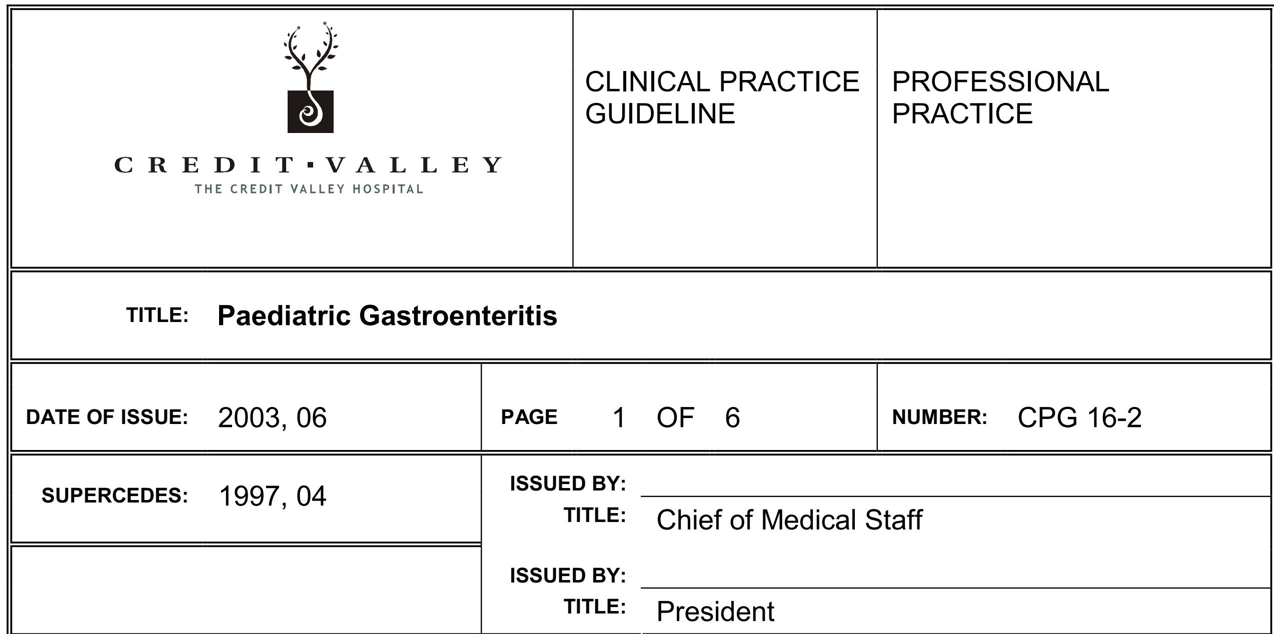


CREDIT · VALLEY THE CREDIT VALLEY HOSPITAL	CLINICAL PRACTICE GUIDELINE	PROFESSIONAL PRACTICE
TITLE: Paediatric Gastroenteritis		
DATE OF ISSUE: 2003, 06	**PAGE** 1 OF 6	**NUMBER:** CPG 16-2
SUPERCEDES: 1997, 04	**ISSUED BY:** ____ **TITLE:** Chief of Medical Staff	
	ISSUED BY: ____ **TITLE:** President	

Purpose:

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

Definition:

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.

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” MD 14-3.

Exclusion Criteria

Children presenting with bilious or bloody vomiting, associated significant abdominal pain, or who are extremely ill appearing, shocky or lethargic should not receive oral rehydration therapy, initially.

Implementation:

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

Assessment and Rehydration:

1. Once the level of dehydration is estimated using the **Clinical Assessment Tool for Dehydration (Appendix II)**, oral rehydration solution (ORS) will be given in the amount recommended to restore hydration.

No Dehydration

- Diet as tolerated (recommend low fat, bland diet +/- breast feeding). Fluid intake dictated by thirst. ORS ad lib. Reevaluate if condition deteriorates.

Mild Dehydration

- ORS at a rate of 20 mL/kg for the first hour, then 10 mL/kg/hr. Continue breast feeding.
- 5 – 10 mL/kg ORS may be given after each stool if diarrhea persists. Reevaluate at least every 2 hours.

