

Emergency Medical Directives

Guidelines for Nurses to Initiate Treatment for Children in the Emergency Department



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1. Introduction

In June 2001, the Children's Emergency Services Working Group, a subgroup of the Paediatric Services Task Force of the Child Health Network for the Greater Toronto Area, released a report recommending a number of initiatives that should be undertaken to improve emergency care for children in the GTA hospitals.¹

Recommendation 3 read as follows:

Medical Directives:

Medical directives represent an opportunity to standardize approaches to the paediatric emergency patient across the CHN. Medical directives enable the nurse to proceed with assessment and/or treatment, given a set of circumstances, post triage but prior to the medical assessment.

The working group recommends the development and implementation of paediatric medical directives, for the following circumstances:

- **Fever, pain, dehydration, asthma, croup, bronchiolitis and minor trauma.**

2. The Role of the Child Health Network in Facilitating a Common and Consistent Standard of Care

The purpose of the CHN Evidence-Based Practice Project is to develop, implement and evaluate consistent, evidence-based clinical practice guidelines for the care of mothers, infants, children and youth in the GTA. The recommendations contained in the guidelines will assist members and member organizations deliver care based on the most current evidence and ensure a more consistent approach to care for patients within the Child Health Network. The goals of the project are:

¹ Child Health Network, Children's Emergency Services Recommendations, June 12, 2001

- To improve consistency and quality of care for patients receiving care in CHN member organizations
- To promote evidence-based practice in the delivery of health care to patients within the CHN
- To streamline the guideline development process and avoid duplication in efforts occurring within the network.

The CHN has developed a number of system, organizational and clinical guidelines as part of its mandate in the area of guideline development. This document entitled “ **Medical Directives: Guidelines for Nurses to Initiate Treatment in the Emergency Department**” is one component of this overall strategy to provide a seamless system of care for children based on a regionalized model of care.

It is assumed that most CHN hospitals already have in place a system to utilize medical directives within their organizations (ICU, Emergency Department, Birthing Unit, NICU, etc). It would be expected that the medical directives contained within this document would be assimilated into the existing structure within each member organization. This may include approval and endorsement by individual physicians providing coverage in emergency departments, approval by the Chief of Emergency and/or approval at MAC.

Those organizations without an existing structure to support medical directives are requested to develop a process to incorporate the CHN medical directives into the protocols used within the Emergency Department.

A medical directive requires the following:

- The name and signature of the physician authorizing the medical directive; and
- the date and signature of the administrative authority approving the medical directive (e.g., the ED Administrative Advisory Committee) ²

CHN member organizations would be responsible for ensuring that these requirements were in place prior to utilizing these medical directives in their Emergency Departments.

2a) *Development of the Medical Directives*

The development of the Emergency Medical Directives follows the approved framework for CHN guideline development. ³ This involves the use of an expert

² College of Nurses of Ontario, When, Why and How to Use Medical Directives, July 1995, Page 3

panel consisting of recognized experts in the clinical area of practice to review and revise the document in preparation for its presentation to the Coordinating Committee for approval.

2b) *Implementation of the Medical Directives*

The implementation of the medical directives should proceed through the approved “Guideline Implementation Plan for the CHN”⁴ which involves:

1. Establishment of a supportive environment for CHN guidelines within member organizations
2. Identification of a “champion” for each guideline, at member organizations. The champion would be responsible for ensuring that the guideline was implemented throughout the organization
3. Approval and adoption of the guideline(s) at CHN hospitals that may involve moving the guideline through the organization’s approval process (e.g. Medical Advisory Committee)
4. Staff education
5. Follow up evaluation by CHN

2c) *Review Process*

The CHN will take responsibility for regular reviews of the medical directives (at least every 2 years). Revisions will be based on member input and emerging evidence and will be done in consultation with an expert panel composed of network members. The review process will be followed by dissemination of the revised directives throughout the network.

3. Emergency Medical Directives

3a) *Relationship to Paediatric CTAS Guidelines*

These guidelines are intended to complement the Paediatric CTAS Guidelines⁵. Care recommended by the P-CTAS Guidelines should always supercede the implementation of any of the medical directives outlined in this document.

