

	Policy:	Protocol for Oral Rehydration-Pediatrics
	Number:	
Approved by: MAC November 2008	Manual:	
Signature:	Section:	
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Procedure:

Oral Rehydration solution 45-60 mmol/L sodium (Pedialyte)

- 50 ml/kg over 4 hours for mild dehydration or
- 100 ml/kg over 4 hours for moderate dehydration and
- For each subsequent stool add ORT 10 ml/kg to 4 hr total and for any subsequent emesis add ORT volume for volume to 4 hour total

* If the patient refuses to drink the solution, may substitute Pediapops (frozen form of oral rehydration fluid)

* May add sugar-free flavouring powder (Crystal Light with aspartame) to disguise taste. Permission should be obtained from the parent/guardian prior to giving aspartame-containing fluids

See Summary below

Indications:

- Child must have vomiting and/or diarrhoea and have signs of mild or moderate dehydration as described in the table “Clinical Signs of Dehydration” below.
- 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 table below) Urine output (can be estimate i.e. # of wet diapers over past 6-8 hours and judgement of small, medium or large volume of urine by parent’s estimate)
 - History of oral intake and the number of stools

NOTE: This directive may only be used for mild-moderate dehydration. If child has severe dehydration, notify physician immediately.

Contraindications:

Do not implement directive and notify physician immediately if:

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

- Clear fluids such as fruit juices, soft drinks, popsicles or sports drinks are not appropriate and should not be used for oral rehydration, unless it is the only fluid the child will accept and parents insist.

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**Guidelines:
See Emesis Protocol**

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

Summary of ORT (Oral Rehydration Therapy)		
Assessment	<i>Mild Dehydration 0-5%</i>	<i>Moderate Dehydration 5-10%</i>
Over first 4 hours	<ul style="list-style-type: none"> • ORT 50 ml/kg • Replace each stool loss at 10 ml/kg • Replace emesis losses at volume for volume 	<ul style="list-style-type: none"> • ORT 100 ml/kg • Replace each stool loss at 10 ml/kg • Replace emesis losses at volume for volume
Reassess intake and patient response every 30 minutes		
If intake poor or condition deteriorates, notify physician immediately.		

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

References:

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4. Connors GP, Barker WH, Mushlin AI, Goepf JG. Oral versus intravenous: rehydration preferences of pediatric emergency medicine fellowship directors. *Pediatr Emerg Care.* 2000;16:335-338
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6. Atherly-John YC, Cunningham SJ, Crain EF. A randomized trial of oral vs intravenous rehydration in a pediatric emergency department. *Arch Pediatr Adolesc Med.* 2002;156:1240-1243

7. *Fonseca BK, Holdgate A, Craig JC. Enteral vs intravenous rehydration therapy for children with gastroenteritis: a meta-analysis of randomized controlled trials. Arch Pediatr Adolesc Med. 2004;158:483-490*