Paediatric Pearls

April 2016

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

BTS/SIGN 2014: See previous months for Resources for parents and schools, recognition of asthma, assessment and categorisation of likelihood of asthma. The stepwise treatment of asthma was outlined in the Feb 2016 newsletter and assessment of acute exacerbations was in March 2016. This is the last in the asthma series.

Asthma acute management in children aged ≥ 2 years (please refer to your local protocol which is likely to be based on the following points from the BTS guideline):

- Give 10 puffs of salbutamol via spacer
- Further doses can be given while waiting for urgent medical attention. Families should seek medical help if symptoms are not controlled by the first 10 puffs of salbutamol.
- Paramedics attending to children with acute severe asthma should administer nebulisers driven by O_2, while transporting the child to hospital
- Children satisfying any of the criteria for severe or life-threatening asthma (see March 2016) should be transported to hospital urgently
- Consider intensive inpatient treatment of children with SpO_2 < 92% after the initial bronchodilator treatment
- Children with sats <94% should receive high flow O_2 to maintain sats 94-98%
- If symptoms are refractory, add 250mcg of ipratropium bromide to the salbutamol nebuliser and use repeatedly early on in children who are not responsive to salbutamol
- Consider adding 150mg magnesium sulphate to each nebulised salbutamol and ipratropium in the first hour of treatment if a short duration of asthma symptoms and O_2 saturations < 92%. *[NB: this is in the BTS 2014 guideline but not in common practice in the UK at the moment and not yet in either of the London paediatric retrieval teams' asthma guidelines. More details: MAGNEsium Trial in Children]*
- Discontinue long-acting β_2 agonists when using short-acting β_2 agonists more often than 4 hourly
- Give 20mg oral prednisolone to children < 5 yrs for at least 3 days and a dose of 30-40mg oral prednisolone for > 5 yrs
- Consider early iv salbutamol 15mcg/kg over 10 minutes in children who have not responded to inhaled therapy
- Only use aminophylline in severe or life-threatening cases where response to β_2 agonists has been poor
- iv magnesium sulphate is safe in acute asthma although its place in a unified management algorithm has yet to be established

West Suffolk CCG have a very nice 2-page guide for GPs for managing acute asthma exacerbations, available here and housed at http://www.paediatricpearls.co.uk/primary-care-guidelines/

Chicken pox and the risk of Group A Strep (GAS) sepsis: Dr Kat Smith, Paediatric Registrar and Education Fellow at King's College Hospital, London, UK.

(Full article and references available here)

Secondary bacterial skin infection is characterised by erythema +/- tenderness around varicella lesions. Children may be well in themselves if the infection is superficial; if they become more unwell this raises the suspicion of a more serious or invasive bacterial infection. GAS in particular can be associated with more fulminant infectious processes such as necrotising fasciitis and toxic shock syndrome (TSS); both are associated with high mortality and morbidity in children. Features that should prompt consideration of a serious bacterial superinfection:

- A lethargic or unwell-looking child; remember, children with chickenpox are typically uncomfortable but well
- Spiking, high-grade pyrexia
- Pyrexia for longer than 4 days, particularly after initial improvement
- Diarrhoea or vomiting
- Soft tissue pain which seems disproportionate to other examination findings (an early sign of necrotising fasciitis)

In secondary care, use iv clindamycin (inhibits toxin production by GAS) and involve paediatricians early.

http://www.paediatricpearls.co.uk/wp-content/uploads/viral-exanthems-paediatric-pearls.pdf has information and useful links to diagrams on varicella and other viral infections.

Professional reference on lots of aspects of chicken pox available at http://patient.info/doctor/chickenpox-pro

Safeguarding slot: with thanks to Nicci Wotton, Named Nurse for Safeguarding, Whipps Cross University Hospital (BartsHealth NHS Trust)

Female genital mutilation (FGM) is gender-based violence against women and girls and is a violation of human rights and of the rights of the child. FGM is child abuse and illegal under the Female Genital Mutilation Act 2003.

The World Health Organisation (WHO) defines FGM as a procedure that includes the partial or total removal of the external female genital organs for non-medical reasons. The practice can be extremely painful and can have serious health consequences both at the time when the mutilation is carried out and in later life. The degree of mutilation is categorised from type 1-4 with type 3 being the most extreme. FGM is also known as female circumcision, cutting and pricking, closed and other terms within different communities. In South East Asia, the word circumcision is used. Labiaplasty and piercing fall into the WHO definition.

Professionals have a statutory obligation under national safeguarding protocols (e.g. Working Together to Safeguard Children 2015) to protect girls and women at risk of FGM and participate in mandatory reporting of women and children attending hospitals who have undergone this procedure as well as reporting to social care and the police if necessary.

Click here for further information in the form of a poster that can be displayed in staff rooms. In addition to this professionals may know of other professionals who undertake this procedure and they need to be reported to your local safeguarding children team, Local Authority Designated Officer and Police.

Some interesting and useful resources:

http://globalhealthmedia.org/portfolio-items/managing-severe-infection-in-newborns/ has some lovely videos on the unwell child for educational purposes. Also some very good clips on breastfeeding from around the world.

http://waltham-forest.sensecds.com/ houses the recently published parents' guide from birth to 5 and beyond. Includes a sensible section on managing childhood illnesses at home.

https://www.spottingthesickchild.com/ is an interactive CPD tool commissioned by the DoH to support health professionals in the assessment of the acutely unwell child.