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Prescribing...

Respiratory Tract Infections

- This month's bulletin looks at the management of respiratory tract infections (RTIs) in primary care.
- Historically their management involved prompt antibiotic treatment, which was highly appropriate in an era of high complication rates.
- These are however now much lower complication rates in developed countries, so historical practice may not be appropriate for all.
- No evidence suggests that complication rates are higher in countries, such as Sweeden, with low antibiotic prescribing rates.

So, what's the most recent advice?

It is important to remember that any attempt at rationalising antibiotic use is NOT about NEVER prescribing antibiotics. These remain life saving drugs in some circumstances .

It's about better TARGETING of antibiotics

- To people who are more likely to have a serious bacterial infection or to develop a complication from a less serious infection.
- To people who are not inherently at risk but who have symptoms and signs indicating a more serious infection despite their low risk.

However we must not forget antibiotic resistance presents an alarming threat to public health.

What does NICE say?

NICE updated clinical guidelines on RTIs were published in July 2008 and have not been reviewed since then. They recommend that an immediate antibiotic prescription and/or further appropriate and/or management should only be offered if the patient:

- Is systemically unwell or
- Has symptoms and signs suggestive of serious illness and/or complications (especially pneumonia ,mastoiditis, peritonsillar abscess, peritonsillar cellulitis, intraorbital and intracranial complications) or
- Is at high risk of serious complications because of pre-existing co morbidity (e.g. heart, lung, renal, liver or neuromuscular disease, Cystic Fibrosis, immunosuppression and young children who were born prematurely) or
- Is older than 65 years with acute cough and has two or more of the following Centor criteria, or older than 80 years with acute cough and one or more of the following criteria
    - Hospitalisation in the previous year
    - Type 1 or type 2 diabetes
    - History of congestive heart failure
    - Current use of oral glucocorticoids

NICE also says that, depending on clinical assessment of severity, patients in the following groups can also be considered for an immediate antibiotic

- Bilateral acute otitis media in children younger than 2 years
- Acute otitis media in children with otorrhoea
- Acute sore throat/acute pharyngitis/acute tonsillitis when three or more of the above Centor criteria are present.

Which antibiotic should be used?
The Health Protection Agency recommends that **simple generic antibiotics** should be used first wherever possible. Broad spectrum antibiotics (e.g. co-amoxiclav, quinolones and cephalosporins) should be avoided when narrow spectrum agents remain effective. Broad spectrum antibiotics increase the risk of *Clostridium difficile,* MRSA and resistant urinary tract infections. Antibiotics should only be prescribed when there is likely to be a clear benefit. A no, or delayed, antibiotic strategy should be considered in otherwise well individuals with acute sore throat, common cold, acute cough and acute sinusitis.

But antibiotics prevent complications don't they?
Serious complications are rare after upper respiratory tract infections, sore throat and otitis media. Primary care prescribers should not base their prescribing for these conditions on a fear of serious complications.

More than 4000 patients with an RTI would have to be treated with antibiotics to prevent one case of quinsy, mastoiditis or pneumonia.

How should patients, who may be expecting an antibiotic, be assured?
NICE recommends that if **no antibiotics** are prescribe the patient should be reassured that antibiotics are not needed immediately because they are likely to make little difference to symptoms and can have side effects. However it should be made clear that a clinical review would be available if the condition worsens or becomes prolonged.

If **a delayed prescribing strategy** is used, reassurance should be offered as well as advice about using the delayed prescription if symptoms are not starting to settle in accordance with the expected course of illness or if a significant worsening of symptoms occurs. Patients should be advised to reconsult if there is a significant worsening despite using the delayed prescription.

All patients should be given advice about the usual natural history of the illness, including the average total length of the illness. Durations of the most common illness are, on average, as follows

- Acute otitis media : 4 days
- Acute sore throat / pharyngitis/tonsillitis : 1 week
- Common cold : 1 ½ weeks
- Acute rhino sinusitis : 2 ½ weeks
- Acute cough / bronchitis : 3 weeks

OTC analgesics and antipyretics which are very helpful in managing symptoms are specifically recommended by NICE. There is insufficient evidence to support the use of OTC cough medicines.

In summary

- Antibiotic treatment is not indicated in the majority of otherwise healthy patients with acute cough.
- An immediate prescription should be offered to people who are systemically unwell with signs and symptoms of pneumonia or to those systemically very unwell or at a high risk of serious complications because of pre-existing co-morbidity.
- People over 65 years with acute cough and two or more of the CENTOR criteria listed on page 1 or older than 80 years with acute cough and one or more Centor criteria , should also be given an immediate antibiotic.
- A no or delayed antibiotic strategy should be agreed in most patients.
- Simple generic antibiotics should be used first line.

Reference: NICE CG 69 RTIs July 2008

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