POLICY & PROCEDURE 12.3:  Automated External Defibrillator (AED)

Standard of Practice:
The licensed nurse will maintain competency in provision of care during cardiac medical emergencies with the appropriate use of the AED equipment.

Standard of Care:
The patient can expect AED certified staff that will provide care utilizing the AED device during cardiac medical emergencies.

Policy:
A staff member on the unit that houses the device brings an Automatic External Defibrillation (AED) device to all medical emergencies. The AED is to be made available for all potential cardiac situations such as chest pain, breathing difficulties, and/or loss of consciousness. It is to be used whenever cardiac resuscitation is initiated. Staff who possess current CPR Certification and AED Training retain responsibility for making the decision to defibrillate based on the information provided by the AED.

Procedure:
Cardiac arrest is recognized by an AED as a potentially fatal arrhythmia.
1. Initiate the medical emergency procedure. Call 999.
2. A staff member on the unit which houses the AED will be designated each shift to bring the device to all medical emergencies.
3. Disengage AED alarm. The AED is always kept in a state of readiness enclosed in its case which is stored on the wall cabinet, adjacent to the emergency cart. The cabinet door is always kept closed and locked with the key in place, turned to the right (where it reads “ON”). In order to open the cabinet door and remove the AED case, always remember to FIRST turn the key to the left until it stops (where it reads “OFF”). Otherwise if the cabinet door is opened before turning the key to OFF, the alarm will activate. If this should happen, you must close the cabinet door and then turn the key to OFF. This will de-activate the alarm.
4. a. If CPR is initiated, continue to do CPR until the defibrillator is applied.
   b. Turn on the AED
   c. Put on gloves.
   d. Remove any medication patches from the chest.
   e. Wipe the chest dry. Do not use alcohol. (Refer to Emergency Medical Response manual pg. A13 for safety considerations) If chest is hairy - Use razor to shave victim’s chest. The razor is located in the third drawer of the emergency cart.
   f. Attach the pads, sticky side to skin (place one pad on the upper right chest, below the collarbone & the other pad on the lower left side, in line with the armpit and below
the breast (avoid placing pads directly over pacemakers, transdermal patches, dressing, etc.). Plug the electrode cable into the AED.

g. While the AED analyzes the victim’s heart rhythm, make sure no one is touching the victim.

h. If the AED advises a shock, make sure no one is touching the victim & the oxygen is turned off. (Refer to Emergency Medical Response manual pg. A13 & A16 for safety considerations.)

i. Announce loudly, “EVERYONE STAND CLEAR” and check area around victim.

j. Deliver a shock by pushing the “shock” button.

k. Let the AED analyze the victim’s heart rhythm (or push the “analyze” button).

l. If the AED advises a shock then repeat the process. First make sure the oxygen is off.

m. When AED is used during a medical emergency, replace the Data Card. An extra Data Card is enclosed in the case. (Refer to pg. A19 in Emergency Medical Response Manual for further instructions). The Data Card is labeled with the date, time and location of the emergency and then signed over to the Nursing Supervisor. The Nursing Supervisor will then sign the Data Card over to the WFH Campus Police, who will in turn deliver the Data Card to the Chief of Professional Services.

n. Always ensure the AED is ready for next use.

Cleaning Procedure
The AED must be cleaned after each use.

1. Apply gloves.

2. Check that the device is unplugged. Make sure to unplug the pads' connector from the unit after usage.

3. Make sure a data card is inserted into the port.

4. Cleanse with a moist, disposable cloth and remove any organic materials from the exterior of the Automated External Defibrillator (AED) and connector sockets.

5. Moisten a disposable cloth with a hospital approved disinfectant, such as Virex 128, alcohol, or a 1:10 dilution of bleach and water. Wipe all surfaces of the Automated External Defibrillator, including the connector socket. Allow to dry.

NOTE: Do not immerse device or spray any disinfectants on the AED unit. Do not attempt to sterilize.

Maintenance – (Daily & Monthly)
- The night nurse will inspect the AED each night during the daily emergency cart check.
- The daily check will include checking the small window (in the upper right corner of the case) to determine the Status Indicator.
- For the Heartstart FR2 AED, if the Status Indicator looks like an hourglass, then the AED is ready to use. Otherwise any other symbol (i.e. flashing “X”) indicates battery needs replacing. (an extra battery is enclosed in the case) If the AED fails the battery self-test, insert a new battery and repeat the self-test. If the AED fails the second self-test, put an Out of Services sign on the AED, call the maintenance department at ext. 5722 immediately and order more batteries. After hours, weekends/holidays always leave a voice message.

For the Life Pac 1000 AED the status indicator should show an OK if the AED is functioning properly or a service symbol (wrench) if the AED needs servicing. If a wrench appears in the
status indicator remove the AED from active use and put an out of service sign on the AED and contact the maintenance department at ext. 5722 immediately. After hours, weekends/holidays always leave a voice message. In the status indicator along with the OK there should be bars that indicate the battery level. When two or more bars are showing the battery is OK and the AED is ready for use, at one bar or when the Low Battery Indicator is shown the AED has at least 30-200 Joule Shocks or 75 min of operating time remaining. When low battery is indicated or 1 bar is remaining you should replace the battery ASAP.

At Zero bars DO NOT USE - replace immediately remove from active use. See owner’s manual for more detail. If you need to replace a battery contact the maintenance department at ext. 5722. After hours, weekends/holidays always leave a voice message.

- The daily check will also include checking for (2) sets of defibrillator pads, an extra battery, an extra Data Card enclosed in the AED case, and the AED key attached to the case.
- When replacing the battery, the nurse will complete the Battery Insertion Self-test, according to manufacturer’s directions in Chapter 2-4 of the manual (which is kept in the case).
- During the monthly emergency cart content inspection, the night nurse will complete the monthly AED check verifying that the voice prompt is working by turning the AED on and listening for the command (connect electrodes) After check is completed turn AED off. Then do an AED Battery Self-test by following the manufacturer’s directions in Chapter 4-7 through 4-8 of the manual (which is kept in the case). The AED monthly inventory will also include checking for cracks, loose buttons, defibrillator pads expiration dates, any other damage to the equipment and the number of defibrillator pads, batteries, & data cards in the case.

Order Supplies
Whenever any items are used or need replacing (i.e. battery, defibrillator pads, and data card), call the maintenance department at ext. 5722 immediately, and if after hours, weekends/holidays always leave a voice message.