EVIDENCE-BASED PRACTICE Carol Sakala, PhD, MSPH

NEW RESOURCES FOR EVIDENCE-BASED PRACTICE, JANUARY/FEBRUARY 2003


This column highlights new resources that clarify knowledge about effects of specific practices in maternal child health. The focus is on new and recently updated systematic reviews and on overviews of best research evidence. The column will appear in four issues per year simultaneously in the Journal of Midwifery & Women’s Health and in the Journal of Obstetric, Gynecologic and Neonatal Nursing. Each column identifies recent additions to three major evidence-based databases:

- **Cochrane Database of Systematic Reviews (CDSR)** uses a standardized method to review studies that evaluate effects of specific health care practices. It is a leading source of high-quality reviews.
- **Database of Abstracts of Reviews of Effects (DARE)** is a compilation of structured abstracts of quality-assessed systematic reviews. Staff at the United Kingdom National Health Service’s Centre for Reviews and Dissemination use quality criteria to determine whether a review is included and to develop abstracts.
- **Clinical Evidence** is a source of overviews of the best available research about effects of interventions. These overviews from the BMJ Publishing Group examine effects of interventions in specific clinical areas.

The column also identifies other recent evidence-based research reviews and ends with an evidence commentary.

COCHRANE DATABASE OF SYSTEMATIC REVIEWS (CDSR), ISSUE 3, 2002


In a review of 18 randomized controlled trials, the investigators found that aerobic, weight-bearing, resistance, and walking exercise were all effective in increasing bone mineral density of the spine in postmenopausal women. Walking was also effective on the hip, and aerobics on the wrist.

OTHER NEW REVIEWS IN CDSR

**Pregnancy and Birth**
- Antibiotic regimens for management of intra-amniotic infection
- Antibiotics for prelabour rupture of membranes at or near term
- Early compared with delayed oral fluids and food after caesarean section
- Interventionist versus expectant care for severe pre-eclampsia before term
- Vaginal disinfection during labour for reducing the risk of mother-to-child transmission of HIV infection

**Women’s Health**
- Antibiotic duration for treating uncomplicated, symptomatic lower urinary tract infections in elderly women
- Interventions targeted at women to encourage the uptake of cervical screening
- Sponge versus diaphragm for contraception

**Neonatal**
- Dopamine for prevention of morbidity and mortality in term newborn infants with suspected perinatal asphyxia
- Early postnatal discharge from hospital for healthy mothers and term infants
- Immunoglobin infusion for isoimmune haemolytic jaundice in neonates
- Opiate treatment for opiate withdrawal in newborn infants
- Sedatives for opiate withdrawal in newborn infants
- Transpyloric versus gastric tube feeding for preterm infants
- Ward reduction without general anaesthesia versus reduction and repair under general anaesthesia for gastroschisis in newborn infants

UPDATED REVIEWS IN CDSR

**Pregnancy and Birth**
- Antibiotic prophylaxis for cesarean section
- Education for contraceptive use by women after childbirth
- Interventions for trichomoniasis in pregnancy
- Prostaglandins for prevention of postpartum haemorrhage
- Techniques for preventing hypotension during spinal anaesthesia for caesarean section

**Women’s Health**
- Diaphragm versus diaphragm with spermicides for contraception
Immediate postabortal insertion of intrauterine devices
Minilaparotomy and endoscopic techniques for tubal sterilization
Preoperative endometrial thinning agents before endometrial destruction for heavy menstrual bleeding

Neonatal

Late versus early surgical correction for congenital diaphragmatic hernia in newborn infants
Prophylactic intravenous indomethacin for preventing mortality and morbidity in preterm infants

Cochrane Reviews are available by subscription to The Cochrane Library or through various publishing partners (see www.update-software.com/Cochrane/). Abstracts of all Cochrane Reviews are freely available online at www.cochrane.org.

