MEDICAL DIRECTIVE: PAEDIATRIC ASTHMA MEDICAL DIRECTIVE

Approved by/Date: Medical Advisory Committee-Nov 10, 2009

Authorizing Physician(s)
All LH ER Physicians

Authorized to who
Any Registered Respiratory Therapist or Registered Nurse working in a Lakeridge Health Emergency Department who has attained validation to perform this medical directive may initiate the following shared therapies for any paediatric patient (under 12 years of age) who presents with symptoms of asthma.

Patient Description / Population
The patient must have symptoms suggestive of asthma – refer to assessment categories under the age of 12*. CHN directives advise for Children < 18: LHC Directives include 12 -18 under adult asthma medical directives.

Medical Directive Description/Physician's Order
- Oxygen therapy as required to maintain oxygen saturation (SpO2) above 94%
- Peak Expiratory Flow Rate (PEFR) in cooperative children over the age of 6 - record measurements x 3 on initial assessment and post therapy, if possible
- RN will monitor vital signs q15 – 30 min for mild and moderate presentations
- RN will monitor vital signs and ECG continuously for all severe presentations

	MILD	MODERATE	SEVERE
Assessment	• Dyspnea or cough on exertion • With or without nocturnal symptoms • Increased use of β-agonist to control symptoms • good response to β agonist • **PEFR greater than 60% of predicted**	• Dyspnea at rest • Cough, congestion, chest tightness • Nocturnal symptoms • Partial relief β-agonist • β-agonist required greater than q4h • **Decreased breath sounds, may have exp wheeze** • **PEFR 40%-60% of predicted**	• Laboured respirations • Agitated, confused • Diaphoretic, cyanotic • Difficulty speaking • No relief with β-agonist • Decreased breath sounds**, may have insp/exp wheeze** • Initial tachycardia • Oxygen saturation less than 90% • **PEFR less than 40% predicted** • (may be unable to provide PEFR)
Treatment	• Notify Physician • Provide oxygen to maintain SpO2 greater than 94% • Salbutamol puffer 2-4 puffs q15min x 3 (MDI **+** spacer device) or equivalent nebulized Salbutamol* repeat once prn • PEFR to evaluate	• Notify physician • Provide oxygen to maintain SpO2 greater than 94% • Monitor vital signs • Salbutamol 2-4 puffs q15min x 3 sets (MDI + spacer) or equivalent nebulized Salbutamol* • Vital signs & PEFR after each med. administration	• Notify physician Stat • 100% oxygen • monitor vitals & ECG continuously • Salbutamol 2-4puffs q15 minutes x3 Ipratropium 2-4 puffs q15 minutes x 3 or equivalent nebulized Salbutamol & Ipratropium* continuously. • Chest x-ray – portable

	response		• Prepare for ABGs and intubation • 1:1 nurse patient ratio

- **see dosage conversion chart**

Salbutamol Solution (5 mg/mL)	Salbutamol Inhaler via MDI (100 mcg/puff)
1.25 mg (0.25 ml)	2 puffs
2.5 mg (0.5 ml)	3 puffs
3.75 mg (0.75 ml)	4 puffs
5 mg (1 ml)	6 puffs

Ipratropium Solution (0.25 mg/mL)	Ipratropium Inhaler via MDI (20 mcg/puff)
0.125 mg (0.5 mL)	2 puffs
0.25 mg (1 mL)	3 puffs
0.375 mg (1.5 mL)	4 puffs
0.5 mg (2 mL)	6 puffs

Table 3 Pediatric Asthma Dosage Conversion Chart

Specific conditions/circumstances that must be met before the Directive can be implemented

- Each health care provider will provide the portion of the directive that falls within their scope of practice.
- Patients must be assessed and placed into a severity category by the nurse or respiratory therapist.
- The patient must have symptoms suggestive of asthma.
- Each intervention will be explained to the patient and/or family and verbal consent will be obtained. Medications given by pre-hospital personnel or taken by the patient/given to the patient, just prior to arrival must be included in the maximum doses.

Contraindications to the implementation of the Directive

- Patient or parent refuses therapy – no consent.
- Patient is in pre-morbid state (silent chest, cyanosis, confusion)
- Patient is incapable of cooperating with the procedure

Identify relevant Delegated Control Act or Added Skill associated with this Directive

- Initiating treatment.
- Each health care provider will provide the portion of the directive that falls within their scope of practice.

Documentation requirements

- Implementation of the Medical Directive must be documented on the ER chart under physician orders.
- Response to medications administered must be documented

Review/Evaluation Process (how often/by who)

- Every 2 years by Corporate ER Council and Corporate RRT Council

Related Documents

- Nomogram for assessment of PEFR predicated values

References

Canadian Pediatric Asthma Consensus Guidelines, 2003 (updated to December 2004) A.Becker- Canadian Medical Association Journal 2005

Pediatric Asthma clinical practice guidelines, March 14, 2007; Kaiser Permanente Pediatric Asthma Guidelines Project Management Team.

Third International Pediatric Consensus statement on the management of childhood asthma – JO Warner- Pediatric pulmonology 1998

Developed by:	Name	Position/Title	Program
Contact:	Name	Position/Title	Program
(Main Contact – related to the development of the directive)			
Authorized by:	Physician Physician Physician Physician Physician Physician Physician	Date Date Date Date Date Date Date	

Approvals and Signatures:

Department Chief:	_____ Name	_____ Signature	_____ Date
Medical Director:	_____ Name	_____ Signature	_____ Date
Program Director:	_____ Name	_____ Signature	_____ Date
Chair of HDAC:	_____ Name	_____ Signature	_____ Date
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Final Approval: **Chair of MAC:**	_____ Name	_____ Signature	_____ Date