

Appendix 1

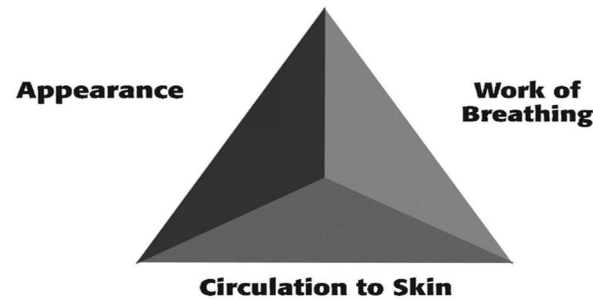
Comparison of features of tension-type and migraine headache¹⁴

Headache feature	Tension-type headache	Migraine (with or without aura)
Pain location	Bilateral	Unilateral or bilateral and often frontal
Pain quality	Pressing/tightening (non-pulsating)	Pulsating
Pain intensity	Mild to moderate	Moderate to severe
Effect on activities	Not worsened by routine physical activity	Aggravated by, or interfering with, routine physical activity
Duration	30 min to 7 days	2–72 hours
Associated symptoms	None	<ul style="list-style-type: none"> • Nausea and/or vomiting • Photophobia • Phonophobia • Aura symptoms which resolve completely: visual, sensory, speech and/or language, motor, brainstem or retinal

Appendix 2

Paediatric Assessment Triangle³¹

(reproduced with permission from the Queensland Emergency Care of Children Working Group)



Appearance

Characteristic	Normal Features
Tone	<ul style="list-style-type: none"> Moves spontaneously Resists examination Sits or stands (age appropriate)
Interactiveness	<ul style="list-style-type: none"> Appears alert and engaged with clinician or caregiver Interacts with people, environment, Reaches for toys, objects (e.g. penlight)
Consolability	<ul style="list-style-type: none"> Stops crying with holding and comforting by caregiver Has differential response to caregiver versus examiner
Look/gaze	<ul style="list-style-type: none"> Makes eye contact with clinician Tracks visually
Speech/cry	<ul style="list-style-type: none"> Has strong cry Uses age-appropriate speech
Adapted from American Academy of Pediatrics ¹⁵	

Work of Breathing

Characteristic	Abnormal Features
Abnormal Airway Sounds	Snoring, muffled or hoarse speech, stridor, grunting, wheezing
Abnormal positioning	Sniffing position, tripodding, preference for seated posture
Retractions	Supraclavicular, intercostal or substernal retractions, head bobbing (infants)
Flaring	Flaring of the nares on inspiration
Adapted from American Academy of Pediatrics ¹⁵	

Circulation to skin

Characteristic	Abnormal Features
Pallor	White or pale skin or mucous membrane coloration
Mottling	Patchy skin discoloration due to varying degrees of vasoconstriction
Cyanosis	Bluish discoloration of skin and mucous membranes
Adapted from American Academy of Pediatrics ¹⁵	

