

Medicines

Optimisation news headlines

October 2018

To complement the mid-year review meetings that are currently taking place within practices, we round up our focus on antibiotics with some evidence based guidance for treatment respiratory tract infections in children.

Do all children with bacterial respiratory tract infections require treatment with antibiotics?

One of the major challenges facing clinicians is distinguishing whether a child presenting with a respiratory tract infection (RTI) has a bacterial or viral infection. It is often extremely difficult to make this decision clinically and there are few reliable diagnostic tests that can assist in a community based setting. This uncertainty often results in clinicians prescribing “just in case”. However, there is an increasing body of evidence to show that antibiotics do not significantly reduce severity or duration of symptoms in the majority of children with RTIs, irrespective of the aetiology.

i) Acute otitis media (AOM)

A systematic review of 13 randomised controlled trials, (3,401 children and 3,938 AOM episodes), from high-income countries demonstrated that antibiotics have no early effect on pain, a slight effect on pain in the days following and only a modest effect on the number of children with tympanic perforations, contralateral otitis episodes and abnormal tympanometry findings at two to four weeks and at six to eight weeks compared with placebo. This suggests that in high-income countries, most cases of AOM spontaneously remit without complications. Even in children with AOM under 2 years of age, there is evidence to suggest that antibiotics make very little difference to the severity of symptoms in the majority of children.

ii) Tonsillitis

There is data, albeit limited, to suggest that antibiotics have little or no impact in reducing the severity of symptoms in the majority of children with acute tonsillitis.

iii) Lower respiratory tract infections (LRTIs)

The lack of evidence around the benefits of antibiotics in children with LRTIs is demonstrated by the fact that there is currently a randomised controlled trial recruiting children between 6 months and 12 years of age presenting with an acute uncomplicated lower respiratory tract infection (LRTI), defined as an acute cough judged to be infective in origin, lasting less than 21 days. Patients will be randomised to either an antibiotic arm (amoxicillin) or placebo for 7 days and the primary outcome being evaluated is the duration of significant symptoms.

So which children with RTIs should we be treating with antibiotics?

i) Acute otitis media

Only consider starting oral antibiotics if any of the following criteria are met in a child presenting with AOM (bulging ear drum or discharge):



- Symptoms for 4 days or more
- Purulent discharge from ear canal (not due to otitis externa)
- Systemically unwell
- Under 6 months of age with presumed acute otitis media.

For AOM in a child 6 months - 2 years old:

- Bilateral otitis media
- Unilateral otitis media and symptom score of more than 8 (0=no symptoms, 1=a little, 2=a lot) for the following criteria:
 - fever (>39°C = score of 2)
 - tugging ears
 - crying more
 - irritability
 - difficulty sleeping
 - less playful
 - eating less

ii) Tonsillitis

Base decision to treat on FeverPAIN score

(Fever, Purulence, Attend within 3 days of onset, severely Inflamed tonsils, No cough or coryza):

- score 0-1: 18% streptococci; do not use antibiotics
- score 2-3: 34-40% streptococci; use back up or delayed antibiotic
- score ≥4: 62-65% streptococci; use immediate antibiotic

This score is validated in children aged 3 years and older. However, younger children are **less likely** to have a bacterial aetiology and are **less likely** to develop complications.

iii) Lower respiratory tract infection (LRTI)

There is a paucity of evidence to guide antibiotic prescribing decisions in children and most national guidelines tend to focus on LRTIs in adults. Prior to the results of the [ARTIC PC study](#) being made available, a pragmatic approach seems most appropriate, with consideration of antibiotics if there is persistent or recurrent fever over preceding 24-48 hours with chest wall recession and tachypnoea.

Taken from an article by Dr Sanjay Patel, Consultant in Paediatric Infectious Diseases, Southampton Children's Hospital

Cannabis-based products for medicinal use

The Home Office has announced that such products will be available for specialist doctors to prescribe from 1st November. They will be unlicensed medicines but will have to conform to specified product criteria.

The new law will not allow patients to get cannabis-based medicinal products from their general practitioner.

The government has been clear it has no intention of legalising the recreational use of cannabis. Due to the known harms of smoking and the potential operational impact on misuse and diversion, smoking will remain prohibited.

Further information can be found through the following links [1](#) and [2](#)

Catherine McLean
Interface Pharmacist, Medicines Management
catherine.mclean2@nhs.net
023 8062 7466

Dr Emma Harris
Clinical Director, Medicines Management
ejharding@doctors.org.uk

Quality services, better health

