NHS Lincolnshire

Prescribing and Clinical Effectiveness Bulletin

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What's new this month

- **NHS Lincolnshire have launched a public information campaign designed to raise public awareness of the risks associated with the inappropriate use of antibiotics and the rise of resistant organisms such as Clostridium difficile and MRSA (see page 1).**
- **NICE have published a Clinical Guideline offering simple treatment strategies for Respiratory Tract Infections in which antibiotics are not usually indicated (see page 2).**
- **PACEF have updated and reissued *Guidelines for the Treatment of Commonly Occurring Infections in Primary Care: Winter 2008/09.* For a brief summary of key recommendations see page 5.**

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ANTIBIOTIC AWARENESS CAMPAIGN

This Autumn and Winter, NHS Lincolnshire will be running a campaign designed to increase public awareness of current problems relating to the use of antibiotics. Specific issues of concern include: the emergence of resistant microorganisms including *Clostridium difficile* and Meticillin Resistant *Staphylococcus aureus* (MRSA); the increasing difficulty of finding effective antibiotics to treat some infections; and the inappropriate use of antibiotic therapy in the treatment of viral infections. Problems relating to these issues are particularly acute in Lincolnshire due to the comparatively high level of antibiotic prescribing in some practices compared to East Midlands and national averages and are evidenced by the increasing incidence of *C.diff* and other resistant organisms in primary care.

It is almost a decade since the Standing Medical Advisory Committee instigated a public and professional education campaign designed to discourage the over prescribing of antibiotics and to reduce the risk of emerging resistance. Several national and local campaigns have been run since then. Earlier in 2008, the Department of Health published a new range of educational materials, including leaflets and posters, under the collective title of 'Get Well Soon – Without Antibiotics'. The current campaign will utilize these materials and will attempt to ensure that as many people as possible using Lincolnshire public services become aware of the simple key messages. Leaflets and posters have been sent to all general practices

and community pharmacies; a host of additional initiatives are also planned that will raise the profile through schools, libraries, supermarkets, health clinics and hospitals.

The public emphasis of the campaign will be to challenge the common misperception that antibiotics are potentially useful in the treatment of frequently occurring respiratory tract infections, such as coughs, colds and sore throats. The leaflets also raise concerns over emerging resistance and offer patients alternative treatment strategies for commonly occurring respiratory tract infections that are usually of viral origin. Patients will be advised that the best way to treat colds is to drink plenty of fluids and to rest; the role of medicines such as paracetamol and other over-the-counter cough and cold remedies will also be discussed. The importance of seeking advice from your community pharmacist for self-care and from your GP if symptoms persist or increase in severity is also raised. It will also be emphasized that antibiotic therapy is not without risk; potential side effects can cause more problems that the infection itself.

The professional side of the campaign will centre around updated guidelines for the prescribing of antibacterial drugs in primary care, including recent guidance from NICE on alternative strategies for the management of respiratory tract infections. These guidelines in full text format will be sent to all prescribers and community pharmacists under separate cover. A simple A4 summary of key recommendations for commonly occurring infections is included as part of this *PACE Bulletin*. Comparative graphs down to individual cluster level will be used by Advisers to highlight to practices where their prescribing of antibiotics in general or their prescribing of specific groups of antibiotics is significantly higher than average. NICE Clinical Guideline 69: *Respiratory tract infections – antibiotic prescribing* (July 2008) also provides realistic guidance on the typical duration of symptoms of commonly occurring infections. Key points from the CG are detailed below and should enable prescribers to advise patients on the likely duration of their illness and emphasize that the use of an antibiotic is unlikely to change this.

The campaign materials have been sent automatically to all community pharmacies and medical practices. You may already have received information on the leaflets and posters from the Department of Health or seen adverts in the national press. We would encourage all practices and pharmacies to mount a prominent display of these materials in their waiting area or shop. If you would like further supplies of the campaign materials after receipt of your initial delivery please visit www.dh.gov.uk/antibiotics or contact the LPCT P&MM team for further information.

NICE CLINICAL GUIDELINE 69: RESPIRATORY TRACT INFECTIONS – ANTIBIOTIC PRESCRIBING (JULY 2008)

The key recommendations made by NICE are as follows:

- Adults and children (3 months and older) presenting with a history suggestive of the following conditions should be offered a clinical assessment: (1) acute otitis media (AOM); (2) acute sore throat/ acute pharyngitis/ acute tonsillitis; (3) common cold; (4) acute rhinosinusitis; (5) acute cough/acute bronchitis.
- Clinical assessment should include a history (i.e. presenting symptoms, use of over-the-counter medicines or self-medication, previous medical history, relevant risk factors, relevant co-morbidities) and, if indicated, an examination to identify relevant clinical signs.
- Patients' or parents'/carers' expectations should be determined and addressed.