³ Child Health Network, Evidence-Based Guidelines Development Project – Framework , November 2001

⁴ Child Health Network, Implementation Plane for Guidelines, May 2002

⁵ Warren D, Jarvis A, LeBlanc L, Canadian Paediatric Triage and Acuity Scale – Implementation Guidelines for Emergency Departments, CJEM; 2001 Oct., 3(4), S2-S27

3b) *Definition of Medical Directives*⁶

A medical “**order**” is a prescription for a treatment or an intervention. It can apply to an individual client by means of a **client-specific order**, or to more than one individual by means of a **medical directive**. As such, a medical order exists in one of two forms:

1. A “**direct order**” is **client specific**. It is a prescription for a treatment, procedure or intervention for a particular client and is written by an individual physician for a specific procedure/treatment/intervention to be administered at a specific time(s). A direct order may be written or verbal (telephone).
2. A “**medical directive**” or “**medical protocol**” is **not client specific**. A medical directive is a prescription for a procedure, treatment or intervention that may be performed for a range of clients who meet certain conditions. The medical directive identifies a specific treatment or range of treatments, the specific conditions that must be met, and any specific circumstances that must exist before the directive can be implemented. A medical directive is always written.

3c) *When is a Medical Directive Required?*

A medical order (by individual order or by medical directive) is required in any of the following circumstances:

1. A procedure falls within one of the three controlled acts⁷ authorized to nursing;
2. A procedure does not fall within any controlled act but is part of a medical plan of care;
3. A procedure falls within one of the ten controlled acts not authorized to nursing. For example:
 - Ordering diagnostic tests
 - Ordering laboratory tests
 - Ordering medication
4. A procedure/treatment/intervention is not included in the RHP Act but is included in another piece of legislation.

The health care team needs to determine whether a procedure can safely be ordered by means of a medical directive, or whether direct assessment of the client by the physician is required before the procedure is implemented.

⁶ College of Nurses of Ontario, When, Why and How to Use Medical Directives, July 1995, Pages 2-3

⁷ Government of Ontario, Regulated Health Professionals Act - Definition of a controlled act, December 1993

Procedures that require direct assessment of the client by the physician require client-specific orders.⁸

3d) *Staff Competence Required for the Performance of Medical Directives*

Nurses expected to carry out the medical directives will need to possess the knowledge, skills and judgment necessary to execute the directive in a safe and competent manner. They must be aware of the risks to the client when implementing the procedure within the directive, the predictability of the outcomes of the procedure within the directive and when and how to obtain physician assistance, should such assistance be required.⁹

Nurses may obtain additional information through training, clinical experience or continuing nursing education, or a combination of all three. Organizations have the responsibility to offer their nursing staff the opportunity to develop the knowledge and skills necessary to perform their role. With regard to the added knowledge necessary to perform the medical directives, additional educational opportunities should be made available for the staff. The CHN will provide Power Point educational presentations for use by the Emergency/Paediatric educators to teach/train the staff.

The CHN has produced and distributed a document outlining the competencies required for nurses working with children in Emergency Departments.¹⁰ It should form the basis for nurses/managers/educators to assess the skills of nurses working with children and can be used to as the basis for the orientation of emergency department nurses who care for children. It can be used in conjunction with the Power Point presentations to establish the education plan for nurses carrying out these medical directives.

3e) *Documentation Requirements for Medical Directives*

Nurses are required to clearly document when they implement and carry out a medical directive as closely as possible to the time it is initiated.

Individual organizations that already have a policy covering medical directives in place will have clear guidelines regarding how the documentation of medical directives will be accomplished. Those not having a policy in place will be required to formulate documentation guidelines for these medical directives.

