CPG	Shared health Soins communs Manitoba		
	Policy Name: EMERGENCY DEPARTMENT/URGENT CARE NURSE-INITIATED ANTIEMETIC MEDICATION AND ORAL REHYDRATION THERAPY - PEDIATRICS	Policy Number: **EIPT-083**	Page 1 of 11
	Approval Signature: **WRHA Professional Advisory Committee** **WRHA Standards**	Section:	
Level: **SITE-SPECIFIC** - Applies to all Shared Health staff at the site indicated in the policy name.	Date: **03/Jun/2022**	Supercedes: Health Sciences Centre Winnipeg	

1.0 PURPOSE:

1.1 To provide criteria to guide nurse-initiated assessment, treatment, and monitoring of infants and children at triage presenting with suspected acute gastroenteritis.

1.1.1 To provide guidance for the objective assessment and classification of severity of dehydration using a validated scoring tool: Appendix A: Clinical Dehydration Scale (CDS).

1.1.2 To guide patient selection for early Oral Rehydration Therapy (ORT) for infants and children with suspected acute gastroenteritis at risk of or with mild dehydration while awaiting prescriber assessment.

1.1.3 To provide criteria that allow for a nurse-initiated one-time dose of anti-emetic medication (ondansetron) for infants and children with suspected acute gastroenteritis with recent emesis and mild dehydration while awaiting prescriber assessment.

1.2 This guideline does not support nurse-initiated treatment of children with moderate to severe dehydration (measured with CDS), of treatment of children triaged as a Canadian Triage and Acuity Scale (CTAS) level 1 or 2 or if meeting the exclusion criteria of ORT or anti-emetic mediation listed in sections 4.5 and 4.6.

2.0 DEFINITIONS

2.1 **Oral Rehydration Therapy (ORT):** a type of oral fluid replacement used to treat mild to moderate dehydration caused by acute gastroenteritis.

2.2 **Oral Rehydration Solution (ORS):** an oral solution containing water, glucose, and other electrolytes used in the treatment of mild to moderate dehydration. Commercial solutions include Pedialyte® or Enfalyte®.

2.2.1. Oral rehydration solutions can include oral rehydration solution, breastmilk or diluted apple juice 1:1 water or oral rehydration solution (for children greater than 6 months of age).

2.3 **Clinical Dehydration Scale (CDS):** A scoring tool used to assess the severity of dehydration in pediatric patients that assesses the general appearance, eyes, mucous membranes, and tears. This creates a composite score, based on these elements, with 0 representing no dehydration, 1 to 4 representing mild dehydration, and 5 to 8 indicative of moderate to severe dehydration (Refer to Appendix A).

3.0 GUIDELINES

3.1 This guideline will support Registered Nurses (RNs) practicing at triage in the Emergency Department/Urgent Care to safely assess and screen infants and children presenting with gastroenteritis and dehydration and be able to implement early rehydration strategies.

3.1.1 Education that will support the RN in safely assessing the presenting infant or child entails (but not limited to):

3.1.1.1 Completing Regional Emergency Department orientation through the WRHA.

3.1.1.2 Completing all aspects of triage education and orientation as per department guidelines.

3.1.1.3 Understanding the components of pediatric abdominal assessment and identifying the signs and symptoms of dehydration.

3.1.1.4 Is knowledgeable of the antiemetic medication, ondansetron, including side effects and potential drug interactions

3.1.1.5 Understanding the components of care within the *Emergency Department/Urgent Care Standing Orders for: Nurse-Initiated Oral Rehydration Therapy and Antiemetic Medication Administration.*

3.2 All children presenting with symptoms indicative of acute gastroenteritis are scored using the CDS to assist in determining their care pathway (0 – no dehydration, 1 to 4 – mild dehydration, 5 to 8 – moderate to severe dehydration).

3.3 All children 3 months of age or greater presenting with signs and symptoms of acute gastroenteritis, who meet the defined inclusion and exclusion criteria, are initiated on ORT using the age-based guide.

EXCEPTION: Unless there is suspicion of an acute abdomen and NPO status is indicated.

3.3.1 Children with a CDS score of 0, meeting inclusion and exclusion criteria, are offered ORT using age-based dosing and encouraged to initiate an age-appropriate diet as tolerated. Education is provided to the caregiver(s) regarding ORT principles.

