

Safety and Emergency Measures 10400 Automatic External Defibrillator (AED)	Administrative Application	
	Last Reviewed / Approved on:	October 21, 2024
	References:	The Occupational Health & Safety Act, 1993 The Occupational Health & Safety Regulations, 1996 – Regulation, 1996 Part V – First Aid Heart and Stroke Foundation of Canada Canadian Red Cross National AED Registry Maintenance Log Saskatchewan Health Authority Policy 12 – Role of the Director
	Status:	Operational

Preamble

Sudden Cardiac Arrest (SCA) is a condition that occurs when the electrical impulses of the human heart malfunction causing a disturbance in the heart's electrical rhythm called ventricular fibrillation (VF). This erratic and ineffective electrical heart rhythm causes complete cessation of the heart's normal function of pumping blood resulting in sudden death. The most effective treatment for this condition is the administration of an electrical current to the heart by a defibrillator, delivered within a short time of the onset of VF.

An Automatic External Defibrillator (AED) is a portable device used to treat victims who experience SCA. It is only to be applied to victims who are unresponsive and not breathing or with no normal breathing (gasping). The AED will analyze the heart rhythm and advise the operator if a shockable rhythm is detected. If a shockable rhythm is detected, the AED will charge to the appropriate energy level and advise the operator to deliver a shock.

Early access defibrillation has been recognized as a significant factor in survival from incidents of sudden cardiac arrest. Adequate preparation for responding to a life-threatening emergency can save lives.

The purpose of this application is:

1. To ensure the proper response to any incident that may require the use of the AED.
2. To outline the responsibilities of those involved in the AED program at the schools.
3. To establish a clear line of communication between the responder and the Regina EMS.
4. To maintain the proper operation of the AED and accessory equipment.
5. To provide the necessary information and/or forms - Monthly Checklist, Event Report Form.

System Owner and/or Users

AEDs are the property of the Regina Catholic School Division (RCSD). The following individuals have responsibilities for the care and use of the AED.

1. **On-Site AED Inspector** (e.g. School Based Administrator, In School Occupational Health and Safety Personnel trained in Standard First Aid, CPR & AED).
2. **CEC Designated Personnel** (Human Resources Training and Accommodations Officer, School Superintendent of Education Services).
3. **Bystander/First Responder** (The first person to come across the victim).
4. **On-site AED Trained Personnel** (Those individuals who have had OH&S STFA, CPR & AED, as well as those who have other SFA with AED training).
5. **School Office or CEC Receptionist** (Office Managers, CEC Receptionist).

Application

1. Responsibilities of the On-Site AED Inspector:

- a. Maintain their level of AED training.

Coordinate the review of the training video on a regular basis with all trained staff. Training Videos include: "[How to use an AED](#)", [Hands-Only CPR](#), and [Child CPR](#) found on the SHA website. .

- b. Provide in-service to all employees so they know the location of AED and what action to take if they are the first responder.
- c. Display the public access defibrillation door stickers.
- d. Maintain and post a list in the school of employees who have CPR and AED-training.
- e. Maintain and post activation plan for the use of the AED.
- f. Complete necessary documentation after an incident and provide paperwork to appropriate Facilities Personnel and/or Superintendent of Education Services and Public Access Defibrillator (PAD) Coordinator.
- g. Coordinate equipment and accessory maintenance.
- h. Monitor the effectiveness of the system by doing monthly monitor checks.
- i. Order supplies when necessary.

- j. Update *AED National Registry Log* monthly, when pads or batteries are replaced or other information is changed.

2. Responsibilities of the CEC Designated Personnel

- a. Maintain on file the serial numbers of all AED models.
- b. Maintain a list of all AED Inspectors, site location and phone numbers.
- c. Provide PAD Coordinator with serial numbers, site – location of AED and Inspector's name and phone number, expiry dates of equipment (annual basis or as necessary when personnel change and AED has been activated).
- d. Communicate with PAD Coordinator on issues related to medical emergency response program including post event.
- e. Maintain adequate number of trained responders for each school.
- f. Organize training programs and regular re-training programs.
- g. Order batteries and pads two (2) months prior to expiration date.

