

Medical Directive Title:	Ondansetron	
Lead Contact Person:	Christina Scerbo, Clinical Educator & Alyson Wilson, Resource Nurse	
Physician Lead:	Dr. Rod Lim, Site Chief Paediatric Emergency Medicine	
Program:	Paediatric Emergency Department	
Approval By:	Medical Advisory Committee	
Original Effective Date: April 10, 2013	Revised Date: May 11, 2016	Reviewed Date: May 11, 2019
This Medical Directive Applies to the following sites:		
<input type="checkbox"/> All LHSC sites <input type="checkbox"/> LHSC-UH <input checked="" type="checkbox"/> LHSC-VH <input type="checkbox"/> LHSC-SSH <input type="checkbox"/> BFMC <input type="checkbox"/> VFMC <input type="checkbox"/> Other: _____		
This Medical Directive Applies to the following patient population:		
<input type="checkbox"/> In-Patients <input checked="" type="checkbox"/> Out-Patients <input type="checkbox"/> Adults <input checked="" type="checkbox"/> Paediatrics <input type="checkbox"/> Neonates		

Order:

The Registered Nurse (RN) in the Paediatric Emergency Department may initiate the following assessments and treatments:

- Ondansetron PO to facilitate successful oral fluid rehydration for the child presenting with acute vomiting and moderate dehydration symptoms.

Dosing as follows:

8 to 15 kg = 2 mg
 Greater than 15 to 30 kg = 4 mg
 Greater than 30 kg = 8 mg

Appendix Attached? Yes No

Recipient Patients:

Patients greater than one year of age with symptoms of significant vomiting, three times in the last six (6) hours, or recent vomiting defined as greater than one time in the last hour.

Authorized Implementers:

- Identify individuals or groups of individuals by position and qualifications who will be involved in implementing the medical directive

Position / Title	Qualifications / Certifications
RN	RNs working in the Paediatric Emergency Department who have completed the annual review of medical directive.

Indications & Contraindications:

Indications: Symptoms of significant vomiting, three times in the last six hours, or recent vomiting defined as greater than one time in the last hour. Patient must be alert and oriented.

Contraindications

- Episodes of vomiting and diarrhea lasting longer than 5 days
- Localized abdominal pain
- Chronic medical conditions i.e. diabetes, immunodeficiency, or those affecting major organ systems
- Signs suggesting obstruction such as abdominal distention, bilious vomiting, absent bowel sounds
- Previous head injury within the last 3 weeks
- Severe dehydration (please see Appendix Table 2 for definitions)
- Contraindicated for patients under 8 kg
- Cardiac patients, due to potential QT prolongation
- Patient on prescription medication at home

Medication / Drug Table:

Please identify all medications/drugs, using the chart below, which are included under this medical directive by listing the AHFS classification and then identifying which drugs are **INCLUDED and specific to your practice**.

Note: medical directives for medication orders excludes: non-formulary medications, special access program medications/investigational drugs, off-label use medications, and narcotics, controlled drugs, and benzodiazepines (definition of practitioner as defined under CDSA and Narcotic Regs restricts prescribers).

For any off-label use of a specific medication to be included, the actual drug and indication must be listed individually and not in the AHFS classification section (e.g. Gabapentin for pain).

Drug Name (GENERIC) LIST INCLUSIONS	Indications	Route of Administration	Special Consideration (e.g. monitoring, lab tests)
Ondansetron 8 to 15 kg = 2 mg	vomiting	PO x 1	
Ondansetron Greater than 15 to 30 kg = 4 mg	vomiting	PO x 1	
Ondansetron Greater than 30 kg = 8 mg	vomiting	PO x 1	

(for formulary listings see - <http://appserver.lhsc.on.ca/Formulary1.0/public/advancedsearch.php>)

Consent

Verbal consent obtained from patient or caregiver by RN initiating Directive

Educational Requirements

- Yearly review of Medical Directive
- Family education for oral fluid challenge (electrolyte replacement fluids)
- See guidelines for Oral Rehydration Therapy (attached in appendix)

Appendix attached? Yes No

Documentation & Communication

- Medication documentation on electronic MAR
- Documentation on the Paediatric Assessment / Intervention Flow sheet to include
 - Physician reassessment and vital signs prior to discharge
 - Oral Rehydration Therapy
 - Documentation of vomiting and diarrhea

Review and Quality Monitoring Guideline:

- If any unanticipated outcomes arise that affect the patient while performing this medical directive please notify Most Responsible Physician.
- Any adverse events directly resulting from the implementation of this protocol shall be reported through the LHSC Adverse Events Management Systems (AEMS) as per LHSC policy.
- Medical Directive will be reviewed bi-annually with physicians, coordinator, manager, educator, and nurses from the Paediatric Emergency Department.

Professional Staff Approvals (Physician, Dentist, Midwife):

- Identify all **Professional Staff members (less than 10 list by individual name, greater than 10 list by title & program) responsible for patients who may receive an order or procedure under this medical directive.**

NAME	DEPARTMENT / PROGRAM
Physicians at the LHSC-Victoria Hospital Children's Emergency Department	Paediatric Emergency Medicine

References

Canadian Paediatric Society. (2014). Emergency Department Use of Oral Ondansetron for Acute Gastroenteritis-Related Vomiting in Infants and Children. Canadian Paediatric Society Position Statement.