3.3.2 Children with a CDS score of 1-4 who meet eligibility criteria are given a weight-based dose of oral ondansetron. Twenty minutes after receiving ondansetron, ORT will be started as per age-based dosing. Children who do not meet eligibility criteria for oral ondansetron will be provided with ORT using the age-based guide, unless there is suspicion of an acute abdomen and NPO status is indicated.

3.4 Children with a CDS score of 5 or greater, or those with a CTAS score of 1 or 2, require urgent assessment by a prescriber to initiate fluid resuscitation.

4.0 PROCEDURE

The Emergency Department/Urgent Care triage nurse will:

4.1 Complete a full assessment of the child, including a complete set of vital signs and weight and document same in the ED record.

4.2 Obtain a full history from the child and/or their caregiver including their past medical history, allergies, current medications, reason for visit, frequency and severity of symptoms.

4.3 Assess and document the severity of dehydration using the CDS.

4.3.1 Children who receive a CDS score of 5 of greater, or with a CTAS Score of 1 or 2, will be immediately placed in an appropriate treatment space and require urgent assessment by the prescriber.

4.4 Obtain point-of-care blood glucose testing for children with signs and/or symptoms of moderate to severe dehydration (e.g., delayed capillary refill, decreased urine output, dry mucous membranes, absent tears, sunken eyes, altered level of consciousness, sunken fontanel, or poor overall appearance), signs and/or symptoms of hypoglycemia (tachycardia, decreased LOC, tremulousness, hypothermia, diaphoresis, poor tone), or if felt to be clinically indicated by the triage nurse.

4.5 Begin a trial of ORT, if deemed eligible, with ORS as per age-based oral rehydration guide (refer to Appendix B). Preference should be given to using an ORS however, if not tolerated by the infant/child, diluted apple juice may be used (1:1 ratio) if over the age of 6 months. If oral ondansetron is given at triage, start ORT twenty minutes after the patient receives the medication.
NOTE: Breastfeeding may be continued during ORT but is not in replacement of ORS.

4.5.1 **Children are excluded from receiving ORT if they**:

- CTAS score of 1 or 2
- CDS score of 5 of greater
- Are less than 3 months of age
- Have a toxic appearance (lethargic, not interactive, poorly perfused)
- Have any form of enteral feeding tube (nasogastric, gastrostomy, jejunal tube)
- Have a blood glucose of less than 3 mmol/L or greater than 11mmol/L, if blood glucose testing was clinically indicated
- Have complex medical comorbidities including, but not limited to: diabetes, metabolic disorders, neurological conditions (including VP shunts), and cardiac conditions, including a family history of dysrhythmias
- Signs and symptoms suggesting a bowel obstruction or acute surgical abdomen; or bilious emesis
- History of possible toxic ingestion
- History of head injury and/or signs suggesting increased intracranial pressure

4.6 Children who receive a CDS score of 1 to 4 **AND** who meet eligibility criteria will receive a single oral dose of ondansetron as per weight-based dosing.

4.6.1 The nurse must review the Clinical Circumstances Sheet (CCS) for allergies and/or confirm any allergies with the child and/or caregiver prior to giving the medication.

4.6.2 To receive a single dose of Ondansetron, the infant/children MUST have the presence of:

- 3 or more episodes of non-bilious and/or non-bloody emesis in the past 24-hour period
- Minimum of one episode within 6 hours of triage **AND**
- Duration of vomiting and/or diarrheal symptoms of less than 72 hours

4.6.3 **Infants/children are excluded from receiving oral ondansetron if they:**

- CTAS score of 1 or 2

- CDS score of 5 or greater
- Are less than 6 months of age
- Weigh less than 8 kg
- Have a toxic appearance (lethargic, not interactive, poorly perfused)
- Have any form of enteral feeding tube (nasogastric, gastrostomy, jejunal tube)
- Have a known allergy to ondansetron
- Have a blood glucose of less than 3 mmol/L or greater than 11mmol/L, if blood glucose testing was clinically indicated
- Are immunocompromised
- Are pregnant
- Have complex medical comorbidities including, but not limited to: diabetes, metabolic disorders, neurological conditions (including VP shunts), and cardiac conditions, including a family history of dysrhythmias
- Signs and symptoms suggesting a bowel obstruction or acute surgical abdomen
- Have had greater than 6 episodes of diarrhea in the last 24 hours
- History of possible toxic ingestion
- History of head injury and/or signs suggesting increased intracranial pressure
- Have taken or been given any enteral or parenteral medications within the last 2 hours, **EXCLUDING** acetaminophen and ibuprofen
- Have received a previous dose of ondansetron during this illness or within the previous 24 hours

4.7 Children with a CDS score of 1 to 4 who do not meet inclusion and exclusion criteria for oral ondansetron may still receive ORT, if eligible as per above noted criteria (see 4.5.1 for exclusion criteria of ORT).

