



## The Cochrane Library ...the single most reliable source of evidence in healthcare

This alert highlights some of the key health care conclusions and their implications for practice as published in [The Cochrane Library](#), 2009, Issue 4.

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

### Reviews highlighted in this newsalert:

- **[Bell's Palsy: Study Calls For Rethink Of Cause And Treatment](#)**  
Antiviral drugs widely prescribed to treat facial paralysis in Bell's palsy are ineffective and are based on false notions of the cause of the condition, according to Cochrane Researchers. They say research must now focus on discovering other potential causes and treatments.
- **[Promising Results For Rapid Viral Diagnosis Tests In Emergency Rooms](#)**  
Rapid viral diagnosis tests for respiratory diseases in children who arrive in emergency departments have the potential to reduce pressures on health systems by enabling doctors to reach a quicker diagnosis, according to Cochrane Researchers. However, they say larger trials are needed to confirm this finding.
- **[Heart Disease: B-Vitamin Pills Have No Effect](#)**  
B-vitamin supplements should not be recommended for prevention of heart disease, say scientists. A Cochrane Systematic Review has shown these supplements do not reduce the risk of developing or dying from the disease.
- **[Area-Wide Traffic Calming Improves Safety – But Will It Work In Low- And Middle-Income Countries?](#)**  
Area-wide traffic calming schemes that discourage through-traffic from using residential roads are effective at reducing traffic-related injuries in high-income countries and may even reduce deaths. However, more research needs to be carried out to see whether these interventions will work in low- and middle-income countries, according to a Cochrane Systematic Review of the available evidence.
- **[Chinese Herbal Medicines For Preventing Diabetes in High Risk People: Some Positive Evidence, But More Data Needed](#)**  
More research is required to establish whether Chinese herbal medicines can reduce the likelihood of developing diabetes, according to Cochrane Researchers. Although herbal medicines are widely used in Asian countries to treat impaired glucose tolerance (IGT), the precursor of the disease, researchers say there is still not enough hard scientific evidence to recommend their use.
- **[Stress Urinary Incontinence: Minimally Invasive Operations As Effective As Open Surgery](#)**  
New, less invasive surgical treatments for stress urinary incontinence in women are just as effective as traditional open surgical approaches, according to Cochrane Researchers. The researchers carried out a systematic review of trials comparing different surgical approaches to treating the condition.

- [Health In Low Income Countries: Out-Sourcing And Cash Incentives May Help](#)  
Contracting private providers of healthcare services and giving cash incentives to patients are two strategies that have been proposed to increase access to healthcare in low income countries. In two new Cochrane Systematic Reviews of public healthcare policies in poor and middle income countries, researchers evaluated the effectiveness of these approaches for increasing use of health care services. The cash incentives review is the first ever systematic review on this subject.

## **Bell's Palsy: Study Calls For Rethink Of Cause And Treatment**

Drugs widely prescribed to treat facial paralysis in Bell's palsy are ineffective and are based on false notions of the cause of the condition, according to Cochrane Researchers. They say research must now focus on discovering other potential causes and treatments.

Between 11 and 40 people in every 100,000 are affected by the condition, which causes paralysis on one side of the face. Paralysis is usually temporary, but a third of people suffer ongoing problems including facial disfigurement, pain and psychological difficulties.

Antiviral medications are widely prescribed to treat the condition, because studies have indicated that Bell's palsy may be associated with the same virus that causes cold sores (herpes simplex). Previous Cochrane Systematic Reviews did not find sufficient evidence to determine whether or not antiviral medications are effective.

In the current review, the researchers considered data from seven trials that together include 1,987 people. Antivirals were no more effective than placebo. Antivirals were also significantly less effective than steroid drugs called corticosteroids which will be the subject of another Cochrane Review in progress.

"The evidence from this review shows that antivirals used for herpes simplex offer no benefit for people with Bell's palsy. These results cast doubt on research that suggests herpes simplex causes the condition," said Pauline Lockhart, who is based at the Centre for Primary Care and Population Research at the University of Dundee. "In view of this, further research should be aimed at discovering alternative causes and treatments."

"It is worth pointing out that a 10 day course of the antivirals often prescribed for Bell's palsy can cost in excess of £10 in the UK. Obviously widespread prescription of drugs that we know do not work is a waste of resources."

**Full citation:** Lockhart P, Daly F, Pitkethly M, Comerford N, Sullivan F. Antiviral treatment for Bell's palsy (idiopathic facial paralysis). *Cochrane Database of Systematic Reviews* 2009, Issue 4. Art. No.: CD001869. DOI: 10.1002/14651858.CD001869.pub4.