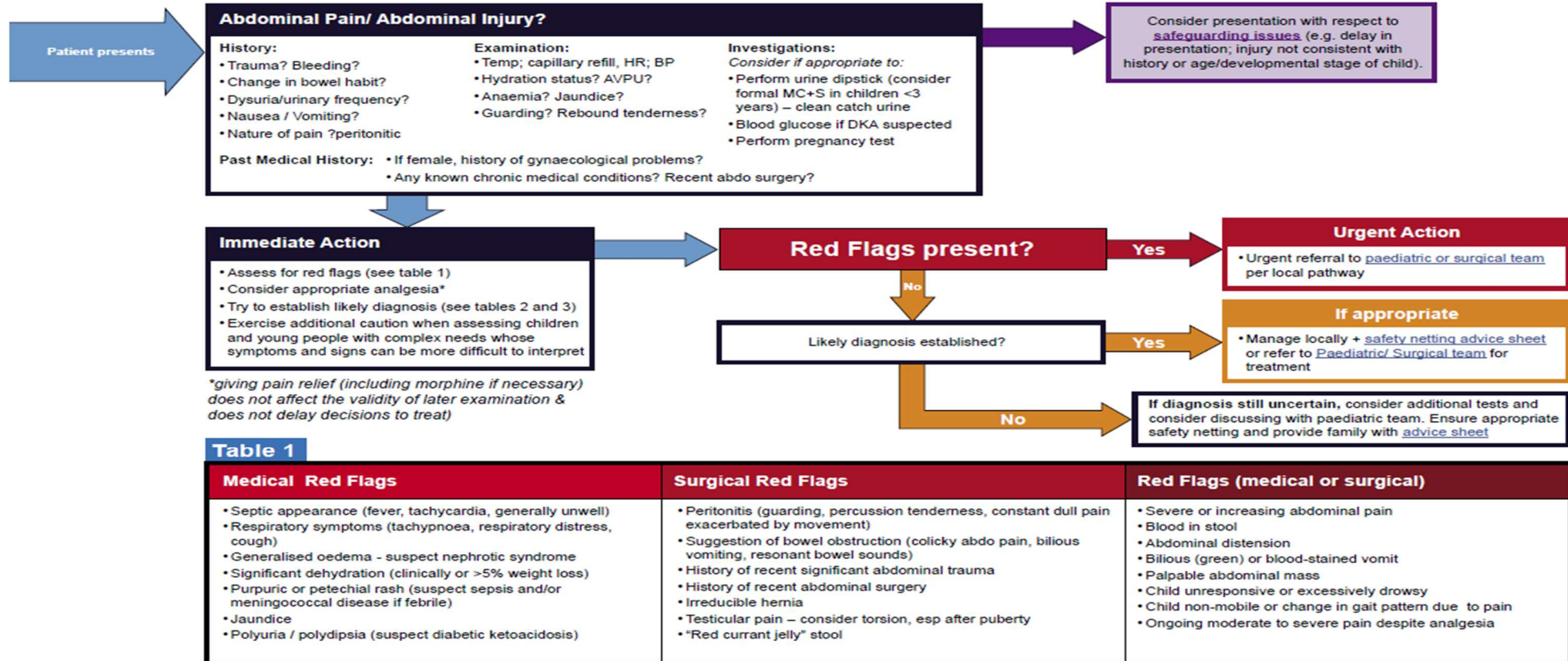
Appendix 3

Acute abdominal pain pathway – clinical assessment/management tool for children (reproduced with permission from Healthier Together)

Acute Abdominal Pain Pathway

Clinical Assessment/ Management tool for Children

Management - Primary Care and Community Settings



First Draft Version: June 2016 Date of this Refreshed Version: April 2021 Review Date: April 2024.

This guidance was written in collaboration with the SE Coast SCo and involved extensive consultation with healthcare professionals in Wessex

This document was arrived at after careful consideration of the evidence available including but not exclusively NICE, SIGN, EBM data and NHS evidence, as applicable. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The 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 the patient and / or carer.

Acute Abdominal Pain Pathway

Clinical Assessment/ Management tool for Children



Management - Primary Care and Community Settings

Table 2

Differential Diagnosis	Most important features
Appendicitis	Fever, anorexia, migration of pain from central to RIF, peritonism (clinical or history suggestive), tachycardia, raised CRP (or CRP rise after 12 hours)
Constipation	History of infrequent, large or hard stools. Pain mainly left sided/ supra pubic. If acute look for organic causes (ie obstruction). New onset constipation is unusual in teenagers.
Diabetic ketoacidosis	Known diabetic or history of polydipsia/ polyuria and weight loss, BM >15, metabolic acidosis ($\text{HCO}_3^- < 15$) and ketosis
Gastroenteritis	Diarrhoea and/or vomiting, other family members affected
Haemolytic Uraemic Syndrome (HUS)	Unwell child with bloody diarrhoea and triad of: anaemia, thrombocytopenia & renal failure
Henoch Schoenlein Purpura (HSP)	Diffuse/colicky abdominal pain, non-blanching rash (obligatory sign), swollen ankles/knees, haematuria/ proteinuria
Infantile colic	Young healthy infant with episodes of inconsolable cry and drawing up of knees, flatus
Intussusception	Mostly < 2 yrs, pain intermittent with increasing frequency, vomits (sometimes with bile), drawing up of knees, lethargy, may be calm/well between episodes, redcurrant jelly stool (late sign)
Irreducible hernia	Painful enlargement of previously reducible hernia +/- signs of bowel obstruction
Lower lobe pneumonia	Referred abdominal pain and triad of: fever, cough and tachypnoea
Meckel's diverticulum	Usually painless rectal bleeding. Symptoms of intestinal obstruction. Can mimic appendicitis
Mesenteric adenitis	Generally occurs age 5-10 years. There is often a current or recent URTI. Can be hard to distinguish from appendicitis but no peritonism. Site and severity of pain typically not constant and child may be hungry.
Non-specific recurrent abdominal pain	With excluded organic causes. Non-specific recurrent abdominal pain
Pancreatitis	Central severe pain. Nausea. Unusual in children but important to not miss. Include amylase in blood tests.
Sickle cell crisis	Nearly exclusively in black children. Refer to sickle cell disease guideline for differentiation with non-crisis causes
Testicular torsion	More common after puberty. Sudden onset, swollen tender testis. Have low threshold for discussing all testicular pain with paediatric surgical team
Trauma	Always consider NAI. Surgical review necessary
UTI	Fever, dysuria, loin/abdominal pain, urine dipstick positive for nitrites/ leucocytes – Investigate and manage as per UTI pathway

