

### News

#### **Updated CONSORT Statement**

New updated CONSORT Statement, guidance for reporting randomised trials, was published simultaneously last week by nine leading medical journals.

- BMJ, Annals of Internal Medicine, BMC Medicine, Journal of Clinical Epidemiology, The Lancet, Obstetrics and Gynecology, Open Medicine, PLoS Medicine, and Trials.

## P.E.A.R.L.S.

practical evidence about real life situations

The New Zealand Guideline Group fund the Cochrane Primary Care Field to produce the P.E.A.R.L.S. (click <u>here</u> for the websitelink)

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The actual Cochrane abstracts for the P.E.A.R.L.S are at

No. 141. Tonsillectomy or adeno-tonsillectomy effective for chronic and recurrent acute tonsillitis

No 143. Limited evidence for effectiveness of electromechanical and robot-assisted arm training after stroke

No 144. Nebulised hypertonic saline effective for acute bronchiolitis in infants

No. 145 Active management of labour is associated with a small reduction in caesarean section rate



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# Abstracts

# Tonsillectomy or adeno-tonsillectomy effective for chronic and recurrent acute tonsillitis

Clinical question	How effective is tonsillectomy, with or without adenoidectomy, in patients with chronic or recurrent acute tonsillitis?
Bottom line	Good information about the effects of tonsillectomy and adenotonsillectomy is available for children and for effects in the first year following surgery. Children were divided into two subgroups: those who are severely affected (based on specific criteria which are often referred to as the "Paradise criteria") and those less severely affected. For more severely affected children, tonsillectomy or adeno-tonsillectomy avoids three unpredictable episodes of any type of sore throat, including one episode of moderate or severe sore throat in the next year. The cost of this is a predictable episode of pain in the immediate postoperative period. Less severely affected children will have an average of 2 rather than 3 unpredictable episodes of any type of sore throat. The "average" patient will have 17 rather than 22 sore throat days but some of these 17 days (between 5 and 7) will be in the immediate postoperative period.
Caveat	Although the concept of the "average patient" is attractive, in practice, wide variability is likely. It is clear

	some children get better without any surgery, and, although removing the tonsils will always prevent "tonsillitis", the impact of the procedure on "sore throats" due to pharyngitis is much less predictable.
Context	Tonsillectomy is a common procedure. However, the procedure is controversial, and opinions vary greatly as to the relative risks and benefits.
Cochrane Systematic Review	Burton MJ and Glasziou PP. Tonsillectomy or adeno- tonsillectomy versus non-surgical treatment for chronic/recurrent acute tonsillitis. Cochrane Reviews 2008, Issue 4. Article No. D001802. DOI: 10.1002/14651858.CD001802. This review contains 5 trials involving 789 participants.
PEARLS 141, March 2009	9, written by Brian R McAvoy

[References]

# Limited evidence for effectiveness of electromechanical and robot-assisted arm training after stroke

Clinical question	How effective is electromechanical and robot-assisted arm training for improving activities of daily living after stroke?
Bottom line	Patients who receive electromechanical and robot- assisted arm training after stroke are not more likely to improve their activities of daily living, but arm motor function and strength of the paretic arm may improve. It is, therefore, not clear if such devices should be applied in routine rehabilitation, or when and how often they should be used.
Caveat	These results must be interpreted with caution because there were variations between the trials in the duration, amount of training and type of treatment, and in patient characteristics.
Context PRI	The role of electromechanical and robot-assisted training for improving arm function after stroke is unclear. More than two-thirds of all patients after stroke have difficulties with reduced arm function. Electromechanical and robot- assisted arm training uses specialised machines to assist rehabilitation in practice.
Cochrane Systematic Review	Mehrholz J et al. Electromechanical and robot-assisted arm training for improving arm function and activities of daily living after stroke. Cochrane Reviews 2008, Issue 4.

Article No. CD006876. DOI: 10.1002/14651858.CD006876.pub2. This review contains 11 trials involving 328 participants

### PEARLS 143, March 2009, written by Brian R McAvoy

[References]

### Nebulised hypertonic saline effective for acute bronchiolitis in infants

Clinical question	How effective is nebulised hypertonic saline solution in infants with acute viral bronchiolitis?	
Bottom line	Compared to treatment with nebulised 0.9% saline, nebulised 3% saline produced a 25.9% reduction (0.94 days) in the mean length of hospital stay among infants hospitalised with viral bronchiolitis. The 3% saline group also had a significantly lower post-inhalation clinical score than the 0.9% saline group in the first 3 days of treatment. The effect of nebulised hypertonic saline in improving clinical score was greater among outpatients than inpatients. No adverse events related to the 3% saline inhalations were reported.	
Caveat	Three trials did not use analysis on an intention-to-treat basis. The sample size of the review was relatively small, and the statistical power of the studies may have been sufficient for some but not for other outcome measures. The optimal delivery intervals and concentration of saline, and the most effective delivery devices remain to be determined.	
Context	Acute viral bronchiolitis is the most common lower respiratory tract infection in infants. The standard treatment remains supportive care. Nebulised hypertonic saline solution may reduce airway oedema and mucus plugging, the main pathological changes, and decrease airway obstruction.	
Cochrane Systematic Review	Zhang L et al. Nebulised hypertonic saline solution for acute bronchiolitis in infants. Cochrane Reviews 2008, Issue 4. Article No. CD006458. DOI: 10.1002/14651858.CD006458.pub2. This review contains 4 trials involving 254 participants.	
PEARLS 144, February 2009, written by Brian R McAvoy		

[References]

# Active management of labour is associated with a small reduction in caesarean section rate

Clinical question	How effective is active management of labour in reducing caesarean section (CS) rates in low-risk women?
Bottom line	Compared to routine care, active management of labour was associated with a small reduction in the CS rate. More women in the active management group had labours lasting less than 12 hours, but there was a wide variation in the length of labour within and between trials. There were no differences between groups in use of analgesia, rates of assisted vaginal deliveries or maternal or neonatal complications.
Caveat	The quality of trials was mixed. The disadvantages of active management are that it can possibly lead to more invasive monitoring, more interventions and a more medicalised birth, in which women have less control and less satisfaction. Only 1 study examined maternal satisfaction; the majority of women (over 75%) in both groups were very satisfied with care. Low-risk women were defined as having a singleton pregnancy, cephalic presentation, no known medical or obstetric complications, and no foetal abnormalities or foetal distress.
Context	Approximately 15% of women have a CS and, while the rate varies, the number is increasing in many countries. This is of concern because high CS rates do not confer additional health gain but may adversely affect maternal health and have implications for future pregnancies. Active management of labour has been proposed as a means of reducing CS rates. Active management of labour refers to a package of care including strict rules for diagnosing slow progress of labour, routine amniotomy, use of intravenous oxytocin and one-to-one care.
Cochrane Systematic Review	Brown HC et al. Package of care for active management in labour for reducing caesarean section rates in low-risk women. Cochrane Reviews 2008, Issue 4. Article No. CD004907. DOI: 10.1002/ 14651858.CD004907.pub2. This review contains 7 studies involving 5390 participants.
PEARLS 145, March 2009	, written by Brian R McAvoy

[References]