Canadian Paediatric Society. (2006). Oral rehydration therapy and early refeeding in the management of childhood gastroenteritis. Canadian Paediatric Society Position Statement.

Doan, Q., Goldman, R., & Korn, P. (2007). Gastroenteritis symptoms causing mild to moderate dehydration: The use of oral rehydration therapy (ORT) in the emergency department. BC Children's Hospital Division of Paediatric Emergency Medicine Clinical Practice Guidelines.

Freedman, S. B., Adler, M., Seshadri, R., & Powell, E. C. (2006). Oral ondansetron for gastroenteritis in a pediatric emergency department. *New England Journal of Medicine*. 354, 1698-1705.

Ozuah, P. O., Avner, J. R., & Stein, R. E. (2002). Oral rehydration, emergency physicians, and practice parameters: A national survey. *Pediatrics*. 109(2), 259-261.

Rao, S. S., Summers, R. W., Rao, G. R., Ramana, S., Devi, U., Zimmerman, B., & Pratap, B. C. (2006). Oral rehydration for viral gastroenteritis in adults: A randomized, controlled trial of 3 solutions. *Journal of Parenteral & Enteral Nutrition*. 30(5), 433-439.

Roslund G., Hepps, T. S., & McQuillen, K. K. (2008). The role of oral ondansetron in children with vomiting as a result of acute gastritis/gastroenteritis who have failed oral rehydration therapy: A randomized controlled trial. *Annals of Emergency Medicine*. 52(1), 22-29.

Administrative Authorization Approval Form

Please note: signature pages are not to be signed until the medical directive has been approved.

Name of Directive: Ondansetron

Lead Contact Person (s): Christina Scerbo, Clinical Educator & Alyson Wilson, Resource Nurse

IMPORTANT: This template is a general document that may need modification based on the needs of the directive. Please modify appropriately.

- Identify all **administrative bodies**, including individuals (PPL's, managers, directors, chiefs) and other approving bodies (i.e. Medical Advisory Committee, Drug & Therapeutics Committee) that must approve the medical directive.

Administrative Authorizations (approved by):	Signature	Date
Chair, LHSC Medical Advisory Committee – Dr. Mark MacLeod		
Chief Nursing Executive, Quality & Patient Safety Officer, and Professional Scholarly Practice – Dr. Vanessa Burkoski		
Chair, LHSC Drug & Therapeutics Committee, Dr. Philip Jones		
Site Chief, VH Paediatric Emergency Medicine – Dr. Rod Lim		
Director Children's Care – Jill Craven		
Coordinator, Paediatric Emergency Medicine – Claire Martin		
Implemented by: (Person(s) performing initiation or person representing a large group and responsible for notification of that group)	Signature	Date
Clinical Educator – Christina Scerbo		
Resource Nurse- Alyson Wilson		



Guidelines for Oral Rehydration Therapy (ORT)

Once ondansetron is administered as per medical directive ORT is initiated within 30 minutes of medication administration.

Approximate Volume of administration (Approximately 10 – 15 milliliters / kg / hour)

- Age 6 - 12 months = 5 milliliters every 5 minutes
- 1 - 5 years old = 10 milliliters every 5 minutes
- Greater than 5 years old = 15 milliliters every 5 minutes

Give first dose of ORT and inform caregiver to repeat every 5 minutes, instruct caregiver to document ORT intake and emesis.

Please complete this sheet and give it to the doctor and/or nurse when they come to assess your child.

- 6 - 12 months = 5 milliliters of fluid every 5 minutes
- 1 - 5 years old = 10 milliliters of fluid every 10 minutes
- Greater than 5 years old, and up = 15 milliliters of fluid every 5 minutes

Current Time	5 minute intervals	Volume	Vomiting/gagging	Diarrhea	Urine
	1 st dose				
	5 min				
	10 min				
	15 min				
	20 min				
	25 min				
	30 min				
	35 min				
	40 min				
	45 min				
	50 min				
	55 min				
	60 min				
Total milliliters					

Note:

1. If your child refuses to take fluids, please write "R"
2. Continue breastfeeding whenever possible. Write "BF".
3. If your child vomits, stop giving solution for 15 minutes. After 15 minutes continue with solution again every 5 minutes. If vomiting continues stop giving solution and wait to be seen by a doctor.

Clinical Assessment of Degree of Dehydration

Table 2 Clinical assessment of degree of dehydration

Degree of dehydration	Mild (5-7% body weight)	Moderate (7-9% body weight)	Severe (>10% body weight)
Fontanelle	Slightly sunken	Very sunken	Very sunken
Mucous membranes	Slightly sticky	Dry	Very dry
Skin turgor	Normal	Slightly decreased	Markedly decreased
Capillary refill time	Normal (<3 seconds)	Normal (<3 seconds)	Delayed (≥ 3 seconds)
Urine output	Normal	Slightly decreased	Decreased or absent
Mental status	Normal	Slightly fussy	Irritable or lethargic

Doan, Goldman & Korn (2007)



Flow Chart of Management of Dehydration in the Children's Emergency Department

