

Best Evidence from the Cochrane Library

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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.

The following synopses highlight some of the key health care conclusions and their implications for practice as published in the Cochrane library, 2009, issue 4.

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.

Lockhart P, Daly F, Pitkethly M, et al. 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.

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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.

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.

Doan Q, Enarson P, Kissoon N, et al. 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.

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.

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. However, according to the researchers, there is no scientific basis for this claim.

The review included eight trials involving 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.

Martí-Carvajal AJ, Solà I, Lathyris D, et al. Homocysteine Lowering Interventions for Preventing Cardiovascular Events. Cochrane Database of Systematic Reviews 2009, Issue 4. Art. No.: CD006612. DOI: 10.1002/14651858.CD006612.pub2.

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.

Bunn F, Collier T, Frost C, et al. 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.

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.

Grant SJ, Bensoussan A, Chang D, et al. 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.

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.

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.

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.

Providing conditional cash incentives for individual households who participate in health programs is a popular strategy in several Latin American countries. For instance, households

receive money if they attend health education programs, or bring their children to regular health checks to receive nutritional supplements and immunizations. The payments aim to encourage households to adopt behaviors that will improve their health and well-being.

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.