

Childhood Gastroenteritis

- b) Intravenous interventions (IV):
 - IV fluids are required when shock is suspected or confirmed and requires urgent hospital transfer.
 - when intravenous access cannot be established, intra-osseous fluids may be required.
- c) Other treatments:
 - antibiotics, antidiarrhoeals and anti-emetics are not routinely used in the management of gastroenteritis.

Considering the three distinct groups of children identified by clinical assessment:

1. In those children **not clinically dehydrated**:
 - fluid intake should be actively encouraged (e.g. milk, water, squash) – under-5s need approximately 10 ml of fluid every 10 minutes.
 - in infants, breastfeeding and other milk feeds should be continued.
 - in older children, fruit juices and fizzy drinks must be stopped.
 - oral rehydration salt (ORS) solutions should be offered to those at increased risk of dehydration as supplemental fluids, although toddlers and small children frequently refuse ORS because of the taste!
 - if oral intake is insufficient or if the child is persistently vomiting, they should be transferred to secondary care for NG or IV fluid replacement. (Inpatient management often includes a trial of ORS or NG fluids prior to IV fluid replacement.)
2. Any child found to be **clinically dehydrated** must be taken to hospital (refer to red flag system,  see Table 3.81). They will need additional fluids to not just **maintain** their normal body water but also to replace their fluid losses.
3. **Clinically shocked** children require intravenous fluid resuscitation and urgent hospital transfer:
 - a rapid 20 ml/kg IV of infusion **sodium chloride 0.9%** may be given but should not delay hospital transfer.
 - clinical response to fluid boluses must be monitored.
 - if shock persists, this infusion should be repeated and other causes of shock considered – **refer to 0.9% sodium chloride guideline**.

Information and advice for parents and carers

Advise parents, carers and children that:

- good handwashing is essential to prevent the spread of gastroenteritis to themselves and other family members; use soap (liquid if possible) in warm, running water followed by careful drying.
- wash hands after going to the toilet (children) or changing nappies (parents/carers) and before preparing, serving or eating food.
- infected children should not share towels.
- children should not go to school or other childcare facility while they have diarrhoea or vomiting caused by gastroenteritis and must stay away for at least 48 hours after the last episode of diarrhoea or vomiting.
- children should not swim in swimming pools for 2 weeks after the last episode of diarrhoea.

6. Referral Pathway

Children with gastroenteritis that are not dehydrated or shocked can initially be managed at home; if their condition progresses seek an additional medical opinion (GP, OOH, Emergency Department, Paediatrician) (see 'Safety Netting' below).

Hospital transfer is required if:

- Oral intake is insufficient.
- The child is persistently vomiting.
- A child is found to be clinically dehydrated.
- A child is found to be clinically shocked (Emergency Transfer).
- A child requires intravenous therapy.
- Suspecting an alternative cause for the child's symptoms e.g. UTI, meningococcal disease.
- Additionally some children's social circumstances will dictate additional/continued involvement of healthcare professionals.

Give the following advice for non-dehydrated children managed at home.

Nutritional considerations

During rehydration:

- Continue breastfeeding.
- Give full-strength milk straight away.
- Continue the child's usual solid food.
- Avoid fruit juices and fizzy drinks until the diarrhoea has stopped.
- Consider giving an extra 5 ml/kg of ORS solution after each large watery stool in children at increased risk of dehydration.
- If dehydration recurs after rehydration, restart oral rehydration therapy.

'Safety netting' should be provided for children who do not require referral, giving written information to parents and carers on how to:

- Recognise developing red flag symptoms ( see Table 3.81), and get immediate help from an appropriate healthcare professional if red flag symptoms develop and
- (if necessary) make arrangements for follow-up at a specified time and place i.e. face-to-face assessment.

Consider dehydration risk factors when interpreting symptoms and signs (see Table 3.81).

Within the category of 'clinical dehydration' there is a spectrum of severity indicated by increasingly numerous and more pronounced symptoms and signs.

Within the category of 'clinical shock' one or more of the symptoms and/or signs listed would be expected to be present.

Dashes (–) indicate that these clinical features do not specifically indicate shock but may still be present. Symptoms and signs with red flags () may help to identify children at increased risk of progression to shock.

If uncertain, manage as if the child has those red flag symptoms and/or signs.