

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.

Antibiotic prescribing and resistance BMJ 2007; 335(429) This was a Primary Care Observational study that demonstrated those children who receive a lot of antibiotics for respiratory infections have a significant increase in Penicillin Resistant bacteria cultured from a throat swab. This is really useful for dissuading parents from demanding antibiotics for their children.

Reducing antibiotic prescribing in primary care DTB 2007; 45(25) this evidence summarises:

- Over-use leads to resistance.
- Doctors over-estimate patient demand for antibiotics. BJGP 2007; 57(561). In patients with bronchitis, antibiotic prescribing had no effect on patient satisfaction scores, whereas careful physical examination did.
- Medicalisation of minor illness. Immediate prescriptions for conditions such as sore throats increase future consultations. BMJ 1997; 315(7104).

Interventions shown to reduce prescribing:

- Public and Professional Education
- Doctors asking specifically about patient's expectation for antibiotics - *'was there any type of treatment that you were hoping for today?'*
- Delayed Prescribing Strategy Cochrane 2007: issue3; BMJ 2008; 337(a437). For most clinical outcomes there is little difference between immediate, delayed or no antibiotic use but delayed antibiotic use reduces the amount used.

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'*.

'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'*

High prescribing practices: Data shows that they are usually: non-training; short appointments; high proportion of male GP's; GP's >45 years and non-UK qualified.

Antibiotic prescribing strategies for acute LRTI: Adds to evidence that a delayed antibiotic strategy is effective for this group of patients. NOTE: the advised delay was 10 days.

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. However they account for **60% of antibiotic use in primary care**. 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
 - Symptoms and signs of serious illness (e.g. pneumonia, mastoiditis, peritonsillar abscess, peritonsillar cellulitis, intraorbital and intracranial complications)
 - Pre-existing co morbidity

- Those with an acute cough 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; current use of oral glucocorticoids.
- **Advise patients on the likely timescale for the illness:**
 - Acute otitis media - 4 DAYS
 - Acute sore throat - 1 WEEK
 - Acute rhinosinusitis - 2 $\frac{1}{2}$ WEEKS
 - Acute bronchitis - 3 WEEKS
- **Symptom management advice**