3. Responsibilities of the Bystander/First Responder

- a. Ensure the scene is safe – victim and responder out of harm's way.
- b. Identify medical emergency – check the victim for responsiveness.
- c. Call 911 (cellular phone) or 9-911 (in-school phone) immediately.
 - i. Be prepared to give dispatcher the following information:
 - (1) Address of emergency; phone number you are calling from;
 - (2) Exactly what happened;
 - (3) Approximate age of patient; sex;
 - (4) Conscious or unconscious;
 - (5) Breathing normally or not;
 - (6) Notify them that an AED is being deployed;
 - (7) Do not hang up until the dispatcher hangs up.
- d. Notify internal Emergency Response Team (On-site CPR & AED trained personnel, Office Manager or Front Desk).

- e. Designate one (1) person, if possible, to wait at the front entry and lead the EMS personnel to the victim or have that person contact School Office Manager or front desk (CEC).

4. Responsibilities of the On-Site AED Trained Individual

Note: BLS (Basic Life Support) is the new term for CPR (Cardiopulmonary Resuscitation)

- a. The On-Site AED trained individual should follow the "Simplified Adult BLS Algorithm" and the "Summary of Key BLS Components for Adults, Children, and Infants" found at the end of this application.
- b. When the EMS team arrives communicate the following:
 - i. Victim's name.
 - ii. Any known medical problems, allergies or medical history.
 - iii. Time the victim was found.
 - iv. Number of shocks delivered.
 - v. Length of time defibrillator has been used.

5. Responsibilities of School Office Manager and Catholic Education Centre Receptionist

- a. Receive emergency medical calls from internal locations or
- b. Deploy AED-trained employees to emergency location;
- c. Take direction from AED-trained individuals as to what to do;
- d. Assign someone to meet responding EMS aid vehicle;
- e. Direct EMS personnel to site of medical emergency;
- f. Review this application and be aware of responsibilities.

6. Equipment Maintenance

- a. Monthly
 - i. On-site AED Inspector will complete the AED Monthly Checklist.
 - ii. Update National Registry and update expiration dates of the batteries and pads.
 - iii. Ensure that phone numbers and names are on the checklist.

b. After Use of the AED

The following procedures need to be completed in conjunction with the Administrator of the School and the Superintendent of Education Services or designate responsible for Emergency Response.

- i. Notify the PAD Coordinator @ 306-766-6265.
- ii. Conduct employee incident debriefing.
- iii. Within five (5) business days after an incident, complete and disseminate an incident report to the PAD Coordinator.
- iv. Replace all used equipment (pad, barrier, gloves etc.).
- v. Ready AED for use.

7. Forms

a. Monthly Checklist

File the monthly checklist with the internal Occupational Health and Safety meeting minutes and update *National AED Registry Maintenance Log* recording date of the monthly inspection.

b. Event Report Form

- i. To be completed and sent immediately after an incident to:
PAD Coordinator
EMS Central 1350 Albert Street
Regina, SK S4P 3R8
Email: pad@saskhealthauthority.ca
Fax: 306-766-7021

