

The Cochrane Library
...the best single source of reliable evidence
about the effects of health care

Strictly Embargoed until 19th October 2005, 00:01 BST

This alert service highlights some of the key health care conclusions and their implications for practice publishing in The Cochrane Library, 2005, Issue 4.

To receive a full copy of the reviews highlighted in this newsletter, or to arrange an interview with an author, contact Polly Young (+44 (0)1243 770633 or by email pyoung@wiley.co.uk).

Reviews highlighted in this newsletter:

Epidurals in labour and delivery reduce pain but can increase the risk of needing forceps

Pain relief is an important issue for women in labour and epidurals are increasingly used. They reduce pain, but increase the likelihood of an instrumental delivery. Currently there is a lack of evidence that epidurals increase the risk of having a caesarean delivery, but women who use epidural have a longer second stage of labour compared to those who use other forms of pain relief.

Not enough evidence to recommend routine bed rest for hypertension in pregnancy

Currently there is a lack of evidence that keeping pregnant women with high blood pressure in bed for a prolonged period of time improves the chance of a healthy delivery. Prolonged bed rest is disruptive to women's lives, carries the risk of generating blood clots, and may be expensive.

Acyclovir use uncertain in children with chickenpox

There seems to be little value in using acyclovir to treat children with chickenpox who are otherwise healthy.

Cognitive behaviour therapy can help children and adolescents with anxiety disorders

Anxiety disorders affect up to one in five children and adolescents, but cognitive behaviour therapy (CBT) can help more than one half of these people.

Physical training in people with asthma improved cardiopulmonary fitness without harming lung-function

People with asthma who perform regular exercise have an increased ability to take up oxygen and increase their ventilation leading to improved cardiopulmonary fitness. Physical training involved 20 to 30 minutes of aerobic exercise, taken at least 2 to 3 times a week. "Therefore, there is no reason why people with asthma should not participate in regular physical activity," says lead Cochrane Review Author Dr Felix Ram. There is no evidence to suggest that regular exercise worsens asthmatic symptoms.

Interactive Health Communication Applications (IHCA) have a positive effect on users

Many computer-based packages provide patients with health information. But building into these packages the ability for people to communicate with others, to make more informed decisions and to support behaviour change, can enable them to be more knowledgeable, better supported socially and have an improved sense of health and well-being.

Use of laxatives (fibre) to treat hemorrhoids

Laxatives in the form of fibre improve symptoms of hemorrhoids, especially bleeding.

In more detail...

Epidurals in labour and delivery reduce pain but can increase the risk of needing forceps

Pain relief is an important issue for women in labour and epidurals are increasingly used. They reduce pain, but increase the likelihood of an instrumental delivery. Currently there is a lack of evidence that epidurals increase the risk of having a caesarean delivery, but women who use epidural have a longer second stage of labour compared to those who use other forms of pain relief.

Epidurals, first introduced in 1946, are now used by about one-fifth of women in the UK and one-half of women in the USA during labour. In an epidural, anaesthetic agents are injected into the lower region of the spine. This blocks the activity of the nerves that transmit painful stimuli from the birth canal to the brain, which results in pain relief.

A systematic review of literature included 21 studies of epidural pain-relief in labour, involving 6664 women. The Cochrane Review Authors drew several conclusions from these data.

When compared to women using other forms of pain relief in labour, women who use epidurals have:

- better pain relief
- longer second stage of labour
- increased likelihood of having an instrumental delivery
- increased likelihood of having fever during labour

There was lack of evidence that epidurals:

- affect the new-born
- increase the likelihood of caesarean delivery
- increase the likelihood of long term backache
- affect maternal satisfaction

"The evidence in this review needs to be made available to women considering pain relief in labour," says lead author Millicent Anim-Somuah, an honorary Research

Fellow at the School of Reproductive and Developmental Medicine, at Liverpool Women's Hospital NHS Trust, Liverpool, UK.

Review title: Anim-Somuah M et al. Epidural versus non-epidural ornoanalgesia in labour. *The Cochrane Database of Systematic Reviews* 2005, Issue4.

Not enough evidence to recommend routine bed rest for hypertension in pregnancy

Currently there is a lack of evidence that keeping pregnant women with high blood pressure in bed for a prolonged period of time improves the chance of a healthy delivery. Prolonged bed rest is disruptive to women's lives, carries the risk of generating blood clots, and may be expensive.

