

Prudent Antimicrobial use in Primary Care - Respiratory

The following pieces of Evidence Based Medicine may influence antimicrobial use in Primary Care: 80% of total antimicrobial use is in primary care and 60% of that is for respiratory infections that are on the whole self-limiting.

Effect of antibiotic prescribing on antibiotic resistance in individual children in primary care: prospective cohort study BMJ 335:429 This Primary Care study demonstrates those children who receive antibiotics for a sore throat have a subsequent significant increase in Penicillin Resistant bacteria cultured from a throat swab. This is really useful for dissuading parents from demanding antibiotics for their children as it personalises the antibiotic resistance development argument.

Avoiding antibacterial overuse in primary care DTB 2007; 45(4): 25-8

- Doctors over-estimate patient demand for antibiotics. In patients with bronchitis, antibiotic prescribing had no effect on patient satisfaction scores, whereas careful physical examination did. **BJGP 2007; 57: 561**
- Doctors asking specifically about patient's expectation for antibiotics - '*was there any type of treatment that you were hoping for today?*' - is a consultation technique that can be used to reduce antibiotic prescribing by addressing the issue head-on.
- Medicalisation of minor illness. Immediate prescriptions for conditions such as sore throats increase future consultations. **BMJ 1997; 315: 350-2**
- Academic Detailing has been shown to influence prescribing habits. **Cochrane 2005, Issue 4**
- Delayed antibacterial prescribing: For most clinical outcomes there is little difference between immediate, delayed or no antibiotic use but delayed antibiotic use reduces the amount used. **Cochrane 2007, Issue3; BMJ 2008; 337(a437); BJGP 2009; 567: 728-734**

DTB Acute Rhinosinusitis: 92% of patients with acute rhinosinusitis are still prescribed antibiotics in primary care. Systemic review concludes that '*antibiotic therapy does not offer clinically significant benefit and is not justified, even in those who have had symptoms for over a week*'. **DTB 2009; 47(3): 26-30**

'The antibiotic revolution should be more focused' **BJGP 2009; 59: 567.** This editorial concludes that '*our mission is not to prescribe as few antibiotics as possible, but to identify that small group of patients who really need antimicrobial treatment and to explain, reassure and educate the large group of patients who don't*'

ANTIBIOTIC PRESCRIBING FOR SELF-LIMITING RESPIRATORY TRACT INFECTIONS IN PRIMARY CARE

(Adapted from BMJ 2008;337: a437 summary of NICE guidance)

Respiratory tract infections (acute otitis media; acute sore throat; acute pharyngitis; acute tonsillitis; common cold; acute rhinosinusitis; acute cough/acute bronchitis/non-pneumonic chest infection) are largely self-limiting. Prescribing patterns vary widely without evidence of significant benefit amongst higher prescribers.

RECOMMENDED APPROACH:

- **Detailed History and Examination** (BJGP2007:57:561)
- **Ask directly about Patient's expectation for antibiotics**
- **No Antibiotic** - Reassure patients that antibiotics are not needed because they are likely to make little difference to the symptoms and may have side-effects. Safety-net.
- **Delayed Antibiotics** - Reassure patients that antibiotics are not needed because they are likely to make little difference to the symptoms and may have side-effects. Advise on using delayed antibiotics if symptoms are not settling within a recognised time frame. Safety-net.
- **Immediate Antibiotics** - Consider in the following situations:
 - Children under 2 years with **Bilateral Otitis Media**
 - Acute otitis media in children with **otorrhoea**
 - Acute sore throat with **3 or more CENTOR criteria** (tonsillar exudate, tender anterior cervical lymphadenopathy, lymphadenitis, fever and an **absence** of cough)
 - Systemically very unwell
 - Pre-existing co morbidity
 - Those who are over 65 with at least two of the following, or over 80 and at least one of the following: Admission to hospital in past 12months; Diabetes; LVF; glucocorticoids.
- **Advise patients on the likely timescale for the illness:**
 - Acute otitis media - 4 DAYS
 - Acute sore throat - 1 WEEK
 - Acute rhinosinusitis - 2 ½ WEEKS
 - Acute bronchitis - 3 WEEKS
- **Symptom management advice**