The management of common infections in primary care — key points

This Bulletin looks at the management of common infections in primary care. It is in several parts, each of which can be downloaded from www.npc.co.uk/merec.htm separately, as print-friendly documents. This document is a collation of the key points from each section of the Bulletin.

The complete Bulletin considers which patients are likely to benefit from antibiotic treatment, either because their symptoms are probably due to bacterial infection rather than viral infection, or because they are at risk of complications from the infection. The evidence to support antibiotic treatment, symptomatic treatment, and prescribing strategies and practical measures to educate and involve patients (e.g. information leaflets, delayed prescriptions), is discussed in detail.

Common cold

• The common cold is a mild, self-limiting illness that is usually caused by a virus. Symptoms typically resolve within seven to 10 days but can sometimes last for three weeks.
• Analgesics or anti-inflammatory drugs are appropriate to relieve pain or fever. There is little or no evidence to support the use of other symptomatic treatments.
• Explaining that a cold will resolve without treatment, and providing advice on symptomatic therapy, may reassure patients and prevent future consultations.
• Although antibiotics have shown a statistically significant benefit in reducing the duration of acute purulent rhinitis, they have not been shown to improve other cold symptoms. Any clinical benefit of antibiotics is likely to be small, and patients may suffer adverse effects.
• As most patients with the common cold will get better without antibiotics, they should only be used when symptoms have persisted for long enough to cause concern.

Acute sinusitis

• Signs and symptoms that increase the likelihood of acute sinusitis include maxillary toothache, poor response to nasal decongestants, history of coloured discharge and purulent nasal secretion.
• Antibiotics should not be prescribed routinely because only 30–40% of patients with clinically suspected sinusitis have a bacterial infection, and over two thirds of patients experience improvement or resolution of symptoms without antibiotic treatment.
• Based on a systematic review of trials where diagnosis was confirmed radio graphically or bacteriologically, the benefit of antibiotics in patients with maxillary sinusitis is limited. Since X-rays or sinus puncture are not routinely recommended in practice, the benefit of antibiotics in clinically diagnosed cases is likely to be even less and should be balanced against the potential for adverse effects.
• It seems reasonable to recommend that antibiotics are reserved for patients with systemic illness, or several severe signs and symptoms which have lasted longer than seven to ten days, or worsened after five to seven days.
• A strategy of watchful waiting and use of delayed prescriptions may be appropriate for many.
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Acute otitis media

• Acute otitis media is a common, self-limited illness in children. 80% recover in around three days without antibiotics. Complications are rare.
### Acute uncomplicated urinary tract infection in women

- Uncomplicated urinary tract infection (UTI) often resolves in a few days without treatment.
- The diagnosis of UTI is primarily based on signs and symptoms.
- Consider pyelonephritis if nausea, vomiting, rigors or fever, flank, loin or low back pain or tenderness are present.
- If the woman has multiple signs and symptoms that increase the likelihood of UTI, and does not have any of those that decrease the likelihood of infection, (e.g. she is presenting with dysuria and frequency with no vaginal irritation or discharge) it is not necessary to use a urine dipstick test. Treating empirically with antibiotics is indicated.
- A three-day course of trimethoprim (200mg twice a day) is an effective first-line treatment. Nitrofurantoin (50–100mg four times a day for three days) is a suitable alternative.
- Urine dipstick tests may be useful to guide management if the clinical diagnosis is uncertain based on signs and symptoms. - If both nitrite and leucocyte esterase tests are positive, treat with antibiotics. - If one or both of the tests is negative ‘delayed prescription’ may be more appropriate.

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- Antibiotics should not be prescribed routinely for acute otitis media in children. They reduce pain to a small degree but this should be balanced against the risk of causing adverse effects such as vomiting, diarrhoea or rashes.
- Antibiotics may be beneficial in sub-groups of patients. For example, children:
  - under two years old with bilateral infection or
  - with discharge from the ear or
  - who are systemically unwell (e.g. fever or vomiting) or
  - with recurrent infections.
- A strategy of watchful waiting and use of delayed prescriptions may be appropriate for many.
- Paracetamol and ibuprofen have been shown to reduce earache.
- There is insufficient evidence to support the use of decongestants or antihistamines.

### Sore throat

- Antibiotics are unnecessary for most patients with sore throat as it is a self-limiting condition, which resolves by one week in 85% of people, whether it is due to streptococcal infection or not.
- Serious complications are rare. The Centor criteria may be useful to predict patients who are at higher risk of Group A beta-haemolytic streptococcus (GABHS) and complications, who may benefit from antibiotics.
- If antibiotics are clinically indicated, phenoxymethylpenicillin is an appropriate first choice (adult dose: 500mg two to four times a day for ten days).
- Those given antibiotics are more likely to reattend if they have another similar infection.
- A delayed prescription, for use after three days if symptoms are not starting to resolve or are getting significantly worse, may be more appropriate for some patients.
- Offer advice and reassurance, and recommend analgesics for symptom relief in all patients.

### Acute bronchitis

- Acute bronchitis is a mild, self-limiting illness that often follows an upper respiratory tract infection and can last for three weeks.
- It is difficult to distinguish acute bronchitis from community-acquired pneumonia on the basis of individual signs and symptoms or combinations of clinical findings. However, an otherwise healthy, non-elderly adult patient who presents with cough as the main symptom is unlikely to have pneumonia if there are no new focal chest signs on auscultation and all vital signs are normal.
- Antibiotic treatment is not indicated for the majority of previously well patients with acute bronchitis.
- Patients should be reassured and offered a patient information leaflet explaining the nature of the illness, and the risks and limited efficacy of antibiotic treatment.
- Delayed prescriptions are also an option, as these are associated with reduced reattendance during the next month.
- Analgesics and antipyretics may be used where appropriate. There is insufficient evidence to support the use of other over-the-counter cough medicines. The simplest and cheapest treatment for a cough may be a home remedy such as honey and lemon.