Women who are pregnant and have high blood pressure are frequently advised to restrict their activity. This may extend to full bed rest in hospital for some. Before such recommendations can be made, there should be clear evidence that bed rest improves the chance of giving birth to a healthy child, because the procedure is disruptive, risks generating blood clots, and may be costly.

A systematic review, however, found that despite the widespread practice, few people had conducted research to see if it is indeed beneficial. The Cochrane Review Authors found four small research trials that involved 449 women. At best, bed rest appeared to have only a marginal effect on preventing blood pressure rising even further or the risk of giving birth prematurely. However, these data need to be confirmed in larger, well designed trials.

One trial showed that, compared to women whose activity was not restricted, more women who had extended bed rest said they would not do it again in future pregnancies.

'At present there is insufficient evidence to provide clear guidance for clinical practice. Therefore, bed rest should not be recommended routinely for hypertension in pregnancy,'" says lead author Shireen Meher, a research fellow in the Division of Perinatal and Reproductive Medicine, at The University of Liverpool, UK.

Review title: Meher S et al. Bed rest with or without hospitalisation for hypertension during pregnancy. *The Cochrane Database of Systematic Reviews* 2005, Issue 4.

Acyclovir use uncertain in children with chickenpox

There seems to be little value in using acyclovir to treat children with chickenpox who are otherwise healthy.

While many different antibiotics that tackle bacteria have been around for decades, it is only more recently that a few anti-virals have started to appear on the market. One is acyclovir. A systematic review, which identified three relevant clinical studies involving a total of 988 patients, concluded it should not be used routinely in children with chickenpox.

When given within 24 hours of the rash starting to appear, acyclovir can shorten the length of time a child experiences a fever and can reduce the number of large spots. It doesn't however reduce the length of the illness, or the total number of spots (large and small). It also doesn't reduce itchiness or reduce the risk of complications.

If it is given more than 24 hours after onset the effect is much less, and in practice it is very difficult to give the drug that early.

"The data at the moment show that acyclovir confers at best only modest benefits for a disease that is self-limiting and has few complications in otherwise healthy children," says lead Cochrane Review Author Terry Klassen, from the Department of Pediatrics, at the University of Alberta, Edmonton, Canada.

Consequently giving it is not cost-effective, because the small reduction in symptoms does not remove any other cost from the task of caring for the patient, nor does it remove the cost of secondary complications.

"At present there appears to be too many unanswered questions to advocate widespread use of acyclovir in otherwise healthy children," says Klassen.

Review title: Klassen TP et al. Acyclovir for treating varicella in otherwise healthy children and adolescents. *The Cochrane Database of Systematic Reviews* 2005, Issue 4.

Cognitive behaviour therapy can help children and adolescents with anxiety disorders

Anxiety disorders affect up to one in five children and adolescents, but cognitive behaviour therapy (CBT) can help more than one half of these people.

Anxiety disorders in young people are common and are often associated with reduced performance at school, as well as a low sense of self-esteem. It is also linked to depression, substance abuse and may develop into adult anxiety, major depression and attempts at committing suicide.

Since the mid 1990s a number of groups have started to use cognitive behaviour therapy (CBT) to help children and adolescents with anxiety disorders.

CBT aims to help the child identify situations where they are misinterpreting things, and teaching them how to challenge and replace irrational thoughts and beliefs.

After performing a systematic review of the studies conducted so far, the Cochrane Review Authors conclude that CBT is a useful treatment for children and adolescents with anxiety disorders. The therapy is carried out with individuals, in groups and with family members or carers; all formats appear effective.

"Interest in CBT is likely to grow given the recent concerns about safety of selective serotonin re-uptake inhibitors (SSRIs) in children and adolescents," says lead author Dr Anthony James, and Honorary Senior Lecturer, Oxford University and Consultant Psychiatrist at the Highfield Family and Adolescent Unit, Warneford Hospital in Oxford, UK.

"Even though the number of studies is relatively low, CBT is the most researched form of psychological treatment in children and adolescents," says Dr James.

Review title: James A et al. Cognitive behavioural therapy for anxiety disorders in children and adolescents. *The Cochrane Database of Systematic Reviews* 2005, Issue 4.

