

# Current Resources for Evidence-Based Practice, January/February, 2010

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## Cochrane Collaboration Forms New Nursing Care Network

The Cochrane Collaboration is an international nonprofit organization dedicated to increasing access to high-quality evidence on the effects of health care treatments. In the spring of 2009, the Cochrane Collaboration created a new international network specific to the field of nursing, bringing the total number of Cochrane networks to 16. Cochrane networks are interest groups that provide support for the development and uptake of systematic reviews relevant to a specific field of health care or clinical area. The Cochrane Nursing Care Network (CNCN) is coordinated by a central team at the Joanna Briggs Institute of the University of Adelaide, Australia. Five "nodes" spread around the globe each take primary responsibility for a different aspect of the Network's overall mission to improve health outcomes of nursing care, and seven regional spokes translate and carry forward the work of the CNCN in their area of the world.

The CNCN defines nursing care and caregivers broadly. Nursing care comprises all care and services "essential to, or helpful in, the promotion, maintenance, or restoration of health and well-being or in the prevention of disease," and caregivers include professionals and paraprofessionals as well as lay care providers. As such, the focus of this network is also relevant to midwives, whether they are nurses or not. The purpose of the CNCN is to identify priority topics relevant to nursing care, support and carry out new Cochrane systematic reviews, and contribute to their dissemination and uptake within the large population of professionals and laypersons who provide nursing care worldwide. The group hopes to raise awareness within the global nursing care community of the wide range of evidence-based resources available through the Cochrane Collaboration and to be sure

that nursing care perspectives and priorities are adequately reflected in the organization's work.

Specific node activities include identifying priority topics for new Cochrane reviews (Scottish node); mentoring new review authors (Celtic node); coordinating the activities of the regional network offices and searching the primary literature, especially non-English sources (U.S. node); identifying nursing care evidence embedded in other reviews (Canadian node); and identifying priority review topics for Spanish, Portuguese, and French speaking countries (Spanish node). In addition to developing Cochrane reviews of relevance to those who provide and receive nursing care, the CNCN produces a newsletter for members, and is pursuing relationships with international nursing journals to disseminate information on evidence-based nursing care.

Membership is free to anyone interested in contributing to the Network's functions and is open to consumers of nursing care, nurses, other health professionals, formal and informal caregivers, and researchers involved in nursing care. Network members are encouraged to contact any of the node conveners if they are interested in participating in that node's activities, even if they reside in another country. Further information and a link to registration information can be accessed on the CNCN website.

The Cochrane Nursing Care Network. The Joanna Briggs Institute. Royal Adelaide Hospital, North Terrace, Adelaide, Australia. <http://www.joanna-briggs.edu.au/cncn/>.

## From *Cochrane Database of Systematic Reviews (CDSR)*, Issue 3, 2009

New Systematic Reviews

- Advocacy interventions to reduce or eliminate violence and promote the physical and psy-

chosocial well-being of women who experience intimate partner abuse

- Antiviral agents for treatment of herpes simplex virus infection in neonates
- Cervical assessment by ultrasound for preventing preterm delivery
- Chinese herbal medicine for endometriosis
- Combined DTP-HBV-HIB vaccine versus separately administered DTP-HBV and HIB vaccines for primary prevention of diphtheria, tetanus, pertussis, hepatitis B, and Haemophilus influenzae (HIB)
- Danazol for uterine fibroids
- Interventions for pain with intrauterine device insertion
- Intrapartum antibiotics for known maternal Group B streptococcal colonization
- Maternity waiting facilities for improving maternal and neonatal outcome in low-resource countries
- Pharmacologic interventions for pregnant women enrolled in alcohol treatment
- Safety of topical corticosteroids in pregnancy
- The effects of antimicrobial therapy on bacterial vaginosis in nonpregnant women

#### Updated Systematic Reviews

- Caesarean section for non-medical reasons at term
- Fetal electrocardiogram (ECG) for fetal monitoring during labor
- Ibuprofen for the prevention of patent ductus arteriosus in preterm and/or low birth weight infants
- Interventions for promoting smoking cessation during pregnancy
- Interventions for treating placental abruption
- Levonorgestrel-releasing intrauterine device (LNG-IUD) for symptomatic endometriosis following surgery
- Mifepristone for induction of labour
- Non-steroidal anti-inflammatory drugs for heavy bleeding or pain associated with intrauterine device use
- Prophylactic antibiotics for manual removal of retained placenta in vaginal birth
- Support during pregnancy for women at increased risk of low birth weight babies
- Testosterone for peri and postmenopausal women
- Tocolysis for preventing fetal distress in second stage of labour

Cochrane Reviews are available by subscription to *The Cochrane Library*, and review abstracts are available without charge. See <http://www.thecochranelibrary.com>