4.8 Document the initiation of any treatment in the patient record, as well as on the *Emergency Department/Urgent Care Standing Orders for: Nurse-Initiated Oral Rehydration Therapy and Antiemetic Medication Administration.*

4.9 Educate the patient and/or the caregiver on the risk of dehydration with vomiting and/or diarrhea and the treatment given. Stress the importance that being given an anti-emetic medication and ORT does not replace the assessment by a physician and they are still expected to wait to be seen.

4.10 Provide the caregiver with the following patient education materials, if applicable*: Oral Rehydration Therapy: Parent Documentation;* (Appendix B) *Oral Rehydration – What Parents Need to Know;* (Appendix C) *Medication in the Emergency Department/Urgent Care* (Appendix D).

4.10.1 Before the caregiver leaves the triage area, review the *Oral Rehydration Therapy: Parent Documentation* form (Appendix B) and ensure the child and/or caregiver is aware of the volume and frequency of administering the ORS, as well as when to return to triage (i.e. the patient is refusing, spitting out or vomiting more frequently)

4.11 Reassess the child's condition and the efficacy of any treatments or medications given as per CTAS reassessment frequency guidelines, or sooner if clinically indicated.

5.0 REFERENCES

5.1 Friedman JN, Goldman RD, Srivastava R, Parkin PC. Development of a clinical dehydration scale for use in children between 1 and 36 months of age. J Pediatr. 2004 Aug;145(2):201-7. doi: 10.1016/j.jpeds.2004.05.035. PMID: 15289767.

5.2 Doan Q, Chan M, Leung V, Lee E, Kissoon N. The impact of an oral rehydration pathway in a paediatric emergency department. Paediatric Child Health. 2010 Oct; 15(8): 503-507. doi: 10.1093/pch/15.8.503

5.3 IWK Health Centre – Care Pathway and Care Directive for the Treatment of Vomiting and Diarrhea in the Emergency Department

5.4 Cheng, A Emergency Department Use of Oral Ondansetron for Acute Gastroenteritis-related Vomiting in Infants and Children. Pediatric Child Health 2011; 16(3): 177-9

5.5 Children's Emergency Nurse Educator

5.6 Elsevier Nursing Skills Online – Fluid Calculations (Pediatrics) – CE

Appendix A

Clinical Dehydration Scale			
Characteristic	0 Points	1 Point	2 Points
General Appearance	Normal	Thirsty, restless or lethargic; irritable when touched	Drowsy, limp, cold; comatose or not arousable
Eyes	Normal	Slightly sunken	Very sunken
Mucous Membranes	Normal	Sticky	Dry
Tears	Tears present	Decreased	No tears
Scoring: 0 = none to minimal dehydration; 1-4 = mild to moderate dehydration; 5-8 = severe dehydration			

Adapted from 6.1 Friedman JN, Goldman RD, Srivastava R, Parkin PC. Development of a clinical dehydration scale for use in children between 1 and 36 months of age. J Pediatr. 2004 Aug;145(2):201-7. doi: 10.1016/j.jpeds.2004.05.035. PMID: 15289767.

Appendix B

Children's Hospital
Health Sciences Centre Winnipeg

DATE
PATIENT
DOB
HSC NO.

Oral Rehydration Therapy Parent Documentation

Please follow the instructions on this sheet while you wait, and give it to the doctor and/or nurse when your child is taken to a room. "✓" the appropriate box in the chart below:

- ☐ 3 to 23 months: 10 - 15 mL of fluid every 5 - 15 minutes
- ☐ 2 to 5 years: 15 - 20 mL of fluid every 5 - 15 minutes
- ☐ Greater than 5 years: 20 - 30 mL of fluid every 5 - 15 minutes

NOTE:

1. **If your child refuses to take fluids at a time slot , place an "R" in the box**
2. **Continue breastfeeding whenever possible Write "BF"**
3. **If your child vomits, STOP giving the solution for 15 minutes. After a 15 minute rest, continue giving the solution again every 5 - 15 minutes. If vomiting continues STOP giving solution and tell the nurse.**
4. Bring any concerns to the attention of the nurse

Time	Every 5 Minutes	Amount of Fluid Given	Vomited ✓	Had Diarrhea ✓	Had a Wet Diaper (urine/pee) ✓
	START				
	5 min				
	10 min				
	15 min				
	20 min				
	25 min				
	30 min				
	35 min				
	40 min				
	45 min				
	50 min				
	55 min				
	60 min				

FORM # NS0106 11/20

NOT A PERMANENT HEALTH RECORD FORM

Appendix C

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Oral Rehydration – What Parents Need to Know

Infants and children can lose a lot of water and important salts when they have vomiting and/or diarrhea.