DATABASE OF ABSTRACTS OF REVIEWS OF EFFECTS (DARE)


The authors reviewed several dozen randomized controlled trials examining effects of care to reduce perineal trauma. They found that perineal integrity was increased by avoiding episiotomy, by spontaneous or vacuum-assisted birth as opposed to use of forceps, and in first-time mothers by perineal massage at the end of pregnancy. Second-stage position had little effect, and research is needed to assess several other interventions. DARE reviewers generally give high marks to the quality of this review.

OTHER REVIEWS RECENTLY ADDED TO DARE

Pregnancy and Birth

Breech presentation after 34 weeks: a meta-analysis of corrected perinatal mortality/morbidity according to the method of delivery
Dinoprostone vaginal insert for cervical ripening and labor induction: a meta-analysis

Women's Health

Effects of continuous and cyclic hormone replacement therapy on the lipoprotein profile in postmenopausal women
Oral contraceptives and colorectal cancer risk: a meta-analysis

DARE abstracts are freely available online through agatha.york.ac.uk/darehp.htm.

CLINICAL EVIDENCE, ISSUE 7, JUNE 2002

Featured evidence overview: Creery D, Mikrogianakis A. Sudden infant death syndrome.

In an overview of the best available research (non-systematic reviews and observational studies) about interventions to reduce risk of sudden infant death syndrome, the investigators conclude that advice to avoid prone sleeping is beneficial, advice to avoid tobacco smoke exposure is probably beneficial, and the following types of advice are of unknown effectiveness: avoid soft sleeping surfaces, avoid overheating or overwrapping, avoid bed-sharing, breastfeed, and use pacifiers.

OTHER NEW CLINICAL EVIDENCE OVERVIEWS

Women's Health

- Fibroids (effects of medical, preoperative, and surgical treatments)
- Vulvovaginal candidiasis (effects of treatments and preventive treatments)

UPDATED OVERVIEWS IN CLINICAL EVIDENCE

Pregnancy and Birth

- Changing behavior: smoking interventions in pregnant women
- Nausea and vomiting in early pregnancy
- Preeclampsia and hypertension
- Preterm birth

Women's Health

- Bacterial vaginosis
- Infertility and subfertility
- Menopausal symptoms
- Menorrhagia
- Premenstrual syndrome

Neonatal

- Reducing pain during blood sampling in infants

Clinical Evidence is available in online and print versions through www.clinicalevidence.com

OTHER RECENT EVIDENCE-BASED RESEARCH REVIEWS


Seeking evidence of effects of preconception care on more than 40 risk conditions, the investigators found only 19 adequate studies of varying levels of evidence addressing four problem areas. Within this, they found some support for screening sexually active women of reproductive age for risk conditions, recommending folate supplements to this group, and offering nutrition services to women with diabetes and hyperphenylalanemia.
**OTHER REVIEWS**

**Pregnancy and Birth**


**Women’s Health**


**EVIDENCE COMMENTARY: ABOUT SYSTEMATIC REVIEWS**

A “systematic review” summarizes research evidence about effects of care using established procedures to limit bias. The reviewer begins by specifying in advance parameters and procedures that will be followed. Parameters include populations, interventions, outcomes, and study designs that will and will not be included in the review. Procedures include strategies for conducting a thorough search for relevant material, for evaluating the methodologic adequacy of relevant material, and for summarizing results of relevant and methodologically sound studies. The reviewer then carries out the review, adhering as closely as possible to the a priori plan, and reports parameters, procedures, and results.

There is growing international consensus that a well-conducted systematic review enables the firmest possible conclusions, given the available research base, and is thus the highest “level of evidence.”

Systematic reviews may clarify that an adequate research base exists in favor of or against a specific practice. Frequently, however, such reviews conclude that there are pros and cons, or that an adequate research base does not exist to develop clear conclusions. Both firmer conclusions and information about uncertainty are critical for informed decision making.

This column features two leading databases for systematic reviews, CDSR and DARE.

Carol Sakala is Director of Programs at the Maternity Center Association (MCA). MCA’s long-term national Maternity Wise™ program works with health professionals and other audiences to promote evidence-based maternity care (www.maternitywise.org).