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This column highlights new and recently updated systematic reviews and overviews of best research evidence to clarify knowledge about effects of specific maternal/newborn and women’s health practices.

**Translating Best Cesarean Evidence Into Practice**

Recent commentaries in this column discussed the state of the science of translating knowledge into evidence-based practice and several large-scale projects to close evidence-practice gaps in maternal and newborn care. This commentary continues this theme with a focus on cesarean delivery.

Noteworthy reports of efforts to foster appropriate use of cesarean delivery include the following:


- **Flamm, B., Kabcenell, A., Berwick, D. M., & Roessner, J.** (1997). Reducing cesarean section rates while maintaining maternal and infant outcomes. *Boston: Institute for Healthcare Improvement, 179 pages.* Includes both clinical strategies for avoiding unnecessary cesarean deliveries and tools for fostering institutional change. Approach has been used by collaborating teams to achieve impressive “breakthrough improvement” (see [http://www.ihi.org/IHI/Products/WhitePapers/TheBreakthroughSeries/IHIsCollaborativeModelforAchievingBreakthroughImprovement.htm](http://www.ihi.org/IHI/Products/WhitePapers/TheBreakthroughSeries/IHIsCollaborativeModelforAchievingBreakthroughImprovement.htm)).

- **Main, E. K.** (1999). Reducing cesarean birth rates with data-driven quality improvement activities. *Pediatrics, 103*(Suppl. 1), 374-383. Available without charge at [http://pediatrics.aappublications.org/cgi/content/full/103/1/SE1/374](http://pediatrics.aappublications.org/cgi/content/full/103/1/SE1/374) Reports hospital-based cesarean reduction initiative. Focusing on behavioral and cultural change among physicians, nurses, and pregnant women, the cesarean rate dropped from nearly 25% to 18.5%. Strong leadership and intensive outcomes feedback were key components. Nonblinded physician-level servicewide feedback was more effective than feedback that did not link physician identity with outcomes.

Northern New England Perinatal Quality Improvement Network. (2004). VBAC project & documents. Accessed December 12, 2004, from http://www.nnepqin.org/mneob/servlet/ViewPage?id =3 This project was established to increase access to vaginal birth after caesarean (VBAC) in Vermont and New Hampshire, enhance safety for mothers and newborns, and limit professional liability. The project emphasizes risk assessment, informed decision making, access to VBAC in community hospitals and medical centers, emergency cesarean readiness, and data collection and monitoring. Web resources include a consent form, educational material for pregnant women, and professional guidelines.

From Cochrane Database of Systematic Reviews (CDSR), Issue 4, 2004

New Systematic Reviews
- Antibiotic regimens for suspected early neonatal sepsis
- Anticonvulsants for neonates with seizures
- Betamimetics for inhibiting preterm labour
- Buccal or sublingual misoprostol for cervical ripening and induction of labour
- Disclosing to parents newborn carrier status identified by routine blood spot screening
- Discontinuation of epidural analgesia late in labour for reducing the adverse delivery outcomes associated with epidural analgesia
- Early versus delayed umbilical cord clamping in preterm infants
- Fertility awareness-based methods for contraception
- Fetal pulse oximetry for fetal assessment in labour
- Number of embryos for transfer following in vitro fertilisation or intracytoplasmic sperm injection
- Pain relief for neonatal circumcision
- Planned elective repeat caesarean section birth versus planned vaginal birth for women with a previous caesarean birth
- Prophylactic mastectomy for the prevention of breast cancer
- Prophylactic versus selective antibiotics for term newborn infants of mothers with risk factors for neonatal infection
- Psychosocial and psychological interventions for preventing postpartum depression
- Surgical management of pelvic organ prolapse in women
- Treatment for women with postpartum iron deficiency anaemia
- Vaginal chlorhexidine during labour for preventing maternal and neonatal infections (excluding group B streptococcal and HIV)

Updated Systematic Reviews
- Antibiotic regimens for endometritis after delivery
- Extra-abdominal versus intra-abdominal repair of the uterine incision at caesarean section
- Immediate postabortal insertion of intrauterine devices
- Interventions for promoting smoking cessation during pregnancy
- Oral oestrogen and combined oestrogen/progestogen therapy versus placebo for hot flushes
- Prophylactic intravenous preloading for regional analgesia in labour
- Synchronized mechanical ventilation for respiratory support in newborn infants
- Venepuncture versus heel lance for blood sampling in term neonates

Cochrane Reviews are available by subscription to The Cochrane Library or through various publishing partners. Abstracts of Cochrane Reviews are available without charge. See http://www.cochrane.org/reviews/ for abstracts and subscription details.