⁸ College of Nurses of Ontario, When, Why and How to Use Medical Directives, July 1995, Pages 2-3

⁹ College of Nurses of Ontario, When, Why and How to Use Medical Directives, July 1995, Page 4-5

¹⁰ Child Health Network for the Greater Toronto Area, Competencies Required for Paediatric Emergency Nurses, April 2002

In general, nurses should clearly document the initial assessment of the child, the fact that the medical directive was implemented, and the result of the post-directive assessment of the child's condition. This should occur on the multidisciplinary Emergency Department Treatment Record, as well as on the nurse's note, assessment flow sheet, or wherever pertinent care activities are usually documented in that hospital emergency department. The requirement of documentation on the Treatment Record will ensure that physicians will be aware of the implementation of the medical directive.

Nurses must clearly sign the record and include their designation. Initials are acceptable provided a clear signature with the accompanying initials is available elsewhere on the chart (master list with full name, signature, designation and initials).¹¹

3f) *Conclusion*

Medical directives to guide the care of children in CHN member emergency departments are intended to assist health care providers initiate care in a timely and effective manner, especially during periods when emergency departments are busy and physicians are not available for immediate assessment and treatment of the child. They are not meant to replace physician attention when it is immediately required.

It is hoped that these directives will enable member organizations provide consistent, high quality care to children in the Emergency Department.

¹¹ College of Nurses of Ontario, Nursing Documentation Standards (Revised 2002)

Respiratory Distress Medical Directives

(Encompassing care for Asthma, Bronchiolitis and Croup)

NOTE: The administration of humidified room air to alleviate mild symptoms respiratory distress, does not require a medical directive and is within the scope of practice of registered nurses

When the listed indications and conditions exist, a Registered Nurse or RRCP (Registered Respiratory Care Practitioner) may initiate:

- Administration of inhaled Salbutamol and Ipratropium Bromide and/or
- Administration of free flow oxygen

1. Medical Directive: Salbutamol and Ipratropium Bromide Administration

Indications:

This medical directive applies when the following circumstances exist:

1. Child has a history of reactive airway disease (asthma or bronchiolitis).
2. Child presents with moderate to severe respiratory distress as characterized by:
 - Audible wheezing
 - Wheezing with retractions
 - Spasmodic cough
 - Dyspnea
 - Tachypnea
 - Decreased air entry to lung fields on auscultation
3. When a child presents with his/her first episode of respiratory distress, initiation of this medical directive should be considered.

Contraindications:

This medical directive does not apply whenever:

- Child presents with sudden onset after a choking episode with a suggestion of foreign body aspiration
- Child presents with signs and symptoms of upper airway pathology e.g. stridor, drooling, muffled voice, dysphagia
- There is a known allergy to either of the medications (salbutamol or ipratropium bromide)

Pre-directive Patient Assessment:

Prior to initiating the medical directive, the nurse will assess the patient by obtaining the following:

- complete set of vital signs, including capillary refill
- respiratory assessment, including chest auscultation, respiratory effort, presence of wheezing, etc
- peak flow (if age and ability appropriate [usually over 6 years of age])
- oxygen saturation
- weight in kilograms
- history of presenting illness, current medication history and past medical history
- assessment should be completed prior to initiating the directive
- allergy history

Medication Administration Guidelines:

The medication is given as a single, one-time dose according to the following dosage guidelines:

Medication	Weight	Dose
Salbutamol (5 mg/ml)	<6.7 kg	0.2 ml (1 mg)
	6.7 – 33 kg	0.03 ml/kg (maximum 1mL {5 mg})
	>33 kg	1 ml (5 mg)
Ipratropium Bromide (250 mcg/ml)	250 mcg (1mL)	

- Mix together in an inhalation device and add Normal Saline to achieve a volume of 2 – 3 ml. Gently rotate to mix medications.
- Attach tubing to an oxygen outlet and administer to patient at a flow rate of 6 – 8 L/min.
- Adjust facemask to prevent mist from getting into the child’s eyes.
- Treatment ends when mist has stopped

Post-directive Patient Assessment:

- Vital signs, including capillary refill
- Oxygen saturation level
- Peak flow
- Respiratory assessment

Observe patient’s response to the inhalation and notify physician.

