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Strictly Embargoed until 00:01 hours (BST), 16th April 2008

This release focuses on three Cochrane Systematic Reviews on the use of antibiotics publishing in [The Cochrane Library](#), 2008, Issue 2.

To receive a full copy of the Reviews highlighted in this newsletter, or to arrange an interview with an author, contact Jennifer Beal on +44 (0)1243 770633 / +44 (0) 7802 468863 or by email, jbeal@wiley.com.

Reviews highlighted in this newsletter:

- [Think twice before using antibiotics for acute maxillary sinusitis](#)
A Cochrane Systematic Review of medical research found that four out of five patients who are seen in primary care with simple sinusitis improved within two weeks even if they had not been given antibiotics. When antibiotics were given they speeded up recovery from symptoms, but only marginally.
- [Just three days of antibiotics tackles non-severe community acquired pneumonia in children](#)
Most children up to the age of 5 who are prescribed antibiotics for non-severe community acquired pneumonia will be treated for between 7 and 14 days. But, a Cochrane Systematic Review of available research showed that treating for only three days was just as effective.
- [Extracts from other Cochrane Systematic Reviews on Antibiotics](#)

Think twice before using antibiotics for acute maxillary sinusitis

A Cochrane Systematic Review of medical research found that four out of five patients who are seen in primary care with simple sinusitis improved within two weeks even if they had not been given antibiotics. When antibiotics were given they speeded up recovery from symptoms, but only marginally.

Having sinusitis is one of the most common reasons for visiting a doctor, with 20 million visits for this condition every year in the USA alone. It accounts for between 15 and 21 of every 100 outpatient prescriptions for antibiotics for adults. Most

sinusitis accompanies viral cold infections and so can not be affected by antibiotics, but the few cases that have additional bacterial infections could benefit.

The problem is that it is not easy to distinguish people with, and without, a bacterial infection. And, amidst the growing concern that the use of antibiotics should be reduced so as to limit the increase in antibiotic resistance in bacteria, it is important to try to avoid the unnecessary use of these drugs. It is now recognised that countries with high antibiotic use have high levels of antibiotic resistance.

This systematic review drew together data from 57 separate studies that used a variety of antibiotics and designs. Six of the studies allocated a total of 747 patients to antibiotics or placebo and found that most of the patients got better within two weeks, regardless of which group they were in. The other 51 studies, with more than 15,000 patients compared different antibiotics against each, and did not identify any drug that was clearly superior to any other.

“Clinicians need to weigh the small benefits of antibiotic treatment against the potential for adverse effects for both individuals and the general population,” says lead author Dr Anneli Ahovuo-Saloranta who works at the Finnish Office for Health Technology Assessment in Tampere, Finland.

Ahovuo-Saloranta A, Borisenko OV, Kovanen N, Varonen H, Rautakorpi UM, Williams Jr JW, Mäkelä M. Antibiotics for acute maxillary sinusitis. Cochrane Database of Systematic Reviews 2008, Issue 2. Art. No.: CD000243. DOI: 10.1002/14651858.CD000243.pub2.

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Just three days of antibiotics tackles non-severe community acquired pneumonia in children

Most children up to the age of 5 who are prescribed antibiotics for non-severe community acquired pneumonia will be treated for between 7 and 14 days. But, a Cochrane Systematic Review of available research showed that treating for just three days was effective.

“This short duration treatment is cheaper to give, is more likely to be taken by the child and is less likely to trigger antimicrobial resistance than longer-duration regimens,” says lead researcher Professor Zulfiqar Bhutta who heads the department of Paediatrics and Child Health at the Aga Khan University in Karachi, Pakistan.

The findings are important for the world as a whole, but will probably be of greatest benefit in resource-poor societies, where a shorter dose would be much easier for people to afford, acquire and comply with.

The systematic review identified three studies that included 5,763 children younger than 5. In these trials, some of children were treated for 3 days and the rest were given the same antibiotics for 5 days. The researchers ensured that any other differences between the children were kept to a minimum.