**\*\*\*SEE [WWW.COCHRANE.ORG/PODCASTS](http://WWW.COCHRANE.ORG/PODCASTS) FOR A PODCAST BY THE AUTHOR OF THIS REVIEW, AVAILABLE FROM WEDNESDAY 7<sup>th</sup> OCTOBER 2009\*\*\***

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## Promising Results For Rapid Viral Diagnosis Tests In Emergency Rooms

Rapid viral diagnosis tests for respiratory diseases in children who arrive in emergency departments have the potential to reduce pressures on health systems by enabling doctors to reach a quicker diagnosis, according to Cochrane Researchers. However, they say larger trials are needed to confirm this finding.

“The existing evidence is not strong enough to prove that these tests help to reduce pressure on health systems, but it certainly does look promising,” said lead researcher, Quynh Doan of the British Columbia Children’s Hospital in Vancouver, Canada.

Children who are admitted to emergency departments with cold and flu symptoms and fever undergo various diagnostic tests and are often prescribed antibiotics as a precautionary measure, even though viruses, which are often the cause, do not respond to antibiotics. The burden on health systems is huge, not only financially, but also in terms of the time and staff required to reach a diagnosis. Rapid viral diagnosis methods could help deliver fast, accurate diagnoses, and enable a much more appropriate use of antibiotics.

The study included data from four trials, which together included 1,588 children. There was some evidence that rapid viral testing reduced use of other blood or urine tests, chest X-rays and antibiotics, but the results were not significant. However, the researchers suggest that further, sufficiently large studies could reveal the true impact of faster tests.

“A large controlled trial would help us to understand whether rapid viral testing can be of any great benefit,” says Doan. “For example, we saw a weak trend towards reduced antibiotic prescriptions, but results were contradictory between the different trials. It would also be interesting to see some evaluation of cost effectiveness for these more rapid tests.”

**Full citation:** Doan Q, Enarson P, Kisson N, Klassen TP, Johnson DW. Rapid viral diagnosis for acute febrile respiratory illness in children in the Emergency Department. *Cochrane Database of Systematic Reviews* 2009, Issue 4.Art.No.: CD006452. DOI: 10.1002/14651858.CD006452.pub2.

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## Heart Disease: B-Vitamin Pills Have No Effect

B-vitamin supplements should not be recommended for prevention of heart disease, say scientists. A Cochrane Systematic Review has shown these supplements do not reduce the risk of developing or dying from the disease.

“There is no evidence to support the use of B-vitamins as supplements for reducing the risk of heart attack, stroke or death associated with cardiovascular disease,” says lead researcher, Arturo Martí-Carvajal of the Iberoamerican Cochrane Network in Valencia, Venezuela. “And it is important to point out that although we may have not found a positive effect, these kinds of studies are vitally important for determining the factors that influence the risk of developing and dying from this disease, which is the number one cause of death in the world today.”

Certain B-vitamins, specifically B12, B9 (folic acid) and B6, influence levels of an amino acid in the blood called homocysteine. High levels of this molecule are associated with an increased risk of heart disease. It has been suggested that giving B-vitamin supplements could help regulate levels of homocysteine, thereby reducing the risk of cardiovascular disease and death. But according to the researchers, there is no scientific basis for this claim.

The review included eight trials involving a total of 24,210 people. None of the eight trials individually supported the idea that giving B-vitamin supplements could prevent cardiovascular disease. Together the data show that B-vitamin supplements, whether compared with placebos or standard care, have no effect on the incidence of heart attack, stroke or death associated with heart disease.

“Prescription of these supplements cannot be justified, unless new evidence from large high quality trials alters our conclusions. There are currently three ongoing trials that will help to consolidate or challenge these findings,” says Martí-Carvajal.

**Full citation:** Martí-Carvajal AJ, Solà I, Lathyris D, Salanti G. Homocysteine lowering interventions for preventing cardiovascular events. *Cochrane Database of Systematic Reviews* 2009, Issue 4. Art. No.: CD006612. DOI: 10.1002/14651858.CD006612.pub2.

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## **Area-Wide Traffic Calming Improves Safety – But Will It Work In Low-And Middle-Income Countries?**

Area-wide traffic calming schemes that discourage through-traffic from using residential roads are effective at reducing traffic-related injuries in high-income countries and may even reduce deaths. However, more research needs to be carried out to see whether these interventions will work in low- and middle-income countries, according to a Cochrane Systematic Review of the available evidence.

