

Emergency Cardiac Care and First Aid Updates

Released October 15, 2015

This summary is intended for first aid providers. Please review this information carefully and include these new protocols in your first aid efforts. There is no need to retake first aid classes. This information is current and global first aid guidance, for all certification agencies.

Note: Many certification agencies will not allow their instructors to teach the new protocols until books and materials are revised. This can result in a significant delay to incorporate this new information. If you observe classes in 2016 that do not include the new guidance it is usually because the presenter has not yet received the updates. It can be confusing, but, please incorporate the protocols listed here. Everyone's material will catch up eventually!

1. First aid and CPR updates are usually consolidated and released every five years. 2015 is the last periodic release. Future updates will be released, from now on, without an arbitrary periodic cycle. Changes will release as they are verified and distributed.
2. There is increased emphasis on calling EMS without leaving the victim's side...keep a phone by the victim if possible. Use the 911 dispatcher for first aid advice if appropriate. For advanced providers there is still the "Call First/Call Fast" guidance. However, the availability of cell phones should almost always allow for a call to EMS to be made from the victim's side. Remember to use bystanders to make the 911 call if the first aid provider is giving critical aid.
3. The ECC documents now recognize mobile phone and web based apps for first aid (nearby AED locations, CPR cadence, EMS access, etc...) as potentially useful for first aid situations.
4. Minimizing interruptions between CPR and rescue breaths has received increased validation for higher survival outcome. Studies verify that early and correct CPR is making a significant difference for victim survival. Additionally, CPR must be done correctly...sloppy CPR is less effective. Allow for full chest recoil (don't lean). Compression rate must be in the range of 100-120 compressions per minute.
5. Classes with CPR "compressions only" (as the only technique) are not considered a complete "CPR certification" per ECC standards, industry guidelines, OSHA, etc... CPR is more effective with compressions and rescue breaths at the ratio 30:2 (layperson), so this should be taught as the preferred CPR technique. The situations where the layperson provider may choose to do compressions only are unchanged. Untrained responders should still attempt compression only CPR.
6. Previously, it was taught that adult-on-adult CPR compression had no depth limit. This protocol has been changed to avoid over compressing adults greater than 2.4 inches. Pediatric and infant compressions continue to have depth limitations.
7. The previous rule for CPR of pushing to 1/3 the depth of the chest remains as a guide for layperson CPR. Currently, CPR instruction will be based on recommended depths:
 - a. Adult 2 to 2.4 inches
 - b. Child 2 inches
 - c. Infant 1.5 inches
8. Breaths and compressions CPR (as opposed to compressions only) is especially preferred for pediatric victims, although lay responders can still do compressions only if they choose in rapid response area.

9. Professional level CPR: Rescue Breathing only, usually with an advanced airway in place, should be performed at a new rate of: one ventilation every six seconds (adult), one ventilation every five seconds (child), and one ventilation every three seconds (infant).
10. If state laws permit, administer the drug Naloxone (Narcan) as soon as available for opioid overdoses. This drug is over the counter in some states and carried in first aid kits. This drug became over the counter in Colorado in 2016. First aid volunteers may assist in the administration of Narcan if there is a suspected overdose when Narcan is available.
11. Direct pressure remains the primary technique for hemorrhage control. Application of pressure for minimum of five minutes should control most bleeding that first aid providers would be expected to encounter.
12. Tourniquets are part of first aid protocols. Appropriate use:
 - a. When direct pressure is not stopping the bleeding
 - b. There are multiple injuries where bleeding cannot receive direct pressure immediately
 - c. CPR in progress prevents immediate use of direct pressure
 - d. There are not enough responders to provide CPR along with direct pressure
 - e. A mass causality situation
 - f. The wound cannot be accessed with direct pressure until the victim is moved or rescued
13. Hemostatic dressings are part of first aid protocols. Guidelines refer to the impregnated dressings, instead of the agent type (powder). Situations where they should be used are similar to tourniquet application, but, for the torso/neck/head where tourniquet cannot be applied. Direct pressure should be used along with the hemostatic dressing.
14. The occlusive three sided bandage for sucking chest wounds has been discontinued for pre-hospital first aid. The new guidance is to leave open chest wound exposed. Evidence shows the need for air to escape the wound without resistance, and the effect of having a flap to keep air out is not desired as it can limit air from escaping freely.
15. Glucose tablets are the first choice for diabetic emergencies. Other sugary items are to be used only if tablets are not available. The adult dose of glucose tablets has been increased to five tablets.
16. The Modified Recovery Position will be known as the Recovery Position. This will be also be used for situations that include a neck or spine injury. The HAINES or Modified HAINES position is no longer recommended due to lack of evidence that it was more effective than the Recovery Position. It will no longer be taught in first aid training.
17. First aid providers may assist with the administration of the victim's Epi-Pen. However, if EMS is more than 5-10 minutes away, and results don't improve in a few minutes after the first injection, the second injection should be administered. (This time change applies to epinephrine, not inhalers for asthmatics. You should wait 15 minutes after the first use of an inhaler before administration of the second dose).
18. FAST (Face-Arms-Smile-Time) is preferred for stroke assessment, instead of other methods.
19. Aspirin (adult dose) should only be administered for cardiac issues. The aspirin should be chewed or pulverized, and swallowed. Do not have the victim keep chewed aspirin in their mouth without swallowing.
20. Concussion first aid has been tuned. The guidance for EMS calls are that any person with a head injury that has resulted in a change in level of consciousness, has progressive development or signs or symptoms as described

above, or is otherwise a cause for concern should be evaluated ASAP. Continued activity should be stopped until the victim is assessed and cleared by health care.

21. First aid for adult teeth that have been knocked out remains essentially the same. However, the recommended solutions to preserve the tooth have significantly changed. These are listed in priority of use.
 - a. Hanks Balanced Salt Solution (“Save A Tooth”, etc...)
 - b. Propolis
 - c. Egg White
 - d. Coconut Water
 - e. Ricetral (a rehydration solution)
 - f. Whole Milk
 - g. Victims's Saliva (cup or jar or plastic bag)
22. The BVM (bag-valve-mask) is the most effective method for pre-hospital ventilations. BVM use is superior to using advanced airways with mouth-to-mouth ventilations.
23. In 2014 there were studies regarding use of oxygen during CPR that led an interim recommendation to restrict high flow oxygen during CPR in a pre-hospital setting. These findings have been revised. High flow oxygen is recommended, if available, during CPR. Also, use of a pulse oximeter during cardiac arrest is no longer recommended in a pre-hospital setting. Vasoconstriction during the arrest may prevent the pulse oximeter from giving accurate oxygen saturation values.
24. In cardiac arrest insure at least two minutes of CPR compressions/breaths before the first AED shock is administered.

The relevant ECC documents have been posted on the Colorado First Aid “Useful Stuff” web page.

Colorado First Aid
www.cofirstaid.org



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