Policy Memorandum No. 2019-04

DATE:       June 14, 2019

TO:         All Prehospital Personnel and Providers
            Base Hospital Personnel

FROM:       Katherine Shafer, M.D., Medical Director
            Dan Burch, EMS Administrator

SUBJ.:       Patients with Zoll LifeVest®

The purpose of this memorandum is to provide guidance on the safe assessment and treatment of patients wearing a Zoll LifeVest device.

As described by Zoll: “The LifeVest® wearable cardioverter defibrillator (WCD) is a treatment option for patients at risk of sudden cardiac death (SCD). LifeVest is a wearable defibrillator. Unlike an implantable cardioverter defibrillator (ICD), LifeVest is worn outside the body rather than implanted in the chest. LifeVest is designed to continuously monitor a patient’s heart, detect life-threatening rapid heart rhythms, and automatically deliver a treatment shock to restore normal heart rhythm.”

The device is comprised of two basic parts. A vest containing both the defibrillator pads and electrodes, and a control module with a battery and response button. The device alerts a patient prior to delivering a treatment shock with audible sirens and gong tones, and allows a
conscious patient to delay the treatment or stop the LifeVest from delivering a shock if it is not warranted. The device is designed to release a Blue™ gel over the defibrillator pads and deliver an electrical shock to restore a normal rhythm. Patients who have received defibrillation should have visible blue gel on their back and chest. Patients and caregivers have been trained on what alerts can be provided by the device, when the device will deliver a shock and when it’s appropriate to press the response button to delay a shock.

Please make every effort to bring the vest and charger to the Emergency Department whenever you encounter a patient with a LifeVest.

**For conscious patients with a pulse:**

**EMR and EMT**
If patient has received defibrillation from device prior to arrival (should have blue gel on chest and back), and the patient is conscious leave vest in place and have an AED ready for deployment. Follow SJCEMSA treatment protocols and apply an AED if patient becomes unresponsive.

If patient has **NOT** received defibrillation from device (no reports of shock or visible blue gel), leave the device in place. If the device starts to *alert* or makes *gong or siren* sounds, allow the patient or caregiver to determine if the response button should be pressed.

Notify receiving hospital of patient’s device.

**Paramedics**
If patient has received defibrillation from device prior to arrival (should have blue gel on chest and back), power down the LifeVest and remove it. This can easily be done by pressing the two battery release buttons on the top and bottom of the device and removing the battery.

Next unclasp the vest and apply defibrillator pads. Maintain ECG monitoring and follow protocols as usual.
If patient has not received defibrillation from device, leave the device in place. If the device starts to alert or makes gong or siren sounds, allow the patient or caregiver to determine if the response button should be pressed.

If the patient has a possible cardiac related complaint both ECG monitoring and 12 lead acquisition can be done with the device in place and the device should be left in place unless there is a need to apply defibrillator pads.

**For patients with no pulse:**

**EMR and EMT without an AED**
Leave the device in place. Do not press the response button. The device will not provide CPR prompts. The device will provide warnings to “stand clear” while analyzing rhythm and prior to delivering a shock. Prehospital personnel should perform high quality CPR for a pulseless patient and “stand clear” when directed to do so. Note that the shock delivered through the vest is less joules (energy) than a normal AED.

Note: An AED should be applied whenever available. If one becomes available see steps below.

**EMR, EMT with an AED and Paramedics**
The device must be removed to apply defibrillator pads. First power off the device. This is done by pressing the two battery release buttons (see picture above) and removing the battery. Then unclasp the vest and remove before applying defibrillator pads. Follow SJCEMSA treatment protocols.

Please direct any questions you may have regarding this memorandum to Prehospital Care Coordinator Matthew R. Esposito via email at mesposito@sjgov.org or by phone at (209)468-6818.