Table 3

Female gynaecological pathologies	
Menarche	On average 2 yrs after first signs of puberty (breast development, rapid growth). Average age in UK is 13 yrs
Mittelschmerz	One sided, sharp, usually < few hours, in middle of cycle (ovulation)
Pregnancy	Sexually active, positive urine pregnancy test
Ectopic pregnancy	Pain usually 5-8 weeks after last period, increased by urination/ defaecation. Late presentations associated with bleeding (PV, intra-abdominal)
Pelvic inflammatory disease	Sexually active. Risk increase with: past hx of PID, IUD, multiple partners. Fever, lower abdo pain, discharge, painful intercourse
Ovarian torsion	Sudden, sharp, unilateral pain often with nausea/ vomiting. Fever if necrosis develops

Appendix 4

Remote assessment of Abdominal Pain in Children (reproduced with permission from Healthier Together⁴)

Abdominal pain pathway

Clinical support tool for remote clinical assessment



Clinical findings	Green – low risk	Amber – intermediate risk	Red – high risk
Behaviour	<ul style="list-style-type: none"> Content/smiles Stays awake/awakens quickly Strong normal crying/not crying 	<ul style="list-style-type: none"> No smile Decreased activity/lethargic Irritable 	<ul style="list-style-type: none"> No response Unable to rouse or if roused does not stay awake Clinical concerns about nature of cry (weak, high pitched or continuous) Severe pain
Skin	<ul style="list-style-type: none"> Normal skin colour Warm extremities 		<ul style="list-style-type: none"> Pale / mottled / blue Cold extremities
Hydration	<ul style="list-style-type: none"> Moist tongue and conjunctivae Fontanelle normal 	<ul style="list-style-type: none"> Dry tongue and conjunctivae Sunken fontanelle 	
Urine output	<ul style="list-style-type: none"> Normal 	<ul style="list-style-type: none"> Reduced / not passed urine in past 12 hours 	<ul style="list-style-type: none"> No urine for 24 hours
Respiratory	<ul style="list-style-type: none"> Normal pattern and rate 		<ul style="list-style-type: none"> Abnormal/fast breathing
Other		<ul style="list-style-type: none"> Polyuria, dysuria or urgency Reduced appetite Additional parent/carer concerns Pain not settling with analgesia Waking with pain Pain increased on movement Fever for >5 days Significant abdominal distension Age 3-6 months with temp $\geq 39^{\circ}$ (102.2°F) with no clear focus of infection 	<ul style="list-style-type: none"> Non blanching rash Described oedema Described jaundice Dark green (bilious) vomiting Recent injury to the abdomen Testicular pain Blood in stool Age 0-3 months with temp $\geq 38^{\circ}$ (100.4°F)

Green Action
[Provide abdo pain safety netting advice](#)
 Confirm they are comfortable with the decisions/
 advice given.
 Always consider safeguarding issues

Amber Action
 For face to face review (consider if video
 consultation is appropriate).
 If timely clinical review cannot be facilitated in
 primary care, low threshold for referral to ED.

Red Action
 Refer immediately to emergency care –
 consider whether 999 transfer or parent/taxi
 most appropriate based on clinical acuity etc.

This writing of this guideline involved extensive consultation with healthcare professionals in Wessex

This document was arrived at after careful consideration of the evidence available including but not exclusively NICE, SIGN, EBM data and NHS evidence, as applicable. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The 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 the patient and / or carer.