Moderate Dehydration

- ORS at a rate of 15 – 20 mL/kg/hr with direct observation. Continue breast feeding.
  5 – 10 mL/kg ORS may be given after each stool if diarrhea persists. Reevaluate at the end of each hour of rehydration.

Severe Dehydration

- Baseline blood work (CBC, electrolytes, urea, creatinine, and venous gases) prior to initiating IV therapy with normal saline at a rate of 20 mL/kg **STAT** over 30-60 minutes. Intraosseous infusion should be used if an intravenous line cannot quickly be inserted. Continue maintenance IV therapy. Initiate ORT when stabilized based on level of dehydration as per MD's order. Serial reassessment q1h or more frequently as indicated.

In children with moderate dehydration who will not take ORT, or **who immediately vomit oral replacement fluids repeatedly,** or in situations where personnel are not available to provide intensive ORT, intravenous therapy may be required.

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

Clinical Considerations:

1. The most common oral rehydration fluids include pedialyte, gastrolyte, enfalyte or pediapops.
2. Children who present with no signs or symptoms of dehydration are the least likely to take an oral rehydration solution.

3. Caregivers and parents need to understand that most children can be treated with ORT **even in the presence of vomiting**, and that what is required is a consistent, attentive and aggressive approach. Success can be achieved even in vomiting children with small amounts of fluid given frequently. As little as 5 mL every one to two minutes will provide 150 to 300 mL/hour.
4. It is recommended that all oral rehydration fluid in infants should be administered with a syringe, medcup, or teaspoon, but not by a nipple, to ensure a **slow rate** of administration.
5. Once vomiting has stopped, continue with breast feeding, formula feeding or milk feeds and/or low fat, bland food in small frequent amounts depending on the age of the child. Fluids containing high amounts of sugar (e.g. apple juice, gatorade, etc.) should be avoided.
6. Antidiarrheal drugs, antibiotics and antiemetic therapy are rarely indicated in gastroenteritis in childhood and should be discouraged. Physicians **who feel that antiemetic therapy is indicated in a given situation should be aware of potential adverse effects."** [1] Anti-emetics can mask the progress of the child by causing undue sedation.
7. 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 "**Vomiting and diarrhea discharge instructions.**"

Evaluation Criteria:

Indicators:

- Number of ER visits with Paediatric Gastroenteritis/Denominator
- Number of ER return visits within 48 hours with Paediatric Gastroenteritis/Failure indicator
- Number of admissions with Paediatric Gastroenteritis/Denominator

References:

1. 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 2000.