## From Database of Abstracts of Reviews of Effects (DARE)

*Recent Abstract Entries Assessing Quality of Systematic Reviews*

- Antenatal screening for postnatal depression: A systematic review
- Caesarean delivery and risk of atopy and allergic disease: Meta-analyses
- Caesarean section is associated with an increased risk of childhood-onset type 1 diabetes mellitus: A meta-analysis of observational studies
- Cesarean section and postpartum depression: A review of the evidence examining the link
- Effectiveness of acupuncture-type interventions versus expectant management to correct breech presentation: A systematic review
- Inhaled corticosteroids during pregnancy: A review of methodological issues
- Interventions in primary care to promote breastfeeding: An evidence review for the U.S. preventive services task force
- Psychological treatment of postpartum depression: A meta-analysis
- Risk of hypospadias of offspring of women using loratadine during pregnancy: A systematic review and meta-analysis
- Soy isoflavone intake inhibits bone resorption and stimulates bone formation in menopausal women: Meta-analysis of randomized controlled trials
- The impact of programs to increase contraceptive use among adult women: A review of experimental and quasi-experimental studies
- The influence of medical abortion compared with surgical abortion on subsequent pregnancy outcome

DARE abstracts are available without charge from: <http://www.crd.york.ac.uk/crdweb/>

## Evidence-Based Reviews from Other Sources

Featured reviews: (1) Bar-Oz, B., Moretti, M. E., Boskovic, R., O'Brien, L., Koren, G. (2009). *The safety of quinolones—A meta-analysis of pregnancy outcomes. European Journal of Obstetrics, Gynecology, & Reproductive Biology*, 143, 75–78. (2) Gill, S. K., O'Brien, L., Einarson, T. R., Koren, G. (2009). *The safety of proton pump inhibitors (PPIs) in pregnancy: a meta-analysis. American Journal of Gastroenterology*, 104, 1541–1545.

Recent meta-analyses evaluated the safety of two common drug classes with specific relevance in pregnancy, quinolones and proton pump inhibitors. Both are classified FDA Category C for use in pregnancy, indicating potential risk to fetuses in animal studies and lack of human study data, but benefits that may warrant use in pregnancy for some women. Quinolones are antibiotics used commonly to treat urinary tract infections. As over half of all pregnancies are unplanned, many women may take them inadvertently in the first trimester, and the authors report that women calling teratogen hotlines after exposure to quinolones were more likely to terminate those pregnancies due to fear of malformations than other callers. A meta-analysis of 984 first trimester exposures and 212,075 controls from five studies showed no significant increase in the odds of major malformation, stillbirth, preterm birth or low birth weight. Furthermore, the summary incidence of major malformations across all studies was within the expected background rate for the general population. Proton pump inhibitors are available over the counter to treat acid-related gastrointestinal disorders and infections, which affect an estimated 40–85% of pregnant women and exacerbate nausea and vomiting, another common pregnancy discomfort. Pooled analysis of pregnancy outcomes in 1530 exposures compared to 133,410 controls from seven studies showed no significant increase in major malformations, spontaneous abortions, or preterm births.

Comment: Risk aversion and underfunding contribute to a dearth of research data on safety and effectiveness of treatments during pregnancy, leaving clinicians and childbearing women without evidence upon which to base clinical decisions. These meta-analyses suggest no increased risk of adverse outcomes associated with first trimester exposure to either quinolones or proton pump inhibitors.

Featured review: O'Connor, N. R., Tanabe, K. O., Siadaty, M. S., Hauck, F. R. (2009). *Pacifiers and breastfeeding: A systematic review. Archives of Pediatrics & Adolescent Medicine, 163, 378–382.*

Based on observational studies, avoidance of pacifiers has long been recommended to increase breastfeeding success. Recently, pooled analysis of observational data has suggested that pacifier use when putting newborns to sleep may significantly reduce the risk of sudden infant death syndrome (SIDS). O'Connor and colleagues carried out a systematic review to clarify the effect of pacifier use on breastfeeding outcomes. Due to significant study heterogeneity, meta-analysis was

impossible. Included studies were assigned a quality score based on an index developed by the authors that has not been validated. The authors report that most observational studies found a negative association between pacifier use and duration of breastfeeding; however, many studies did not control adequately for confounding variables. Study details, summary statistics, and tests of significance were not reported. The results of four randomized controlled trials (RCTs) assessing various definitions of pacifier use on several breastfeeding outcomes were reported; none found a significant difference in breastfeeding outcomes associated with pacifier use. However, significant differential misclassification was present in the two RCTs that tracked actual pacifier use across study groups; they reported that 31–61% of infants in the control groups were exposed to pacifiers. This contamination of the control decreases the difference between the two groups and would attenuate any effect on breastfeeding associated with avoiding pacifiers.

Comment: Existing RCTs do not support a deleterious effect of pacifier use on breastfeeding outcomes, but these results must be interpreted with caution given problems with study quality. Further high-quality research is needed to confirm these results as well as to clarify the association between pacifier use and decreased incidence of SIDS.

