential Questions

1. When should an EMT restrain a patient?
2. Should a patient with a psychiatric illness be taken directly to a mental hospital?
3. What makes caring for a patient with delusions potentially dangerous?

Assessments

Unit Quiz
Role Playing Exercise

Resources

- Computer and projector
- PowerPoint presentation for Chapter 17
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Anxiety (p. 410)
Battery (p. 417)
Behavior (p. 409)
Behavioral emergency (p. 409)
Delirium (p. 412)

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Depression (p. 411)
Panic (p. 411)
Paranoia (p. 410)
Psychobehavioral disorder (p. 409)

UNIT: ABUSE AND ASSAULT -- 1 Day(s)

Description

Domestic abuse, child abuse, and elder abuse transcend all economic brackets and are found within all ethnic groups. Calls involving abuse and assault can be confusing and dangerous. EMT students must learn how to recognize signs of abuse and assault. They must learn methods to question victims of abuse who may not want to talk. And EMT students must know the legal, mandatory reporting requirements for their area and state.

Essential Questions

1. Domestic violence is found in which socioeconomic groups?
2. What are some signs that may suggest physical abuse?

Assessments

Unit Quiz

Resources

- Computer and projector
- PowerPoint presentation for Chapter 18
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Assault (p. 423)
Cycle of violence (p. 424)
Domestic violence (p. 423)
Economic abuse (p. 427)
Emotional abuse (p. 426)
Neglect (p. 427)
Ombudsman (p. 424)
Physical abuse (p. 425)
Rape (p. 427)
Sexual abuse (p. 427)

UNIT: OBSTETRICS AND GYNECOLOGY -- 2 Day(s)

Description

Field childbirth is not a common occurrence. When an EMT is called to deliver a child, it usually goes smoothly because most childbirth is uncomplicated. There are instances in which there are complications with delivery. Complications with pregnancy are more common. When complications occur, the lives of the mother and child are at risk. EMT students must be familiar with the physiologic changes associated with pregnancy. They must be able to recognize the signs of imminent delivery and help the mother with the delivery. If there are complications with delivery, EMT students must be able to recognize the complications early and transport rapidly.

Essential Questions

1. What are the 3 stages of childbirth?
2. What are potential complications of pregnancy?

Assessments

Unit Quiz

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Pt. Simulator Lab
Skill Sheets
Childbirth and Newborn Care

Resources

- Computer and projector
- PowerPoint presentation for Chapter 19
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Abortion (p. 452)
Apgar score (p. 447)
Braxton Hicks contractions (p. 438)
Breech presentation (p. 448)
Contraction (p. 438)
Fetus (p. 434)
Limb presentation (p. 450)
Meconium (p. 436)
Menarche (p. 435)
Menopause (p. 435)
Menstruation (p. 435)
Perineum (p. 434)
Placenta (p. 435)
Prolapsed cord (p. 450)
Umbilical cord (p. 436)

UNIT: BLEEDING AND SHOCK -- 2 Day(s)

Description

Shock, if not controlled and stopped will result in death. Uncontrolled bleeding can cause hemorrhagic shock and death. Students must understand the importance of recognizing hemorrhage, identifying the origin of the hemorrhage, and taking aggressive steps to stop the hemorrhage.

Essential Questions

1. How much blood is in the average adult body?
2. How can an EMT stop internal bleeding?
3. What changes in vital signs accompany shock?
4. What is shock?

Assessments

Unit Quiz
Skill Sheets
Bleeding Control and Shock

Resources

- Computer and projector
- PowerPoint presentation for Chapter 20
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Blood pressure (p. 462)
Direct pressure (p. 461)
Epistaxis (p. 467)

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Hemorrhage (p. 462)
Hypoperfusion (p. 462)
Hypovolemic shock (p. 462)
Pneumatic antishock garment (PASG) (p. 466)
Pressure point (p. 461)
Shock (p. 461)
Tourniquet (p. 461)

UNIT: SOFT TISSUE INJURIES -- 2 Day(s)

Description

Most trauma patients have soft tissue injuries alone or in conjunction with other injuries. Soft tissue injuries are rarely life threatening by themselves; they often suggest the existence of other, more severe injuries below. The EMT student should recognize soft tissue injuries and dress the wounds as appropriate. They should also consider additional injuries that are not as obvious. They should not be distracted by the graphic appearance of a soft tissue wound and miss a more serious injury.

