Advanced Life Support General Protocol #3

Semi-Automated External Defibrillation (AED)

Origin: 08/91
Revision: 09/08

1. STANDING ORDERS to use this treatment protocol by locally authorized providers (FR, EMT-B, EMT-E and EMT-I/P) is limited to patients who appear to be one [1] year of age or older, who present in cardiac arrest.
2. Semi-Automated External Defibrillation is to be performed in accordance with the operating instructions on the LifePak 1000 (LP-1000) or LifePak 12 (LP-12). The procedure below is specific to operation of the LP-1000. For LP-12 AED use, please refer to section 8 of this protocol. For LP-1000 and LP-12, follow the prompts of the device.

LP 1000 Procedure

3. Witnessed Cardiac Arrest (patient suddenly collapsed in your presence)
   A. Turn on the AED.
   B. Attach the self-adhesive defibrillation pads to the patient's chest using one of two placement locations noted.

      Sternum-Apex Placement:

      One pad (Sternum) placed to the right of the sternum below the right clavicle.

      The other pad (Apex) placed to the left of the patient's left nipple with the center of the pad in the mid-axillary line:

      Note: *In children, the use of pediatric pads is recommended (less than 8 years of age or 55 lbs). If unavailable or if the pediatric/adult pads touch, utilize the anterior-posterior placement.*

      Anterior-Posterior Placement:

      One pad is placed over the left apex of the heart and the other pad is placed posteriorly directly below the left scapula.
   C. Stop all patient contact and/or movement and perform rhythm analysis.
   D. If the LP-1000 detects a shockable rhythm it will ask, "If you witnessed the arrest, push cancel". If the arrest was *witnessed* as described above push the cancel button.
   E. If the LP-1000 detects a non-shockable rhythm, perform CPR for 2 min.
   F. Continue to follow the prompts of the AED

G. If during analysis, a "SHOCK ADVISED" prompt is received, refer to the section of this protocol entitles "IF SHOCK ADVISED, LP 1000".

H. If, during analysis, a "NO SHOCK ADVISED" prompt is received, refer to the section of this protocol entitled "IF NO SHOCK ADVISED, LP 1000".

4. Unwitnessed Cardiac Arrest (patient was found collapsed)

A. Turn on the AED.

B. Attach the self-adhesive defibrillation pads to the patient's chest using one of two placement locations noted.

Sternum-Apex Placement:

One pad (Sternum) placed to the right of the sternum below the right clavicle.

The other pad (Apex) placed to the left of the patient's left nipple with the center of the pad in the mid-axillary line:

Note: *In children, the use of pediatric pads is recommended (less than 8 years of age or 55 lbs). If unavailable or if the pediatric/adult pads touch, utilize the anterior-posterior placement.*

Anterior-Posterior Placement:

One pad is placed over the left apex of the heart and the other pad is placed posteriorly directly below the left scapula.

C. Stop all patient contact and/or movement and perform rhythm analysis.

i. If the LP-1000 detects a shockable rhythm it will ask, "If you witnessed the arrest, push cancel". If the arrest was *unwitnessed* as described above, verify that quality pre-arrival CPR has been performed for 2 min.

1. If quality CPR was not performed, DO NOT push cancel. Perform CPR for 2 min.

2. If quality pre-arrival CPR has been performed for 2 min, push cancel.

ii. If the LP-1000 detects a non-shockable rhythm, perform CPR for 2 min.

D. Continue to follow the prompts of the AED.

E. If during analysis, a "SHOCK ADVISED" prompt is received, refer to the section of this protocol entitled "IF SHOCK ADVISED, LP 1000".

F. If, during analysis, a "NO SHOCK ADVISED" prompt is received, refer to the section of this protocol entitled "IF NO SHOCK ADVISED, LP 1000".

5. IF SHOCK ADVISED, LP 1000:

A. Obey the prompt "Shock Advised" by remaining clear of the patient as the defibrillator charges.

B. Confirm that all physical contact with the patient has ceased by announcing, **"I'm clear, you're clear, everyone clear, shocking now"** and visually assessing that all contact with the patient has in fact been terminated.

