**TITLE:** Care Directive: Initiation of the Asthma Pathway for Known Asthmatics by Registered Nurses in the Emergency Department (ED)  
**NUMBER:** 80.40  
**Effective Date:** October 7, 2014  
**Applies To:** IWK Health Centre Emergency Department (ED) Registered Nurses (RNs) and Physicians

**POLICY**

This care directive (CD) will provide registered nurses (RNs) practicing within the IWK Health Centre Emergency Department (ED) the authority, guidance and direction to initiate the Emergency Department Asthma Care Pathway without a written patient specific order. The care within the clinical pathway includes the administration of bronchodilator and steroid therapy to patients with a history of asthma. The determination of medications, route and number of treatments from the established criteria within the Asthma Clinical Pathway will be based on the RNs assessment of the patient’s Paediatric Respiratory Assessment Measure (PRAM) score on arrival to the ED. RNs practicing in the ED will have the appropriate education, assessment skills, and experience in the treatment of patients in respiratory distress to safely and competently implement the care within this care directive.

RNs implementing this care directive within the ED will successfully complete a program of study and demonstrate sound understanding of the following: the Pediatric Respiratory Assessment Measure (PRAM) Scoring Tool, the Asthma Care Path Pre-printed Orders, the Asthma Action Plan Discharge Instructions, and the Care Directive: Initiation of the Asthma Pathway for Known Asthmatics by Registered Nurses in the Emergency Department (ED).

The provision of this care in a timely manner by ED RNs will enhance care by providing patients with the relief/alleviation of symptoms from an asthma exacerbation: cough, wheezing, and respiratory distress prior to an assessment by the ED physician.

Triage nurses provide immediate assessment and are considered experts in pediatric emergency care. The triage nurse is an appropriate professional to provide this service to children/youth and their families. All triage nurses have at least 2 years of emergency nursing or comparable pediatric experience as well as a Canadian Triage Acuity Scale course (CTAS).

**Note:** Initiation of steroid therapy may begin in triage by the triage RN, based on the triage assessment and acuity/workload in triage area.
DEFINITIONS

Pediatric Respiratory Assessment Measure (PRAM) – 12 point clinical scoring system that captures patients’ condition in scalene muscle contraction, suprasternal retractions, wheezing, air entry and oxygen saturation.

Canadian Triage Assessment Score (CTAS) - a tool that enables Emergency Departments (ED) to prioritize patient care requirements according to the type and severity of their presenting signs and symptom to ensure that the sickest patients are seen first.

Care Directive (CD) – (previously referred to by the College of Registered Nurses of Nova Scotia [CRNNS] as a medical directive) “is an order written by an authorized prescriber for an intervention or series of interventions to be implemented by another care provider (e.g. registered nurse) for a range of clients with identified health conditions, only when specific circumstances exist. Care directives are generally designed for extended periods of time, but some may have time restrictions. The interventions outlined must be within the scope of practice of the registered nurse who will be implementing the care directive. However, the authorized prescriber holds the ultimate responsibility for the intervention(s). CDs can be implemented only when an authorized prescriber is available. Availability is to be determined by agency policy but must be consistent with the principles identified in this document” (College of Registered Nurses of Nova Scotia, 2012).

GUIDING PRINCIPLES AND VALUES

Registered Nurses working in the IWK Emergency Department provide appropriate clinical assessments and are considered experts in pediatric emergency care. The Registered Nurse is an appropriate professional to provide this service to children/youth and their families.

“The purpose of a care directive is to provide safe, timely effective and efficient client care, using the expertise of the authorized prescriber and the healthcare professional that uses discretion and judgment when implementing them. A CD serves to promote consistent high quality client care and reduce the time required to diagnose and begin management of client symptoms” (College of Registered Nurses of Nova Scotia, 2012).

According to the College of Registered Nurses of Nova Scotia (2012), guiding principles for CDs must include the following:

- CDs should never contravene existing laws or acceptable standards for nursing practice.
- The accountability to initiate, implement and maintain a CD for client care decisions is shared by registered nurses, nurse practitioners, other relevant authorized prescribers, healthcare agencies and employers.
- Agency policies should be in place to support the implementation of CDs, including a provision for resources required by healthcare practitioners to acquire and maintain required levels of competence.
- A decision to proceed with the development and implementation of a CD should be based on client need and not initiated for convenience or financial reasons.
- CDs should:
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- Be in the best interest of clients
- Be appropriate for the practice environment
- Promote the optimal application of the competencies of registered nurses
  - The RN has the necessary competence to perform a care directive”.

Care Directive Approval for Use:

This care directive is approved for use by the following authorized prescriber:

Dr. Shannon MacPhee  Physician Leader, Emergency Department, Drugs & Therapeutics Committee, Patient Care Committee and Medical Advisory Committee

PROTOCOL

Emergency Department patients who meet the inclusion/exclusion criteria within the care directive below will be started on the Emergency Department Asthma Care Pathway.