Essential Questions

1. What is the largest organ in the body?
2. What are the primary types of open soft tissue injuries?
3. A patient has been pulled from a burning house. He has burns covering much of his body. In addition to the burns, what other concerns should the EMT have about the patient?

Assessments

Unit Quiz
Skill Sheets
Bandaging and Splinting

Resources

- Computer and projector
- PowerPoint presentation for Chapter 21
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Abrasion (p. 481)
Air embolism (p. 486)
Amputation (p. 484)
Auditory ossicles (p. 492)
Avulsion (p. 481)
Bandage (p. 486)
Contusion (p. 481)
Crush injury (p. 481)
Dermis (p. 479)
Dressing (p. 486)
Ecchymosis (p. 481)
Epidermis (p. 479)
Fascia (p. 479)
Full-thickness burns (p. 496)
Hematoma (p. 481)
Laceration (p. 481)
Partial-thickness burns (p. 496)
Puncture (p. 481)
Sclera (p. 489)
Sebum (p. 479)
Superficial burns (p. 495)

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UNIT: CHEST AND ABDOMINAL EMERGENCIES -- 2 Day(s)

Description

The thoracic and abdominal cavities contain vital organs and large blood vessels. Injuries to these regions of the body can be life threatening. Most life-threatening injuries will require intervention by a trauma surgeon. With some injuries the EMT must act quickly to limit the progression of the injury. The EMT student must understand the importance of recognizing life-threatening injuries requiring their intervention and the need for rapid transport. The EMT must also understand the importance of transporting to the closest, most appropriate hospital, such as a trauma center.

Essential Questions

1. What structures can be damaged with an injury to the chest?
2. What two chest injuries cause the patient to go into shock by compressing the heart, decreasing cardiac output?

Assessments

Unit Quiz
Skill Sheets
Trauma Management
Treatment of Shock

Resources

- Computer and projector
- PowerPoint presentation for Chapter 22
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Cholecystitis (p. 528)
Cirrhosis (p. 528)
Diverticulum (p. 528)
Evisceration (p. 525)
Flail chest (p. 516)
Hemothorax (p. 519)
Hepatitis (p. 528)
Open pneumothorax (p. 518)
Paradoxical motion (p. 516)
Pericardial tamponade (p. 516)
Peritonitis (p. 522)
Pneumothorax (p. 516)
Pyelonephritis (p. 529)
Tension pneumothorax (p. 519)

UNIT: MUSCULOSKELETAL CARE -- 4 Day(s)

Description

Musculoskeletal injuries are rarely life threatening. They are, however, painful, frightening and potentially life altering for the patient. The EMT student must appreciate that improperly treated fractures and dislocations can result in loss of function or loss of extremity. Additionally, the EMT student must remember life threats involving the airway, breathing and circulation take priority. Musculoskeletal injuries are often graphic and can grab the attention of the EMT. The EMT must remain focused on the life-threatening injuries.

Essential Questions

1. What could happen if an EMT elected to not immobilize a possibly fractured humerus?
2. Name the 3 rules of splinting

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Assessments

Unit Quiz
Skill Sheets
Long Bone Splinting
Traction Splinting
PASG

Resources

- Computer and projector
- PowerPoint presentation for Chapter 23
- Companion DVD
- DVD player
- Anatomy and physiology textbook

Vocabulary

Crepitus (p. 546)
Dislocation (p. 543)
Fracture (p. 542)
Pneumatic (air) splint (p. 549)
Rigid splint (p. 549)
Sling (p. 549)
Sprain (p. 543)
Strain (p. 543)
Swathe (p. 549)
Traction splint (p. 549)

UNIT: INJURIES TO THE HEAD AND SPINE -- 2 Day(s)

Description

The brain is the control center for the body. It is responsible for conscious and unconscious function. Damage to the brain and/or spinal cord can result in alteration in cognitive function, physical ability, and death. The EMT student must learn to recognize alterations in brain function and neurological damage. They must learn how to evaluate mental status and accurately report their findings. In the case of spinal cord injury, they must learn how to protect the neck and back from further damage.

Essential Questions

1. In addition to trauma to the brain, what are other causes of altered level that must be considered by the EMT?
2. What is the scale used to measure neurologic function in the adult patient?
3. If a patient has swelling of the brain and a bleed in the abdomen causing hypotension, how will the shock affect the brain injury?