C. The prompt "Push to Shock" is your cue to depress the corresponding button to deliver the defibrillator's energy.

D. After this shock, perform CPR for two minutes without checking the pulse. After two minutes, or when instructed, analyze rhythm and deliver the next shock if so advised by the AED.

E. Following 3 shocks with the LP-1000 check a pulse. If the patient still remains pulseless, perform CPR. If chest rise and breath sounds are inadequate, initiate advanced airway management (Esophageal Tracheal Combitube/Endotrachael Intubation) and other resuscitative measures (Intravenous Infusion) as locally authorized.

F. Contact Medical Control and provide a brief report. Institute any additional therapy as directed.

G. If an EMT-E or EMTI/P has not yet arrived, or can be met enroute, transport the patient at this time. Continue CPR and other resuscitative measures.

H. If, during analysis, a "NO SHOCK ADVISED" prompt is received, refer to the section of this protocol entitled "IF NO SHOCK ADVISED, LP 1000".

6. IF NO SHOCK ADVISED, LP 1000:

A. Obey the prompt "No Shock Advised", check the pulse and perform 2 min of CPR.

B. After two (2) minutes of CPR or when instructed, reanalyze rhythm.

C. If the patient still remains pulseless after three (3) consecutive "No Shock Advised"/two minute of CPR segments and if chest rise and breath sounds are inadequate, initiate advanced airway management (Esophageal Tracheal Combitube/Endotrachael Intubation) and other resuscitative measures (Intravenous Infusion) as locally authorized.

D. Contact Medical Control to provide a brief report on patient status. Institute any additional therapy as authorized and directed.

E. If an EMT-E or EMTI/P has not yet arrived, or can be met enroute, transport the patient at this time. Continue CPR and other resuscitative measures.

F. If during analysis a "SHOCK ADVISED" prompt is received, refer to the section of this protocol entitled "IF SHOCK ADVISED, LP 1000".

LP 12 Procedures

7. Witnessed Cardiac Arrest (patient suddenly collapsed in your presence)

A. Turn on the AED.

B. Attach the self-adhesive defibrillation pads to the patient's chest using one of two placement locations noted.

Sternum-Apex Placement:

One pad (Sternum) placed to the right of the sternum below the right clavicle.

The other pad (Apex) placed to the left of the patient's left nipple with the center of the pad in the mid-axillary line:

Note: *In children, the use of pediatric pads is recommended (less than 8 years of age or 55 lbs). If unavailable or if the pediatric/adult pads touch, utilize the anterior-posterior placement.*

Anterior-Posterior Placement:

One pad is placed over the left apex of the heart and the other pad is placed posteriorly directly below the left scapula.

C. Stop all patient contact and/or movement and perform rhythm analysis.

D. If the LP-12 detects a shockable rhythm it will state "shock advised" and charge to 200 J.

E. Confirm that all physical contact with the patient has ceased by announcing, "I'm clear, you're clear, everyone clear, shocking now" and visually assessing that all contact with the patient has in fact been terminated.

F. The prompt "push to shock" is you cue to depress the corresponding button to deliver the AED's energy.

G. Continue to follow the prompts of the AED.

H. If during analysis, a "SHOCK ADVISED" prompt is received, refer to the section of this protocol entitled "IF SHOCK ADVISED, LP 12" section.

I. If, during analysis, a "NO SHOCK ADVISED" prompt is received, refer to the section of this protocol entitled "IF NO SHOCK ADVISED, LP 12".

8. Unwitnessed Cardiac Arrest (patient was found collapsed)

A. Perform CPR for 2 min, then turn on the AED.

Note: If quality pre-arrival CPR has been performed for 2 min, immediately turn on the AED.

B. Attach the self-adhesive defibrillation pads to the patient's chest using one of two placement locations noted.

Sternum-Apex Placement:

One pad (Sternum) placed to the right of the sternum below the right clavicle.

