BLS

BASIC LIFE SUPPORT

REVIEW

Adult Chain of Survival

- Recognition of Cardiac arrest and Activation of Emergency Response System
- Early CPR that emphasizes chest compressions
- Rapid defibrillation is important to survival because it ELIMINATES the abnormal heart rhythm
- Effective advanced life support
- Integrated post cardiac arrest care

Scene Safety & Assessment

- Always ensure scene safety PRIOR to approaching potential victim
- Tap & Shout to Check for responsive
- Call for help! Check for breathing and a pulse.

TIP: Agonal respirations are gasps that is not normal breathing. In an unresponsive patient, with no pulse, you would begin CPR.

Adult Compressions

- Compress on the lower half of the breastbone (Sternum)
- Compress at a RATE between 100 - 120 per minute
- Compress to a DEPTH of ***at least*** 2 inches, to 2.4 inches
  (or 1/3 the depth of the chest)
- Allow chest to recoil
  (allows the heart to fill with blood between each compression)

Pocket Mask

- Using the nose as a guide for correct positioning, place the mask on the patient's face
- Seal the mask with your hands as directed in the video
- Head tilt chin lift to open airway. Tongue will move away from the back of the throat and may relieve a possible airway obstruction.
  - When repositioning the airway, avoid the soft tissue under the chin. Reposition using the bony structures of the lower jaw.
- Deliver breaths over 1 second, watching for visible chest rise.

1-Rescuer Adult BLS

- Minimize interruption to less than 10 seconds
- 30 compressions : 2 ventilations
- Push hard, push fast, allow for chest recoil

AED

- Power ON the AED
- Follow the AED prompts
- Clear Victim before shocking

Defibrillation is important because it can restore a regular cardiac rhythm by eliminating the abnormal heart rhythm

AED Considerations

- Remove transdermal medication patches before applying the AED
- Pads may not stick and may fail to deliver a shock on a hairy chest
- Remove patients submerged in water, and wipe the chest down prior to applying the AED
- AEDs can be used on anyone who is unresponsive
- AEDs can be used in snow
- Do Not apply an AED to someone who is awake.

Bag-Mask Device

- Should only be used with 2 or more providers
- Position yourself at the top of the head, then use E-C clamp technique
- Reposition head
- Attempt to ventilate, watching for chest rise.

Observing the chest rise with breaths ensures rescuers that they are providing effectives breaths

2-Rescuer Adult BLS

- Work as a TEAM
  - Rescuer 1:
    - Positioned at the side, ready to perform chest compressions
    - Remember to count out loud
  - Rescuer 2:
    - Positioned at victims head
    - Maintain Open Airway
    - Give breaths with Bag Mask Device
    - Monitors quality of compressions by rescuer 1
- Push Hard & Fast
- Rate of 100 - 120
- 30:2 compression to ventilation ratio

Team Dynamics

- **Knowing your limitations:** *Every member on the team should know his or her limitations, and the team leader should be aware of them. Each team member should ask for assistance and advice early, not when the situation starts to get worse*
- **Clear roles & responsibilities:** *During a resuscitation attempt, clear roles & responsibilities should be defined as soon as possible. The team leader's role is to clearly define and delegate tasks according to each team members skill level.*
- **Speak Up***: Don't be afraid to correct your partner if you notice their performance declining, etc.*
- **Team based resuscitation** includes alternating rescuers (alternating the compressor role) in order to maintain high quality chest compressions.

High Quality CPR

High Quality CPR is the primary component in influencing survival from cardiac arrest

High-Quality CPR performance metrics:

- Minimizing interruptions to less than 10 seconds
- Compression rate of 100 - 120/min
- Appropriate compression depth (1/3 the Anterior Posterior dimension)
- No excessive ventilation

Performing high quality CPR will positively impact the patient's survival

Pediatric Chain of Survival

- In children, cardiac arrest is often secondary to respiratory failure
- Prevention is the first link in the chain of survival
- You'll notice high quality CPR is recommended prior to calling for help if you are alone. Why?
  - Because cardiac arrest is most likely caused by respiratory issues, 2 minutes of CPR may be enough to obtain ROSC.

Child BLS

- Push hard and fast
- Compress at a rate of 100 - 120 per minute
- Compress to a depth of 1/3 AP Diameter, or ***about*** 2 inches
- Allow complete recoil
- Minimize interruptions
- Effective breaths
- 1 Rescuer CPR: 30 compressions : 2 ventilations
- 2 Rescuer CPR: 15 compressions : 2 ventilations

Infant BLS / Compressions

- Check brachial pulse
- If no pulse, or if the pulse is less than 60 per minute WITH signs of poor perfusion despite adequate oxygenation, begin CPR
- Compress on lower half of the breastbone, using two fingers.
- Compression Rate: 100 - 120 per minute
- Compression Depth: 1/3 the depth of the chest, or about 1 ½ inches
- Allow for chest recoil

Bag-Mask Device for Infants

- Should only be used with 2 or more providers
- Position yourself at the top of the head, then use E-C clamp technique
- Reposition head to a NEUTRAL position. Tilting or extending an infant's head beyond the neutral position may block the airway.
- Attempt to ventilate (over 1 second), watching for chest rise.

2-Rescuer Infant BLS

- Use the 2 thumb-encircling hands technique
- Compress the chest about 1 ½ inches
- 15 Compressions : 2 Breaths
- Compression Rate: 100 – 120 per minute

AED for Infants and Children Less than 8 Years of Age

- The child dose is used in children under 8 years of age.
  - Use child sized pads
  - Pediatric dose attenuator
  - Adult pads may be used if the above are not available (do not cut, or allow pads to touch). Placement may be one pad on the chest and one pad on the back.
- You may not use child pads on an adult.

Rescue Breathing

- Used when a patient has a pulse, but isn't breathing effectively
- Adult: 1 Breath every 5 – 6 seconds (10-12 breaths per minute)
- Child/Infant: 1 Breath every 3 - 5 seconds (12-20 breaths per min)
- Give breaths over 1 second
- Watch for visible chest rise
- Reassess pulse every 2 minutes

Adult and Child Choking

- Conscious: Use Heimlich Maneuver
- Unconscious: Start CPR, with one exception
  - Each time you open the airway to give breaths, look for the obstructing object in the back of the throat
- If you see an object that can be easily removed, carefully remove it.
- NEVER perform a blind finger sweep

Infant Choking

- Conscious: Perform 5 back blows and 5 chest thrusts
- Unconscious: Start CPR, with one exception
  - Each time you open the airway to give breaths, look for the obstructing object in the back of the throat
- If you see an object that can be easily removed, carefully remove it.
- NEVER perform a blind finger sweep

BLS

Prior to taking the written exam and skills performance exams, you must complete this PreTest.

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THANK YOU