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

3. Canadian Paediatric Society Guideline entitled, "What to Do When Your Child is Vomiting and has Diarrhea"

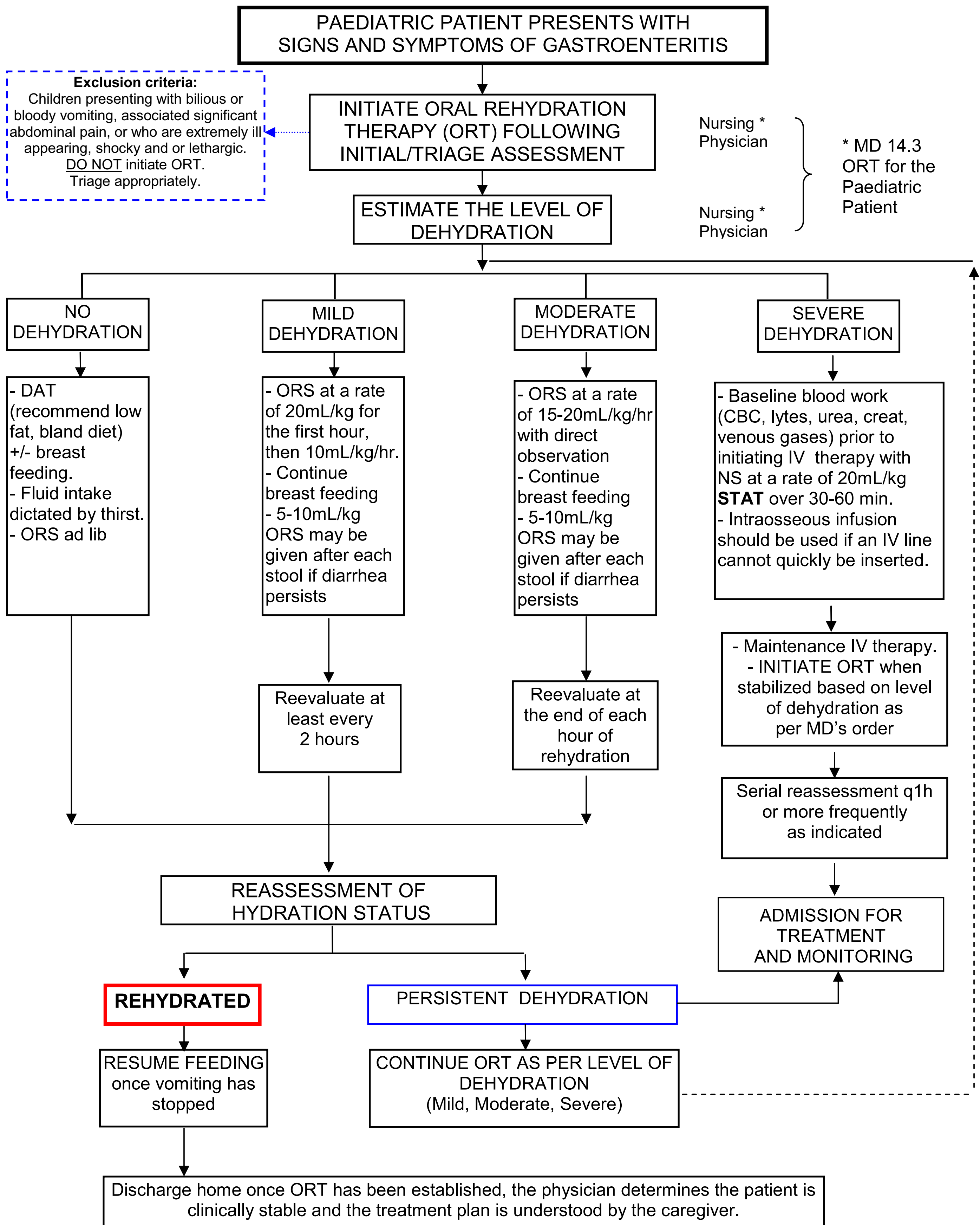
4. Child Health Network Oral Rehydration Medical Directive

5. ENPC Provider Manual, 2nd Edition, 1998 Emergency Nursing Association Specific Gravity: Trillium Hospital Management of Gastroenteritis COTC physician's order sheet

Approval:
Emergency Programme Steering Committee: May 2003
Paediatric Programme Steering Committee: June 2003
Clinical Quality Care Committee: June 2003
Professional Practice Committee: June 2003
Medical Advisory Committee: September 08, 2003

Appendix I

Oral Rehydration Therapy in Paediatric Patients with Gastroenteritis



Appendix II

Clinical Assessment Tool for Dehydration

	Mild	**Moderate**	**Severe**
% of loss of body weight	5%	10%	15%
Vital signs for Age			
• Heart Rate	N or slightly increased	Increased	Increased
• Respiratory Rate	N	N or slightly increased	Increased
• Blood Pressure	N	N	Decreased
Skin			
• Capillary refill	< 2 sec	2 – 3 sec.	> 3 sec. (Skin mottling)
• Turgor	N	Slightly decreased	Tenting
• Mucus Membranes	N to dry	Dry to sticky	Very dry – parched
• Anterior Fontanel	N	Depressed	Depressed
Eyes			
• Tearing	N	Decreased	Absent
• Appearance	N	Sunken	Sunken
CNS			
• Mental Status	Alert and Active	Restless or Lethargic	Limp/drowsy/comatose
Urine			
• Volume	N to decreased	Oliguria	Oliguria to Anuria
• Specific Gravity • (N 1.015)	1.020	1.025	> 1.025

(N = within normal limits)