“Pneumonia accounts for the highest number of deaths in children under five in low income countries, so it is important to find the most efficient way of treating it,” says co-researcher Dr Batool Haider.

This review restricted itself to research that had compared 3 days of antibiotics against 5 days. The researchers are now keen to see more well-controlled randomised studies of different durations. This would make their conclusions stronger and would also allow more severe forms of pneumonia to be studied for optimal treatment strategies.

Haider BA, Saeed MA, Bhutta ZA. Short-course versus long-course antibiotic therapy for non-severe community-acquired pneumonia in children aged 2 months to 59 months. *Cochrane Database of Systematic Reviews* 2008, Issue 2. Art. No.: CD005976. DOI: 10.1002/14651858.CD005976.pub2.

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Extracts from other new Cochrane Reviews on Antibiotics

This section contains extracts from two new reviews on antibiotics also publishing in The Cochrane Library 2008, Issue 2.

To receive a full copy of the results from this selection, or to arrange an interview with an author, contact Jennifer Beal on +44 (0)1243 770633 / +44 (0) 7802 468863 or by email, jbeal@wiley.com.

“Antibiotics to reduce post-tonsillectomy morbidity”

(CD005607) by Dhiwakar et al

Background

Tonsillectomy continues to be one of the most common surgical procedures performed in children and adults. Despite improvements in surgical and anaesthetic techniques, postoperative morbidity, mainly in the form of pain, remains a significant clinical problem. Postoperative bacterial infection of the tonsillar fossa has been proposed as an important factor causing pain and associated morbidity, and some studies have found a reduction in morbid outcomes following the administration of perioperative antibiotics. **Extract from the Implications for Practice findings**

Caution must be exercised while prescribing antibiotics to reduce postoperative morbidity in patients undergoing routine tonsillectomy.

“Duration of intravenous antibiotic therapy in people with cystic fibrosis”

(CD006682) by Fernandes et al

Background

Respiratory disease is the major cause of mortality and morbidity in cystic fibrosis (CF). Life expectancy of people with CF has increased dramatically in the last 40 years. One of the major reasons for this increase is the mounting use of antibiotics to treat chest exacerbations caused by bacterial infections. The optimal duration of intravenous antibiotic therapy is not clearly defined. Individuals usually receive intravenous antibiotics for 14 days, but treatment may range from 10 to 21 days. A shorter duration of antibiotic treatment risks inadequate clearance of infection which could lead to further lung damage. Prolonged courses of intravenous antibiotics are expensive and inconvenient and the incidence of allergic reactions to antibiotics also increases with prolonged courses. The use of aminoglycosides requires frequent monitoring to avoid some of their side effects. However, some organisms which infect people with CF are known to be multi-resistant to antibiotics, and may require a longer course of treatment.

Extract from the Implications for Practice findings

There are no published data to recommend the optimum duration of intravenous antibiotic therapy for treating a chest exacerbation. Duration of treatment is currently decided based on unit policies and the individual's response to treatment and we have found no evidence to change this practice.

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Notes for editors

1. The Cochrane Library contains high quality health care information, including Systematic Reviews from The Cochrane Collaboration. These Reviews bring together research on the effects of health care and are considered the gold standard for determining the relative effectiveness of different interventions. The Cochrane Collaboration (<http://www.cochrane.org>) is a UK registered international charity and the world's leading producer of systematic Reviews. It has been demonstrated that Cochrane Systematic Reviews are of comparable or better quality and are updated more often than the Reviews published in print journals^a.
2. The Cochrane Library can be accessed at <http://www.thecochranelibrary.com>. Guest users may access abstracts for all Reviews in the database, and members of the media may request full access to the contents of the Library. For further information, see contact details below.

