CARDIAC COMPLICATIONS & CARDIOGENIC SHOCK

There are multiple potential acute and chronic cardiac complications in the general population; this includes many congenital and pediatric conditions. Cardiac disease is a very broad term that encompasses many different conditions. Although the pathophysiology of different cardiovascular conditions is variable, the response to cardiac events is generally the same despite the cause. Some students will have conditions that are progressive, others will have conditions that can be effectively managed with surgical or pharmaceutical interventions or pacemakers. Because of the large variability no two students will have the same restrictions. Students with known cardiac diagnoses will have *Health Status Notifications* provided to staff to alert them to potential complications. If a student requires specific restrictions related to their diagnosis and *Individual Care Plan* will be in place and if a student has a known, diagnosed, ongoing cardiac condition that deviates, per their provider, from standard response or first aid, the student will have an *Individual Health Protocol* in place.

Sudden cardiac death

Cardiogenic shock is a condition in which a heart suddenly cannot pump enough blood to meet your body's needs. The condition is most often caused by a severe heart attack or compromised oxygen.

Cardiogenic shock is rare, but it is often fatal if not treated immediately. If treated immediately, about half the people who develop the condition survive.

Recommended attachments to this procedure:

- List of building CPR trained staff
- Map of building with designated AED locations.

Standard Response to Cardiac Complications

If <u>any</u> student complains of/presents with:

- Enhanced bluish discoloration around eyes, nose, mouth, or skin paleness or sweating
- Increased difficulty in breathing or catching his/her breath or nasal flaring or wheezing
- Pulse irregularities or increased pulse rate
  (Resting pulse > 150 bpm for children ages1-10 or >120 for children ages 11-17)
- Increased respiratory rate (over 40 at rest)
- Unusual fatigue such as taking a few bites and stopping to rest when eating
- Sudden decrease in activity tolerance
- Persistent unusual headache
- Chest pain
- Persistent wheezing

1. Have the individual sit or lie down.
2. Observe determine if a period of rest changes presentation
3. Call parents and RN

<u>DIRECTIONS FOR COUNTING PULSE</u>

- Have student sit/lie down, if not already
- Locate the pulse (over the wrist, elbow or neck)
- Maintain light touch using tips of two fingers (not thumb) over the pulse. DO NOT PRESS on the pulse point.
- Count the number of beats occurring in 30 seconds, starting with "zero"
- Multiply number by 2
- Record pulse

<u>DIRECTIONS FOR COUNTING RESPIRATIONS</u>

- Ask the person to sit upright.
- Try to count the other person's respirations without him knowing.
- Look at his chest rise and fall. One rise and one fall are counted as 1 breath.
- Count the number of breaths over 60 seconds.
- If difficult to observe, place your hand on the person's chest or back to feel the rise and fall.
- Record pulse

IF THE ABOVE SIGNS DO NOT BEGIN TO IMPROVE AFTER 5 MINUTES OF REST:

1. Maintain student in a sitting position and DO NOT MOVE.
2. Stay with student.
3. If the student complains of feeling their heart beating irregularly: Encourage coughing.
4. Encourage deep breaths.
5. Apply ice pack to forehead or neck as needed.
6. Monitor pulse and respiration.
7. **If student's symptoms persist or worsen or student begins to decline call EMS/9-1-1**

IF ABSENT PULSE/BREATHING:

1. Delegate calls to:
   - EMS/911
   - Designated building CPR/AED trained staff/nurse
     - Parent, if not previously contacted
2. Initiate CPR for absent breathing *if you are trained.*
3. Initiate AED as indicated

Response to Cardiogenic Shock

IF OBSERVING THE FOLLOWING SYMPTOMS:

- Unconsciousness
- Confusion/Disorientation
- Sudden severe fatigue
- Profuse sweating
- Pale skin
- Cold hands or feet
- Restlessness, agitation
- Rapid breathing
- Severe shortness of breath
- Wheezing
- Coughing
- Chest pain or pressure
- Rapid/weak pulse

1. IMMEDIATELY Delegate call to EMS/9-11, parent, and school nurse.
2. Delegate calls to CPR and AED trained staff.
3. Have individual lie down on his/her back with feet elevated about 10-12 inches. If raising the legs will cause pain or further injury, keep student flat. Keep student still.
4. Check for pulse and breathing. If absent, begin CPR if trained to do so.
5. Keep student warm and comfortable until EMS/9-1-1 arrive.

FOLLOW-UP:

- Always notify nurse of incident.
- Complete required documentation

Adapted From:
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