Paediatric Pearls

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Previous editions available at www.juliathomson.co.uk

Welcome to the new junior doctors!

Welcome to the paediatric end of Whipps Cross Emergency Department. You will find it busy and possibly a bit overwhelming at first especially if you are not used to looking after children. The nurses are excellent so please do tap into their experience, knowledge and skills. FY2 and ST1-2 doctors should discuss all paediatric patients they see with their registrar or consultant. Either Dr Salman Imran or myself are in the department in the mornings so please discuss patients for referral or safeguarding issues with us rather than bleeping the paediatric registrar. We take safeguarding (child protection) very seriously and you MUST raise any concern, however small, you have with us or the paediatric registrar if we are not there. Do not put social work referrals in without discussing with us first. Amutha (paediatric registrar) and I put this update/newsletter together every month so please let us know if there are topics you would like us to cover. You can get the old editions on www.juliathomson.co.uk ; you will find lots of topics pertinent to your work in the department covered there so please read them! Paediatric guidelines are on the intranet. Oh, and one more thing for now – please could you copy the results of any investigation you do (urines, throat swabs etc.) to the child's GP in case any follow-up is needed? Good luck!

FROM THE LITERATURE: Transient loss of consciousness and syncope in children and young people: what you need to know

Syncope is a transient loss of consciousness resulting from an insufficient supply of oxygen to the brain and characterised by rapid onset, short duration, and spontaneous complete recovery. Up to 15% of children will experience at least 1 episode before the age of 18 and a population based study suggested the causes were vasovagal (75%), cardiac disease (10%), psychogenic or unexplained (8%) and epilepsy (5%). The key to diagnosis is in the history. A video of the event is invaluable, a 12-lead ECG mandatory, blood sugar and postural BP monitoring helpful. An EEG should not be requested in children in whom the most likely diagnosis is syncope as the results are potentially confusing and can lead to a misdiagnosis of epilepsy. Martin K et al, *Arch Dis Child Educ Pract Ed* 2010 Jun;**95**(3):66-72

A full text link to the updated European Cardiology Society's syncope guidelines for adults and children is available at http://tip.org.pl/pamw/issue/article/446.html (click on "EN" for the PDF version in English).

Quick but comprehensive assessment of the non-specifically unwell child in the ED

(with thanks to Mr Imran Zia, Emergency Department consultant)

Say hello to the child first and take the history from them if possible. When you come to "was he/she born at the right time?", turn to the parent. The child then has a few minutes to observe you while you finish off your history and will not be so affronted when you accost them with your stethoscope. A 15-monther has a very large personal space; they are more likely to trust you if you have won over their parent first. Watch the way the nurses and paediatricians chat their way through the history, assessing the child out of the corner of their eye at the same time; you will find extra time taken at this stage pays dividends.

The aide memoire below should prevent you from missing anything significant in your examination. First, note the Paediatric Early Warning Score (PEWS), in particular the heart rate (of vital importance in assessing how sick a child is), the capillary refill, respiratory rate and saturations. Then perform a **FULL** external clinical examination as you would normally do paying attention to elements of particular importance in children:

RS	Respiratory effort includes rate and signs of distress eg. nasal flaring, intercostal, subcostal, sternal recession, tracheal tug and head bobbing. Feel the neck and axilla for lymph nodes.
CVS	Document capillary refill in all children. Press on the sternum for 5 seconds and let go. Colour should return in less than 2 seconds.
Abdo	Look and feel hernial orifices and testes. Torsion can present as abdominal pain. Inspect the bottom for bruises/rashes and groins for lymphadenopathy. Assessing peritonitis? Ask the child to jump or "blow your tummy out to touch my hand". NEVER examine PR or PV.
Limbs	Palpate all joints including fingers and toes to look for signs of inflammation (osteomyelitis? Septic arthritis? Sickle cell disease?)
Back	Inspect and palpate the spine
Skin	Rashes and unusual pigmentation? Check groins, axilla and buttocks.
ENT	Examine both ears, oropharynx (back of the tongue is not enough) and nose

Any photophobia, neck stiffness, Kernigs sign? Ask the child to kiss their knee.
Any concerns about ***interaction with parents***? Involve paediatricians.

Blood tests are rarely needed in children. Ask for advice first.

This month's featured NICE guideline: *The management of bacterial meningitis and meningococcal septicaemia in children and young people younger than 16 years in primary and secondary* care (CG 102, published June 2010 (amended July 2010))

available at *www.nice.org.uk/guidance/CG102*

Meningococcal disease is still the leading cause of infection-related death in children in the UK. This is a good practice guideline for GPs and clinicians working in Emergency Departments. It covers children with suspected meningitis (any bacterial cause), septicaemia and also those with petechiae (with and without fever).

The quick reference guide has some easy-to-follow algorithms:

1) pre-hospital management of suspected meningococcal disease and bacterial meningitis
2) bacterial meningitis pathway
3) meningococcal disease pathway
4) management of petechial rash

Selected pre-hospital points:

◊Children with a fever or history of fever and unexplained petechiae need blood tests and to be observed for 4-6 hours as a minimum action.
◊Patients commonly present with non-specific signs and may have a blanching rash initially or no rash. The pre-hospital algorithm lists common and less common specific and non-specific signs and symptoms of septicaemia and meningitis.
◊In suspected meningococcal disease give im or iv benzylpenicillin (unless this will delay urgent transfer to hospital) and call 999 as children can deteriorate quickly.

Selected secondary care points:

◊Lumbar puncture is indicated in suspected meningitis but note the contraindications.
◊Give dexamethasone to children > 3 months with meningitis before antibiotics if possible, or within 4 hours of first antibiotics. Do not give high doses in meningococcal sepsis, nor in suspected tuberculous meningitis.
◊Antibiotics can be ceftriaxone or cefotaxime and length of treatment and choice of antibiotic depends on the identified organism and age of the child.
◊Shocked children may need a lot of intravenous fluid to stabilise them.

Selected long term points:

◊Children need follow-up, hearing tests within 4 weeks and urgent referral for cochlear implant assessment if their hearing has been affected.