Documentation

Documentation should include pre-directive assessment, the time and dose of the treatment, and the post treatment assessment.

If there is no improvement or deterioration in the patient's condition notify the physician immediately and initiate oxygen as outlined below.

2. Medical Directive: Oxygen Administration

Indications:

Oxygen should be given to any child presenting with:

- Signs and symptoms of respiratory distress :
 - Audible wheezing
 - Wheezing with retractions
 - Spasmodic cough
 - Dyspnea
 - Tachypnea
 - Decreased air entry to lung fields on auscultation
- Oxygen saturation level below 95%
- Any other circumstances where the potential for hypoxia or hypovolemic shock exists (e.g., trauma, bleeding, inhalation injury, toxic overdose, sickle cell crisis, etc.)
- Signs of hypoxia (cyanosis, pallor, decreased level of consciousness, anxiety, or restlessness)

Contraindications:

There are few contraindications for oxygen administration in children. Premature infants less than 34 weeks gestation are prone to eye damage and lung damage with long-term oxygen administration. This should never affect the decision to provide short-term emergency oxygen to infants and children of any age.

Pre-directive Patient Assessment:

Prior to initiating the medical directive, the nurse will assess the patient for:

- Signs of hypoxia as outlined above

Note: It is not necessary to measure vital signs or oxygen saturation before administering oxygen if the initial assessment indicates it is needed. Oxygen can be discontinued if a complete respiratory assessment indicates that oxygen is not necessary.

Procedure:

Using an oxygen administration device, appropriate for age and activity level, with oxygen tubing attached to 100% oxygen, provide free flow oxygen at a flow rate appropriate for the device (6 - 15 L/min). Although nasal prongs are not often used (especially for young children who find them irritating), if using nasal prongs, the flow rate should be reduced to 2 - 3 L/min.

Post-directive Patient Assessment:

Observe patient's response to oxygen and record as patient's condition indicates. Consider continuous monitoring, if indicated, by:

- Respiratory rate and effort
- Oxygen saturation
- Capillary refill
- Heart rate
- Colour
- Air entry

Documentation Guidelines:

Documentation must indicate that the medical directive was initiated, the indications for initiating the directive and the post treatment results including vital signs and oxygen saturation.

Pain Management Medical Directives

When the listed indications and conditions exist, a Registered Nurse may initiate:

- Administration of one dose of acetaminophen, or
- Administration of one dose of ibuprofen
- Application of a topical anaesthetic for possible venipuncture for IV start or blood sampling

The decision about the choice of medication (Acetaminophen or Ibuprofen) rests with the authority approving the medical directive. This may be an institutional policy/preference or a physician choice or preference. In the absence of a decision by the medical authority, the nurse may decide on either of the two medications recommended.

1. Medical Directive: Acetaminophen or Ibuprofen Administration

Indications:

Child must have mild to moderate pain (pain scale 1-5/10) with negligible risk of surgical origin (e.g., minor sprains, minor burns, toothache, non-displaced, closed fracture, otitis media)

Contraindications:

This medical directive does not apply whenever:

- Child has a known allergy to acetaminophen and/or ibuprofen
- Child has received a therapeutic dose of acetaminophen, ibuprofen or other analgesic within the past 4 hours (acetaminophen) or 8 hours (ibuprofen). If sub-therapeutic dose has been given, calculate the difference and give the remainder of the recommended dose

The oral route should not be used if:

- Child is unable to tolerate oral fluids
- There is a risk that surgery may be required within the next 2 hours and oral administration may interfere with NPO guidelines.

Pre-Directive Patient Assessment:

Prior to administering the analgesic, the following assessments should be done:

- Vital signs including capillary refill
- Weight in kilograms
- Pain assessment using a developmentally appropriate pain assessment tool¹²
- History of presenting illness, past medical history and recent medication history
- History of allergies

Acetaminophen Administration Guidelines:

The medication is given as a single, one-time dose according to the following dosage guidelines:

<p>Acetaminophen 20 mg/kg PO/PR Maximum dose 650 mg</p>

Form of medication (suspension, tablet, chewable tablet or suppository) should be based on the developmental stage and preference of the child and/or caregiver.