Assessments

Unit Quiz
Skill Sheets
Long Board Immobilization
KED

Resources

- Computer and projector
- PowerPoint presentation for Chapter 24
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Brainstem (p. 569)
Cerebellum (p. 569)
Cerebrum (p. 569)
Cervical collar (592)

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Compression force (p. 573)
Concussion (p. 583)
Cushing's reflex
Flexion force (p. 573)
Glasgow Coma Scale (GCS) (p. 587)

UNIT: INFANTS AND CHILDREN -- 2 Day(s)

Description

The EMT student should know that 9-1-1 calls involving children are rare. When they do occur they are commonly emotional events for bystanders, as well as the EMT. The EMT student must be familiar with the anatomical differences between children and adults. They must know the normal ranges for pediatric vital signs. They must be familiar with common illnesses seen in the pediatric population and be familiar with the treatment of these illnesses. They also must be familiar with how to manage children with special health care needs.

Essential Questions

1. What is the most common cause of cardiac arrest in the pediatric patient?
2. What is the concern of over ventilating the lungs while providing positive pressure ventilation with a bag-mask device?

Assessments

Unit Quiz

Resources

- Computer and projector
- PowerPoint presentation for Chapter 25
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Congenital (p. 604)
Cricoid cartilage (p. 606)
Croup (p. 615)
Epiglottitis (p. 615)
Hypoxia (p. 604)
Retractions (p. 610)
Stridor (p. 610)
Sudden infant death syndrome (p. 618)

UNIT: AMBULANCE OPERATIONS -- 1 Day(s)

Description

The EMT student must learn the aspects of ambulance operation just as they must learn how to care for injuries and disease. The EMT student must appreciate the importance of having a well maintained, stocked ambulance. They must understand what it means to be prepared. They should be introduced to local laws governing ambulance operation.

Essential Questions

1. What equipment should an EMT routinely bring to the scene on every call?
2. What is the most common cause of EMT on the job injuries?

Assessments

Unit Quiz

Resources

- Computer and projector

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- PowerPoint presentation for Chapter 5
- Companion DVD
- DVD player
- Virtual Patient Encounters (VPE)

Vocabulary

Arch of driver safety (p. 636)
Central access dispatch (p. 635)
Due regard (p. 638)
Emergency medical dispatch (EMD)
Enhanced 9-1-1 (p. 635)
Type I ambulance (p. 632)
Type II ambulance (p. 632)
Type III ambulance (p. 633)

UNIT: GAINING ACCESS -- 1 Day(s)

Description

The EMT may be required to perform extrication in certain situations. This section of the class should function as an introduction to extrication. Additional specialized training is required to do advanced extrication. The EMT student should be familiar with personal protective equipment worn on the scene of an extrication. They should also appreciate the importance of protecting the patient during extrication. This class session should review general scene safety principles introduced in chapter 7.

Essential Questions

1. What is the most common method used to gain access to a patient of a motor vehicle accident?
2. Why should a torso immobilization device such as a Kendrick extrication device (KED) not be used to extricate a critical patient from a vehicle collision?

Assessments

Unit Quiz
Extrication Practice

Resources

- Computer and projector
- PowerPoint presentation for Chapter 27

Vocabulary

Airbag (p. 654)
Cribbing (p. 653)
Complex access (p. 653)
Disentanglement (p. 655)
Extrication (p. 650)
Gain access (p. 653)
Simple access (p. 653)
Slim Jim (p. 653)

UNIT: DISASTERS AND HAZARDOUS MATERIALS -- 2 Day(s)

Description

The EMT student should understand hazardous materials can be found in numerous places. They are in homes, schools, stores, warehouses, gas stations, and they move through cities in trucks and trains. The EMT must be able to recognize a potential hazardous material situation and notify appropriate response teams. They should be able to use placards and reference manuals to identify substances. In the event of a mass casualty incident (MCI) / disaster, the EMT student must understand how to triage multiple patients, and how they fit into the incident command system.

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Essential Questions

1. Thinking about a mass casualty incident, what are some common problems that might be encountered?
2. What is the primary concern of the EMT at a HAZMAT incident?
3. What device should be carried on every ambulance when responding to a HAZMT incident?

Assessments

Unit Quiz

Resources

- Computer and projector
- PowerPoint presentation for Chapter 28

Vocabulary

Cold zone (p. 663)
Control zones (p. 662)
Decontamination (p. 664)
Disaster (p. 667)
Hazardous material (p. 660)
Hot zone (p. 662)
Incident management system (p. 660)
Moulage
Multiple-casualty incident (MCI) (p. 660)
Mutual aid (p. 668)
Placards (p. 664)
Recovery (p. 678)
Restoration (p. 678)
Warm zone (p. 663)