EM520 Advanced Cardiac Life Support

Catalog Description: Didactic and psychomotor skills training and validation in techniques of Advanced Cardiac Life Support according to the Current Standards and Guidelines of the American Heart Association (AHA). Includes endotracheal intubation, ECG arrhythmia recognition, synchronized, unsynchronized and automated defibrillation, cardiovascular pharmacology, and electronic pacemaker. For all health-care related professionals, clinical and prehospital.

Credit Hours: 2
Effective Term: Fall 2011
Teaching Methods: Lecture
Modalities: All Modalities
Prerequisite(s): Current ARC or AHA BLS Health Care Provider, or NSC Green Cross Prof Rescuer, or Division Chair consent
Corequisite(s): None
Times for Credit: 2
Grading Option: A/F
Credit Breakdown: 2 Lectures
Cross Listed: None

Learning Outcomes:
1. (Knowledge Level) Describe the concepts of the Chain-of-Survival according to American Heart Association Standards and Guidelines.
2. (Comprehension Level) List the etiology of sudden cardiac death.
3. (Application Level) Demonstrate one- and two-person Cardiopulmonary Resuscitation (CPR) techniques in basic life support for the adult and child, obstructed airway maneuvers for conscious and unconscious adult, child and infant, and CPR for infant victims.
4. (Application Level) Demonstrate advanced life support skills to include endotracheal intubation.
5. (Application Level) Demonstrate at least 90% of the
steps in the universal algorithm for adult emergency cardiac care.
6. (Application Level) Demonstrate at least 90% of the steps in the algorithm for early management of patients with chest pain, signs, and symptoms of myocardial infarction.
7. (Analysis Level) Identify types of dysrhythmias and predict the mechanical pharmacologic, and electrical interventions.
8. (Analysis Level) Identify indicators of, techniques used, and complications related to peripheral and central venous access.
9. (Evaluation Level) Choose the appropriate use and dose considering the indications, contraindications, actions, side effects, for the following drugs: oxygen, morphine, nitroglycerin, atropine, isoproterenol, lidocaine, procainamide, bretyllium, calcium chloride, furosemide, adenosine, verapamil, magnesium sulfate, propranolol, dopamine, dobutamine, and nitroprusside.
10. (Application Level) Demonstrate transcutaneous pacing, defibrillation, synchronized cardioversion, and automated defibrillation.
11. (Application Level) Illustrate special resuscitation situations to include stroke, traumatic cardiac arrest, shock, congestive heart failure, near-drowning, and hypothermia.
12. (Application Level) State the medical-legal aspects of advanced cardiac life support to include advanced directives, do-not-resuscitate orders, discontinuation of life support measures, and concepts of skills validations.

Standards/Assessments:
1. Outcomes to be met by AHA ACLS assessments.
2. Demonstrate proficiency in patient management by correctly analyzing stable and unstable conditions, and treating those conditions with acceptable treatments.
3. Discuss patient management issues, and correctly make decisions in mega code situations.

AGEC/Special Requirements: None

Revised: December 2010