NOTE: Children who are immune suppressed should never receive any medication by the rectal route nor should a temperature be taken by the rectal route unless specifically ordered by a physician. Rectal insertion may damage the mucous membrane and may increase the risk of infection due to entry of organisms through the damaged mucous membrane.

¹² See reference list for information on pain assessment tools for children

Ibuprofen Administration Guidelines:

The medication is given as a single, one-time dose according to the following dosage guidelines:

Ibuprofen	5 - 10 mg/kg PO
Maximum dose 40 mg/kg/day	

Form of medication (suspension, tablet) should be based on the developmental stage and preference of the child and/or caregiver.

Post-directive Patient Assessment:

The post-administration assessment should include:

- Vital signs including capillary refill
- Pain assessment score using the same developmentally appropriate pain assessment tool

Documentation Guidelines:

Documentation must include the fact that the Medical Directive was initiated and dose, route and time of administration. Post administration assessment should also be documented.

2. Medical Directive: Topical Anaesthetic Administration

Indications:

Emla® (Eutectic Mixture of Lidocaine and Prilocaine) or Ametop® (Amethocaine) should be applied to the intact skin of any child who is a candidate for venous or capillary blood sampling, IM or SC injection, IV initiation, subcutaneous implanted port (or other venous access device) access or when a lumbar puncture is anticipated.

Contraindications:

This medical directive does not apply whenever:

- Child has a known allergy to the active ingredient in the medication(s) {see above for active ingredients}
- The child's skin is not intact i.e. broken or lacerated skin
- There is active eczema or skin rashes

Emla® or Ametop® Administration Guidelines:

- **Apply 1 - 2 gm of the medication (about the size of a 25-cent piece) to potential sites**
- **Cover with an occlusive dressing (e.g., Op site®, Tegaderm®)**
- **The area will be anaesthetized after 30 minutes (Ametop®) or 60 minutes (EMLA®) and effects will last up to 2 hours**
- **Prior to blood sampling or IV insertion, wipe medication off with a dry gauze or tissue**
- **Perform an aseptic skin preparation prior to needle insertion**
- **Ensure all sites are cleansed and dressings removed prior to discharge from the emergency department**

Documentation Guidelines:

Documentation must indicate that the medical directive was initiated.

Fever Management Medical Directive

When the listed indications and conditions exist, a Registered Nurse may initiate:

- Administration of one dose of acetaminophen or
- Administration of one dose of ibuprofen

The decision about the choice of medication (Acetaminophen or Ibuprofen) rests with the authority approving the medical directive. This may be an institutional policy/preference or a physician choice/ preference. In the absence of a decision by the medical authority, the nurse may decide on either of the two medications recommended.

1. Medical Directive: Acetaminophen or Ibuprofen Administration

Indications:

Child presents at the Emergency Department with a temperature of $>38.0^{\circ}\text{C}$ when measured by any route

Child must:

- Be alert and have an intact gag reflex (if the oral route is to be used)
- Be greater than 3 months of age *

*** NOTE: Infants under 3 months of age, who present with a fever, are classified as Triage Level 2 (P-CTAS) and should be seen by a physician within 15 minutes.**

Contraindications:

The medical directive does not apply whenever:

- Child has an allergy to acetaminophen or ibuprofen
- Infant is less than 3 months of age *(see NOTE above)
- A therapeutic dose of acetaminophen has been given within the past 4 hours or a therapeutic dose of ibuprofen has been given within the past 6 hours. If a sub-therapeutic dose has been given, calculate the difference between the inadequate dose and the therapeutic dose and administer that amount.