A number of countries have national provisions by which some or all of their residents are able to access The Cochrane Library for free. These include:

Australia	http://www.nicsl.com.au/Cochrane
England	http://www.library.nhs.uk
Finland	http://www.terveysportti.fi
India	http://www.icmr.nic.in/
Ireland	http://www.thecochranelibrary.com
Latin and Central America and Caribbean	http://cochrane.bireme.br
New Zealand	http://www.moh.govt.nz/cochranelibrary or http://www.nzgg.org.nz/ or http://www.cochrane.org.nz/
Norway	http://www.cochrane.no
Poland	http://www.aotm.gov.pl
Scotland	http://www.nes.scot.nhs.uk
Spain	http://www.update-software.com/Clibplus/ClibPlus.asp
South Africa	http://www.sahealthinfo.org/evidence/databases.htm
Sweden	http://www.sbu.se
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The Canadian Province of New Brunswick	http://www.gnb.ca/0003
The Canadian Northwest Territories, Nunavut, Yukon	http://www.thecochranelibrary.com
The Canadian Province of Saskatchewan	http://www.thecochranelibrary.com
The Canadian Province of Nova Scotia	http://www.library.dal.ca/kellogg/ahkp/cochrane.htm
The US State of Wyoming	http://wyld.state.wy.us/dbloginform.html

3. The Cochrane Library is available with free one-click access to all residents of countries in the World Bank's list of low-income economies (countries with a gross national income (GNI) per capita of less than \$1000). Access to The Cochrane Library for low-income countries is via Wiley-Blackwell IP recognition, a system which recognises the country a user is in.

There are also several programmes, such as the Health InterNetwork Access to Research Initiative (HINARI) and the International Network for the Availability of Scientific Publications (INASP) that provide access in developing countries. To find out whether your country is included in any of these programmes/provisions, or to learn how to get access if you don't already have it, please visit: <http://www.thecochranelibrary.com>.

4. A **new feature** from The Cochrane Library for 2008: a collection of **podcasts** on a selection of Cochrane Reviews by the authors will be available from <http://www.cochrane.org/podcasts> from Wednesday 16th April 2008.
- For Issue 2, 2008, the podcasts are from reviewers from Australia, China, Pakistan, The Netherlands, Germany, UK, Canada and Brazil and include the following topics:
- **Aerobic exercise can increase mental fitness in older people**
 - **Chinese club moss extract (Huperzine A) may improve cognition in Alzheimer's disease**
 - **Interventions for enhancing medication adherence**
 - **House dust mite control measures for asthma**
 - **Exercise for the management of cancer-related fatigue in adults**
 - **Interventions for alopecia areata**
 - **Financial benefits for child health and well-being in low income or socially disadvantaged families in developed world countries**
 - **Naftidrofuryl can reduce leg pain (intermittent claudication)**
 - **After heart complaints, heparin reduces heart attacks but increases minor bleeding**
 - **Antiepileptic drugs for preventing seizures in people with brain tumors**
5. The Cochrane Library has undergone some functional improvements:
- **Improved Status Flags:** The **Update** flag no longer exists and instead has been replaced with the more accurate flags **New search**, **Conclusions changed** and **Major change**.
 - **Changes to the way Reviews are displayed:** Starting with Issue 2, 2008 The Cochrane Library, Cochrane Reviews will progressively be enhanced with the following additional features:
 - Author Affiliations and Contact details are now displayed
 - WHAT'S NEW? Section added
 - Introduction of SUMMARY OF FINDINGS TABLE
 - Introduction of RISK OF BIAS TABLE
 - For full details of the changes, go to www.thecochranelibrary.com and select 'Important changes to The Cochrane Library' under 'What's New in Issue 2, 2008'

If you would like to see a full list of Reviews published in the new issue of The Cochrane Library, or would like to request full access to the contents of The Cochrane Library, please contact:

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^a Jadad AR, Cook DJ, Jones A, Klassen TP, Tugwell P, Moher M, et al. Methodology and reports of systematic Reviews and meta-analyses: a comparison of Cochrane Reviews with articles published in paper-based journal.