Each year, 1.23 million people die in road traffic accidents. Over the next decade, road deaths are expected to rise particularly sharply in low- and middle-income countries. Therefore, it is important to understand whether traffic calming measures, such as speed humps, mini-roundabouts and the creation of one-way streets, have any significant impact on traffic accidents and injuries.

The review included 22 controlled before-and-after studies that measured injuries and deaths before and after the introduction of traffic calming measures and compared to control areas with no traffic calming measures. All the trials were carried out in high-income countries, with the majority in Germany and the UK. Traffic calming schemes were effective at reducing traffic-related injury. Deaths were also reduced, although the results were not statistically significant. According to the researchers, more controlled studies are needed.

“Traffic calming schemes appear to be a promising way of reducing traffic injuries and deaths, although further rigorous evaluation is required to prove this beyond doubt,” says

lead researcher, Frances Bunn. “Research is particularly lacking in low- and middle-income countries, where the situation can only be expected to get worse.”

“Considering the expected rise in traffic deaths over the next few years, the epidemic of road traffic deaths and injuries is really just beginning and it is imperative for global health that we find effective strategies for dealing with it.”

**Full citation:** Bunn F, Collier T, Frost C, Ker K, Steinbach R, Roberts I, Wentz R. Area-wide traffic calming for preventing traffic related injuries. *Cochrane Database of Systematic Reviews* 2003, Issue 1. Art. No.: CD003110. DOI: 10.1002/14651858.CD003110.

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## **Chinese Herbal Medicines For Preventing Diabetes in High Risk People: Some Positive Evidence, But More Data Needed**

More research is required to establish whether Chinese herbal medicines can reduce the likelihood of developing diabetes, according to Cochrane Researchers. Although herbal medicines are widely used in Asian countries to treat pre-diabetes (impaired glucose tolerance or IGT), the precursor of the disease, researchers say there is still not enough hard scientific evidence to confidently recommend their use.

“People with impaired glucose tolerance are more likely to develop full blown diabetes and it may be possible to prevent or delay the onset of the disease through lifestyle changes and medication. Chinese herbal medicines have been used for this purpose for a long time, so there is plenty of anecdotal evidence for their safety and effectiveness, but we were interested to find out whether scientific research could provide a basis for recommending these alternative treatments,” says lead researcher, Suzanne Grant of the Centre for Complementary Medicine Research at the University of Western Sydney in Australia.

Pre-diabetes is recognised by higher than normal blood sugar levels. People with pre-diabetes are advised to change their diets to control their blood glucose levels and prevent progress to diabetes. In China, Korea and Japan herbal pills, teas and powders have been used for a long time to treat pre-diabetes and diabetes. They are thought to work in a number of different ways to help normalise blood sugar levels, including by improving pancreatic function and increasing the availability of insulin, a hormone that regulates blood sugar levels.

The researchers considered data from 16 clinical trials including 1,391 people who received 15 different herbal formulations. According to their findings, combining herbal medicines with lifestyle changes is twice as effective as lifestyle changes alone at normalising patients’ blood sugar levels. Those given the herbal formulations were less likely to develop full blown diabetes during the study period. Trials included in the review lasted from one month to two years. No adverse effects were reported in any of the trials.

“Our results suggest that some Chinese herbal medicines can help to prevent diabetes, but we really need more research before we can confidently say that these treatments work,” says Grant. “The real value of the study is as guidance for further trials. We need

to see more trials that make comparisons with placebos and other types of drugs, and better reporting on the outcomes of these trials.”

**Full citation:** Grant SJ, Bensoussan A, Chang D, Kiat H, Klupp NL, Liu JP, Li X. Chinese herbal medicines for people with impaired glucose tolerance or impaired fasting blood glucose. *Cochrane Database of Systematic Reviews* 2009, Issue 4. Art. No.: CD006690. DOI: 10.1002/14651858.CD006690.pub2

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## **Stress Urinary Incontinence: Minimally Invasive Operations As Effective As Open Surgery**

New, less invasive surgical treatments for stress urinary incontinence in women are just as effective as traditional open surgical approaches, according to Cochrane Researchers. The researchers carried out a systematic review of trials comparing different surgical approaches to treating the condition.

