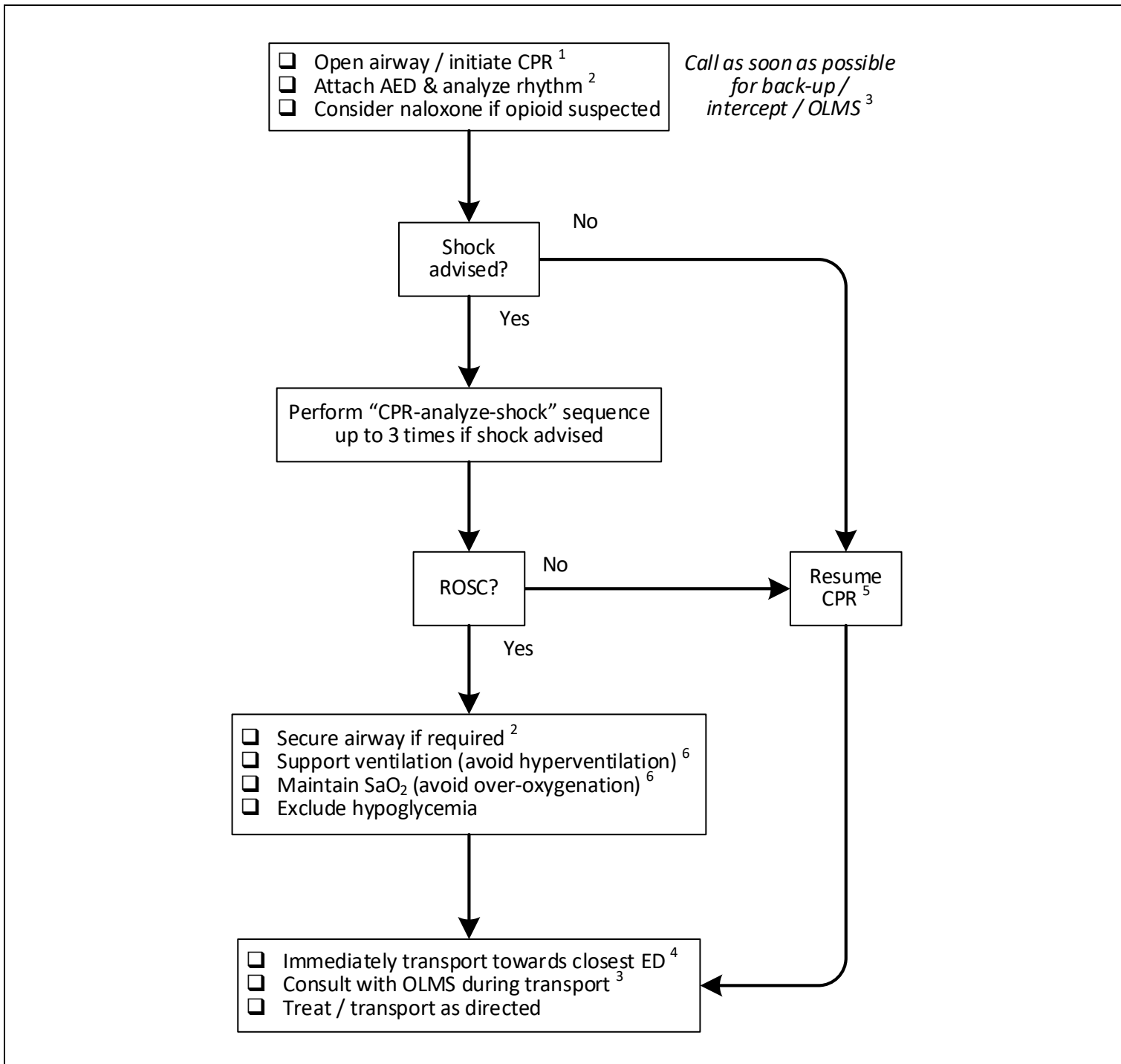
 <b>Shared health Soins communs</b> Manitoba	<b>C01 - BASIC CARDIAC ARREST (EMR)</b>	
	All ages	RESUSCITATION
Version date: 2023-11-12		Effective Date: 2024-02-13 (0700)



