

Paediatric Pearls

(Emergency Department update)

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Put together by: Dr Julia Thomson, Consultant Paediatrician, Whipps Cross Hospital, julia.thomson@whippsx.nhs.uk

Severity of *asthma*

Up to date BTS/SIGN guideline (updated 2009) available at:

www.sign.ac.uk/guidelines/fulltext/101/index.html

Age 2-5 years

Moderate	Severe	Life-threatening
O ₂ sats >92%	O ₂ sats <92%	O ₂ sats <92%
able to talk	too breathless to talk	agitated
heart rate <130	heart rate >130	cyanosis
resps <50	resps >50	poor resp effort
	accessory muscle use	silent chest

Age > 5 years

Moderate	Severe	Life-threatening
O ₂ sats >92%	O ₂ sats <92%	O ₂ sats <92%
able to talk	too breathless to talk	agitated
heart rate <120	heart rate >120	cyanosis
resps <30	resps >30	poor resp effort
PEFR >50% best	PEFR <50% best	PEFR <33% best
	accessory muscle use	silent chest

Any concerns, start salbutamol (& O₂ if <92%) and ask a paediatrician to see.

The importance of *heart rate*

There is a good reason why "heart rate" can swing the paediatric early warning score (PEWS) from orange to red necessitating a move to resus with the child. Tachycardia in an unwell child is caused by **compensated shock** until proved otherwise.

Normal heart rate values at different ages (source: APLS manual)	<1	110-160
	1-2	100-150
	2-5	94-140
	5-12	80-120
	>12	60-100

Only when shock has been ruled out should you think about the effect that fever, pain, crying or salbutamol may be having on the child's heart rate.

This month's featured NICE guideline: *Urinary Tract Infection: diagnosis, treatment and long term management of urinary tract infection in children (CG54 issued August 2007)*

✓ Infants and children presenting with **unexplained fever $\geq 38^{\circ}\text{C}$ or with symptoms and signs suggestive of a UTI** should have urine tested within 24 hours. Refrigerate sample if not going to be cultured within 4 hours of collection.

✓ **Clean catch** is the method of choice for urine sampling.

✓ Risk factors for UTI +/- underlying pathology: poor stream, previous UTI, antenatally diagnosed renal tract anomalies, family history of renal problems, constipation, poor growth.

< 3/12 old:

☞ Symptoms may include fever, vomiting, lethargy, poor feeding, jaundice, abdominal pain, irritability.

☞ Refer to paediatrician

$\geq 3/12$

Symptoms of **upper UTI/pyelonephritis** include fever $> 38^{\circ}\text{C}$, vomiting, lethargy, abdo or loin pain

☞ 7 - 10 days oral cephalosporin or co-amoxiclav

☞ If orals not possible, should have 2 - 4 days iv cefotaxime or ceftriaxone followed by oral antibiotics for a total of 10 days

☞ Refer any child with non-specific symptoms and high risk of serious illness to a paediatrician

Symptoms of **cystitis/lower UTI** include frequency, dysuria, abdo pain, changes to continence)

☞ 3 days oral **cephalosporin**, reassess if child still unwell at 24-48 hrs

Prophylaxis?

Not for first UTI, can use trimethoprim for prophylaxis of recurrent UTIs but treat breakthrough infections with cephalexin.

Imaging?

See www.nice.org.uk/nicemedia/pdf/CG54quickrefguide.pdf

Parent information?

See www.nice.org.uk/nicemedia/pdf/CG54publicinfo.pdf

FROM THE LITERATURE:

51 children with ≤ 2 complete bowel movements per week and either pain or straining for ≥ 3 months were randomised to receive placebo or Movicol. The authors conclude that Movicol is significantly more effective than placebo in children with chronic constipation, many of whom had tried other laxatives previously. It also appears to be safe and well tolerated.

Thomson MA et al. Polyethylene glycol 3350 plus electrolytes for chronic constipation in children: a double blind, placebo controlled, crossover study. *Arch Dis Child* 2007;92:996-1000

A and E clinical question

The urine dipstick is positive for leucocytes. Does that mean the patient has a UTI?

Leuc and nitrite +ve	Send urine for culture and start antibiotics for UTI
Leuc -ve, nitrite +ve	Probable UTI. Send urine for culture and start antibiotic treatment
Leuc +ve, nitrite -ve	Result may indicate infection elsewhere. Only start antibiotic treatment for UTI if there is good clinical evidence for UTI
Leuc and nitrite -ve	Explore other causes of illness