

The Credit Valley Hospital – CLINICAL PRACTICE GUIDELINES

Folder Name: Clinical Practice Guidelines
Date of Issue: 3/15/2011
Issued By: Dr. Mathias Gysler, Chief of Medical Staff

Title: Paediatric Gastroenteritis CPG

PURPOSE

To provide a guideline to assist physicians in the management of Paediatric Gastroenteritis.

SELECTION CRITERIA

Inclusion Criteria

Children with acute gastroenteritis and at risk for dehydration should be given an adequate trial of oral rehydration therapy (ORT). The nurse will initiate ORT in children with vomiting and diarrhea that are assessed to have mild to moderate dehydration according to the medical directive "Oral Rehydration for the Paediatric Patient".

Exclusion Criteria

Children presenting with the following should not receive oral rehydration therapy, initially;

- Bilious or bloody vomiting
- Extremely ill appearing, shocky or lethargic
- Impaired consciousness
- Paralytic ileus
- Monosaccharide malabsorption (absolute exclusion)

Relative contraindications:

- Associated significant abdominal pain
- Bloody stools

DEFINITIONS

Paediatric gastroenteritis is defined as a diarrheal disease of rapid onset, with or without accompanying symptoms and signs, such as nausea, vomiting, fever or abdominal pain. Dehydration is classified as mild, moderate, or severe. Children with symptoms of gastroenteritis who do not exhibit any of the signs suggestive of dehydration should be treated similarly with oral rehydration therapy.

ASSESSMENT AND TREATMENT AND/OR MONITORING

The correction and treatment of paediatric gastroenteritis will be according to the algorithm, titled **Oral Rehydration Therapy in Paediatric Patients with Gastroenteritis in Emergency. (Appendix A)**

Once the level of dehydration is estimated using **Clinical Assessment of Degree of Dehydration (Appendix B)**, oral rehydration solution (ORS) will be given in the amount recommended to restore hydration. The Emergency Medical Directive “Oral Rehydration for the Paediatric Patient” will direct the emergency room nurse to start ORS in mild to moderate dehydration.

Children with moderate dehydration who will not take ORT, or in situations where personnel are not available to provide intensive ORT, intravenous therapy may be required.

Children who **fail a trial of oral replacement therapy** by vomiting oral replacement fluids repeatedly, the recommendation is to consider **oral ondansetron**. See Table 1 for dosing guidelines.

Table 1: Oral ondansetron dosing guidelines:

Weight	Dose
8 -14.9 kg:	Ondansetron 2 mg
15 – 30 kg	Ondansetron 4 mg
Greater than 30 kg	Ondansetron 8 mg
Then	
Start ORT 15 minutes post administration of Ondansetron	
If child vomits within 15 minutes of administering Ondansetron, then repeat dose once , then restart ORT after 15 minutes of second dose.	

Children with severe dehydration and those with moderate dehydration who do not respond to ORT and antiemetics require admission for ongoing treatment and monitoring.

If intravenous therapy is required, the following diagnostic tests are recommended for baseline assessment. Repeat as necessary according to level of dehydration:

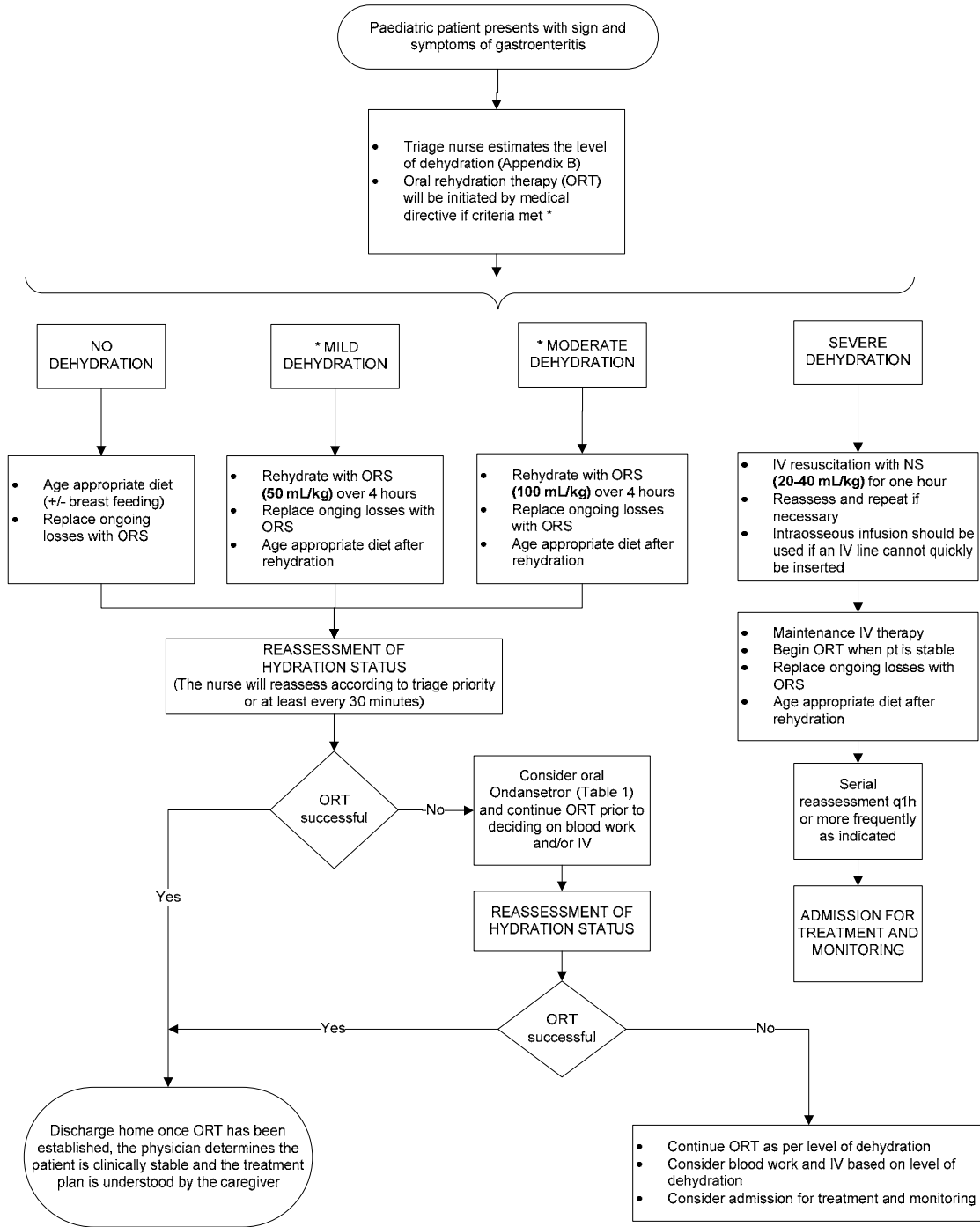
- +/- CBC
- Electrolytes
- Urea and creatinine
- Blood sugar
- +/- Venous gases
- Urine R&M including specific gravity