### INDICATIONS

- Cardiac arrest due to nontraumatic causes (for traumatic cardiac arrest refer to F02.1)

### CONTRAINDICATIONS

- Health care directive prohibiting resuscitation from cardiac arrest
- Obvious signs of death <sup>7</sup>

### NOTES

1. During the COVID pandemic extended personal protective equipment (PPE) is required for all resuscitations. Airway manipulation during resuscitation is an aerosol generation medical procedure (AGMP). Compressions and defibrillation are not.
  - If the patient is known or suspected to be COVID positive, do not perform positive pressure ventilation (PPV). Provide passive oxygenation only with the two-hand or CPAP mask seal (figure 1).
  - If the patient's COVID status is negative and COVID is not reasonably suspected, PPV can be initially provided without a sealed airway. The airway should be sealed as soon as possible.

2. For patients less than 8 years of age or 25 kilograms weight use pediatric pads. If pediatric pads are not available, use adult pads but ensure separation by at least 2.5 cm (consider antero-posterior placement).

When using an AED in a patient with an implanted cardioverter-defibrillator (ICD) or pacemaker, place the electrodes at least 8 centimeters (3 inches) away from the pulse generator.

3. Contact on-line medical support (OLMS) as early as possible without delaying resuscitative measures. Consult OLMS before discontinuing resuscitation.

If high-quality CPR and three shocks do not lead to a return of spontaneous circulation (ROSC), it is unlikely that further care on-scene will be effective without *immediate* access to advanced interventions. However, emergency transport without hope of survival exposes paramedics and the public to unnecessary risk.

The decision to transport depends on the potential cause of the arrest, whether it was witnessed or bystander CPR was performed, the downtime prior to EMS arrival, the ability to sustain high-quality CPR during transport, and the transport duration to the next level of care.

Clinical factors such as younger age, hypothermia, or persisting electrical activity indicate an increased chance of survival, and *may* support extended resuscitation efforts.

In certain non-clinical circumstances and even with little probability of survival, transporting to a health care facility and deferring the decision about discontinuation to a health care provider with additional training and experience may be in the best interest of the patient's family and providers (e.g., pediatric victim, family distress).

4. Transport time to the closest emergency department (ED) must be based on safe transport speed and should consider time for egress and loading.
5. Always maintain personal safety when performing CPR during transport. Continue until fatigue ensues or if safety concerns arise. Do not interrupt to reassess unless signs of return of spontaneous circulation (ROSC) occur (e.g. spontaneous movement).

6. Hyperventilation may reduce blood flow to the brain. Provide supplemental oxygen to achieve an oxyhemoglobin saturation (SaO<sub>2</sub>) of 92% to 98% in adults, and 94% to 99% in children under age 10 years.
7. Prior death can be reliably concluded by finding evidence of a significant time lapse from the cessation of circulation, or the recognition of injuries incompatible with survival. Evidence of significant time lapse includes dependent lividity, rigor mortis, generalized tissue decomposition, putrefaction, and torso freezing (such that the chest cannot be compressed). Injuries incompatible with life include decapitation, incineration, transection of the thorax or abdomen, substantial destruction of vital organs (heart, lungs, brain), or separation of vital organs from the body.