The other pad (Apex) placed to the left of the patient's left nipple with the center of the pad in the mid-axillary line:

Note: *In children, the use of pediatric pads is recommended (less than 8 years of age or 55 lbs). If unavailable or if the pediatric/adult pads touch, utilize the anterior-posterior placement.*

Anterior-Posterior Placement:

One pad is placed over the left apex of the heart and the other pad is placed posteriorly directly below the left scapula.

C. Stop all patient contact and/or movement and perform rhythm analysis.

D. If the LP-12 detects a shockable rhythm it will state "shock advised" and charge to 200 J.

E. Confirm that all physical contact with the patient has ceased by announcing, "I'm clear, you're clear, everyone clear, shocking now" and visually assessing that all contact with the patient has in fact been terminated.

F. The prompt "push to shock" is you cue to depress the corresponding button to deliver the AED's energy.

G. Continue to follow the prompts of the AED.

H. If during analysis, a "SHOCK ADVISED" prompt is received, refer to the section of this protocol entitled "IF SHOCK ADVISED, LP 12"

I. If, during analysis, a "NO SHOCK ADVISED" prompt is received, refer to the section of this protocol entitled "IF NO SHOCK ADVISED, LP 12".

9. IF SHOCK ADVISED, LP 12:

A. Obey the prompt "Shock Advised" by remaining clear of the patient as the defibrillator charges.

B. Confirm that all physical contact with the patient has ceased by announcing, **"I'm clear, you're clear, everyone clear, shocking now"** and visually assessing that all contact with the patient has in fact been terminated.

C. The prompt "Push to Shock" is your cue to depress the corresponding button to deliver the defibrillator's energy.

D. Repeat rhythm analysis post-defibrillation and deliver two (2) additional shocks (300 and 360 joules, respectively), if so advised by the AED. (Reminder: confirm that all physical contact with the patient has ceased by announcing "I'm clear, you're clear, everyone clear, shocking now" and visually assessing that all contact with the patient has in fact been terminated).

E. After the third successive shock perform CPR for two (2) minutes. If the patient remains pulseless, initiate rhythm analysis and deliver up to three (3) additional shocks at 360 joules, if so advised by the AED.

F. If the patient remains pulseless after the three (3) additional shocks, perform CPR for two (2) additional minutes. Initiate rhythm analysis and deliver three (3) additional shocks at 360 joules, if so advised by the AED. If chest rise and breath sounds are inadequate, initiate advanced airway management (Esophageal Tracheal Combitube/Endotrachael Intubation) and other resuscitative measures (Intravenous Infusion) as locally authorized.

G. Contact Medical Control and provide a brief report. Institute any additional therapy as directed.

H. If an EMT-E or EMTI/P has not yet arrived, or can be met enroute, transport the patient at this time. Continue CPR and other resuscitative measures.

I. If, during analysis, a "NO SHOCK ADVISED" prompt is received, refer to the section of this protocol entitled "IF NO SHOCK ADVISED, LP 12."

10. IF NO SHOCK ADVISED, LP 12:

    A. Obey the prompt "No Shock Advised", check the pulse and perform 2 min of CPR.

    B. After two (2) minutes of CPR or when instructed, reanalyze rhythm.

    C. If the patient still remains pulseless after three (3) consecutive "No Shock Advised"/two minute of CPR segments and if chest rise and breath sounds are inadequate, initiate advanced airway management (Esophageal Tracheal Combitube/Endotrachael Intubation) and other resuscitative measures (Intravenous Infusion) as locally authorized.

    D. Contact Medical Control to provide a brief report on patient status. Institute any additional therapy as authorized and directed.

    E. If an EMT-E or EMTI/P has not yet arrived, or can be met enroute, transport the patient at this time. Continue CPR and other resuscitative measures.

    F. If during analysis a "SHOCK ADVISED" prompt is received, refer to the section of this protocol entitled "IF SHOCK ADVISED, LP 12".

11. **If available**, a Code Summary shall be attached to the eMIC/Peer Review copy of the PPCR.

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