

Gastroenteritis Pathway

Suspected Gastroenteritis





- The passage of ≥ 3 loose/watery stools per day
- Vomiting

Risk factors for severe disease

- $<1y$ (especially $<6m$)
- Low birth weight infants
- Vomited $\geq 3x/24h$
- ≥ 6 stools/24h
- Urinated $<2x/24h$
- Not tolerating ORS
- Stopped breastfeeding
- History of faltering growth

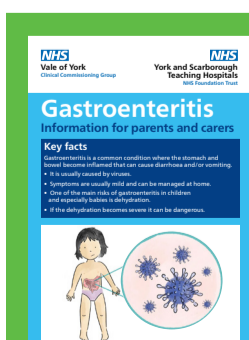
Do the symptoms and/or signs suggest an **immediately life threatening (high risk)** illness?

- Systemic infection, e.g. UTI, pneumonia
- Surgical (bilious vomit localised abdo pain, abdo distension), e.g. appendicitis, intussusception, sub-acute bowel obstruction
- Metabolic, e.g. DM
- Antibiotic associated diarrhoea
- Haemolytic Uraemic Syndrome

	Green – Low Risk	Amber – Intermediate Risk	Red – High Risk
 Activity	<ul style="list-style-type: none"> Responds normally to social cues Content/smiles Stays awake/awakens quickly Strong normal cry 	<ul style="list-style-type: none"> Altered response to social cues No smile Reduced activity 	<ul style="list-style-type: none"> Not responding normally or no response to social cues Unable to rouse or if roused does not stay awake Weak, high pitched or continuous cry Appears ill
 Skin	<ul style="list-style-type: none"> Normal skin colour CRT <2 secs Normal skin turgor Warm extremities Normal eyes 	<ul style="list-style-type: none"> Normal skin colour Pallor reported by parent/carer Cool peripheries Reduced skin turgor CRT 2-3 secs 	<ul style="list-style-type: none"> Pale, mottled, ashen Cold extremities CRT >3 secs Sunken eyes
 Respiratory	<ul style="list-style-type: none"> Normal breathing 	<ul style="list-style-type: none"> Breathing at high end of normal rate for age 	<ul style="list-style-type: none"> Tachypnoea
 Circulation	<ul style="list-style-type: none"> Tolerating 75% of fluid Normal urine output Peripheral pulses normal HR normal Moist mucous membranes 	<ul style="list-style-type: none"> 50-75% fluid intake over 3-4 feeds Dry mucous membranes Reduced urine output (>1 wet nappy/24h) Peripheral pulses normal Tachycardia 	<ul style="list-style-type: none"> 50% or less fluid intake over 2-3 feeds Dry mucous membranes Reduced urine output (no wet nappy/24h) Peripheral pulses weak Tachycardia Hypotensive
		<ul style="list-style-type: none"> Parental anxiety 	

GREEN ACTION

- Offer ORS if child at risk of dehydration
- Fluid intake, little and often
- Continue breast/bottle feeding



- Provide information
- Confirm they understand

AMBER ACTION

- Offer ORS in small amounts (50ml/kg of ORS + continuing losses over 4h)
- If breastfed, supplement with ORS
- Avoid solid food until rehydrated
- Check capillary blood glucose

- Same day review
- Consider booking into PATH

AND

If you feel the child is ill or struggling with hydration discuss with paediatrician on-call



RED ACTION

- Refer immediately to emergency care or paediatric unit – consider 999
- Commence stabilisation treatment

Calculation of maintenance fluid requirements

The daily fluid requirement can be estimated from the child's weight using the following formula:

1 st 10kg of weight	100ml/kg	Per 24h
2 nd 10kg of weight	50ml/kg	
All additional kg of weight above 20kg (up to 50kg)	20ml/kg	

For example, a 30kg child

First 10kg = 10kg x 100ml/kg = 1000ml

Second 10kg = 10kg x 50ml/kg = 500ml

Additional kg = 10kg x 20ml/kg = 200ml

Total = 1700ml/24h



Calculation of fluid deficit

If dry - give 50ml/kg (5%) for fluid deficit replacement, over 4 hours in addition to maintenance fluid requirements

For example, a 30kg child will require

Deficit = 30kg x 50ml/kg = 1500ml/4h
(in addition to maintenance fluid)

Trial ORS ml/h according to weight, given in 5-10 min intervals

Weight (kg)	Maintenance volume in 24h	Maintenance fluid every 10 min (ml) assuming 12h non-drinking time in 24h	Hourly volume (ml) based on 12h non-drinking time
5	500	7	42
6	600	8.5	50
7	700	10	59
8	800	11	67
9	900	13	75
10	1000	14	84
11	1050	15	88
12	1100	16	92
13	1150	16	96
14	1200	17	100
15	1250	18	105
16	1300	18	109
18	1400	20	117
20	1500	21	125
25	1600	23	134
30	1700	24	142
35	1800	25	150
40	1900	26	159
≥45	2000	28	167