Milbank Report Proposes Framework for Evidence-Based Maternity Care and Policy Recommendations for Improvement

A new Milbank Report focuses on the potential to greatly improve maternity care in the United States through greater fidelity to evidence-based practice (Sakala & Corry, 2008). The report, authored by Carol Sakala and Maureen Corry, was developed collaboratively by Childbirth Connection and the Milbank Memorial Fund along with members of the Reforming States Group. Childbirth Connection is a national, not-for-profit organization dedicated to improving the quality of maternity care through research, education, policy, and advocacy. The Reforming States Group is a voluntary coalition of government experts in health policy from all 50 states, with additional members from Australia, Canada, Scotland and the UK. The Milbank Memorial Fund, founded in 1905, is a national foundation that provides nonpartisan analysis of health policy issues to inform and support the work of private and public health policymakers.

The report, entitled Evidence-Based Maternity Care: What It Is and What It Can Achieve, takes stock of the performance of the current maternity care system by considering care processes, maternal and newborn outcomes and value for purchasers. It proposes a framework for evidence-based maternity care based on the principles of “effective care with least harm” to mothers and babies, and reliance on best quality evidence. The proposed framework is applied in an analysis of current maternity care practices in the United States, identifying gaps between evidence and practice. Practices that are overused, underused, or commonly used despite uncertainty about their effects are called out, and the relationship between evidence about biological childbearing processes and maternity care interventions is discussed. Many systematic reviews that could be used to improve maternity care for large proportions of mothers and babies by limiting overused practices to appropriate circumstances and rectifying underuse of beneficial practices are reviewed. Finally, barriers to wider adoption of evidence-based maternity care are identified, and policy recommendations for greater uptake of evidence are proposed.

Electronic copies of Milbank Reports are available without charge from the Fund (http://www.milbank.org/reports/reportstest.html). A PDF of the report is also available without charge from Childbirth Connection’s website (http://www.childbirthconnection.org/ebmc/). (Disclosure: this author is an employee of Childbirth Connection).

REFERENCES

From Cochrane Database of Systematic Reviews (CDSR), Issue 3, 2008

New Systematic Reviews
- Amniotic fluid index versus single deepest pocket as a screening test for preventing adverse pregnancy outcome
- Antenatal breast examination for promoting breastfeeding
- Hysterectomy versus hysterectomy plus oophorectomy for premenopausal women
- Interventions for ketosis during labour
- Methods of delivering the placenta at caesarean section
● Ovulation triggers in anovulatory women undergoing ovulation induction
● Preconception counseling for women with epilepsy to reduce adverse pregnancy outcome
● Psychosocial interventions for women enrolled in alcohol treatment during pregnancy
● Rapid versus stepwise negative pressure application for vacuum assisted vaginal delivery
● Surgery for tubal infertility
● Surgical techniques for uterine incision and uterine closure at the time of caesarean section
● Uterine massage for preventing postpartum haemorrhage

Updated Systematic Reviews
● Antibiotic duration for treating uncomplicated, symptomatic lower urinary tract infections in elderly women
● Bladder neck needle suspension for urinary incontinence in women
● Erythromycin for the prevention and treatment of feeding intolerance in preterm infants
● Extracorporeal membrane oxygenation for severe respiratory failure in newborn infants
● Methylene-xanthine treatment for apnea in preterm infants
● Neonatal screening for sickle cell disease
● Psychological interventions for women with metastatic breast cancer
● Regular self-examination or clinical examination for early detection of breast cancer
● Servo-control for maintaining abdominal skin temperature at 36°C in low birth weight infants
● Surgery versus primary endocrine therapy for operable primary breast cancer in elderly women (70 years plus)
● Vitamin A supplementation for reducing the risk of mother-to-child transmission of HIV infection

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Evidence-Based Reviews from Other Sources


A rigorously conducted meta-analysis explored the association between cesarean delivery and childhood onset type 1 diabetes mellitus. In their analysis, the authors identified and adjusted for potential confounders using regression techniques on each individual study, and then performed meta-analysis on adjusted estimates or individual patient data. The study demonstrated a 20% increase in type 1 diabetes associated with cesarean delivery after controlling for gestational age, birth weight, birth order, breastfeeding, maternal age and maternal diabetes.

Comment: This study reports a significant increase in the risk for childhood onset type 1 diabetes associated with cesarean delivery. Of interest, two other reviews published in the journal Clinical and Experimental Allergy in the same time period and included in the current column demonstrate an increased risk of similar magnitude between cesarean delivery and childhood asthma, and between cesarean delivery and food allergy, allergic rhinitis, asthma and hospitalization for asthma. In those reviews, it was not possible to control for potential...
confounders. Meta-analysis provides clarification of the magnitude of observed associations but does not allow inferences about causation. Taken together, the evidence from these reviews strongly suggests a relationship between cesarean delivery and subsequent alteration in childhood immune function for which the exact mechanism is not currently understood.


The authors conducted a meta-analysis of 25 epidemiological studies published after 1985 to clarify the relationship between gestational age and prevalence rates and characteristics of cerebral palsy (CP) in liveborn, surviving infants. The study confirmed a significant dose-responsive decrease in the prevalence of CP with increasing gestational age, clarifying that this decline is first observed at 27 weeks’ gestation. The rates of CP by gestational age were as follows: 14.6% at 22 to 27 weeks, 6.2% at 28 to 31 weeks, 0.7% at 32 to 36 weeks, and 0.1% at term. The spastic form of CP dominated in preterm infants whereas non-spastic CP was more common in term infants. Due to a lack of standard nomenclature to define the severity of CP, it was not possible to make inferences about acuity in relation to gestational age.

Comment: Technological advances in perinatal care in recent decades have led to increased survival of infants born at earlier gestational ages. This study clarifies current prevalence rates of CP providing new information about the association between the rate and types of CP and gestational age.


A meta-analysis of 10 analytic studies reporting the effect of intrauterine device (IUD) use on risk of endometrial cancer was performed. Since cancer diagnosis dates in the studies predated marketing of hormonal IUDs, the effects were attributed to inert and copper-containing IUDs only. Some, but not all, included studies controlled for potential confounders that could attenuate or magnify the association between IUD use and endometrial cancer risk. Based on the adjusted pooled analysis, women who had ever used an IUD were 46% less likely to develop endometrial cancer than never users. In addition, a linear duration analysis for the effect of each 5-year increment up to 20 years showed a significant decrease in risk associated with years of IUD use, years since last IUD use (recency), and years since first IUD use (latency).

Comment: Despite potential limitations, this study strongly suggests that non-hormonal IUDs exert a protective effect against endometrial cancer, the mechanism for which is not currently understood. Future studies including hormonal IUDs are likely to exhibit an even greater protective effect because progestins are known to decrease proliferation of the uterine lining.

**Recent Evidence-Based Reviews**

- Hannula, L., Kaunonen, M., Tarkka, M. T. (2008). A systematic review of professional support...


