Medical / Behavioral and Obstetrics / Gynecology

Lesson 4-3
Cardiac Emergencies

UPDATED – Aspirin Administration

Aspirin Administration by Emergency Medical Technicians

HISTORY

The New York State Emergency Medial Advisory Committee and the New York State Department of Health have approved Emergency Medical Technician – Basics (EMT-B) to administer aspirin to those patients who are classified as "cardiac related" patients.

The American Heart Association 2005 Guidelines have stated that prehospital providers should administer aspirin to those patients who may be suffering from an acute coronary syndrome.

CHANGES

The New York State EMT-B Basic Life Support Protocols have been updated to reflect this change. In particular the "Adult Cardiac Related Problem" protocol, M-5 has been updated and is available from our web site.

The NYS EMT-B Original Curriculum has been updated to reflect the change as well. In particular module 4-3 "Cardiac Emergencies" has been updated. ***The updated curriculum is available from out web site at: http://www.health.state.ny.us/nysdoh/ems/basic.htm.***

IMPLEMENTATION

Course Sponsors – The use of the updated EMT-B module 4-3 will start immediately upon receipt of the updated module and training of instructor staff has been completed. This training will occur in all original certification courses as well as all recertification courses.

Agencies – It is strongly encouraged by the Bureau of EMS that a NYS Certified Instructor Coordinator or Certified Lab Instructor complete the in-service training of all NYS certified personnel at the EMT-B level and above. If a CIC or CLI is not available, the agency training officer can conduct the training with approval from the agencies Medical Director.

When an agency conducts this in-service training there must be documentation kept on-file at the agency. This documentation must include, but not limited to:

- Sign-in and sign-out attendance records.
- Copies of all educational materials used for the purpose of this training.
- Copies of all evaluation tools used for each provider who completed the training. Evaluation tools must be approved by the agency Medical Director before they are used.

Training – The updated NYS EMT-B curriculum module, NYS BLS Protocol and a practical skills evaluation form have been provided for your convenience and to assure uniformity in training across the state. Please assure that all copies of the EMT-B curriculum and protocol are replaced with these updated versions. Once a provider has received this training they must be evaluated for both written and skill comprehension.

Training should include all objectives from EMT-B module 4-3. This will include an overall review of unchanged objectives/content and a complete thorough instruction of the new objectives/content.

Practical Skills Evaluation EMT – B

ASPIRIN ADMINISTRATION

INSTRUCTIONS TO THE STUDENT/INSTRUCTOR

This station is designed to test the student's ability to manage a prehospital patient complaining of chest pain who requires administration of aspirin. As you arrive on the scene, you encounter a patient who is complaining of chest pain/discomfort. You have completed your initial assessment as well as obtained a complete set of vital signs. You may use any of the supplies available in this room. You have 3 minutes to complete this skill station. Do you have any questions?

NOTES

Aspirin Administration

Pass_____
Fail _____

Please Print

Student _____

Examiner _____

Date _____Start Time_____Stop Time_____

Points:	Possible	Awarded	Comments
Verbalizes indications and contraindications for use of aspirin	**C**		
Takes or verbalizes, body substance isolation precautions	**C**		
Properly explains to patient the need for the medication and obtains patient's consent	1		
Ensures medication is not expired	1		
States the correct milligrams per tablet	1		
States correct dosage for patient	**C**		
Verifies patient will be able to safely ingest the medication	1		
Explains medication administration procedure to the patient	1		
Gives medication to patient and instructs patient to chew the medication	1		
Re-assess patient for any changes & assures no immediate adverse reactions	1		
Verbalizes documentation procedure including time of administration	1		
Candidate completed station within 3 minute time limit	**C**		
Note: ***Candidate must complete all critical criteria and receive at least 12 points to pass this station.***	**8**		

Total to pass: 6

COMMENTS:

Adult Cardiac Related Problem

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

Note:
Be prepared to deal with respiratory and/or cardiac arrest!

I. Assure that the patient's airway is open and that breathing and circulation are adequate.

II. Administer high concentration oxygen.

III. Place the patient in a position of comfort, while reassuring the patient and loosening tight or restrictive clothing.