Physical training in people with asthma improved cardiopulmonary fitness without harming lung-function

People with asthma who perform regular exercise have an increased ability to take up oxygen and increase their ventilation leading to improved cardiopulmonary fitness. Physical training involved 20 to 30 minutes of aerobic exercise, taken at least 2 to 3 times a week. "Therefore, there is no reason why people with asthma should not participate in regular physical activity," says lead Cochrane Review Author Dr Felix Ram. There is no evidence to suggest that regular exercise worsens asthmatic symptoms.

Because exercise can worsen symptoms, people with asthma have often been prevented from playing sports or attempting to keep fit. But physical training programmes have been designed that enable these people to improve physical fitness, muscle coordination and confidence.

Working on this Review, the authors drew together the results of 13 studies that involved 455 participants. While the studies varied in the features they were setting out to measure, the researchers concluded that exercise can increase the total amount of oxygen a person can take in by up to 20%. It can also increase the amount of air a person can transfer in and out of their lungs each minute by up to 6L/min. Improvements in fitness were seen by a 6.27 watt increase in work capacity

and an average increase in maximum heart rate of more than 3 beats per minute. All these changes are clinically important and will improve patient well-being.

One note of caution. "It is imperative to give asthmatic subjects guidance on how to prevent or treat exercise-induced asthma before encouraging them to start training," says Ram.

Review title: Ram FSF et al. Physical training for asthma. *The Cochrane Database of Systematic Reviews* 2005, Issue 4.

Interactive Health Communication Applications (IHCAs) have a positive effect on users

Many computer-based packages provide patients with health information. But building into these packages the ability for people to communicate with others, to make more informed decisions and to support behaviour change, can enable them to be more knowledgeable, better supported socially and have an improved sense of health and well-being.

People with diseases that continue for many years need information about their illness and the various treatment options, as well as social support and help in making decisions and in changing patterns of behaviour. Computer packages are currently being designed that aim to help individuals feel better informed and consequently to be more in control of their lives.

This systematic review drew on the experience recorded in 24 different studies of IHCA systems that involved a total of 3739 participants. Initial studies indicate that where IHCAs have been used they have a positive effect on people's lives, including a positive effect on a person's belief in their capacity to carry out a specific task.

"Given the encouraging signs so far, we feel that there should be continued investment in IHCAs, but this needs to be coupled with rigorous evaluation of how well each system is working," says Elizabeth Murray, lead Cochrane Review Author, and a Health Career Scientist at the Department of Primary Care and Population Sciences, University College London.

"This systematic review updates a previously published version that contained errors. Producing this revision demonstrates once again that The Cochrane Collaboration is committed to accuracy, has effective real-time feedback systems, and responds swiftly to criticism," says Nick Royle, Chief Executive Officer of The Cochrane Collaboration.

Review title: Murray E et al. Interactive Health Communication Applications for people with chronic disease. *The Cochrane Database of Systematic Reviews* 2005, Issue 4.

Use of laxatives (fibre) to treat hemorrhoids

Laxatives in the form of fibre improve symptoms of hemorrhoids, especially bleeding.

Hemorrhoidal tissue is a normal part of people's anatomy. It is located in the anal canal and plays a role in digestion and anal continence. Problems occur when this tissue becomes loosened from the gut lining, or if it starts bleeding or itching. These hemorrhoids can often be treated by general practitioners, but may need hospital treatment.

The cause of hemorrhoids is uncertain, but people who have frequent constipation, pregnant women, and women who have recently given birth are at increased risk.

A systematic review of current literature showed that including fibre as a laxative within a person's diet was an effective way of treating the symptoms of hemorrhoids.

"Fibre seems to work well in patients with small hemorrhoids, but those with more severe hemorrhoids may need further treatment that could involve surgery," says lead Cochrane Review Author Pablo Alonso-Coello, who works at the Iberoamerican Cochrane Centre at the Hospital de la Santa Creu i Sant Pau in Barcelona, Spain.

Review title: Alonso-Coello P at al. Laxatives for the treatment of hemorrhoids *The Cochrane Database of Systematic Reviews* 2005, Issue 4.

Notes to the Editor

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 (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.
3. 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	Norway
Denmark	Scotland

England
Finland
Ireland
New Zealand

South Africa
Sweden
Wales
The Canadian Province of Saskatchewan
The US State of Wyoming

4. There are also several programmes, such as the Health InterNetwork Access to Research Initiative (HINARI) 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>.

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 Library, please contact.

Contact: Polly Young
Tel: +44 (0)1243 770633
Email: pyoung@wiley.co.uk

^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.