Gastroenteritis Pathway for Children 0-5 years in the acute setting

DRAFT

Patient Presents

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

Yes

Emergency treatment to commence

Transfer if appropriate to resuscitation area or high dependency space. Ensure senior doctors attend immediately. Start appropriate treatment as per APLS guidance

Consider differential diagnosis if:
temp > 39C or unusual features of illness

	Green - Low risk	Amber - intermediate	Red - high risk
Activity	Responds normally to social cues Content/Smiles Stays awake/awakes quickly Strong normal cry/not crying Normal skin colour	Altered response to social cues Decreased activity No smile	Not responding normally to or no response to social cues Appears ill to a healthcare professional Unable to rouse or if roused does not stay away Weak, high-pitched or continuious cry Pale/Mottled/Ashen/blue
Skin		Normal skin colour Warm extremeties	Cold extremeties
Respiratory	Normal breathing	Mild Tachypnoea (ref to PEWS chart)	Tachycardic (ref to PEWS chart)
Hydration	CRT ≤ 2 secs Moist mucous membranes (except after a drink) Normal urine	CRT 2-3 secs Dry mucous membrane (except after a drink) Reduced urine output (two nappies in 4hrs)	CRT >3 seconds
Pulse/Heart rate	Heart rate normal Peripheral pulse normal	Tachycardic (ref to PEWS chart)	Tachycardic (ref to PEWS chart) Peripheral pulses weak
Blood pressure	Normal (ref to PEWS chart)	Normal (ref to PEWS chart)	Hypotensive (ref to PEWS chart)
Eyes	Normal Eyes	Sunken eyes	
Additional symptoms	Vomiting AND diarrhoea, with possible fever Vomiting has lasted less than 24 hours Diarrhoea has lasted less than 7 days	Vomiting without diarrhoea of >24 hours Vomiting AND diarrhoea where vomiting has lasted more than 24 hours or diarrhoea has lasted more than 7	

All green

Any amber

Any red

Management

Isolate child
Check blood sugar
Start oral fluid challenge with ORS at triage
Reassess response to oral fluid challenge in 1 hour

Tolerates fluid challenge & observations normalise

Unable to tolerate fluid challenge or child worsons clinically

Provide discharge advice

Provide appropriate and clear guidance to the parent / carer and refer to the discharge advice sheet

Advise hand washing and hygeine measures to prevent spread

Seek expert advice

Seek advice from ED registrar
If child has failed fluid challenge and has features of dehydration then refer to paediatric SpR

Urgent Treatment

Ensure presence of senior doctor
IV cannulation
Test blood sugar
Send bloods incl gas but do not less this delay treatment
Give bolus of IV fluids of 10ml/kg of 0.9% saline, repeated within 15 minutes if no improvement
Consider broad spectrum antibiotics
Follow APLS guidelines for further resuscitation

This guidance is written in the following context;

This assessment tool is based on NICE and SIGN guidance, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. This guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient in consultation with them.

Points to consider

Be aware that children that are vomiting WITHOUT diarrhoea must be carefully evaluated as many other serious conditions can present this way

Treat babies under 6 months with caution, as they are more likely to become dehydrated, and more likely to become hypoglycaemic

It is the trust current practice to isolate children with gastroenteritis

Every child that is discharged must receive a written safety net and have it explained to them properly. Use an interpretor if necessary

Gastroenteritis Pathway for Children 0-5 years Primary care setting

DRAFT

Patient Presents

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

Yes

999 Transfer

Refer immediately to emergency care by 999 ambulance, stay with child whilst waiting and give High-Flow Oxygen support