Featured review: Kaunitz, A. M., Meredith, S., Inki, P., Kubba, A., Sanchez-Ramos, L. (2009). *Levonorgestrel-releasing intrauterine system and endometrial ablation in heavy menstrual bleeding: a systematic review and meta-analysis. Obstetrics & Gynecology, 113, 1104–1116.*

A meta-analysis compared the effectiveness of the levonorgestrel-releasing intrauterine device (LNG-IUS) to that of endometrial ablation for the treatment of heavy menstrual bleeding in six randomized controlled trials that reported blood loss scores from pictorial assessment charts as the measure of outcome. The authors compared blood loss at 6, 12, and 24 months, as well as rates of treatment failure and quality of life scores between the two methods. The meta-analysis found no significant difference in any of these outcome variables between the two methods, concluding that the LNG-IUS is an effective alternative to endometrial ablation in women with heavy menstrual bleeding, and the treatment of choice for women who wish to preserve their fertility.

Comment: Approximately 10% of all women report heavy menstrual bleeding at some time in their lives, and menorrhagia is a frequent reason for

seeking care during the perimenopausal period. While demonstrating equal effectiveness in reducing bleeding, the LNG-IUS is associated with significantly lower complication rates than endometrial ablation and avoids exposure to anesthesia-related risks. Moreover, some data suggest the LNG-IUS may provide a level of protection from endometrial hyperplasia, while a risk of endometrial ablation is the retention of residual functional endometrial tissue that can develop into endometrial carcinoma.

### Recent Evidence-Based Reviews

- Bellamy, L., Casas, J. P., Hingorani, A. D., Williams, D. (2009). Type 2 diabetes mellitus after gestational diabetes: A systematic review and meta-analysis. *Lancet*, 373, 1773–1779.
- Buttini, M. J., Jordan, S. J., Webb, P. M. (2009). The effect of the levonorgestrel releasing intrauterine system on endometrial hyperplasia: An Australian study and systematic review. *Australian & New Zealand Journal of Obstetrics & Gynaecology*, 49, 316–322.
- Chakhtoura, Z., Canonico, M., Gompel, A., Thalabard, J. C., Scarabin, P. Y., Plu-Bureau G. (2009). Progestogen-only contraceptives and the risk of stroke: A meta-analysis. *Stroke*, 40, 1059–1062.
- Dennis, C. L., McQueen, K. (2009). The relationship between infant-feeding outcomes and postpartum depression: A qualitative systematic review. *Pediatrics*, 123, e736–751.
- Doyle, L. W., Crowther, C. A., Middleton, P., Marret, S. (2009). Antenatal magnesium sulfate and neurologic outcome in preterm infants: A systematic review. *Obstetrics & Gynecology*, 113, 1327–1333.
- Harder, T., Roepke, K., Diller, N., Stechling, Y., Dudenhausen, J. W., Plagemann, A. (2009). Birth weight, early weight gain, and subsequent risk of type 1 diabetes: Systematic review and meta-analysis. *American Journal of Epidemiology*, 169, 1428–1436.
- Luttjeboer, F. Y., Verhoeve, H. R., van Dessel, H. J., van der Veen, F., Mol, B. W., Coppus, S. F. (2009). The value of medical history taking as risk indicator for tuboperitoneal pathology: A systematic review. *BJOG*, 116, 612–625.
- Noll, J. G., Shenk, C. E., Putnam, K. T. (2009). Childhood sexual abuse and adolescent pregnancy: A meta-analytic update. *Journal of Pediatric Psychology*, 34, 366–378.
- Pritts, E. A., Parker, W. H., Olive, D. L. (2009). Fibroids and infertility: An updated systematic review of the evidence. *Fertility and Sterility*, 91, 1215–1223.
- Ross, L. E., Dennis, C. L. (2009). The prevalence of postpartum depression among women with substance use, an abuse history, or chronic illness: A systematic review. *Journal of Women's Health*, 18, 475–486.
- Shah, P. S., Ohlsson, A.; Knowledge Synthesis Group on Determinants of Low Birth Weight and Preterm Births. (2009). Effects of prenatal multimicronutrient supplementation on pregnancy outcomes: A meta-analysis. *Canadian Medical Association Journal*, 180, E99–108.
- Swingle, H. M., Colaizy, T. T., Zimmerman, M. B., Morriss, F. H. Jr. (2009). Abortion and the risk of subsequent preterm birth: A systematic review with meta-analyses. *Journal of Reproductive Medicine*, 54, 95–108.
- Wolff, T., Witkop, C. T., Miller, T., Sved, S. B.; U.S. Preventive Services Task Force. (2009). Folic acid supplementation for the prevention of neural tube defects: An update of the evidence for the U.S. Preventive Services Task Force. *Annals of Internal Medicine*, 150, 1–50.
- Yarcheski, A., Mahon, N. E., Yarcheski, T. J., Hanks, M. M., Cannella, B. L. (2009). A meta-analytic study of predictors of maternal-fetal attachment. *International Journal of Nursing Studies*, 46, 708–715.