Frequently Asked Questions

What You Should Do

Begin oral rehydration.

Oral rehydration means giving fluids to your child by mouth.

A special fluid called oral rehydration solution or ORS is the best way of replacing water, sugar and salt when diarrhea and vomiting is present. Examples of ORS are Pedialyte© and EnFalyte©.

Start giving your child this fluid in the waiting room, after you have registered with a triage nurse.

Give this fluid to your child in small frequent amounts. Oral rehydration takes time and patience.

5 ml in a syringe = 1 teaspoon
1 teaspoon = 5 ml

Why This is Important

Your child loses fluids when they vomit and/or have diarrhea.

The most important part of treating vomiting and/or diarrhea is to replace fluid lost through vomiting and/or diarrhea and to prevent further dehydration.

You may or may not have already tried oral rehydration at home but we ask that you follow these instructions and continue to provide fluids (rehydration) to your infant or child while you wait to be seen by the doctor.

Use the supplies in this kit to start replacing the fluids lost by your child until he or she is seen by the doctor.

Important Facts

Oral rehydration using ORS (Pedialyte© and EnFalyte©) are an excellent way to replace fluids that your child lost during vomiting and/or diarrhea.

Follow the instructions in your kit carefully according to your child's age.

Bring any concerns to the attention of the nurse.

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Appendix C

hôpital pour enfants
Centre des sciences de la santé Winnipeg

Réhydratation orale – Ce que les parents doivent savoir

Les nourrissons et les enfants peuvent perdre beaucoup de liquide et de sels minéraux pendant les vomissements ou la diarrhée.

Foire à questions

Ce que vous devez faire

Commencez la réhydratation orale.

La réhydratation orale consiste à donner des liquides à votre enfant par voie orale.

Un liquide spécial qu'on appelle une solution orale de réhydratation, ou SOR, est le meilleur moyen de remplacer le liquide, le sucre et les sels perdus pendant les vomissements ou la diarrhée. Des exemples de SOR incluent Pedialyte© et EnFalyte©.

Commencez à donner ce liquide à votre enfant dans la salle d'attente, après que vous vous êtes inscrit auprès d'une infirmière de triage.

Donnez ce liquide à votre enfant par petites doses et fréquemment. La réhydratation orale exige du temps et de la patience.

5 ml dans une seringue = 1 cuillère à thé
1 cuillère à thé = 5 ml

Pourquoi cette information est importante

Votre enfant perd du liquide chaque fois qu'il vomit ou qu'il a la diarrhée.

Le remplacement du liquide perdu pendant les vomissements ou la diarrhée est la partie la plus importante du traitement des vomissements et de la diarrhée afin de prévenir une déshydratation accrue.

Que vous ayez ou non essayé la réhydratation orale à la maison, nous vous demandons de suivre ces directives et de continuer à donner des liquides (réhydratation) à votre nourrisson ou enfant en attendant le médecin.

À l'aide de cette trousse, commencez à remplacer le liquide que votre enfant a perdu jusqu'à ce qu'il voie le médecin.

Faits importants

La réhydratation orale à l'aide d'une SOR (Pedialyte© et EnFalyte©) est un excellent moyen de remplacer le liquide que votre enfant a perdu pendant les vomissements ou la diarrhée.

Suivez attentivement les directives dans votre trousse, selon l'âge de votre enfant.

Faites connaître vos préoccupations à l'infirmière.

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Appendix D

Medication in the Emergency Department/Urgent Care

Your child is getting a medication to help them feel better while you wait. The nurse has explained to you what that medication is for. If you have any questions, please ask.

This medicine is supposed to help your child feel better; your child should still see a doctor.

Do not take your child home before seeing the doctor, even if they start to feel better.

They must not take other medications without first checking with a nurse.

If you decide to take your child home, you MUST tell the nurse that you are leaving. If you leave before seeing a doctor/nurse practitioner/physician assistant, you will be leaving against medical advice. If you have any questions, please ask the nurse.

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