



Clinical Management Summary

EDcare : Handbook for Emergency Practice

Available from the Amazon Kindle Bookstore

Disclaimer

Medical knowledge is continually changing in response to research and clinical experience. The authors and peer reviewers have made every effort to ensure the information and drug doses meet with the current standards of medical practice. However, in view of the possibility of human error or changes in practice or local protocols, readers are advised to check the most current information contained provided on procedures or drugs with the manufacturer of each product and their local clinical guidelines to verify the recommended dose or formula, the method and duration of administration and contraindications.

It is the responsibility of the individual clinician, based on their clinical experience and knowledge of each patient to make diagnoses, to determine drug doses and decide on the best treatment for an individual patient and to take all appropriate safety precautions. Neither the authors nor the publisher, assume any liability for any injury and/or damage to persons or property arising out of or related to any use of the material contained in this Clinical Management Summary.

Clinical Management Summary

Paediatric Gastroenteritis + Dehydration

Mild Dehydration
 (< 4% body weight loss)
 No Clinical Signs
 Vital signs normal
 Skin turgor normal



Management
 Administer Ondansetron (Do not use in child < 6 months old)

| | | | |
|--------|-----------|------------|------------|
| Weight | 8 - 15 kg | 15 - 30 kg | Over 30 kg |
| Dose | 2 mg | 4 mg | 8 mg |

Use Oral Rehydrating Solution (eg gastrolyte, hydralyte)
 Continue breastfeeding
 Most children do not require observation for > 2 hours

Trial of Fluids
 Consider trial of fluids if significant ongoing GI losses

- Give 10 - 20 ml/kg of ORS over one hour
- Admit if continuing significant losses
- Consider early NG rehydration in the young child

Moderate Dehydration
 (4% - 6% body weight loss)
 Thirst
 Tachycardia / Tachypnoea
 Delayed cap refill 2 - 3 secs
 Decreased skin turgor



Management
 Ondansetron in child > 6 months. (See dosing above)
 Begin rehydration. Options include :

- *Oral route* : Administer ORS (10 - 20 ml/kg/hr)
- *Rapid NG Rehydration* (using ORS)
 Use in infants > 6 months old
 Rate = 25ml/kg/hr : Refer to Rapid NG table on next page
 DO NOT use in a child with severe respiratory distress
- *Slow NG rehydration* :
 Use in Child < 6 months or Severe Abdominal pain
 Rate : Refer to Slow NG table on the next page

Nb. If continued severe vomiting : Slow NG rehydration rate by half or commence IV rehydration

Admission/Transfer for Rehydration / Observation

Severe Dehydration = Shock
 (≥ 7% body weight loss)
 Drowsy
 Marked tachycardia
 Cool pale/cyanosed peripheries
 Capillary refill > 3 secs
 Tachypnoea / Acidotic breathing



Management
 Obtain IV access. Consider intraosseous.

- Treat Shock : IV 0.9% NS 20ml/kg (May repeat x 1)
- Check BGL and treat hypoglycaemia
- Measure electrolytes and renal function

IV Rehydration
 Use 0.9% Normal Saline + 5% Dextrose

- Child > 4 years : 10ml/kg/hour for 4 hours. Reassess
- Child ≤ 4 years use table to determine infusion rate

If Potassium < 3 mmol/l : Add KCL : 20mmol/1000ml
 Check electrolytes at least every 24 hours

Discuss with Retrieval / Intensive Care

Paediatric Nasogastric Rehydration

Rapid Nasogastric Rehydration Table

Use in infants > 6 months old

| Rapid Nasogastric Rehydration : Recommended hourly rate | | |
|--|------------|---------------------|
| Suitable for the majority of patient with gastroenteritis and moderate dehydration | | |
| Weight (kg) | (mls/hour) | Total infusion time |
| 7 | 175 | 4 hrs |
| 8 | 200 | 4 hrs |
| 9 | 225 | 4 hrs |
| 10 | 250 | 4 hrs |
| 12 | 275 | 4 hrs |
| 14 | 300 | 4.5 hrs |
| 16 | 300 | 5 hrs |
| 18 | 300 | 6 hrs |
| 20 | 300 | 6.5 hrs |

Slow Nasogastric Rehydration Table

Use in infants < 6 months and in children with significant abdominal pain.

| Slow Nasogastric Rehydration : Recommended hourly rate | | | | |
|--|---------------------------------|-------------------------|-------------------------------|-------------------------|
| Indications : Infants < 6 months, Associated comorbidities, Significant abdominal pain | | | | |
| Weight (kg) | Child with Moderate Dehydration | | Child with Severe Dehydration | |
| | 0 - 6 hours (mls/hour) | 7 - 24 hours (mls/hour) | 0 - 6 hours (mls/hour) | 7 - 24 hours (mls/hour) |
| 3 | 30 | 20 | 50 | 20 |
| 4 | 40 | 30 | 65 | 30 |
| 5 | 50 | 35 | 80 | 35 |
| 6 | 60 | 40 | 100 | 40 |
| 7 | 70 | 45 | 115 | 45 |
| 8 | 80 | 50 | 130 | 50 |
| 9 | 90 | 55 | 150 | 55 |
| 10 | 100 | 60 | 165 | 60 |
| 12 | 120 | 65 | 200 | 65 |
| 15 | 150 | 70 | 250 | 70 |
| 20 | 200 | 85 | 285 for 7 hours | 85 for 17 hours |
| 30 | 300 | 90 | 300 for 10 hours | 115 for 14 hours |

Paediatric Intravenous Rehydration Table

| Intravenous Rehydration : Recommended IV rate for starting after treating shock | | | |
|---|--------------------------|-------------|--------------------------|
| Weight (kg) | IV Fluid Rate (mls/hour) | Weight (kg) | IV Fluid Rate (mls/hour) |
| 3 | 20 | 12 | 75 |
| 4 | 25 | 15 | 90 |
| 5 | 30 | 20 | 100 |
| 6 | 40 | 30 | 135 |
| 7 | 45 | 40 | 165 |
| 8 | 50 | 50 | 195 |
| 9 | 60 | 60 | 225 |
| 10 | 65 | | |