Discharge Instructions:

Appropriate instruction for continuing management at home and parameters that should lead to further follow up will be provided to parents by giving the discharge instruction sheet titled “Dehydration and diarrhea in children: Prevention and treatment” <http://www.caringforkids.cps.ca/whensick/Dehydration&Diarrhea.htm>

Appendix A

Oral Rehydration Therapy in Paediatric Patients with Gastroenteritis in Emergency



Appendix B: Clinical Assessment of Degree of Dehydration

(Some of these signs may not be present)

Mild	Moderate	Severe
<ul style="list-style-type: none"> • Slight decreased urine output • Slightly increased thirst • Slightly dry mucous membrane • Slightly elevated heart rate 	<ul style="list-style-type: none"> • Decreased urine output • Moderately increased thirst • Dry mucous membrane • Elevated heart rate • Decreased skin turgor • Sunken eyes • Sunken anterior fontanelle 	<ul style="list-style-type: none"> • Markedly decreased or absent urine output • Greatly increased thirst • Very dry mucous membrane • Greatly elevated heart rate • Decreased skin turgor • Very sunken eyes • Very sunken anterior fontanelle • Lethargy • Cold extremities • Hypotension • Coma

REFERENCES

Canadian Paediatric Society, Oral Rehydration Therapy and Early Refeeding in the Management of Childhood Gastroenteritis, *Canadian Journal of Paediatrics* 1994; 1(5):160-164. Reaffirmed April 2006.

<http://www.cps.ca/english/statements/n/n06-01.htm>

Canadian Paediatric Society Instructions "Dehydration and diarrhea in children: Prevention and treatment" Retrieved July 08, 2010 from

<http://www.caringforkids.cps.ca/whensick/Dehydration&Diarrhea.htm>

Child Health Network Oral Rehydration Medical Directive

DeCamp, L. R., Byerley, J., Doshi, N., & Steiner, M. (2008). Use of antiemetic agents in acute gastroenteritis. A systematic review and meta-analysis. *Arch Pediatr Adolesc Med* , 858-865.

Gener, B., Burns, J., Griffin, S., & Boyer, E. (2010). Administration of ondansetron in associated with lethal outcome. *Paediatrics* , e1-e4.

Lexi-Comp Online: Ondansetron Retrieved July 08, 2010 from

<http://online.lexi.com/crlsql/servlet/crlonline>

Paediatrics, volume 97(3), March 1996 (American Academy of Paediatrics), Practice Parameters, the Management of Acute Gastroenteritis in Young Children

Roslund, G., Hepps, T., & McQuillen, 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* , 22-29.

The Hospital for Sick Children Handbook of Paediatrics, Tenth Edition.

RELATED DOCUMENTS

Oral Rehydration for the Paediatric Patient Medical Directive [[Paralink:<Oral Rehydration for the Paediatric Patient POL MD14-3>](#)]

EDUCATION

The document leader will be responsible for an education plan to ensure staff members directed by the information contained in the clinical practice guideline are notified. New staff will receive education through hospital and/or department orientation.

EVALUATION

Emergency Room Visits for Paediatric Gastroenteritis
Paediatric Gastroenteritis Admissions

DEVELOPED BY

Paediatric Steering Committee Chairperson
Chief of Paediatrics

APPROVED BY

Medical Advisory Committee: December 2010

SUPERCEDES

2003/06 CPG 16-2 Paediatric Gastroenteritis