Pre-directive Patient Assessment:

Prior to initiating the administration of the anti-pyretic, the following assessment should be done:

- Weight in kilograms
- Vital signs including capillary refill
- History of antipyretic therapy (adequacy of dose, response) and other current medication history
- History of presenting illness and past medical history
- History of allergy to medication

Acetaminophen Administration Guidelines:

The medication is given as a single, one-time dose according to the following dosage guidelines:

**Acetaminophen 15 mg/kg PO/PR
(Maximum dose 650 mg)**

Ibuprofen Administration Guidelines:

The medication is given as a single, one-time dose according to the following dosage guidelines:

Ibuprofen	Age	Dose	
	Less than 6 months	5 mg/kg PO	
	6 mos - 12 years	Temp less than 39°C	5 mg/kg PO
		Temp 39°C or over	10 mg/kg PO

Route and form (tablet, elixir, chewable tablet or suppository {acetaminophen only}) should be based on the developmental stage and condition of the child or caregiver.

NOTE: Children who are immune suppressed should never receive any medication by the rectal route nor should a temperature be taken by the rectal route unless specifically ordered by a physician.

Post-directive Patient Assessment:

The post-administration assessment should include:

- Vital signs including capillary refill
- Temperature 1 hour after medication administration

Documentation Guidelines:

Documentation must include pre- and post-dose assessment information, the fact that the Medical Directive was initiated and dose, route and time of administration.

Oral Rehydration Medical Directive

When the listed conditions and indications exist, a Registered Nurse may initiate:

- Oral rehydration therapy using oral rehydration solution (45 - 60 mmol/L sodium)

If the patient refuses to drink the solution, the nurse may substitute Pediapops™ (frozen form of oral rehydration fluid). The nurse may also choose to add sugar-free flavouring powder (Crystal Light™ with Aspartame™) to disguise the taste. Permission should be obtained from the parent/guardian prior to giving aspartame-containing fluids.

Preamble:

Many infants and children with gastroenteritis will have mild or moderate degrees of dehydration that can be managed successfully with oral electrolyte solutions. If therapy is initiated early and continues throughout the duration of the gastroenteritis episode, dehydration, associated complications and need for admission to hospital, can often be avoided.

Oral rehydration fluids include Pedialyte™, Lytren™, or Gastrolyte™ or frozen Pediapops™. These fluids contain the correct combination of electrolytes and fluid. Therapy with clear fluids such as fruit juices, soft drinks, popsicles or sports drinks is not appropriate and should never be used.

1. Medical Directive: Oral Rehydration Therapy

Indications:

Child must have vomiting and/or diarrhea and have signs of mild or moderate dehydration.

Clinical Signs of Dehydration

	Mild	Moderate	Severe
Weight loss	3-5%	6-10%	9-15%
Vital Signs			
Heart rate	Slight↑	Increased	Markedly increased
Respiratory rate	Normal	Normal	Tachypnea
Blood pressure	Normal	Normal	Decreased
Skin			
Capillary refill (abdomen)	<2 seconds	2-3 seconds	>3 seconds
Elasticity	Normal	Decreased	Increased(tenting)
Anterior fontanel (<18 months of age)	Normal	Depressed	Depressed
Mucous membranes	Normal	Dry	Dry
CNS			
Mental status	Normal	Alerted	Depressed Decreased muscle tone
Eyes			
Tearing	Normal/absent	Absent	Absent
Appearance	Normal	Sunken	Sunken
Urine			
Volume	Small	Oliguria	Oliguria/anuria

Contraindications:

This medical directive does not apply whenever:

- Child appears extremely ill, lethargic or has altered perfusion
- Child has bilious or bloody vomiting
- Child has vomiting alone (no diarrhea) **and** has signs associated with neurologic/toxicology etiology

Pre-directive Patient Assessment:

Prior to initiating the oral rehydration therapy, the following assessment should be done:

- Vital signs including blood pressure and capillary refill
- Weight in kilograms

- Level of consciousness
- Level of dehydration (see chart above)
- Urine output (can be estimate e.g. # of wet diapers over past 6-8 hours and judgement of small, medium or large volume of urine by patient's or parent's estimate)
- History of oral intake and the number of stools

Administration of Oral Rehydration Therapy (ORT):

