Diarrhoea and/or Vomiting (Gastroenteritis) Pathway

Clinical Assessment / Management for Children with suspected Gastroenteritis

Management - Combined Acute and Primary Care

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

SUSPECTED GASTROENTERITIS

History
Assessment of Vital Signs - Temp, Heart Rate, RR, capillary refill time
Consider differential diagnosis
Risk factors for dehydration - see Fig 1

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

Yes

- **Refer immediately** to emergency care by **999**
- Alert Paediatrician
- Stay with child whilst waiting and prepare documentation

Consider any of the following as possible indicators of diagnoses other than gastroenteritis:
•Fever: Temp > 38°C • Shortness of breath • Altered state of consciousness • Signs of meningism or sepsis • Blood in stool/ Melaena • Bilious (green) or bloody vomit • Vomiting alone • Recent head Injury • Recent burn (toxic shock) • Suspicion of poisoning • Severe localised abdominal pain • Abdominal distension or rebound tenderness/guarding • Consider diabetes

Discuss with Paediatrician

Table 1

Clinical Findings	Green - low risk	Amber - intermediate risk	Red - high risk
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 skin turgor	• Pale / mottled / ashen blue • Cold extremities
Hydration	• CRT < 2 secs • Moist mucous membranes (except after a drink) • Fontanelle normal	• CRT 2-3 secs • Dry mucous membranes (except for mouth breather) • 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	• Mild tachycardia* • Peripheral pulses normal	• Severe tachycardia* • Peripheral pulses weak
Eyes	• Not sunken	• Sunken Eyes • Additional parent/carer support required	• Hypotensive
Other			

GMC Best Practice recommends: Record your findings (See "Good Medical Practice" http://bit.ly/1DPXI2b)

Green Action

Provide Written and Verbal advice (see patient advice sheet)
Continue with breast and / 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 the decisions / advice given before sending home.

Amber Action

Begin management of clinical dehydration algorithm [see Fig 2].
Agree a management plan with parents +/- seek advice from Paediatrician.

Urgent Action

Refer immediately to emergency care - consider 999
Alert Paediatrician
Consider initiating Management of Clinical Dehydration [Fig 2] awaiting transfer
Consider commencing high flow oxygen support.
If clinical shock suspected or confirmed follow management plan [Fig 3]

Fig 1 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
- Infants who have stopped breast feeding during the illness
- Have vomited three times or more in the last 24 hours
- Has had six or more episodes of diarrhoea in the past 24 hours
- History of faltering growth

Fig 2 Management of Clinical Dehydration
- Trial of oral rehydration solution (ORS; can taste better with dilute squash added). 2mls/kg every 10 mins OR 5mls every 5minutes.
- Consider checking blood glucose, esp in <6 month age group
- If child fails to improve within 2 hours, refer to paediatrics
- Reintroduce breast/bottle feeding as tolerated
- Continue ORS if ongoing losses
- Consider Ondansetron 0.1mg/kg PO/sublingual (max 4mg) if continued vomiting in context of suspected gastroenteritis
- If fluids tolerated and clinically improves, move to green actions

Fig 3 Management of Clinical Shock
- Check blood glucose and gas
- Give 10-20ml/kg 0.9% Saline or Plasmalyte IV/IO
- If hypoglycaemic give 2ml/kg 10% Dextrose if unconscious or Dextrogel
- Reassess and give further 10-20ml/kg fluid bolus
- Reassess and liaise with STRS

***Normal paediatric values:**

(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

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