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Appendix 5

Paediatric consulting tools and resources

- The ‘Healthier Together’ resource, for parents and clinicians, is widely-used in NHS England to support decision-making about the unwell child. It has not yet been validated for use in Primary Care in Scotland but has the endorsement of the Royal College of Paediatrics and Child Health and has a clear clinical governance statement on its website about how the resource is kept accurate and up to date.

The authors state that it is based on NICE Guidelines for childhood acute illness, using a ‘traffic light’ system for symptoms and signs to highlight when there is a need for further clinical assessment. It gives evidence-based clinician guidance for remote consulting on a wide range of paediatric presentations, also links to safety-netting, and an app that patients/carers can use to assess if they need to seek help about their child’s symptoms and guide symptom management.

- The main website address, for both parents and professionals is <https://www.what0-18.nhs.uk/>
- The link to the tool for assessment of a child with abdominal pain is at: <https://www.what0-18.nhs.uk/professionals/gp-primary-care-staff/paediatric-pathways>
- There are excellent training videos for professionals, about how to use the various Healthier Together templates on YouTube. This link is for the one on remote assessment of abdominal pain: <https://www.youtube.com/watch?v=NpEedPDJvqs&list=PLhD910OQRr6bWVrDDkbl6jn21mtlnvPDj>
- Another useful YouTube video about the general principles of Remote assessment of children in Primary Care is at: https://www.youtube.com/watch?v=L1dVWqR_mVI
- Other resources for assessing acute illness in children, recommended by the Expert Reviewer are: <https://spottingthesickchild.com/> and <https://dontforgetthebubbles.com/>

Appendix 6

Paediatric Observation Priority Score (POPS) chart³⁰

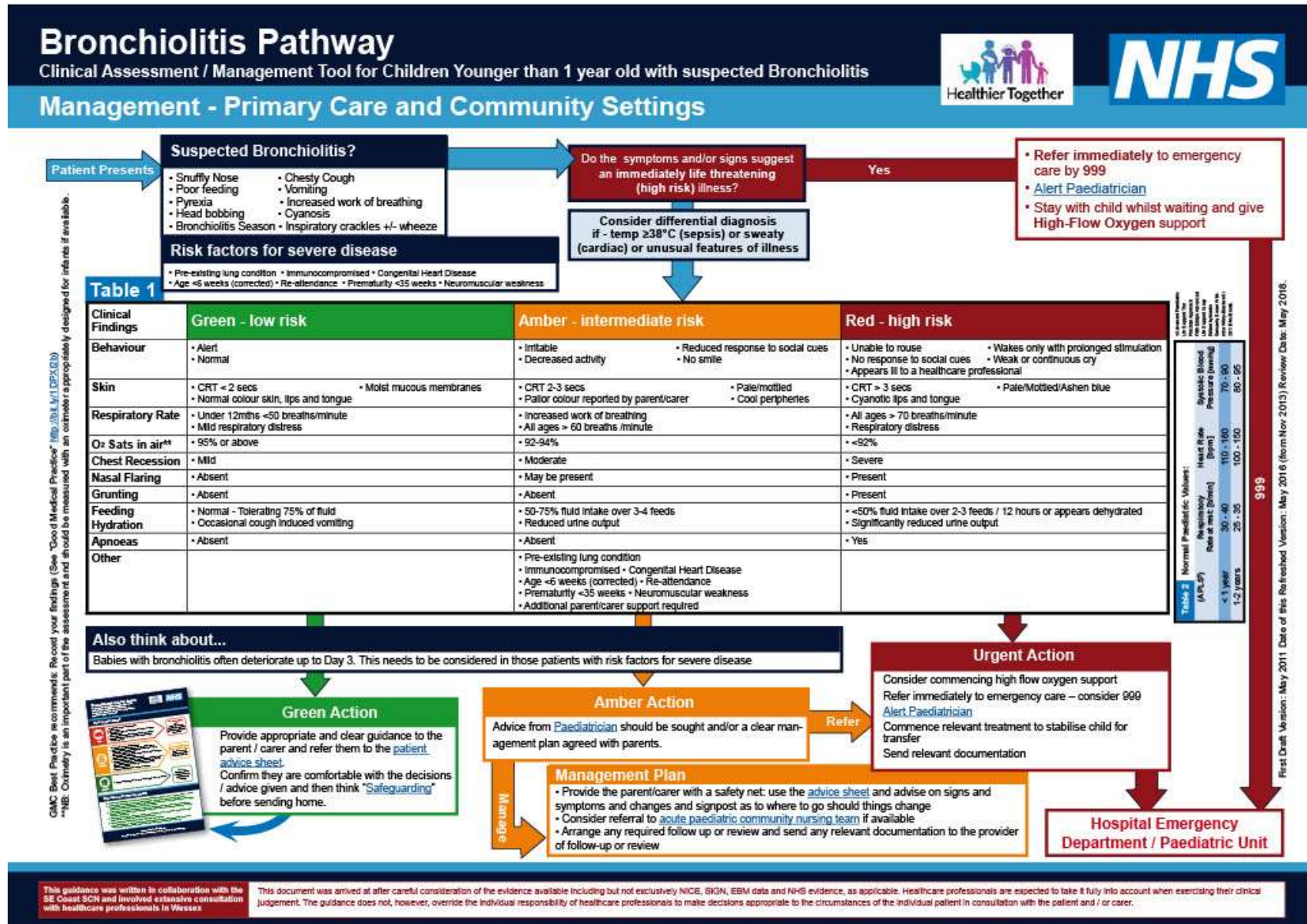
Paediatric Observation Priority Score (POPS) Chart