- **Three antibiotic prescribing strategies are recommended: (1) no prescribing; (2) delayed prescribing; and (3) immediate prescribing.**
- Regardless of the antibiotic prescribing strategy chosen, patients should be given advice about the usual natural history of the illness. Specifically they should be informed of the **average total length of the illness:**

	Average total length of illness
Acute otitis media	Four days
Acute sore throat/acute pharyngitis/acute tonsillitis	One week
Common cold	One and a half weeks
Acute rhinosinusitis	Two and a half weeks
Acute cough/acute bronchitis	Three weeks

- Regardless of the antibiotic prescribing strategy chosen, patients should be given advice about managing symptoms (i.e. the use of analgesics and antipyretics in the management of fever).

<u>No antibiotic prescribing strategy or delayed antibiotic prescribing strategy</u>

- Patients with the following conditions are appropriate for either a no antibiotic prescribing strategy or a delayed antibiotic prescribing strategy: AOM; acute sore throat/ acute pharyngitis/ acute tonsillitis; common cold; acute rhinosinusitis; acute cough/acute bronchitis.
- When the no antibiotic prescribing strategy is adopted the patient should be reassured that antibiotics are not needed immediately as they will make little difference to symptoms and may have side effects (e.g. diarrhoea, vomiting and rash). The patient should be offered a clinical review if the condition worsens or becomes prolonged.
- When the delayed antibiotic prescribing strategy is adopted the patient should be reassured that antibiotics are not needed immediately as they will make little difference to symptoms and may have side effects (e.g. diarrhoea, vomiting and rash). A delayed prescription with instructions can either be given to the patient or left at an agreed location to be collected at a later date. The delayed prescription should only be used if symptoms do not start to settle in accordance with the expected course of the illness or if significant worsening of symptoms occurs. The patient should be given advice about re-consulting if the condition worsens significantly or becomes prolonged.

<u>Immediate antibiotic prescribing strategy</u>

- The following sub-groups of patients may be appropriate for an immediate antibiotic prescribing strategy: (1) bilateral AOM in children younger than 2 years; (2) AOM in children with otorrhoea; (3) acute sore throat/ acute pharyngitis/ acute tonsillitis when three or more Centor criteria are present.
- Centor criteria are defined as: presence of tonsillar exudate, tender anterior cervical lymphadenopathy or lymphadenitis, history of fever and an absence of cough.
- Patients with RTIs who are likely to be at risk of developing complications should be offered an immediate antibiotic prescription in the following situations: (1) if the patient is systematically very unwell; (2) if the patient has symptoms and signs suggestive of serious illness and/or complications (e.g. pneumonia, mastoiditis, peritonsillar abscess, peritonsillar cellulitis,

intraorbital and intracranial complications); (3) if the patient is at high-risk of serious complications due to pre-existing co-morbidity (e.g. significant heart, lung, renal, liver or neuromuscular disease, immunosuppression, cystic fibrosis and young children born prematurely) and (4) if the patient is 65 or over with acute cough and two or more of the following criteria or 80 or over with acute cough and one or more of the following criteria:

- hospitalization in the previous year.
- type 1 or type 2 diabetes.
- history of congestive heart failure.
- current use of oral glucocorticorticoids.

These patients are <u>not</u> appropriate for no antibiotic or delayed antibiotic prescribing strategies.

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GUIDELINES FOR THE TREATMENT OF COMMONLY OCCURRING INFECTIONS IN LINCOLNSHIRE PRIMARY CARE: WINTER 2008/09

NB This is an abbreviated version of a much more comprehensive and detailed guideline. Further guidance should be sought in the full text.

