

# Bronchospasm Protocol

revised October 2008



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## **Preamble**

Bronchospasm in patients with asthma or chronic obstructive pulmonary disease presents clinically with shortness of breath and wheezing. This can often be reversed with administration of an inhaled bronchodilator.

## **Requirements**

1. Technician or Technician-Paramedic
2. Certification in bronchospasm protocol by the Medical Director.

## **Indications**

1. Patients with signs or symptoms of respiratory distress  
objective signs of respiratory distress include:
  - wheezing audible without auscultation
  - change in mental status
  - inability to speak full- or near-full sentences
  - use of accessory muscles
  - decreased breath sounds
  - expiratory wheezing
  - prolonged expiratory phase of respiration
  - oxygen saturation <95% despite oxygen therapy

note: unilateral breath sounds may suggest the presence of a pneumothorax

## **Contraindications**

1. Patient age less than 1 year.
2. Known or suspected hypersensitivity or adverse reaction to bronchodilator.

## **Drug Dose and Frequency**

salbutamol (ventolin™)

2.5 mg (2.5 ml premixed solution) respiratory solution as an initial dose.

a 2<sup>nd</sup> dose may be given prn

subsequent repeat doses may be given q15 prn

## **Procedure**

1. Perform patient assessment, and record vital signs and level of consciousness.
2. Assess that patient meets criteria for this protocol.
3. Ensure there are no contraindications to use of this protocol.
4. Patient is managed in semi-Fowler's position (unless contraindicated).
5. Salbutamol is administered using the appropriate mask. Oxygen at 6-8 liters / minute is used to deliver the bronchodilator.
6. Patient is reassessed with respect to efficacy, adverse effects and vital signs, after first and any subsequent treatment.
  - monitor patient for evidence of salbutamol toxicity
7. A second dose may be administered, if indicated.
8. Initiate transport, unless other emergency condition required immediate treatment.
9. Monitor and reassess patient en route.
10. Notify receiving facility of patient's condition and medication used.

Note: consideration for a load and go should be made in the setting of moderate to severe respiratory distress, particularly where transport times are prolonged.

## **Documentation Requirements**

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

1. Patient's presenting signs and symptoms, including vital signs and level of consciousness.
2. Indications for protocol use.

3. Dose(s), time(s), and effect(s) of salbutamol used.
4. Repeat assessment and vital signs, as indicated.
5. Changes from baseline, if any, that occur during treatment or transport.
6. Signature and license number of Technician performing any transfer of function skills.

### **Certification Requirements**

1. Attend in-depth classes and lectures on asthma, chronic lung diseases, and bronchospasm.
2. Understand basic pathophysiology of asthma, chronic lung diseases, and bronchospasm, including differentiation of various findings on chest auscultation.
3. Demonstrate an understanding of the pharmacology and mechanism of action of salbutamol.
4. Pass a written oral examination.
5. 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.

### **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.