

Patient Presents

Suspected Gastroenteritis?	
History of diarrhoea or vomiting	Consider differential diagnosis
Assessment of vital signs—Temp / Heart	Risk factors of dehydration (Fig.1)

Do the symptoms and / or signs suggest an immediately life threatening illness?

Yes → **Refer immediately to emergency care**
 Call paediatric registrar. Stay with child whilst waiting and prepare documentation

Yes → **Discuss with Paediatrician**

Consider any of the following as possible indicators of diagnoses other than gastroenteritis

- Fever—Temperature of >38°C
- Altered state of consciousness
- Signs of meningism
- Blood in stool
- Bilous (green) vomit
- Vomiting alone
- Recent Head injury
- Recent burn
- Severe localised abdominal pain
- Abdominal distension or rebound tenderness
- Consider diabetes

Clinical Findings	Green Low Risk	Amber Intermediate risk	Red high risk
Age	• Over 3 months old	• Over 3 months old	
Behaviour	• Responds normally to social cues • Content / smiles • Stays awake / awakens quickly • String normal crying / not crying • Appears well	• Altered response to social cues • No smile • Decreased activity • Irritable • Lethargic • Appears unwell	• No response to social cues • Unable to wake or if woken stay awake • Weak, high pitched or continuous cry • Appears ill to healthcare professional
Skin	• Normal skin colour • Warm extremities • Normal turgour	• Normal skin colour • Warm extremities • Reduced skin turgour	• Pale, mottled, ashen, blue • Cold extremities
Hydration	• CRT <2 secs • Moist mucous membranes (except after drink) • Fontanelle normal	• CRT 2-3 secs • Dry mucous membranes (except for mouth breather) • Sunken fontanelle	• CRT > 3 seconds
Urine Output	• Normal urine output	• Reduced urine output / no urine output for 12 hours	• No urine output for 24 hours
Respiratory	• Normal breathing pattern and rate	• Normal breathing pattern and rate*	• Abnormal breathing / tachypnoea
Heart rate	• Heart rate normal • Peripheral pulses normal	• Mild tachycardia • Peripheral pulses normal	• Severe tachycardia
Eyes / other	• Not sunken	• Additional parent / carer support required	

*** Normal paediatric values**

APLS ^T	Respiratory rate at rest (b/min)	Heart rate (bpm)
<1	30-40	110—160
1-2 yrs	25-35	100—150
>2-5 yrs	25-30	95—140
5-12 yrs	20-25	80-120
>12 yrs	15-20	60—100

^T Advanced paediatric Life Support The Practical Approach 5th edition, Advanced Life Support Group edited by Martin Samuels, Susan Wieteska, Wiley-Blackwell / 2011 BMJ books

Fig 1: Children at increased risk of dehydration:

- Aged <1 year old (and especially <6 month age group)
- Have not taken or have not been able to tolerate fluids before presentation
- Have vomited three times or more in the last 24 hours
- History of faltering growth

Fig 2: Management of Clinical Dehydration

- Trial of oral rehydration fluid (ORS) 2 mls/kg every 10 minutes.
- Consider checking blood glucose, especially in <6 month age group.
- Consider referral to acute paediatric community nursing team if available.
- If child fails to improve within 4 hours refer to paediatrics
- Reintroduce breast / bottle feeding as tolerated
- Continue ORS if ongoing losses.

All Green NO Amber, NO Red ↓

Continue with breast or bottle feeding
 Encourage fluid intake, little and often eg 5mls every 5 mins.
 Children at increased risk of dehydration (See Fig 1) Confirm they are comfortable with decisions / advice given and then think “Safeguarding” before sending home.

Any Amber, NO Red ↓

Begin Management of clinical dehydration (see Fig 2)
 Agree management plan with parents & seek advice from paediatric team:
 • Countess of Chester— 01244 365000, bleep Paediatric Registrar
 • Macclesfield District Hospital - 01625 42100 bleep 3494
 • Leighton Hospital -01270 255141, bleep Paediatric Registrar

Any Red ↓

Refer immediately to emergency care— consider 999 / check glucose
 Call paediatric registrar
 Consider instigating management of clinical hydration algorithm (see fig 2)
 Consider commencing high flow oxygen support.