Consider differential diagnosis if:
temp > 39C or unusual features of illness

	Green - Low risk	Amber - intermediate	Red - high risk
Activity	Responds normally to social cues Content/Smiles Stays awake/awakes quickly Strong normal cry/not crying Normal skin colour	Altered response to social cues Decreased activity No smile	Not responding normally to or no response to social cues Appears ill to a healthcare professional Unable to rouse or if roused does not stay awake Weak, high-pitched or continuious cry Pale/Mottled/Ashen/blue
Skin		Normal skin colour Warm extremeties	Cold extremeties
Respiratory	Normal breathing	Mild Tachypnoea (ref to normal values table)	Tachycardic (ref to normal values table)
Hydration	CRT ≤ 2 secs Moist mucous membranes (except after a drink) Normal urine	CRT 2-3 secs Dry mucous membrane (except after a drink) Reduced urine output (two nappies in 4hrs)	CRT >3 seconds
Pulse/Heart rate	Heart rate normal Peripheral pulse normal	Tachycardic (ref to normal values table)	Tachycardic (ref to normal values table) Peripheral pulses weak
Blood pressure	Normal (ref to normal values table)	Normal (ref to normal values tables)	Hypotensive (ref to normal values tables)
Eyes	Normal Eyes	Sunken eyes	

CRT = capillary refill time RR= respiration

All green

Any amber

Any red

Advice available if required

Phone
Paediatric SHO for admission
Paediatric Registrar/Consultant for advice

PAU Admission

Urgent Assessment at PAU

Refer the child for an urgent assessment at PAU. Call paediatric SHO to inform of admission, actively consider safety of transport of child and consider ambulance transfer if necessay

Provide discharge advice

Provide appropriate and clear guidance to the parent / carer and refer to the discharge advice sheet

Confirm they are comfortable with the decisions and advice

Registrar can book appointment at Daily

Admission not required
Agree Management Plan
Registrar provides verbal advice and GP agrees

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Good Practice
It is recommended that additional appropriate and clear guidance is provided to the parent/carer if available.

Confirm ahead of patient discharge that they are comfortable with the
decisions and advice given.

Normal Paediatric Values

Respiratory Rates according to age groups

Age	Normal RR/min	Severe Distress
<1month	40-50	>70 or <20
<1year	30-40	>70
2-5 years	20-30	>50
5-12years	20-24	>40
>12years	12-20	>40

Systolic Blood Pressure according to age group

Age	Systolic BP Normal mmHg	Systolic BP(lower limit)
0-1 month	60	50
1-12 month	80	70
1-10 years	90 +2x age	70 +2x age
>10years	120	80

Heart Rate Normal Range

Age	Heart Rate/min
<1month	100-180
<1year	110-160
2-5years	95-140

Bronchiolitis Assessment in the Emergency Department and Paediatric Department

Patient Presents

Suspected Bronchiolitis

- Coryza
- Pyrexia
- Cyanosis
- Inspiratory crackles
- Poor feeding
- Head bobbing
- Expiratory wheeze
- Tachypnoea

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

Yes

Immediate resuscitation

Move patient to resus bay or HDU space if necessary
Call for ED registrar/consultant
Ensure paediatric SpR in attendance

No

Consider differential diagnosis if:
Temp > 39C or unusual features of illness

	Green - Low risk	Amber - intermediate	Red - high risk
Behaviour	Alert Normal	Irritable -Reduced response to social cues Decreased activity -No smile	Unable to rouse, Wakes only with prolonged simulation, No response to social cues , Weak high pitched continuous cry, Appears ill to a healthcare professional
Skin	CRT<2 secs Moist mucous membranes Normal colour lips and tongue	CRT 2-3 secs - pallor as reported by parent/carer	CRT over 3 secs Pale/mottled/Ashen Blue Cyanotic lips and tongue
Respiratory Rate	Under 12mths<50 breaths/minute Over 12mths <40 breaths/minute	Under 12 mths 50-60 breaths/minute Over 12mths 40-50 breaths /minute	All ages >60 breaths/minute Respiratory distress
Sats in air	No respiratory distress	92-94%	<92%
Chest Recession	95% or above	Moderate	Severe
Nasal Flaring	None	May be present	Present
Grunting	Absent	Absent	Present
Feeding Hydration	Absent	50-75% fluid intake over 3-4 feeds Reduced urine output	<50% fluidintake over 2-3 feeds/12 hours Significant reduced urine output
Other	Normal-Tolerating 75% of fluid Occasional cough induced vomiting	Pre-existing lung condition - immunocompromised Congenital Heart Disease - Age<6weeks (corrected) Neuromuscular weakness - Prematurity Parent Re-attending frequently	Apnoea, or sudden desaturation, cyanosis or bradycardia

All green, no amber or red

Any amber

Any red

All professionals should be aware of the fact that if signs and symptoms have been present for less than 3 days, the conditions likely to get worse.

