Diarrhoea and/or Vomiting (Gastroenteritis) Pathway

Clinical Assessment / Management Tool for Children with suspected Gastroenteritis

Management - Acute Setting

Patient presents with or has a history of diarrhoea and / or vomiting

Triage

Assessment including PEWS Score

Temp, Heart Rate, RR, CRT, O_2 Sats, BP, Blood Glucose (if amber/red features)

Nursing Assessment – History, Hydration, Antipyretics

Start fluid challenge

Isolate to limit cross infection

Risk factors for dehydration – see figure 3

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

Yes

Contact Lead ED / Paediatric Doctor

Move to Resuscitation Area [see Fig 1]

Resus Call ("2222")

Consider alternative diagnoses to gastroenteritis if:
• Fever (>38) • Shortness of breath • Altered consciousness • Signs of meningism • Blood in stool • Bilious (green) vomit
• Vomiting alone • Recent head Injury • Recent burn • Severe localised abdominal pain • Abdominal distension or rebound tenderness
• Consider diabetes

Discuss with Lead ED / Paediatric Doctor

Table 1

Clinical Findings	Green - low risk	Amber - intermediate risk	Red - high risk
Age	Over 3 months old	Under 3 months old	
Behaviour	• Responds normally to social cues • Content / smiles • Stays awake / awakens quickly • Strong 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 rouse or if roused does not stay awake • Weak, high pitched or continuous cry • Appears ill to a healthcare professional
Skin	• Normal skin colour • Warm extremities • Normal turgor	• Normal skin colour • Warm extremities • Reduced	• Pale / mottled / blue • Cold extremities
Hydration	• CRT < 2 secs • Moist mucous membranes • Fontanelle normal	• CRT 2-3 secs • Dry mucous membranes • Sunken fontanelle	• CRT> 3 secs
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	• Tachycardia: HR > 150 beats/min if age 1-2 years; HR > 140 beats/min if age 3-5 years; HR > 120 beats/min if 6-11years; HR > 100 beats/min if age >12 years • Peripheral pulses normal	• Weak peripheral pulses
Eyes	• Not sunken	• Sunken Eyes	
Other		• Additional parent/carer support required	

Fig 1 Management when clinical shock suspected
- Check blood glucose and blood gas
- Give 10-20 ml/kg 0.9% Sodium Chloride or Plasmalyte IV / IO
- ➡ Reassess
- ➡ Second Bolus 10-20 ml/kg 0.9% NaCl or Plasmalyte
- ➡ Reassess
- ➡ Consider contacting SORT (023 8077 5502)

Fig 2 Management of Clinical Dehydration
- Fluid trial – Dilute apple juice/ORS 5ml every 5 mins
- Consider Ondansetron 0.1mg/kg PO/sublingual (max 4mg) if continued vomiting in context of suspected gastroenteritis
- If fluids not tolerated or hydration not improved within 2 hours of arrival to ED please refer to paediatric team
- If fluids tolerated and hydration improves proceed to green action with consideration of referral to acute paediatric community nursing team if available

Fig 3 Children at increased risk of dehydration are those:
- Aged <1 year old (and especially the < 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
- Has had six or more episodes of loose stool in the past 24 hours
- History of faltering growth

For all patients, continue monitoring following PEWS Chart recommendation

Green Action

Provide Written and Verbal advice (see patient advice sheet)
Continue with breast and / or bottle feeding
Encourage fluid intake, little and often
Children at increased risk of dehydration [see Fig 3]
Confirm they are comfortable with the decisions / advice given.

Amber Action

Begin management of clinical dehydration algorithm [see Fig 2]
Blood Glucose
Advice from Lead ED / Paediatrician should be sought and/or a clear management plan agreed with parents.
Consider referral to acute paediatric community nursing team if available

Urgent Action

Immediate Paediatric Assessment

If clinical shock suspected or confirmed follow management plan [see Fig 1]

***Normal paediatric values (APLS):**

(APLS†)	Respiratory Rate at rest: [b/min]	Heart Rate [bpm]
< 1 year	30 - 40	110 - 160
1-2 years	25 - 35	100 - 150
> 2-5 years	25 - 30	95 - 140
5-12 years	20-25	80-120
>12 years	15-20	60-100

† Advanced Paediatric Life Support The Practical Approach Fifth Edition Advanced Life Support Group Edited by Martin Samuels; Susan Wieteska Wiley-Blackwell / 2011 BMJ Books.

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