

# Cardiac Arrest - Discontinuing Resuscitation in the Field Protocol

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## **Preamble**

Patients who have suffered a cardiorespiratory arrest are often transported to an Emergency Department with lights and sirens because the EMT is unable to certify death in the field. Transportation under these circumstances places the attendants and the general public at risk of injury.

There is adequate literature to support there is no possibility of survival without irreversible neurological deficits for those who lack return of spontaneous circulation after 25 minutes of asystole, except under certain circumstances (see contraindications).

## **Requirements**

1. Fully licensed Technician-Paramedic.
2. Appropriate sensitivity training to dealt with family in crisis.
3. Certification in tracheal intubation or double lumen airway protocol by the Medical Director.
4. Certification in asystole protocol by the Medical Director.
5. Certification in discontinuing resuscitation protocol by Medical Director.

## **Indications**

1. Patient in cardiac arrest with vital signs absent.
2. Patient has asystole confirmed in at least 2 leads.
3. Cardiac arrest is deemed, by history, to have been present for greater than 25 minutes with no vital signs at any time.

4. Asystole protocol has been followed through at least 2 cycles of epinephrine and atropine, or physician on-line medical control is available for direction.

### **Contraindications**

1. Patient less than 16 years of age.
2. Cardiac arrest due to trauma.
3. Cardiac arrest due to hypothermia, where environmental conditions exist to support hypothermia as a causative factor.

### **Procedure**

1. Perform patient assessment and record vital signs.
2. Upon identifying and confirming the patient is in asystole, resuscitate as per the asystole protocol.
3. Establish time interval patient is known to be unresponsive.
4. Assess that patient meets criteria for this protocol.
5. Ensure there are no contraindications to use of this protocol.
6. If, at any time, there is a change in rhythm or return of vital signs the patient is to be treated and transported accordingly.
7. Continue resuscitation until 2 cycles of epinephrine and atropine have been administered. At this point, resuscitation can be discontinued only if one of the following exists:
  - at least 25 minutes has elapsed since the patient suffered cardiac arrest (as judged from witness history or time of 911 call)
  - physician on-line medical control directs discontinuation of resuscitation (this is the preferred option)
8. EMS personnel provides family counseling and direction.
9. Patient may be transported non-emergently ("green") to hospital for certification of death without further procedure or intervention. All lines and tubes are to be left in situ. Transportation is not required if a medical examiner or other designated individual is available for certification of death at the site.

10. If circumstances exist where implementation of this protocol places the EMS personnel in a difficult ethical situation (e.g. family objections), the EMS personnel may opt to continue resuscitation and transport as per ALS protocol.

### **Documentation Requirements**

The following information must be documented on the patient care report form:

1. History of patient collapse, including time of patient collapse.
2. Date and time of call and arrival on scene.
3. Patient's presenting signs and symptoms, including vital signs, level of consciousness, and pupil size.
4. Indications for protocol use.
5. Dose(s), time(s), route(s), and effect(s) of medications used.
6. Repeat assessment and vital signs, as indicated.
7. Changes from baseline, if any, that occur during treatment.
8. Time of termination of resuscitation.
9. Signature and license number of EMS personnel performing any transfer of function skills.

### **Certification Requirements**

1. Attend in-depth classes and lectures on static and dynamic rhythm interpretation.
2. Demonstrate an understanding of the pharmacology and mechanism of action of epinephrine and atropine.
3. Attend classes on administration of drugs via endotracheal tube (if applicable).
4. Pass a written examination.
5. Pass practical scenarios incorporating variations of the cardiac arrest - asystole and cardiac arrest - discontinuation of resuscitation in the field protocols.
6. Certification is by the Medical Director.

### **Recertification Requirements**

1. Review class and recertification is done every 12 months.
2. A record will be kept to document all cases where this protocol is used.

### **Decertification**

1. Decertification is at the discretion of the Medical Director or the Provincial Medical Director, Emergency Medical Services, Manitoba Health & Healthy Living.

### **Quality Assurance Requirements**

1. Appropriate quality assurance policies must be in place. The Medical Director or designate must review all instances where this protocol is used. As a minimum, the following must be assessed:
  - i) appropriateness of implementation
  - ii) adherence to protocol
  - iii) any deviation from the protocol
  - iv) corrective measures taken, if indicated
2. Yearly statistics for protocol use compiled and forwarded to Emergency Medical Services, Manitoba Health & Healthy Living.