

Paediatric Pearls

by Dr Julia Thomson, Paediatrician

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Monthly paediatric update newsletter for all health professionals working with children – put together by Dr Julia Thomson, Paediatric Consultant at Homerton University Hospital, London, UK. Housed at www.paediatricpearls.co.uk where comments and requests are welcome!

8% of children **stammer/stutter** at some point. Most start between 2 and 5 years of age. 80% of these will stop stammering either naturally or through speech therapy. Which still leaves quite a lot of people stammering into adulthood. It is an example of a **hidden disability** and the current need to wear a face mask is causing problems for this group of people.

"[When wearing a mask] I find that my voice is muffled, which causes me to speak louder or repeat myself before my coworkers hear me. Whenever I have to speak louder, I tend to stutter more." An adult who stutters writing on <https://stamma.org/> which has a wealth of information, for professionals, parents and children on its website. Masks also mean that it is not visible when someone who stammers is "blocked" - lips forming a word but unable to iterate it. So there is a greater risk of their being interrupted or misunderstood.

Refer children who stammer to speech and language services early. They are more likely to recover and maintain their self-esteem the earlier they are referred. Parents can often self-refer (see <https://stamma.org/get-support/parents>).

Tips for parents of pre-schoolers who stammer:

1. Slow down your own rate of speech, but do not tell your child to slow down or take a deep breath.
2. Have one-on-one time (just five minutes every day) with your child, where they are not competing for attention with tasks or other family members.
3. Ask one question at a time and give them plenty of time to answer.
4. Use short, simple sentences.
5. Keep natural eye-contact with your child.
6. Listen to what your child is saying, not how they say it.
7. Pause before answering questions.
8. Make sure everyone in the conversation gets a turn.
9. Acknowledge speech difficulties with reassurance and encouragement
10. Try not to finish the word your child is struggling on

Paediatric Surgical Pearls with thanks to [Mr Devesh Misra](#), paediatric urological and general surgeon at Barts Health.

Hernia: A hernia occurs when an internal part of the body pushes through a weakness in the muscle or surrounding tissue wall.



Inguinal hernia - intermittent scrotal swelling or inguinal lump, more obvious when crying

- Occurs in 0.5 – 1% of term newborn boys (M:F 8:1), higher prevalence in preterm babies
- "Indirect" ie. not a primary muscle weakness but a persistence of a patent processus vaginalis from fetal testicular descent. **Risk of obstruction.**

- Refer urgently to surgical centre if non-reducible, swelling is tender, baby vomiting.

ALWAYS LOOK FOR AN INGUINAL HERNIA IN A PERSISTENTLY CRYING BABY.

- **Timing of emergency surgery:** within 48 hours
- **Timing of elective surgery:** soon (within 3 months) so refer as soon as discovered

Differential diagnosis: **hydrocele**

- fluid-filled so transilluminates, non-tender, fluctuant
- as long as not associated with a hernia, no action necessary.



Umbilical hernia – skin covered protrusion at the umbilicus that comes and goes with straining

- common, especially in Afro Caribbean children
- incarceration is very rare
- often close spontaneously
- unlikely to close after 3 years

Timing of surgery: 2-3 yrs old



Epigastric hernia – prolapse of fat between linea alba fibres (not a true hernia)

- Presents as a nodule between umbilicus and xiphisternum

Timing of surgery: probably not indicated at all. Refer for surgical consultation if painful.

Acute Kidney Injury – what is it?

by Dr Alexandros Argyropoulos, paediatric SpR, Homerton University Hospital

Acute decrease in kidney function which results in an increase in serum creatinine:

- $>1.5 \times$ reference creatinine (ie. previous baseline, if known)
- $>1.5 \times$ age specific upper limit of reference interval (ULRI) (if creatinine lies between ULRI and $1.5 \times$ ULRI, repeat measurement)

<https://www.rcpch.ac.uk/sites/default/files/rcpch/HTWQv8.4/Normal%20ranges.pdf> for reference ranges

+/- Urine output:

- <0.5 mls/kg/hr for 8 hours

High risk group plus high-risk scenario → REFER to paediatrics

Who is at risk?

Children with:

- ⊗ underlying renal, cardiac or liver disease
- ⊗ malignancy and/ or a bone marrow transplant
- ⊗ dependence on others for access to fluids
- ⊗ medication that may affect renal function (NSAIDs, aminoglycosides)

When are they at risk?

- Reduced urine output
- Sepsis
- Hypoperfusion/dehydration
- History of exposure to drugs or toxin that may adversely affect renal function
- Acute renal disease or urinary tract obstruction
- Major surgery

Classification of causes of AKI

Pre-renal: hypovolaemia, cardiac failure, renal vessel occlusion, hepatorenal syndrome

Renal: nephrotoxins, glomerulonephritis, tumours, HUS, interstitial nephritis, renal vessel thrombosis

Post-renal: posterior urethral valves, kidney stones, trauma, neurogenic bladder

Investigations in 2^o care

- Full blood count, creatinine, electrolytes, bone profile, bicarbonate
- Urinalysis, urine MC&S, urine electrolytes
- Ultrasound
- Weight and height

Referral to tertiary care

- ⊗ $K > 6.5$ mmol/l
- ⊗ anuria, $Na < 125$ mmol/l
- ⊗ fluid overload, pulmonary oedema, hypertension
- ⊗ unresponsive to diuretics
- ⊗ $Ur > 40$ mmol/l unresponsive to fluids

The 3 Ms of management

Monitor: creatinine, urine output in unwell children

Maintain: hydration and circulation → kidney perfusion

Minimise: damage to kidneys by monitoring medication

Think Kidneys is a great resource for health professionals and was developed to help prevent avoidable harm caused by AKI.

Do you know of children worried about going back to school after Covid-19? Check out

Harry the Hound Returns to School by Neil

Davies and Wendy Steer. The book follows

the journey of Harry The Hound who has been in lockdown and is anxious about returning to school after such a long time. Aimed at 6-11 year olds with some practical strategies from Harry's Mum that parents and carers of our primary school children might find helpful.



Harry the Hound Returns to School