IV. Transport, keeping the patient warm.

V. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

VI. If patient has not taken aspirin and has no history of aspirin allergy and no evidence of recent gastrointestinal bleeding, administer nonenteric chewable aspirin (160 to 325 mg).

VII. **If chest pain is present and if the patient possesses nitroglycerin prescribed by his/her physician and has a systolic blood pressure of 120mm Hg or greater**, the EMT-B may assist the patient in self-administration of the patient's prescribed sublingual nitroglycerin as indicated on the medicine container.

A. In the absence of standing orders for nitroglycerin, contact medical control for authorization to administer the nitroglycerin.

B. Confirm the systolic blood pressure is 120mm Hg or greater.

C. Question patient on last dose administration of nitroglycerin, effects, and assure understanding of route and administration.

D. Administer one (1) metered dose of nitroglycerin spray ***or*** one (1) nitroglycerin tablet under the patient's tongue without swallowing and record the time of the administration.

E. Recheck blood pressure within two (2) minutes of administration and record any changes in the patient's condition.

VII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Cardiac Arrest
Adult and Pediatric
(Non – Traumatic)

Note:
Determine if the patient has a Do Not Resuscitate (DNR) order.
Treatment must not be delayed while making this determination.

Request Advanced Life Support if available. Do not delay transport to the hospital.

I. Perform initial assessment.

II. If patient is confirmed to be absent of respirations and pulse, begin Cardiopulmonary Resuscitation as per current AHA/ARC/NSC guidelines.

A. Artificial ventilation and/or CPR must not be delayed to attach supplemental oxygen. Initial ventilations without supplemental oxygen should be used until supplemental oxygen can be attached.

i. Deliver each breath over 1 second.

ii. Give sufficient tidal volume to produce visible chest rise.

iii. Avoid rapid or forceful ventilations.

iv. When a secure/advance airway is in-place (endotracheal tube, Combitube, or LMA) with 2 – person adult CPR, ventilations are to be given at a rate of 8 – 10 breaths per minute without attempting synchronization between compressions. Do not pause compressions for delivery of ventilations.

B. If cardiac arrest was unwitnessed by EMS or EMS arrival to the patient is more than 4 to 5 minutes since the patient went in to cardiac arrest, begin CPR for 2 minutes (5 cycles for adult CPR) prior to defibrillation.

i. During this initial administration of CPR, the AED should be attached to the patient.

ii. Initial AED analysis of the patient's rhythm should occur 2 minutes after CPR has been initiated.

C. If cardiac arrest was witnessed by EMS or EMS arrival to the patient is less than 4 minutes since the patient went in to cardiac arrest, attach the AED to the patient and check rhythm prior to beginning CPR.

III. During application of the AED pads:

A. Assure proper application and adhesion of the pads to the patient's chest.

B. If present, remove Nitroglycerin medication patch from the patient's chest.

i. When in doubt of the type of medication patch the patient has on their chest, remove the patch.

ii. Assure that patient's medication patch does not come in contact with your skin (wear appropriate PPE).

iii. Assure proper disposal of the medication patch at the Emergency Department through use of properly identified biohazard bags.

IV. Once the AED has analyzed the patient's rhythm, follow the voice prompts to either "check patient" or administer a "shock".

A. Pediatric patients under the age of 8 or who are preadolescent (prepubescent) should be defibrillated using an AED equipped for and FDA approved for use on children.

i. In an emergency situation where an AED equipped for use on children is unavailable, an adult AED unit can be used.

V. After the first and all subsequent defibrillations immediately begin CPR for 5 cycles (approximately 2 minutes), without checking for a pulse, before the next rhythm check and/or defibrillation. Do not check for a pulse or rhythm after defibrillation until 5 cycles of CPR has been completed ***or*** the patient appears to no longer be in cardiac arrest.

VI. All actions and procedures occurring during a cardiac arrest should be accomplished in a way that minimizes interruptions of chest compressions.

VII. Transport to the Emergency Department:

A. A maximum of 3 defibrillations may be delivered at the scene prior to initiating transport. If transportation is unavailable, continue your AED/CPR sequence until transportation is available.

