

WEST MICHIGAN REGIONAL PROTOCOL

CARDIAC ARREST PROTOCOL

Number: II.C.5.c.
Date: 2-1-2007
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Purpose: To provide a process for the initial assessment and management of the patient in cardiac arrest (i.e.: pulseless and apneic).

Note: This is an entry protocol for cardiac arrest. ALS providers should proceed to the specific dysrhythmia protocol for arrhythmias discovered during the assessment.

Note: Patient survivability decreases exponentially with the passing of minutes. It is vitally important to ensure that AEDs are placed immediately on patients determined to be in cardiac arrest. The AED may be placed on patients that are still on a bed. Valuable time is lost if we wait to place the AED until we set up a working space and move the patients.

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I. Assessment Information

- A. Determine unconsciousness, absence of breathing and pulse
1. If breathing and pulse are absent and a "Do Not Resuscitate" bracelet or orders are present, proceed to the "Do Not Resuscitate" policy.
 - a. If a "Do Not Resuscitate" order is **not present**, continue as below.
 - b. If there is any question relating to a patient's DNR status, initiate care and solve problems later.
 2. If the patient displays obvious signs of death, refer to Dead on Scene Policy.

II. Management

A. Open airway:

1. Jaw thrust should be used for patients with potential/suspected c-spine injury
2. Head-tilt, chin-lift technique should be used for all non-trauma patients or for trauma patients for whom a jaw thrust is either not possible or which fails to adequately open the airway.

B. Check Breathing: Look, listen and feel. (not more than 10 seconds)

1. If not breathing, or agonal respirations, establish basic airway (OPA/NPA)
 - i. Provide 2 ventilations, each over 1 second with enough volume to produce visible chest rise, with BVM/oxygen or mouth-to-mask.
2. If breathing, assess adequacy of breathing and support ventilations as necessary.

C. Check for Pulse: (not more than 10 seconds)

1. If a pulse is present and patient is not breathing, continue ventilating patient at a rate of 12-20 breaths per minute (4 to 5 seconds between breaths)
2. If pulse is absent and patient is conscious, treat according to the shock and appropriate dysrhythmia protocols.
3. If a pulse is absent and patient displays obvious signs of death, refer to Dead on Scene Policy.
4. If a pulse is absent and the patient is unconscious continue with this protocol.

D. Perform CPR:

1. Effective "**push hard, push fast**" CPR should be performed for 1½ to 3 minutes prior to defibrillation for non-witnessed arrests.
 - i. CPR ratio is 30:2 (compressions/ventilations) for adults
CPR ratio is 30:2 for children/infants with 1 rescuer
CPR ratio is 15:2 for children/infants with 2 rescuers
 - ii. Compressions should be 100/min with minimal breaks for ventilations, advanced airway placement, etc.
 - iii. Once intubated, CPR should be constant (100/min) with breaks only for planned defibrillations and rhythm checks, ventilations at 8 - 10/minute.
 - iv. Effective compressions are vital, "**push hard, push fast**".

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2. If the arrest is witnessed, immediately apply and cycle the AED; CPR should be performed if any delay in applying the AED exists.

- E. LALS/ALS should immediately assess the rhythm and refer to the appropriate protocol while stressing the importance of constant, high quality **“push hard, push fast”** CPR.

- F. **Defibrillate:**
Apply the AED, with appropriate sized AED pads, to all patients 1 year old and older; follow AED prompts.
(Follow the Electrical Therapy Procedure).
 - a. Ensure that ALS is responding.
 - b. Initiate or resume CPR as indicated by AED prompts.
 - c. If permitted by local Medical Control, insert a supraglottic airway (COMBITUBE, ETDLA or King LT)
 - d. Obtain advanced airway or supraglottic airway
 - e. Transport (If licensed transport agency)
 - f. Obtain vascular access
 - g. Identify arrhythmia and proceed to appropriate protocol.

- G. Obtain history of this event, past medical history and pertinent medications.

5/12/98
7/1/04
1/12/2006