Provide discharge advice

Provide appropriate and clear guidance to the parent /carer and refer to the discharge advice sheet

Confirm they are comfortable with the decisions and advice

Consider health promotion (eg stop smoking)

Discuss child

- Request review of child by ED registrar or consultant
- Refer child to Paediatric Registrar on #544 if needed
- If oxygen saturations <92% give supplemental oxygen
- Check a blood sugar if <6 months old or very reduced feeding
- Send an NPA

Immediate Paediatric Assessment

- Seek assistance from ED registrar/consultant & paed registrar on #544
- Oxygen to keep sats >92%
- 2/3 fluid maintainance with oral or NG tube
- IV fluids if respiratory distress moderate to severe
- Take blood sugar and NPA, consider capillary gas
- Arrange admission to Bergholt ward, or PAU if expected LoS <6 hours (eg feeding observation)
- Escalate to optiflow or CPAP under senior guidance

Trust logo

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Further advice

- Do not routinely perform CXR and bloods on babies with bronchiolitis. They are rarely necessary
- There is no role for bronchodilators in children less than 6 months old unless initiated by the senior team, and only a limited role in older children with bronchiolitis
- There is no role for steroids in treating bronchiolitis
- Consider hypertonic saline nebulisers only if admitting to the ward. See guideline
- Treatment is usually confined to feeding support and oxygen therapy only

Bronchiolitis Pathway and Assessment in Primary Care and Community for Children 0-2

Patient presents

Suspected Bronchiolitis

- Snuffly Nose
- Poor feeding
- Pyrexia
- Head bobbing
- Cyanosis
- Expiratory wheeze
- Inspiratory crackles
- Increased work of breathing
- Bronchiolitis season

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

Yes → **999 Transfer**

Refer immediately to emergency care by 999 ambulance, stay with child whilst waiting and give High-Flow Oxygen support

No

Consider differential diagnosis if: temp > 39C or unusual features of illness

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Sats in air	95% or above	92-94%	<92%
Chest Recession	None	Moderate	Severe
Nasal Flaring	Absent	May be present	Present
Grunting	Absent	Absent	Present
Feeding Hydration	Normal-Tolerating 75% of fluid Occasional cough induced vomiting	50-75% fluid intake over 3-4 feeds Same quantity wet nappies but less heavy	<50% fluid intake over 2-3 feeds/12 hours Significant reduced urine output
Apnoeas	Absent	Absent	Present for 10-15 secs or shorter if accompanied by sudden decrease in saturation/central cyanosis or bradycardia
Other		**Pre-existing lung condition - Immunocompromised** **Congenital Heart Disease - Age<6weeks (corrected)** **Neuromuscular weakness - Prematurity** **Parent Re-attending frequently**	

All green

Any amber

Any red

All professionals should be aware of the fact that if signs and symptoms have been present for less than 3 days, the conditions likely to get worse

Provide discharge advice

Provide appropriate and clear guidance to the parent/ carer and ensure all discharged patients receive a discharge advice sheet

Confirm they are comfortable with the decisions and advice

Advice available if required

Phone

Paediatric SHO for admission
Paediatric Registrar / consultant for advice

Registrar can book appointment at Daily Ambulatory Clinic

Admission not required
Agree Management Plan
Registrar provides verbal advice and GP agrees management plan directly with parent /carers

PAU admission

Urgent Assessment at PAU

Refer the child for an urgent assessment at PAU. Call paediatric SHO to inform of admission, actively consider safety of transport of child and consider ambulance transfer if necessay, if life threatening, call 999 and send to ED.

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Good Practice

It is recommended that additional appropriate and clear guidance is provided to the parent/carer

Confirm they are comfortable with the decisions and advice given ahead of discharge

Normal Paediatric Values

Respiratory Rates according to age groups

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