From Database of Abstracts of Reviews of Effects (DARE)

Recent Abstract Entries Assessing Quality of Systematic Reviews
- Cervical ripening and labor induction with a controlled-release dinoprostone vaginal insert: a meta-analysis
- Critical evaluation of the safety of Cimicifuga racemosa in menopause symptom relief
- Female sexual dysfunction in postmenopausal women: systematic review of placebo-controlled trials
- Interventions to promote physical activity among African American women
- A multidimensional meta-analysis of pharmacotherapy for bulimia nervosa: summarizing the range of outcomes in controlled clinical trials
- Recurrent pregnancy loss with antiphospholipid antibody: a systematic review of therapeutic trials
• Screening for fragile X syndrome: a literature review and modelling study
• Soy-based formulae and infant growth and development: a review
• Stillbirths within the framework of midwifery pilot projects in Quebec
• A systematic review of intraoperative radiotherapy in early stage breast cancer
• A systematic review of the safety of black cohosh

DARE abstracts are available without charge at http://www.york.ac.uk/inst/crd/darehp.htm

Evidence-Based Reviews From Other Sources


This systematic review addressed questions about genetic screening from mothers’ points of view. The review summarizes a growing body of research about knowledge, anxiety and other emotional aspects of screening, factors associated with participation in screening programs, and consequences of receiving false-positive, false-negative, true-positive, and true-negative results. The authors conclude that pressing policy matters, in order of priority, are need to achieve adequate informed consent, costs associated with quality services, unmet needs of women receiving false-positive test results, and unmet needs of women’s partners (especially related to carrier screenings).

Comment: During pregnancy and the newborn period, genetic screening is common and parents are vulnerable. This review can help strengthen informed decision-making processes, improve service delivery, and fill research gaps.


Derived from an evidence report of the U.S. Agency for Healthcare Research and Quality, this analysis examined incidence and effects of uterine rupture in women with low transverse or unknown types of cesarean scars. The authors estimated that among 10,000 women laboring with a cesarean scar, about 27 experience a symptomatic uterine rupture and 1.4 babies die as a consequence. Most symptomatic ruptures did not have serious consequences, and planned repeat cesarean delivery did not completely protect against symptomatic uterine rupture. Rates of unplanned hysterectomy and asymptomatic rupture (dehiscence) did not differ by planned mode of delivery. The authors conclude that current research is inadequate for estimating the impact of labor induction on uterine rupture risk.

Comment: An estimated 370 planned repeat cesarean deliveries would prevent 1 symptomatic uterine rupture, and 7,142 planned repeat cesarean deliveries would prevent 1 rupture-related perinatal death. To make informed decisions, women and their caregivers must balance these considerations against a broad range of shorter- and longer-term excess risks for mothers and newborns that are associated with cesarean deliveries and were not considered in this report. Best research evidence does not support failure to offer a choice of vaginal birth after cesarean birth.


Authors of this evidence report identified the range of available measures for assessing the quality of breast cancer care and sought evidence of their soundness for broad application. The report covered diagnosis, treatment, follow-up, and reporting/documentation. The research considered prior applications of each measure (populations, clinical context, discrimination of quality among demographic groups), evidence base supporting the relationship between the measure and improved outcomes, and the measure’s psychometric performance. The review reports on 143 quality indicators that were described in 58 studies. Apart from a small number of studies focusing primarily on quality of life, the investigators were unable to identify scientifically validated quality measures.

Comment: With the exception of quality-of-life measures, currently available breast cancer care quality measures do not provide a meaningful basis for evaluation and policy making. Work in progress by the American Society of Clinical Oncology may begin to fill this gap.

Recent Evidence-Based Reviews


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