Summary of Key Issues and Major Changes

American Heart 2010 Guide Lines

HeartSaver
Adult CPR

For the last 50 years, American Heart Association has taught A-B-C
Airway, Breathing, and chest Compressions.

Now, A-B-C has changed to C-A-B:
Chest Compressions, open the Airway, and give 2 rescue Breaths

Change in CPR Sequence: C-A-B Rather Than A-B-C

2005 (Old)

The sequence of adult CPR began with opening of the airway, checking for normal breathing, and then delivery of 2 rescue breaths followed by cycles of 30 chest compressions and 2 breaths.

2010 (New)

Initiate chest compressions before ventilations.

By changing the sequence to C–A–B, chest compressions will be initiated sooner and the delay in ventilation should be minimal (ie, only the time required to deliver the first cycle of 30 chest compressions, or approximately 18 seconds

Elimination of "Look, Listen, and Feel for Breathing"

2005 (Old)

"Look, listen, and feel" was used to assess breathing after the airway was opened.

2010 (New)

"Look, listen, and feel" was removed from the CPR sequence. After delivery of 30 compressions, the lone rescuer opens the victim's airway and delivers 2 breaths.

…Breathing is briefly checked as part of a check for cardiac arrest; after the first set of chest compressions, the airway is opened, and the rescuer delivers 2 breaths.

Chest Compression Rate: At Least 100 per Minute

2005 (Old)

Compress at a rate of about 100/min.

2010 (New)

It is reasonable for lay rescuers and healthcare providers to perform chest compressions at a rate of at least 100/min.

The number of chest compressions delivered per minute during CPR is an important determinant of return of spontaneous circulation (ROSC) and survival with good neurologic function... An inadequate compression rate or frequent interruptions (or both) will reduce the total number of compressions delivered per minute.

Chest Compression Depth

2005 (Old)

The adult sternum should be depressed approximately 1.5 to 2 inches (approximately 4 to 5 cm).

2010 (New)

The adult sternum should be depressed at least 2 inches (5 cm).

Rescuers often do not compress the chest enough despite recommendations to "push hard." In addition, the available science suggests that compressions of at least 2 inches are more effective than compressions of 1. inches.

Changes in Heart Saver Child / Pediatric CPR

Change in CPR Sequence (C-A-B Rather Than A-B-C)

2005 (Old)

Cardiopulmonary resuscitation was initiated with opening of the airway and the provision of 2 breaths before chest compressions.

2010 (New)

Initiate CPR for infants and children with chest compressions rather than rescue breaths (C-A-B rather than A-B-C). CPR should begin with 30 compressions (any lone rescuer) or 15 compressions (for resuscitation of infants and children by 2 healthcare providers) rather than with 2 ventilations. For resuscitation of the newly born, see the Neonatal Resuscitation section.

Most pediatric cardiac arrest victims do not receive any bystander CPR, so any strategy that improves the likelihood of bystander action may save lives.

Elimination of "Look, Listen, and Feel for Breathing"

2005 (Old)

"Look, listen, and feel" was used to assess breathing after the airway was opened.

2010 (New)

"Look, listen, and feel" was removed from the sequence for assessment of breathing after opening the airway.

With the new chest compression–first sequence, CPR is performed if the infant or child is unresponsive and not breathing (or only gasping) and begins with compressions (C–A–B sequence).

Defibrillation and Use of the AED in Infants

2005 (Old)

Data have shown that AEDs can be used safely and effectively in children 1 to 8 years of age. However, there are insufficient data to make a recommendation for or against using an AED in infants <1 year of age.

2010 (New)

For infants, a manual defibrillator is preferred to an AED for defibrillation. If a manual defibrillator is not available, an AED equipped with a pediatric dose attenuator is preferred. If neither is available, an AED without a pediatric dose attenuator may be used.

Newer case reports suggest that an AED may be safe and effective in infants. Because survival requires defibrillation when a shockable rhythm is present during cardiac arrest, delivery of a high-dose shock is preferable to no shock. Limited evidence supports the safety of AED use in infants.

Changes in Heart Saver First Aid

Aspirin Administration for Chest Discomfort

2010 (New)

First aid providers are encouraged to activate the EMS system for anyone with chest discomfort. While waiting for EMS to arrive, first aid providers should advise the patient to chew 1 adult (non–enteric-coated) or 2 low dose "baby" aspirins if the patient has no history of allergy to aspirin and no recent gastrointestinal bleeding.

Epinephrine and Anaphylaxis

2005 (Old)

As in 2005, the 2010 AHA/ARC Guidelines for First Aid recommend that first aid providers learn the signs and symptoms of anaphylaxis and the proper use of an epinephrine auto injector so they can aid the victim.

2010 (New)

New in 2010 is the recommendation that if symptoms of anaphylaxis persist despite epinephrine administration, first aid providers should seek medical assistance before administering a second dose of epinephrine.

Epinephrine can be lifesaving for a victim of anaphylaxis, but approximately 18% to 35% of victims who have the signs and symptoms of anaphylaxis may require a second dose of epinephrine.

Snakebites

2005 (Old)

In 2005, use of pressure immobilization bandages to slow the spread of the toxin was recommended only for victims of bites by snakes with neurotoxic venom.

2010 (New)

Applying a pressure immobilization bandage with a pressure between 40 and 70 mm Hg(1.5”-2.75”) in the upper extremity and between 55 and 70 mm Hg(1.75”-2.75”) in the lower extremity around the entire length of the bitten extremity is an effective and safe way to slow lymph flow and therefore the dissemination of venom.

Effectiveness of pressure immobilization has now also been demonstrated for bites by other venomous American snakes.

Bleeding Control

2005 (Old)

- The American Heart First Aid Program recommended applying pressure to control bleeding

2010 (New)

- Bleeding: no longer recommend use of pressure points, elevate: hemostatic agents are not recommended

Shock

2005 (Old)

- The American Heart First Aid Program recommended raising a victim of shock to elevate the persons feet/legs 10-12 inches

2010 (New)

- Do not raise legs (there is no evidence to support this practice)

Use of Tourniquets

2005 (Old)

- The American Heart First Aid Program did not recommended the use of tourniquets to control bleeding

2010 (New)

Tourniquets use only if trained

If used write down time of application

Use only if direct pressure is ineffective or not possible

Only on extremity bleeding

Presented By Lynn Bivens