Paediatric Pearls

December 2015 and January 2016

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Happy New Year! Apologies for no newsletter in December – 2 of my children have exams at the moment and my evenings are taken up with "Merchant of Venice" all over again....

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

Next steps in **assessment and management** from BTS 2014 guideline. Previous months have tips on diagnosing asthma and resources for parents, health professionals and schools.

Asthma assessment and management

In children with a **high** probability of asthma:
- move straight to a trial of treatment
- reserve further testing for those with a poor response.

In children with a **low** probability of asthma:
- consider more detailed investigation and specialist referral.

In children with an **intermediate** probability of asthma *who can perform spirometry and have evidence of airways obstruction*, offer a reversibility test and/or a trial of treatment for a specified period:
- if there is reversibility, or if treatment is beneficial, treat as asthma
- if there is insignificant reversibility, and/or treatment trial is not beneficial, consider tests for alternative conditions.

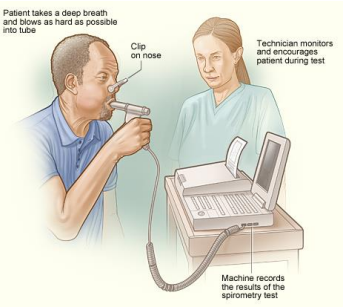
In children with an **intermediate** probability of asthma *who can perform spirometry, and have **no** evidence of airways obstruction*, consider testing for atopic status, bronchodilator reversibility and, if possible, bronchial hyperresponsiveness using methacholine or exercise.

In children with an **intermediate** probability of asthma, *who cannot perform spirometry* (mostly under 5s) offer a trial of treatment for a specified period:
- if treatment is beneficial, treat as asthma
- if treatment is not beneficial, stop asthma treatment, and consider tests for alternative conditions and specialist referral.

NB: chest x-rays are not part of the initial diagnostic work-up

"The natural history of wheeze is dependent on age at first presentation. In general, the earlier the onset of wheeze, the better the prognosis. Cohort studies show a break point at around two years; most children who present before this age become asymptomatic by mid-childhood." https://www.brit-thoracic.org.uk/document-library/clinical-information/asthma/btssign-asthma-guideline-2014/

Indications for specialist referral:
- Diagnosis unclear or in doubt
- Symptoms present from birth or perinatal lung problem
- Excessive vomiting or posseting
- Severe upper respiratory tract infection
- Persistent wet or productive cough
- Family history of unusual chest disease
- Failure to thrive
- Nasal polyps
- Unexpected clinical findings eg focal signs, abnormal voice or cry, dysphagia, inspiratory stridor
- Failure to respond to conventional treatment (particularly inhaled corticosteroids above 400 micrograms per day or frequent use of steroid tablets)
- Parental anxiety or need for reassurance



Peak expiratory flow monitoring (PEFR) is the simplest form of lung function test in primary care. Click here for a height related peak flow centile chart. Should be measured standing up with feet shoulder-width apart, and the best result of three recorded on a diary such as the one available from https://www.asthma.org.uk/. Best measured twice a day over 2 weeks when starting a trial of treatment. However probably performs best when monitoring a child's progress in established asthma rather than as a diagnostic tool. Symptom-based management is better than by PEFR.

We have had a few **severely anaemic** children on our ward recently. 1 in 8 UK toddlers has an Hb of <110g/L, rising to 35% in some impoverished sectors of society. 50% of toddlers have an iron intake below the recommended amount. Even moderately low levels can affect cognitive development and behaviour. Enthusiastic cow's milk drinking is often to blame. See June 2010 newsletter for a table on recognising and managing **iron deficiency**.

- http://kidshealth.org/parent/medical/heart/ida.html# for sensible information and advice for parents
- NHS Lothian's leaflet on increasing iron in a child's diet
- Factsheet on iron deficiency anaemia from infantandtoddlerforum.org.uk

NB: after their 1st birthday, 3 cups of 120mls/4oz milk is enough per day.

SAFEGUARDING SLOT: What parent is not concerned about their child's internet safety? You might want to point them towards the NSPCC resources below (see next month's newsletter too):

- https://www.net-aware.org.uk/ is a guide to the social networks our children use
- The NSPCC has teamed up with O_2 to offer Tips and Advice to parents on keeping children safe on Minecraft. Makes for fascinating reading.
- https://www.nspcc.org.uk/preventing-abuse/keeping-children-safe/online-safety/ explains how children use the internet, the risks and realistic tips on how to keep them safe. "Treat the online world in much the same way as you'd treat the offline world. You wouldn't let your child leave the house unless you knew where they were going, for example. You should apply the same thinking online." Vicky Shotbolt, founder of the Parent Zone.
- 7,296 young people talked to Childline last year about cyberbullying and internet safety (https://www.nspcc.org.uk/preventing-abuse/child-abuse-and-neglect/bullying-and-cyberbullying/what-is-bullying-cyberbullying/)

The Baby Friendly Initiative For all babies

Suggested management of early weight loss (ie. first few days of life) in clinically well, term, breastfeeding babies:

unicef UNITED KINGDOM

1 2 3 4 5 6

Management Plans

1. Weight loss 8-10%	2. Weight loss >10.1%-12.4%	3. Weight loss 12.5%-14.9%	4. Weight loss 15% or more
• Re-check weights and percentage calculations as mistakes are common • Observe a full breastfeed to ensure effective positioning and attachment • Minimum 8 feeds in 24 hours • Skin contact to encourage breastfeeding • Observe for change in frequency/amount of urine and stools • Re-weigh 2-3 days (sooner if stools and urine are of concern). If weight increasing, continue to monitor stools and urine closely and provide encouragement • If no or minimal weight increase or further loss, see management plan 2	• As plan 1 plus... • Exclude infection or illness • Consider additional support from breastfeeding team/ Infant Feeding Advisor (depending on local policy) • For sleepy babies or those with a poor suck, consider switch feeding and breast compression* • Express breastmilk after each feed and offer to baby by cup • Weigh again in 24 hours • If no or minimal weight increase or further loss, see management plan 3 *Switch feeding swaps the baby from one breast to the other and back each time the sucking pattern ceases to be a nutritive pattern i.e. with audible swallows. Breast compression encourages the let down reflex to stimulate a sleepy baby and encourages them to suck.	• As plans 1 and 2 plus... • Consider re-admission • Paediatric review to exclude and/or manage underlying illness. U & E's if baby unwell • Most of these babies are well, hungry and will rehydrate easily and safely on milk. • Will require additional support from breastfeeding team/ Infant Feeding Advisor • Minimum 8 feeds in 24 hours plus top ups each feed to rehydrate. Express using hospital grade electric pump. If insufficient EBM, consider infant formula. Reduce formula milk offered as breastmilk supply increases. • Weigh again within 24 hours and expect a large weight gain. Monitor until clear trend towards birthweight.	**• Weight loss in excess of 15% is significant and will require readmission, fluid replacement and breastfeeding support.** • Recheck weight and calculations (mistakes can be made) • Manage as plan 3 plus... • Discuss with consultant paediatrician • U & E's may be required • IV fluids if the baby is unwell • Most babies are well, hungry and will rehydrate easily and safely on milk. Refer to your local guidelines for management. Click here for app to calculate percentage weight loss