- For **mild dehydration**, offer a total of 50ml/kg of oral rehydration fluid (Pedialyte®, Lytren®, Gastrolyte® or other sodium-based oral rehydration fluid by age appropriate method (feeding cup, medication cup, syringe, or regular cup) starting with small sips of 5 ml at a time every 1 - 2 minutes. Bottle-feeding can be used but fluid should be offered in small amounts to avoid further vomiting resulting from drinking a large amount of fluid. The fluid should be offered **over a four hour** period. In addition, ongoing losses (stool and emesis, see below) should be replaced by adding to the 50 ml/kg four hour intake total.
- For **moderate dehydration**, offer a total of 100ml/kg of oral rehydration fluid, plus replacement of ongoing losses (stool and emesis, see below) **over a four hour** period
- **For each subsequent stool**, add 10 ml/kg of ORT to the four hour total
- **Emesis** should be replaced on a volume for volume basis, added to the four hour total
- Continue to offer ORT even if vomiting continues
- If infant is breast fed, breastfeeding may be continued in addition to the ORT. The duration of each breastfeeding episode should be kept brief to avoid large amounts of breast milk being ingested at one time, which may induce vomiting
- Parents may administer ORT. Explain the process clearly to the parents and ask them to record amounts taken
- Patients unable to increase oral intake within 1 - 2 hours should have an IV started. Notify physician.

Table 1: Summary of ORT

Assessment	Mild Dehydration 0-5%	Moderate Dehydration 5-10%
Over first 4 hours	50 ml/kg	100ml/kg
	Replace each stool loss at 10 ml/kg	Replace each stool loss at 10 ml/kg
	Replace emesis losses at volume for volume	Replace emesis losses at volume for volume
Reassess intake and patient response and every 30 minutes		
If poor intake or deterioration in condition, notify physician immediately		

Post-directive Patient Assessment:

- Observe the infant/child’s response to ORT at least **every 30 minutes**, including frequency of vomiting and stooling
- Check vital signs including capillary refill and colour at least **every 30 minutes** and more frequently based on assessment
- Monitor level of consciousness/alertness
- Urine and stool output (# of wet diapers and volume of fluid) It may be necessary to weigh diapers to determine urine/fluid volume output
- Notify physician immediately if deterioration in condition is observed

Documentation Guidelines:

Documentation must include type and amount of solution ingested, stool and vomiting record, vital signs and description of clinical condition (alertness, skin turgor, and capillary refill).

Conclusion

These medical directives should be used to initiate treatment of children presenting in the emergency department with the common conditions outlined and who are waiting to be seen and assessed by a physician. They do not replace immediate assessment by a physician when it is deemed necessary. Frequent assessments and reassessments by the nurse should occur in keeping with the Paediatric Canadian Triage Acuity Scale (P-CTAS) guidelines.

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Additional References:

Child Health Network Member's Guidelines/Medical Directives were used as a reference in the development of the following Medical Directives:

Respiratory:

St. Joseph's Health Centre
Trillium Health Centre
The Hospital for Sick Children
Rouge Valley Health System
The Credit Valley Hospital
Lakeridge Health Corporation
The Scarborough Hospital
Child Health Network (Asthma)

Fever:

Toronto East General Hospital
The Scarborough Hospital
Trillium Health Centre
The Credit Valley Hospital
The Hospital for Sick Children

Pain Management:

The Credit Valley Hospital
Trillium Health Centre
The Hospital for Sick Children

Oral Rehydration:

Trillium Health Centre

The Hospital for Sick Children
The Credit Valley Hospital
St. Joseph's Health Centre
The Scarborough Hospital
Rouge Valley Health System
Lakeridge Health Corporation
Markham Stouffville Hospital

Appendix 1

Members of CHN Emergency Medical Directives Expert Panel

Dr. Anna Jarvis	The Hospital for Sick Children
Dr. Eric Letovsky	The Credit Valley Hospital
Anna Taddio	The Hospital for Sick Children
Louise Le Blanc	The Scarborough Hospital
Carolyn Farquharson	Mount Sinai Hospital
Kathy Wortley	William Osler Health Centre
Lorraine Bird	The Credit Valley Hospital
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