Paediatric Pearls

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Previous editions are now all available at www.paediatricpearls.co.uk

What do you know about paediatric immunisations?

Please ensure you ask about childhood immunisations as part of the history for any child and let the liaison health visitor know if there are any who have slipped through the net. I have posted Dr Rajashree Ravindran's fantastic synopsis of this topic on the website and urge you to update yourselves!

Forced Marriage is an important safeguarding issue in our region. It is not the same as arranged marriage. There are multi-agency practice guidelines on handling these cases of child/domestic abuse. 85% of cases involve girls and women between 13 and 30 years old. Please think of it and ask distressed teenagers about it (out of earshot of family members). The forced marriage unit is run by the Home Office and Foreign and Commonwealth Office and can offer advice to frontline practitioners. Over 16 year olds may get help from a women's refuge such as Ashiana. This and other topics are covered in the Waltham Forest Safeguarding Children's Board (programme available at WFSCB) 2 hour Friday seminars which I recommend to you.

From the literature: Gastro-oesophageal reflux disease

BMJ 2010;341:c4420 (originally publ. in Drug and Therapeutic Bulletin (DTB 2009;47:134-7))

Mild regurgitation of milk in infants (0-12 months) is benign and self-limiting and requires no specific intervention. GORD describes the reflux of gastric contents leading to troublesome symptoms such as faltering growth or respiratory disorders or pain.

- pH meters and, more recently, intraluminal electrical impedance monitoring are used in secondary and tertiary care to aid diagnosis but most children are treated on clinical grounds.
- Check that the baby is not being overfed (150mls – 200mls/kg day of milk is more than adequate for most young babies' optimal growth (see http://www.babycentre.co.uk/baby/formula/howmuchmilk/)).
- Prevalence of GOR in breast and formula fed infants is similar.
- Eliminating cows' milk protein (CMP) from the infant's diet should lead to a decrease in symptoms of GORD within 2 weeks in CMP allergic babies. See http://www.paediatricpearls.co.uk/wp-content/uploads/GP-March-2011.pdf for more information on CMPA management.
- Milk thickeners are "moderately effective" for GOR in healthy infants and are listed in Appendix 2 of the BNFc as prescribable borderline substances. Anti-regurgitant formula feeds such as Enfamil AR and SMA Staydown should not be used with other thickeners or gaviscon and the BNFc suggests they not be used for longer than 6 months.
- There is not much evidence for any of the positioning any of us recommend for reducing reflux eg. raising the head of the cot.
- Alginates (eg. gaviscon): might reduce the number, but not the severity, of vomiting episodes. Should not be given > 6 times in 24 hours.
- H_2 receptor antagonists (eg. ranitidine): the authors found no RCTs for the use of ranitidine in infants with GORD. If symptoms don't settle after 4-6 weeks of treatment, reassessment is necessary.
- Proton pump inhibitors (eg. omeprazole): not licensed under 1 yr old – but still often used. Some concerns over increased rates of gastroenteritis, necrotising enterocolitis (in preterm babies) and candida infection with either PPI or H_2 antagonist treatment.
- Motility stimulants (eg. domperidone): not much evidence and not licensed for GORD treatment – though widely used.

So what does work then?! Do leave suggestions and comments here.

A move away from NICE this month to take a look at the **2011 asthma guidelines from the British Thoracic Society and Scottish Intercollegiate Network (BTS/SIGN)**

The British Guideline on the Management of Asthma (1st edition 2008) was revised last month. The Quick Reference Guide includes diagnosis and management of asthma in both children and adults, pregnancy and – new for 2011 – adolescence. It is downloadable here and I am sure the stepwise guides to management in the different age groups are essential laminated material for any health care provider's wall.

DIAGNOSIS: Categorise a child as having a **high, intermediate** or **low probability** of having asthma according to the clinical features listed in the table below.

FEATURES THAT *INCREASE* THE PROBABILITY OF HAVING ASTHMA	FEATURES THAT *DECREASE* THE PROBABILITY OF HAVING ASTHMA
>1 of wheeze, cough, breathing difficulty, chest tightness, especially if recurrent, worse at night or early morning and occur with exercise, laughter or emotion or with exposure to pets, cold or damp air	Symptoms with viral URTIs only, no interval symptoms
	Isolated cough
	Dizziness, peripheral tingling
Personal or family history of atopy	
	Repeatedly normal chest examination and PEFR (click here for age-linked normal peak flow chart)
Widespread wheeze on auscultation	
Response to bronchodilators	
	No response to bronchodilators

HIGH PROBABILITY: start trial of treatment and reassess
INTERMEDIATE PROBABILITY: assess reversibility eg. higher PEFR after a β_2 agonist
LOW PROBABILITY: consider further investigations/referral if symptoms persist
< 5 year olds are difficult to assess; possible approaches include watchful waiting with review, trial of treatment or lung function tests if child able.

Aim of asthma management = control of disease

= no daytime symptoms = no night time waking
= no need for rescue meds = no exacerbations
= no limitations on activity = PEFR >80% of predicted/best
= minimal side effects from medications

Therefore start treatment, achieve early control and step down when possible (see clear charts on stepwise management in the quick reference guide)

ASSESSMENT OF ACUTE EXACERBATION:

FEATURES OF **ACUTE SEVERE** ASTHMA	FEATURES OF **LIFE THREATENING** ASTHMA
SpO_2 < 92%, PEFR 33-50% predicted Can't speak in full sentences Heart rate > 125bpm (> 5 yr olds), >140bpm (2-5 yr olds) Resp. rate > 30 (> 5yrs), > 40 (2-5 yrs)	SpO_2 < 92%, PEFR 33-50% predicted Hypotension, exhaustion, confusion, cyanosis, silent chest, coma

MANAGEMENT OF ACUTE SEVERE ASTHMA is covered in both this guideline and our own intranet guidelines. First line treatment is inhaled (nebulised with oxygen if O_2 sats < 92%) β_2 agonist and early oral steroids. Oral β_2 agonists are *not* recommended.

You may also like to look at NICE's guidance on inhaler devices in the under 5s and 5-15 year olds. Click here for links to sites with pictures of various inhalers and a downloadable chart of their colours if you are not quite sure what "the purple one" is.... There are some great resources for patients and parents at www.asthma.org.uk including a useful pack for adolescents just beginning to take more control of their asthma (see www.asthma.org.uk/control).

Reminder for Whipps Cross ED juniors: children with **O_2 sats < 92%** at first contact with a health professional (ie. includes LAS) need **4 hours observation on Acorn ward** please. You are welcome to see these children first as we are not always immediately available but please ensure they are **ultimately referred to paediatrics**.