This chart is not a substitute for good clinical judgement and any concerns about the condition of a child should be brought to the attention of a senior nurse or doctor

Age	Score	2	1	0	1	2	Total Score	Priority
Any	Sats	<90%	90-94%	>95%	90-94%	<90%	0-1	Immediate review
Any	Breathing	Stridor	Audible grunt or wheeze	No distress	Mild or Moderate Recession	Severe Recession		
Any	AVPU	Pain	Voice	Alert	Voice	Pain		
Any	Gut Feeling	High level concern	Low level concern	Well	Low level concern	Child looks unwell		
Any	Other	Oncology Patient	Significant PMH*		Significant PMH*	Congenital heart disease		
								Any child scoring above 8 should be considered for transfer to resus
0-1	Pulse	<90	90 - 109	110 - 160	161 - 180	180+		
	RR	<25	25 - 29	30 - 40	41 - 50	50+		
	Temp	<35°	35 – 35.9°	36 - 37.5°	37.6 - 39°	39°+		
								*Significant PMH includes: <ul style="list-style-type: none">• Ex-premature• Syndromic conditions• Cardiac problems• Asthma• Diabetes• Long term steroids• All other chronic conditions
1-2	Pulse	<90	90 - 99	100 - 150	151 - 170	170+		
	RR	<20	20 - 24	25 - 35	36 - 50	50+		
	Temp	<35°	35 - 35.9°	36 – 37.9°	38.0 - 40°	40°+		
2-4	Pulse	<80	80 - 94	95 – 140	141 - 160	160+		
	RR	<20	20 - 24	25 – 30	31 - 40	40+		
	Temp	<35°	35 - 35.9°	36 - 37.9°	38.0 - 40°	40°+		
5-12	Pulse	<70	70 - 79	80 - 110	111 - 150	150+		
	RR	<15	15 - 19	20 - 25	26 - 40	40+		
	Temp	<35°	35 - 35.9°	36 - 37.9°	38.0 - 40°	40°+		
13-16	Pulse	<50	50 - 59	60 – 100	101 - 110	110+		
	RR	<12	12 - 14	15 – 20	21 - 25	25+		
	Temp	<35°	35 - 35.9°	36 - 37.9°	38.0 - 40°	40°+		

POPS is copyright (creative commons attribution non-commercial sharealike 4.0) Dr Damian Roland and Dr Ffion Davies 2010
This is version 1.3 August 2016

Appendix 7 Bronchiolitis Pathway (reproduced with permission from Healthier Together⁴)



Bronchiolitis Pathway

Clinical Assessment / Management Tool for Children Younger than 1 year old with suspected Bronchiolitis



Management - Primary Care and Community Settings

Glossary of Terms	
ABC	Airways, Breathing, Circulation
APLS	Advanced Paediatric Life Support
AVPU	Alert Voice Pain Unresponsive
B/P	Blood Pressure
CPD	Continuous Professional Development
CRT	Capillary Refill Time
ED	Hospital Emergency Department
GCS	Glasgow Coma Scale
HR	Heart Rate
MOI	Mechanism of Injury
PEWS	Paediatric Early Warning Score
RR	Respiratory Rate
WBC	White Blood Cell Count