A third of women suffer from stress urinary incontinence. As well as the social distress involved, the condition places a significant financial burden on health systems and individuals. Surgery is considered a last resort when other treatments, such as pelvic floor muscle training and drug therapies, fail. In sling operations, strips of material are positioned under the urethra and traditionally are anchored to muscles and ligaments to form a sling. When the woman strains the sling tightens and supports the bladder. In newer minimally invasive sling operations a synthetic material is inserted underneath the urethra without fixing to muscles or ligaments. The procedure can be performed “blind” by inserting the synthetic sling material with a needle in what is called a minimally invasive suburethral sling operation, which can be carried out under local anaesthetic.

The purpose of the current review was to determine whether less invasive versions of the procedure are as effective as traditional open surgery and other surgical approaches.

The authors collected data from 62 trials involving 7,101 women. Minimally invasive synthetic suburethral sling operations were found to be just as effective as traditional sling operations, with short term cure rates of 80%. They also had shorter operating times than conventional methods. Minimally invasive sling operations were also more effective than a second type of open surgery, in which the vagina is lifted using stitches to help support the bladder and urethra. However, when this second type of surgery was carried out using keyhole cuts there was less evidence that minimally invasive sling operations worked better.

Different ways of inserting the tape in sling operations were also compared and those in which the tape was passed behind the pubic bone appeared to be most effective, although this approach was more likely to cause bladder injury. One particular type of material, called type I mesh, was more effective and appeared to result in fewer complications.

“These were only small trials and they varied greatly in quality, but we were able to make comparisons between different types of surgery and we found that minimally invasive sling operations for stress incontinence in women are very effective for this condition,” says lead researcher, Joseph Ogah, who is based at the Leeds University Teaching Hospital in Leeds, in the UK.

“However, few of the trials we looked at reported outcomes after one year and therefore the long term efficacy of these procedures requires further investigation. It is also of utmost importance to assess how these procedures impact on women’s quality of life, so this needs to be addressed in further studies,” says Ogah.

**Full citation:** Ogah J, Cody JD, Rogerson L. Minimally invasive synthetic suburethral sling operations for stress urinary incontinence in women. *Cochrane Database of Systematic Reviews* 2009, Issue 4. Art. No.: CD006375. DOI: 10.1002/14651858.CD006375.pub2.

**\*\*\*SEE [WWW.COCHRANE.ORG/PODCASTS](http://WWW.COCHRANE.ORG/PODCASTS) FOR A PODCAST BY THE AUTHOR OF THIS REVIEW, AVAILABLE FROM WEDNESDAY 7<sup>th</sup> OCTOBER 2009\*\*\***

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## **Health In Low Income Countries: Out-Sourcing And Cash Incentives May Help**

Contracting private providers of healthcare services and giving cash incentives to patients are two strategies that have been proposed to increase access to healthcare in low income countries. In two new Cochrane Systematic Reviews of public healthcare policies in poor and middle income countries, researchers evaluated the effectiveness of these approaches for increasing use of health care services. The cash incentives review is the first ever systematic review on this subject.

One way that policy makers or donors invest in healthcare in poorer countries is to contract private organisations to provide healthcare services for particular regions. This practice is increasing in fragile\* countries, including Afghanistan, Pakistan and the Democratic Republic of Congo.

Another more targeted approach is to provide conditional cash incentives for individual households who participate in health programmes; recently a popular strategy in several Latin American countries. For instance, households receive money if they attend health education programmes, or bring their children to regular health checks to receive nutritional supplements and immunisations. The payments aim to encourage households to adopt behaviours that will improve their health and well-being.

Several trials from a total of ten studies on cash incentives provided strong evidence for positive health impacts. Evidence from three trials that looked at the effectiveness of contracting out health services, on the other hand, was relatively weak. In both cases it was hard to be sure that any improvements seen were only as a direct result of the policies put in place.

“It is very difficult to evaluate the success of these kinds of public health policies independently from other contextual factors that may play a role,” said lead researcher Mylene Lagarde, of the London School of Hygiene & Tropical Medicine in London, UK. “For instance, most experiences so far have been carried out in Latin American countries, where health systems were relatively well developed and basic infrastructures such as roads and banking systems were available. Such favourable conditions ensure that cash transfer programmes can be well implemented and target the poorest groups.”

“With this in mind, it is very important that policy makers in poor settings identify the key barriers to healthcare before embarking on expensive healthcare programmes, whose

success relies on good existing health infrastructures. For future studies, it will also be important to explore the cost-effectiveness of both contracting out and cash incentive strategies,” added Lagarde.