B. If the AED advises that no shock is indicated, initiate transport with rhythm checks by the AED occurring approximately every 2 minutes.

C. During transport, the AED should perform rhythm checks approximately every 2 minutes with as few interruptions of chest compressions as possible.

VIII. If patient is no longer in cardiac arrest, complete an initial assessment, support airway and breathing, place patient in the recovery position, obtain vital signs, and treat according to appropriate protocol while continuing transport.

IX. Record all patient care information, including the patient's medical history and all treatment provided (including the total number of defibrillations administered), on a Prehospital Care Report (PCR).

Cardiac Arrest
(Non – Traumatic)

Note:
Determine if the patient has a Do Not Resuscitate (DNR) order.
Treatment must not be delayed while making this determination.

Request Advanced Life Support if available. Do not delay transport to the hospital.

I. Perform initial assessment.

II. If patient is confirmed to be absent of respirations and pulse, begin Cardiopulmonary Resuscitation as per current AHA/ARC/NSC guidelines.

A. Artificial ventilation and/or CPR must not be delayed to attach supplemental oxygen. Initial ventilations without supplemental oxygen should be used until supplemental oxygen can be attached.

i. Deliver each breath over 1 second.

ii. Give sufficient tidal volume to produce visible chest rise.

iii. Avoid rapid or forceful ventilations.

iv. When a secure/advance airway is in-place (endotracheal tube, Combitube, or LMA) with 2 – person CPR, ventilations are to be given at a rate of 8 – 10 breaths per minute without attempting synchronization between compressions. Do not pause compressions for delivery of ventilations.

B. If cardiac arrest was unwitnessed by EMS or EMS arrival to the patient is more than 4 to 5 minutes since the patient went in to cardiac arrest, begin CPR for 2 minutes (5 cycles of CPR) prior to defibrillation.

i. During this initial administration of CPR, the AED should be attached to the patient.

ii. Initial AED analysis of the patient's rhythm should occur 2 minutes after CPR has been initiated.

C. If cardiac arrest was witnessed by EMS or EMS arrival to the patient is less than 4 minutes since the patient went in to cardiac arrest, attach the AED to the patient and check rhythm prior to beginning CPR.

III. During application of the AED pads:

A. Assure proper application and adhesion of the pads to the patient's chest.

B. If present, remove Nitroglycerin medication patch from the patient's chest.

i. When in doubt of the type of medication patch the patient has on their chest, remove the patch.

ii. Assure that patient's medication patch does not come in contact with your skin (wear appropriate PPE).

iii. Assure proper disposal of the medication patch at the Emergency Department through use of properly identified biohazard bags.

IV. Once the AED has analyzed the patient's rhythm, follow the voice prompts to either "check patient" or administer a "shock".

A. Pediatric patients under the age of 8 or who are preadolescent (prepubescent) should be defibrillated using an AED equipped for and FDA approved for use on children.

i. In an emergency situation where an AED equipped for use on children is unavailable, an adult AED unit can be used.

V. After the first and all subsequent defibrillations immediately begin CPR for 5 cycles (approximately 2 minutes), without checking for a pulse, before the next rhythm check and/or defibrillation. Do not check for a pulse or rhythm after defibrillation until 5 cycles of CPR has been completed ***or*** the patient appears to no longer be in cardiac arrest.

VI. All actions and procedures occurring during a cardiac arrest should be accomplished in a way that minimizes interruptions of chest compressions.

VII. Transporting Agencies - Transport to the Emergency Department:

A. A maximum of 6 defibrillations may be delivered at the scene prior to initiating transport.

B. If the AED advises that no shock is indicated, initiate transport with rhythm checks by the AED occurring approximately every 2 minutes.

C. During transport, the AED should perform rhythm checks approximately every 2 minutes with as few interruptions of chest compressions as possible.

VIII. If patient is no longer in cardiac arrest, complete an Initial Assessment, support airway and breathing, place patient in the recovery position, obtain vital signs, and treat according to appropriate protocol while continuing transport.

IX. Record all patient care information, including the patient's medical history and all treatment provided (including the total number of defibrillations administered), on a Prehospital Care Report (PCR).