Infection	Recommended Agents	Notes
Pharyngitis / sore throat / tonsillitis Average length of illness is 1 week	**Most sore throats are viral** **Phenoxymethylpenicillin** 500mg four times a day or 1g twice daily for 10 days If allergic to penicillin: **Clarithromycin** 250 – 500mg twice daily for 10 days	Consider a **'no antibiotic'** or **'delayed antibiotic strategy'** and ensure that patients know that the average length of the illness is 1 week. Patients with 3 of 4 Centor criteria (presence of tonsillar exudate, tender anterior cervical lympadenopathy or lymphadenitis, presence of fever and an absence of cough) may benefit from antibiotics.
Acute Otitis Media (AOM) Antibiotics should not be routinely prescribed for AOM Average length of illness 4 days	**Antibiotics unnecessary in many cases** First Line **Amoxicillin** 40mg/kg/day in 3 divided doses for 5 days Maximum 1g three times a day If allergic to penicillin: **Erythromycin (5 days)** Up to 2 years: 125mg four times a day; 2-8 years: 250mg four times a day Other: 250-500mg four times a day Second Line **Co-amoxiclav** (5 days) or if allergic to penicillins **azithromycin** (3 days)	Depending on severity consider prescribing antibiotics for children < 2 years with bilateral AOM and for children with otorrhoea. Children who do not meet these criteria should not be given antibiotics. Use a **'no antibiotic'** or **'delayed antibiotic'** strategy. Reassure patients/carers that antibiotics are not needed immediately because they will make little difference to symptoms and may have side effects (e.g. diarrhoea, vomiting and rash). Use analgesia for symptom relief
Acute Rhinosinusitis Antibiotics should not be routinely prescribed for sinusitis The average duration of symptoms is 2½ weeks	First Line (7 days) **Amoxicillin** 500mg three times daily or **doxycycline** 200mg stat followed by 100mg daily or **clarithromycin** 250mg to 500mg twice daily or **phenoxymethylpenicillin** 250mg four times daily or 500mg twice daily Second Line Options **If there is no improvement following treatment with a first line antibiotic an alternative first line agent should be tried before commencing with either of the second line options.** **Co-amoxiclav** 625mg three times a day for 7 days or **Ciprofloxacin** 250mg to 500mg twice daily for 7 days plus **metronidazole** 400mg three times a day for 7 days.	**Many cases of sinusitis are of viral origin.** NICE CG 69 Respiratory Tract Infections recommends using a '**no antibiotic prescribing strategy'** or '**delayed antibiotic prescribing strategy'.** Patients with acute sinusitis who are likely to be at risk of developing complications should be offered an immediate antibiotic prescription in the following situations: (1) if the patient is systematically very unwell; (2) if the patient has symptoms and signs suggestive of serious illness and/or complications (3) if the patient is at high-risk of serious complications due to pre-existing co-morbidity (e.g. significant heart, lung, renal, liver or neuromuscular disease, immunosuppression, cystic fibrosis and young children born prematurely).

Infection	Recommended Agents	Notes
Acute cough / bronchitis Average duration of cough is 3 weeks	**In primary care antibiotics have marginal benefits in otherwise healthy adults.** First Line **Amoxicillin** 500mg three times a day for 5 days or **doxycycline** 200mg stat followed by 100mg daily for 5 days.	**Routine antibiotic treatment of uncomplicated acute bronchitis is not recommended regardless of duration of cough.** Antibiotics should be prescribed for patients > 65 years with acute cough and 2 or more of the following, or older than 80 years with one or more of the following: - hospitalisation in previous year - type 1 or type 2 diabetes mellitus - history of congestive heart failure - current use of oral steroids Antibiotics should be prescribed for patients who are - systemically very unwell, - have symptoms or signs suggestive of serious illness and/or complications (particularly pneumonia), - are at high risk of serious complications because of pre-existing co-morbidity. This includes patients with significant heart, lung, renal, liver or neuromuscular disease, immunosuppression, cystic fibrosis and young children born prematurely.
Community acquired pneumonia	First line **Amoxicillin** 500mg – 1g three times daily for up to 10 days or **clarithromycin** 500mg twice daily for up to 10 days Second line (up to 10 days) **Oxytetracycline** 250 – 500mg four times a day or **doxycycline** 200mg stat/100mg daily	**Start antibiotics immediately** Use CRB-65 to assess risk. If no response in 48 hrs add clarithromycin first line, or tetracycline to cover Mycoplasma infection (rare in >65y)
Acute exacerbation of COPD	Prescribe antibiotics if increased dyspnoea and sputum is more purulent than usual. First Line **Amoxicillin** 500mg three times a day for 5 days or **doxycycline** 200mg stat followed by 100mg daily for 5 days If the patient is allergic to penicillin and a tetracycline is contraindicated, use **clarithromycin** 500mg twice daily for 5 days Second Line If there is a clinical failure to first line antibiotics use: **co-amoxiclav** 625mg three times daily for 5 days	
Uncomplicated UTI in men or women (i.e. no fever or flank pain)	If ≤ 2 symptoms of UTI (dysuria, urgency,frequency, polyuria, suprapubic tenderness, haematuria) or symptoms mild dipstick test urine to exclude UTI (-ve nitrite & leucocyte has 95% negative predictive value) First Line **Trimethoprim** 200mg twice daily or **nitrofurantoin MR capsules** 100mg twice daily. Treatment length **3 days in women** and **7 days in men**. Second Line Dependent upon sensitivities.	
UTI in pregnancy	Send MSU for culture. First Line **Nitrofurantoin** MR capsules 100mg twice daily for 7 days or **trimethoprim** 200mg twice daily for 7 days Second Line	

Infection	Recommended Agents	Notes
	Cefalexin 500mg twice daily for 7 days or **amoxicillin** 250mg three times a day for 7 days	