Inclusion criteria:

- Alert
- Children greater than 2 years of age
- History of asthma or greater than 2 episodes of wheezing in the past that required the use of bronchodilator(s) for prior exacerbations
- Mild to Severe respiratory distress as defined by PRAM Score (see appendix A)
- Canadian Triage & Acuity Scale (CTAS) rating of 2-5,

Exclusion Criteria/Contraindications:

- CTAS rating of 1
- PRAM Score greater than 12
- Children with upper airway obstruction
- Hypersensitivity to salbutamol or ipratropium bromide or steroids indicated in Care Path
- Active chicken pox
- Known immune deficiency or undergoing chemotherapy
- Ipratropium bromide has been rarely associated with adverse events in patients with peanut and soy allergies and should be used with caution in this group.
- Patients who have had steroids in previous 7 days can start salbutamol and ipratropium bromide. Decision of further steroid use will be directed by the prescriber.

- Only registered nurses (RNs) within the IWK Health Centre who are practicing within the Emergency Department Team and have acquired the appropriate education, assessment skills, and experience in the treatment of patients in respiratory distress may implement this care directive. Education of the RN will be gained by level of formal education obtained, pediatric work experience and for new hires through the orientation process in the ED.

- The Pediatric Emergency Charge Physician will always be available to clarify questions regarding the Care Pathway if necessary.
• The dosage of medications will be dictated by the patient’s weight and age as stated on the Pre order Form IWK ED Asthma Care path.

PROCEDURE

1. Determine appropriate CTAS score.
2. Identify ED patients with respiratory distress and a prior history of asthma/wheeze, as per the care directive inclusion/exclusion criteria.
3. Complete a respiratory assessment using PRAM (See Appendix A) and baseline vital signs, and document on the Asthma PRAM sheet emergency department and/or ED Triage Document.
4. Weigh the patient and document on the ED Treatment Record and/or IWK ED Triage Document.
5. If required move patient from triage area to appropriate ED treatment room immediately.
6. Administer the treatment(s), using the patient’s weight and age and PRAM Score to dictate dosages for each treatment based on the Emergency Department Asthma Care Pathway.
7. Provide supplemental oxygen if saturations are less than 92%.
8. Complete a respiratory assessment using PRAM and vital signs (heart rate, respiratory rate, oxygen saturation) 10 minutes after treatment to determine patient response. Document this assessment on the Asthma PRAM Sheet Emergency Department (Form ID - IWKASPR).

Note: If at any time the patient no longer responds appropriately to treatment or condition deteriorates, immediately notify the physician.

Medication Dosages: See Asthma Care Path Orders Form ID - IWKPEASCA

Consent and Documentation:

• Verbal consent will be obtained from the patient/parent prior to administration of the medication. In keeping with “charting by exception”, the nurse will only document a refusal of consent/medication administration obtained from the parent.
• Documentation of the medication will be captured in the permanent health record on the ED clinical record.

Quality Management Process:

• All incidents related to the administration of bronchodilators or steroid treatment under this care directive will be logged in the Adverse Events Management System and reviewed by the manager and clinical leader. These events will be reviewed by a multi-professional ED team through the quality review process.
• Audits will be conducted periodically to ensure that the care directive is being used appropriately.
REFERENCES

Chalut D, Ducharme F, Davis GM Journal of Pediatrics 2000; 137:762-768


Canadian Triage Acuity Scale CTAS Guidelines

CHEO Medical Directive: accessed December 2, 2010

MCHRCAPHC 2009 Poster Award

RELATED DOCUMENTS

Policies:
Administrative Policy #330 - Approval and Performance of Medical Directives By Nurses at the IWK Health Centre

Forms:
Asthma PRAM Sheet Emergency Department - Form ID IWKASPR
Emergency Department Pediatric Asthma Care Path - Form # 6906
Asthma Care Path Orders (Emergency Department Only) - Form ID IWKPEASCA
Asthma Action Plan Discharge Instructions Emergency Department - Form ID IWKASAC

Appendices:
Appendix A – Pediatric Respiratory Assessment Measure (PRAM)
Appendix B- Drug Information sheet
Appendix A

Pediatric Respiratory Assessment Measure (PRAM)

|                     | 0                  | 1                  | 2                  | 3
|---------------------|--------------------|--------------------|--------------------|------------------------
| Suprasternal Indrawing | absent             |                    | present            |
| Scalene retractions  | absent             |                    | present            |
| Wheezing            | absent             | expiratory         | inspiratory and expiratory | audible without stethoscope/ absent with no air entry/SILENT CHEST |
| Air entry           | normal             | decreased at bases | widespread decrease | absent/ minimal        |
| Oxygen saturation   | greater than or equal to 95% | 92%-94% | less than 92% |

Severity Classification | PRAM Clinical Score
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Mild | 1 - 3
Moderate | 4 - 7
Severe | 8 - 12

Appendix B

Medication Information Sheet

1. Ipratropium HFA MDI:

- Prior to initial use, prime inhaler by initiating 2 test sprays into the air. If the inhaler has not been used for greater than 3 days, it needs to be re-primed.
- Use caution in pediatric patients to avoid eye contact with ipratropium spray which may lead to acute narrow-angle glaucoma leading to increased IOP.
- Ipratropium MDIs are not indicated for the initial treatment of acute episodes of bronchospasm where rescue therapy is required for rapid response. Ipratropium should only be used in acute exacerbations of asthma along with short-acting beta-adrenergic agonists (example - salbutamol) for acute episodes.
- There are no concerns with use in soy allergic patients as soy lecithin is no longer an excipient in the manufacture of inhalers with HFA propellant.