

# Annex 1

## MANAGEMENT OF CHILD WITH DIARRHOEA, WITH OR WITHOUT VOMITING IN HOSPITAL

### INITIAL ASSESSMENT

- Exclude non-gastroenteritis causes of diarrhoea:
  - Acute: e.g. urinary tract infection, acute appendicitis, peritonitis, intussusception, antibiotic toxicity, sepsis
  - Chronic: e.g. milk allergy/intolerance, gluten sensitivity, ulcerative colitis, Crohn's disease, cystic fibrosis, Hirschsprung's disease

### ASSESSMENT OF SEVERITY OF DEHYDRATION

<u>None or Minimal</u>	<u>Moderate</u>	<u>Severe</u>
<ul style="list-style-type: none"> <li>• Normal capillary refill time (1-2 seconds)</li> <li>• Skin pinch retracts immediately</li> <li>• Normal respiratory pattern</li> <li>• Normal conscious state</li> <li>• Normal drinking</li> <li>• Normal urine output</li> </ul> <p><i>These signs correspond to &lt;5% lost body weight</i></p>	<ul style="list-style-type: none"> <li>• Delayed capillary refill (3-4 seconds)</li> <li>• Skin pinch retracts slowly (1-2 seconds)</li> <li>• Increased respiratory rate<sup>#</sup></li> <li>• Restless, irritable</li> <li>• Tachycardia<sup>#</sup></li> <li>• Drinks eagerly, increased thirst</li> </ul> <p><i>These signs correspond to 5-10% lost body weight</i></p>	<ul style="list-style-type: none"> <li>• Very delayed capillary refill (&gt;4 seconds), mottled skin</li> <li>• Skin pinch retracts very slowly (&gt;2 seconds)</li> <li>• Deep, acidotic breathing</li> <li>• Lethargic, unconscious</li> <li>• Deeply sunken eyes</li> <li>• Unable to drink</li> <li>• Hypotensive</li> </ul> <p><i>These signs correspond to &gt;10% lost body weight</i></p>

**N.B. If patient has signs or symptoms across categories, always treat according to their most severe features.**

**Take special care and consult appropriate specialist clinicians if the child:**

- Is less than 6 months old
- Has had more than 8 significant diarrhoeal stools or more than 4 significant vomits in the last 24 hours
- Has co-morbid conditions such as short gut, developmental delay or metabolic illnesses

### INITIAL TREATMENT

<p><b>Increase frequency and volume of usual drinks</b></p> <ul style="list-style-type: none"> <li>• Weigh child</li> <li>• Give parent advice about:                             <ol style="list-style-type: none"> <li>1. Appropriate fluids, such as: breast milk, ORS<sup>*</sup>, formula, unsweetened fruit juice diluted 1:4, or cordial diluted 1:10</li> <li>◦ Avoiding soft drinks and undiluted fruit juice</li> <li>◦ Using cup, bottle, spoon, dropper, syringe or icy-pole as child prefers</li> <li>◦ Allowing normal foods</li> </ol> </li> <li>• Give parent handout</li> <li>• Discharge or, if reason not to discharge (e.g. criteria to take special care as above), provide appropriate oral fluids and reassess within 1 hour</li> </ul>	<p><b>Rehydrate with Oral Rehydration Solution (ORS)<sup>*</sup></b></p> <ul style="list-style-type: none"> <li>• Weigh child and start fluid balance chart</li> <li>• Give ORS 10- 20 ml/kg/hr for 1 hour                             <ul style="list-style-type: none"> <li>◦ Give small amounts - 5mls/kg/15 minutes whenever possible</li> <li>◦ Use cup, bottle, spoon, dropper, syringe or icy-pole as child prefers</li> </ul> </li> <li>• Give parent handout</li> <li>• Reassess after 1 hour</li> </ul>	<p><b>Rehydrate with intravenous (IV) fluids</b></p> <ul style="list-style-type: none"> <li>• Weigh child and start fluid balance chart</li> <li>• Take blood for urgent assessment of glucose, urea, creatinine, electrolytes and bicarbonate when inserting IV cannula</li> <li>• Give bolus of normal saline 20ml/kg IV</li> <li>• Notify senior clinician</li> <li>• Reassess 10-15 minutes after bolus</li> </ul>
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### RESPONSE TO INITIAL TREATMENT

TOLERATING ORAL FLUIDS	NOT TOLERATING ORAL FLUIDS	RESPONDING	NOT RESPONDING
<b>CONTINUING TREATMENT</b>			
<ul style="list-style-type: none"> <li>• Continue oral fluids 10-20 ml/kg/hr for up to 3 hours</li> <li>• Reassess hourly</li> <li>• Allow normal foods</li> </ul>	<ul style="list-style-type: none"> <li>• Insert nasogastric tube (NGT)</li> <li>• Give ORS<sup>*</sup> via NGT 20 ml/kg/hr for up to 4 hours</li> <li>• If persistent vomiting consider reducing rate of NG fluids or change to IV normal saline 20ml/kg/hr</li> <li>• Reassess hourly</li> <li>• Offer oral fluids</li> <li>• Allow normal foods</li> </ul>	<ul style="list-style-type: none"> <li>• Continue IV rehydration with normal saline 10ml/kg/hr</li> <li>• Reassess hourly</li> <li>• Offer oral fluids</li> <li>• Allow normal foods</li> </ul>	<ul style="list-style-type: none"> <li>• Give further bolus of normal saline 20ml/kg IV</li> <li>• Discuss with senior clinician or High Dependency Unit/Intensive Care Unit and arrange transfer</li> </ul>

### RESPONSE TO CONTINUED TREATMENT

<p><b>RESPONDING</b></p> <ul style="list-style-type: none"> <li>• Continue rehydration until no or minimal signs of dehydration</li> <li>• Ensure child is tolerating oral fluids</li> <li>• Provide patient information, including reasons to return</li> <li>• Fax or post letter to GP</li> <li>• Discharge</li> </ul>	<p><b>NOT RESPONDING</b></p> <ul style="list-style-type: none"> <li>• Consider in consultation with senior clinician</li> <li>• Reconsider diagnosis</li> <li>• Continue to rehydrate - use nasogastric/intravenous fluids</li> </ul>
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