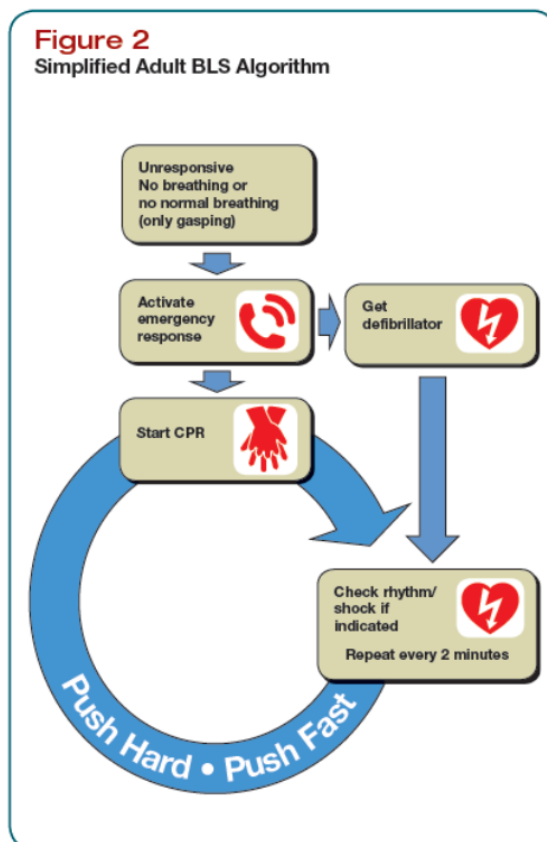


Table 1
Summary of Key BLS Components for Adults, Children, and Infants*

	Recommendations		
Component	Adults	Children	Infants
Recognition	Unresponsive (for all ages)		
	No breathing or no normal breathing (ie, only gasping)	No breathing or only gasping	
	No pulse palpated within 10 seconds for all ages (HCP only)		
CPR sequence	C-A-B		
Compression rate	At least 100/min		
Compression depth	At least 2 inches (5 cm)	At least $\frac{1}{4}$ AP diameter About 2 inches (5 cm)	At least $\frac{1}{4}$ AP diameter About 1½ inches (4 cm)
Chest wall recoil	Allow complete recoil between compressions HCPs rotate compressors every 2 minutes		
Compression interruptions	Minimize interruptions in chest compressions Attempt to limit interruptions to <10 seconds		
Airway	Head tilt–chin lift (HCP suspected trauma: jaw thrust)		
Compression-to-ventilation ratio (until advanced airway placed)	30:2 1 or 2 rescuers	30:2 Single rescuer 15:2 2 HCP rescuers	
Ventilations: when rescuer untrained or trained and not proficient	Compressions only		
Ventilations with advanced airway (HCP)	1 breath every 6–8 seconds (8–10 breaths/min) Asynchronous with chest compressions About 1 second per breath Visible chest rise		
Defibrillation	Attach and use AED as soon as available. Minimize interruptions in chest compressions before and after shock; resume CPR beginning with compressions immediately after each shock.		

Abbreviations: AED, automated external defibrillator; AP, anterior-posterior; CPR, cardiopulmonary resuscitation; HCP, healthcare provider.
*Excluding the newly born, in whom the etiology of an arrest is nearly always asphyxial.

Note: Instead of check ABCs it is now C-A-B which stands for Compression, Airway, and Breathing
HCP stands for Health Care Provider or if there is a second person trained at a site to take over compressions.

This summary is from the American Heart Association (AHA) which works collaboratively with the Heart & Stroke Foundation of Canada.

Using an AED

1. Open and turn on the AED.

2. Prepare to apply the AED pads:

- Remove or cut away clothing and undergarments to expose the person's chest, and move or remove any objects (including jewellery) that could come into contact with the pads.
- If the person's chest is wet, dry it using a towel or gauze pad. Dry skin helps the AED pads to stick properly.
- Small amounts of chest hair will not interfere with pad adhesion. If the person has thick chest hair, shave the areas where the pads will be placed using the razor included with the AED prep kit.

3. Check if the person has an implanted pacemaker:

- Look on the chest for a small scar and a lump about the size of a matchbox.
- Apply the AED pads approximately 2.5 cm (1 in.) away from the pacemaker.



- A baby is considered to be 1 year old or less. If baby AED pads are unavailable, use child or adult pads.
- Follow the diagrams on the pads to position them correctly on the person.
- Pads must be placed at least 2.5 cm (1 in.) apart. If there is not enough space on the chest to leave 2.5 cm (1 in.) between the pads, place one pad on the person's chest (anterior) and one on the person's back (posterior).

4. Apply the AED pads:

- Use the appropriate size of pads—adult, child, or baby.
- A child is considered to be between 1 and 8 years old. If child AED pads are unavailable, use adult pads.



5. Follow the AED's prompts to "Analyze Heart Rhythm:"

- Most AEDs will begin to analyze the heart rhythm automatically, but some may require you to push an "analyze" button to start this process.
- No one should touch the person while the AED is analyzing the heart rhythm because this could result in a faulty reading.



6. If the AED prompts you to do so, deliver the shock:

- Stand clear and say "I'm clear, you're clear, everybody's clear."
- Ensure that no one is touching the person (as they can be shocked too), then press the "shock" button.



7. After a shock is delivered (or if the AED determines that no shock is necessary), immediately resume CPR, starting with compressions.

8. Continue to follow the AED's automated prompts.



From the Canadian Red Cross textbook "Comprehensive Guide for First Aid & CPR".