

PAEDIATRIC NURSING PRACTICE MANUAL
SECTION 14

GASTROENTERITIS

14.1 NURSING MANAGEMENT OF YOUNG CHILDREN AND INFANTS WITH GASTROENTERITIS

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Aims

1. To restore hydration status and electrolyte imbalance in a safe and timely manner.
2. To *maintain* optimal hydration status and facilitate a prompt return to normal fluid and nutritional intake.
3. Promptly detect and manage complications or deterioration in the child's condition in a timely manner.
4. Prevent skin breakdown/excoriation.

Key points

1. Vomiting alone should not be diagnosed as gastroenteritis as per [ED Vomiting](#) Guidelines.
2. A stool specimen is not required for all children with diarrhoea and vomiting.
3. Continual assessment for clinical signs of deterioration/worsening dehydration is essential.¹ As listed below in table 1.
4. Report signs of deterioration to the child's treating medical team immediately.
5. For the prevention and management of excoriated skin refer to [PNPM 3.2.5](#)
6. Alternative diagnosis should be considered in the presence of:¹
 - abdominal pain with significant tenderness / distension / mass / guarding
 - persistent diarrhoea (> 10 days)
 - blood in stool and/or vomit
 - looks very unwell out of proportion with degree of dehydration
 - bilious (green) vomit
 - neck stiffness

Care on Admission

1. Isolate the child according to Infection Control precautions (contact/orange card). The child will usually remain isolated until discharge.
2. Obtain the child's bare weight and height (length for infants) and record on the weight chart.
3. Record a full CEWT assessment on admission to the ward and continue the observation plan as ordered by the medical team or as the child's condition dictates.

4. Assess the child for signs of dehydration and document in the child's progress notes:^{4,5}

Mild Weight loss < 5%	Mild-Moderate Weight loss 5-8%	Severe Weight loss ≥ 9%
<ul style="list-style-type: none"> No physical signs Thirst Dry mucous membrane Reduced urine output 	<ul style="list-style-type: none"> Dry mucous membranes Reduced urine output Tachycardia Sunken eyes (and minimal or no tears) Diminished skin turgor (pinch test 1-2 sec) # Altered neurological status (drowsiness, irritability) Deep (acidotic) breathing 	<ul style="list-style-type: none"> Increasingly marked signs from the mild-moderate group, plus: Decreased peripheral perfusion-cool/mottled/pale peripheries; capillary refill time > 2 sec Anuria Hypotension Circulatory collapse

Table 1.⁵

5. If requested collect a stool specimen and send to the laboratory for microscopy, parasitic and viral studies. **Note:** The specimen should be as fresh as possible especially for parasitic studies.
6. Perform a urinalysis. If abnormal results are detected perform a repeat urinalysis once the child is rehydrated. If abnormalities are still found in this urinalysis send a clean catch specimen (MCS) to microbiology, as per [PNPM 5.2.1 Urine Collection](#).
7. A stool specimen is not routinely required but may aid diagnosis in infants/children with:¹
- severe or prolonged illness
 - frank blood present in the stools
 - suspected epidemic or food poisoning
 - recent overseas travel
 - immunocompromised.

Rehydration:

Adapted from [PMH Emergency Department Clinical Guidelines](#)

- Children with fluid volume deficit related to diarrhoea and vomiting will usually be rehydrated within 12-16 hours of admission.⁵
- Enteral rehydration is the preferred and safest route for fluid replacement.^{1,3}
- The volume and duration of fluids are calculated based on the child's age, weight and degree of dehydration by the treating medical team. Children with proven hypernatremia may be rehydrated over 12 hours (enteral) or 48-72 hours (IV).
- Children with severe dehydration will most often require a rapid fluid bolus of 10-20mL/kg as the initial treatment for volume replacement. Intravenous fluids may be initiated following assessment of serum electrolytes and haemodynamic status.
- Serum electrolytes must be checked prior to commencement of IV therapy.
- On admission to the ward commence the child on clear fluids consisting of an oral electrolyte solution (eg. glucolect or gastrolyte) or water. Usual formula or breast milk may also be given. Small amounts given frequently may be better tolerated during the initial stages of rehydration.
- Avoid giving fluids with high sugar content such as fruit juice and soft drinks (fizzy or flat) as this can increase the osmotic load and make the diarrhoea worse.^{1,3,4}



Ongoing Management

1. Maintain accurate fluid balance and hydration assessment. Record all intake, urine output and gastric losses.
2. Weigh the child daily, or more frequently if the child has severe dehydration and severe gastric losses. The medical team may request 4-6hourly weights for severe dehydration/weight loss.
3. Provide education to parents/family on hand hygiene and infection control measures to prevent the spread of gastroenteritis.
4. Once the child is rehydrated, consider ceasing enteral fluid infusions - confirm with medical team. Encourage oral fluids and usual dietary intake unless otherwise indicated.
5. Continue to re-assess for any increase in symptoms or deterioration in condition for at least 4-6 hours post ceasing of the infusion.

Dietary Management

1. Breast feeding may continue throughout the illness.^{1, 2}
2. Once the child has been rehydrated, resume formula feeds (at full strength) and/or diet. Avoid very sweet and fatty foods.
3. Consider turning off nasogastric infusions of glucolect at 6am to encourage eating and drinking at breakfast time.
4. Avoid giving full strength fruit juices and soft drinks until the diarrhoea has stopped.¹
5. **Lactose intolerance** is not uncommon in infants following gastroenteritis but it is usually transient.² It is most commonly diagnosed by a positive laboratory stool test for reducing substances. Breast fed babies often have a positive result but this is not necessarily a reason to stop breast feeding. It is usually treated by reducing or eliminating lactose from the diet for as long as the intolerance is present. See [Lactose Free](#) Health Facts Sheet.
6. If diarrhoea and a positive reducing substances test still occurs while on a lactose free formula and diet, a monosaccharide intolerance may be considered. Refer to the Dietitian and Gastroenterologist for management.

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