**FIGURE 1: PASSIVE OXYGENATION WITH BVM & MOUTH / NOSE SEALED**

**TWO-HAND MASK SEAL**



**CPAP MASK SEAL**



**LINKS**

- F02.1 - BASIC TRAUMA ARREST (EMR)
- M11 - NALOXONE

**APPROVED BY**

EMS Medical Director

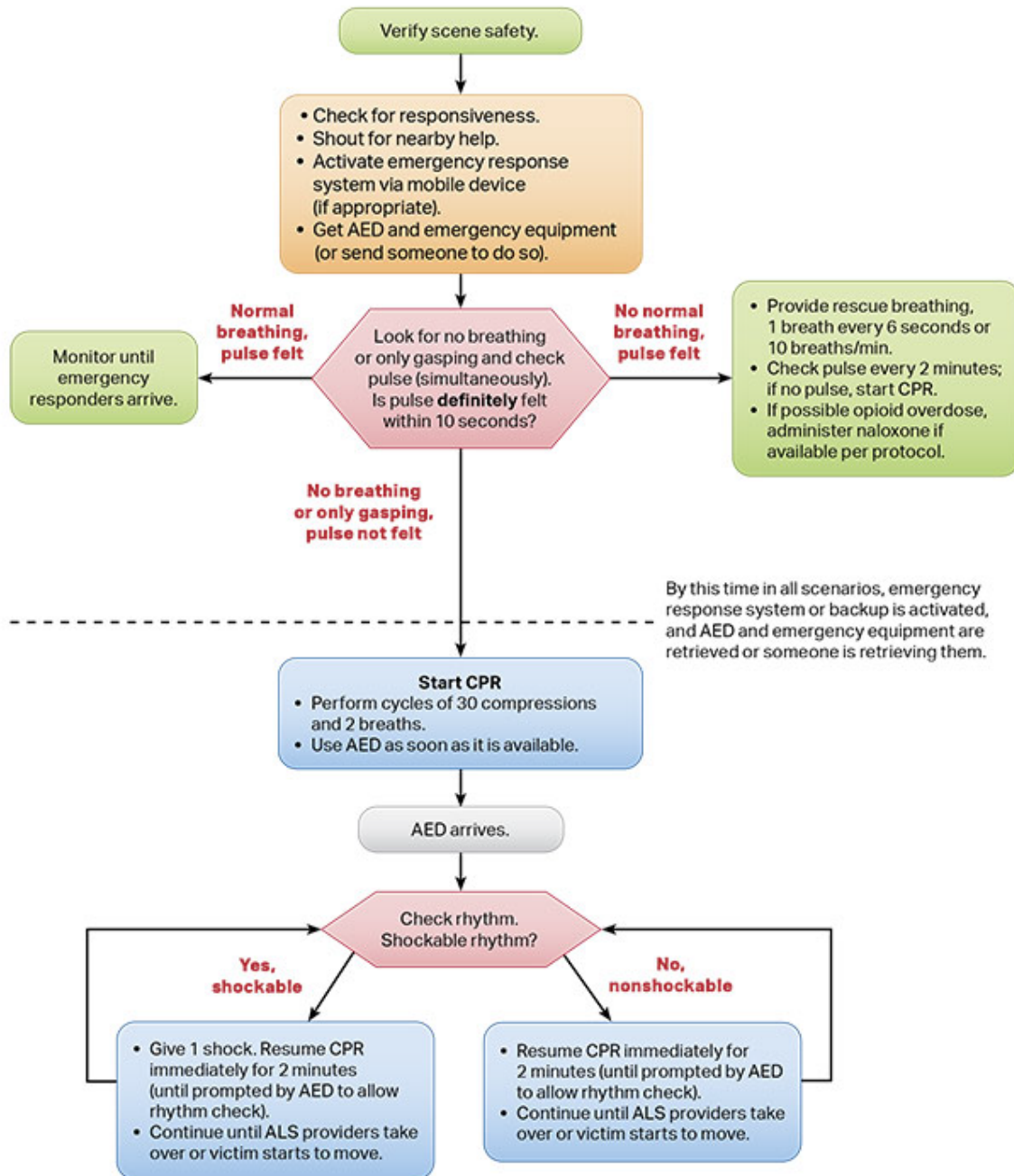


EMS Associate Medical Director

**VERSION CHANGES (refer to X03 for change tracking)**

- Retitled
- EMR only (PCP will now use C02)
- Revised & simplified flow chart incorporates previous ROSC & COVID algorithms
- Revised & simplified notes
- Emphasis on consulting OLMS early for transport or discontinuation direction

## APPENDIX A: HEART & STROKE ADULT CARDIAC ARREST ALGORITHM (BLS)



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