\* For more information on ‘Fragile’ countries, please visit

<http://webarchive.nationalarchives.gov.uk/http://www.dfid.gov.uk/pubs/files/fragilestates-paper.pdf>

#### Full citations:

Lagarde M, Palmer N. The impact of contracting out on health outcomes and use of health services in low and middle-income countries. *Cochrane Database of Systematic Reviews* 2009, Issue 4. Art. No.: CD008133. DOI: 10.1002/14651858.CD008133.

Lagarde M, Haines A, Palmer N. The impact of conditional cash transfers on health outcomes and use of health services in low and middle income countries. *Cochrane Database of Systematic Reviews* 2009, Issue 4. Art. No.: CD008137. DOI: 10.1002/14651858.CD008137.

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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<sup>a</sup>.
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	<a href="http://www.nicsl.com.au/Cochrane">http://www.nicsl.com.au/Cochrane</a>		
England	<a href="http://www.library.nhs.uk">http://www.library.nhs.uk</a>		
Denmark	<a href="http://www.thecochranelibrary.com">http://www.thecochranelibrary.com</a>		
Finland	<a href="http://www.terveysportti.fi">http://www.terveysportti.fi</a>		
India	<a href="http://www.icmr.nic.in/">http://www.icmr.nic.in/</a>		
Ireland	<a href="http://www.thecochranelibrary.com">http://www.thecochranelibrary.com</a>		
Latin and Central America and Caribbean		<a href="http://cochrane.bireme.br">http://cochrane.bireme.br</a>	
New Zealand	<a href="http://www.moh.govt.nz/cochranelibrary">http://www.moh.govt.nz/cochranelibrary</a>	or	<a href="http://www.nzgg.org.nz/">http://www.nzgg.org.nz/</a>
	<a href="http://www.cochrane.org.nz/">http://www.cochrane.org.nz/</a>		
Northern Ireland	<a href="http://www.thecochranelibrary.com">http://www.thecochranelibrary.com</a>		
Norway	<a href="http://www.cochrane.no">http://www.cochrane.no</a>		
Scotland	<a href="http://www.nes.scot.nhs.uk">http://www.nes.scot.nhs.uk</a>		
South Africa	<a href="http://www.sahealthinfo.org/evidence/databases.htm">http://www.sahealthinfo.org/evidence/databases.htm</a>		
Sweden	<a href="http://www.sbu.se">http://www.sbu.se</a>		
Wales	<a href="http://www.thecochranelibrary.com">http://www.thecochranelibrary.com</a>		
Canada	<a href="http://www.thecochranelibrary.com">http://www.thecochranelibrary.com</a>		
The US State of Wyoming	<a href="http://wyld.state.wy.us/dbloginform.html">http://wyld.state.wy.us/dbloginform.html</a>		

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. Users in low-income countries can access The Cochrane Library via <http://www.thecochranelibrary.com>.

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. The Cochrane Database of Systematic Reviews received its second Impact Factor in 2008 and has an IF of 5.182, giving it a ranking of 12 out of 107 in the ISI category Medicine, General & Internal.

5. The Cochrane Library Issue 4, 2009 Podcasts: a collection of podcasts on a selection of Cochrane Reviews by the authors will be available from <http://www.cochrane.org/podcasts> from Wednesday 7th October 2009.

**For Issue 4, 2009, the podcasts are:**

- Antiviral treatment for Bell's palsy (idiopathic facial paralysis)
- Transcutaneous electrostimulation for osteoarthritis of the knee (Also in Dutch & German)
- Blood pressure lowering efficacy of diuretics as second-line therapy for primary hypertension
- Pharmacotherapy for hypertension in the elderly
- Drugs for preventing malaria in travellers (Also in French)
- Area-wide traffic calming for preventing traffic related injuries
- Oral or transdermal opioids for osteoarthritis of the knee and hip (Also in German)
- Abatacept for rheumatoid arthritis
- Oestrogen therapy for urinary incontinence in post-menopausal women
- Dynamic exercise programs (aerobic capacity and/or muscle strength training) in patients with rheumatoid arthritis
- Biologics for rheumatoid arthritis: an overview of Cochrane reviews
- Hypothermia for neuroprotection in adults after cardiopulmonary resuscitation (Also in German)
- Homocysteine lowering interventions for preventing cardiovascular events
- Minimally invasive synthetic suburethral sling operations for stress urinary incontinence in women

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<sup>a</sup> Wen J, Ren Y, Wang L, Li Y, Liu Y, Zhou M, Liu P, Ye L, Li Y, Tian W. The reporting quality of meta-analyses improves: a random sampling study. *Journal of Clinical Epidemiology* 2008; 61: 770-775.