

Letters

Not safer and not cheaper?

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Roberto Palencia and associates,¹ in their analysis of the economic outcomes of the Term Breech Trial, report that planned cesarean birth is both safer and cheaper for breech fetuses than planned vaginal birth. However, the authors have analyzed only their early results, in which newborn outcomes favoured planned cesarean birth.² **They have not referred to their own results at 2-year follow-up, which showed no difference in outcome for the babies or the mothers,**^{3,4} thus demonstrating the resilience of both the newborns and of the mothers' pelvic floor.

In addition, in their economic analysis, Palencia and associates looked only at immediate costs, thus vastly underestimating the real costs of elective cesarean for breech or any birth. Since most women will have more than one birth, the presence of a uterine scar will expose women to increases in placenta previa and placenta accreta,⁵ ectopic pregnancy,⁶ abruption,⁵ infertility,⁷ stillbirth⁸ and excess hospital readmissions because of the cesarean⁹ and adhesion-related intestinal obstruction.¹⁰ All of these costs have been ignored.

This analysis led to headlines in the popular press that cesarean births are both safer and cheaper. This lack of nuance fuels societal views that increasingly suggest that cesarean section is just another way of giving birth; in addition, it undermines the confidence of a generation of women who are coming to believe that they cannot give birth without massive technological assistance.

REFERENCES

1. Palencia R, Gafni A, Hannah ME, et al. The costs of planned cesarean versus planned vaginal birth in the Term Breech Trial. *CMAJ* 2006;174(8):1109-13.
2. Hannah M, Hannah W, Hewson S, et al. Planned caesarean section versus planned vaginal birth for breech presentation at term: a randomized multicentre trial. *Lancet* 2000;356:1375-83.

3. Hannah ME, Whyte H, Hannah WJ, et al. Maternal outcomes at 2 years after planned cesarean section versus planned vaginal birth for breech presentation at term: the international randomized Term Breech Trial. *Am J Obstet Gynecol* 2004;191(3):917-27.
4. Whyte H, Hannah M, Saigal S, et al. Outcomes of children at 2 years after planned cesarean birth vs planned vaginal birth for breech presentation at term: the international randomized Term Breech Trial. *Am J Obstet Gynecol* 2004;191(3):864-71.
5. Lydon-Rochelle M, Holt VL, Easterling TR, et al. First-birth cesarean and placental abruption or previa at second birth(1). *Obstet Gynecol* 2001; 97(5 Pt 1):765-9
6. Hemminki E, Merilainen J. Long-term effects of cesarean sections: ectopic pregnancies and placental problems. *Am J Obstet Gynecol* 1996;174(5):1569-74.
7. Hemminki E. Impact of caesarean section on future pregnancy – a review of cohort studies. *Paediatr Perinat Epidemiol* 1996;10(4):366-79.
8. Smith G, Pell J, Dobbie R. Cesarean section and risk of unexplained stillbirth in subsequent pregnancy. *Lancet* 2004;362:1779-84
9. Lydon-Rochelle M, Holt VL, Martin DP, et al. Association between method of delivery and maternal rehospitalization. *JAMA* 2000;283(18):2411-6.
10. Al-Took S, Platt R, Tulandi T. Adhesion-related small bowel obstruction after gynecologic operations. *Am J Obstet Gynecol* 1999;180(2):313-5.

Excerpts of original paper

Costs of Planned Cesarean versus Planned Vaginal Birth in the Term Breech Trial

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Background: The Term Breech Trial compared the safety of planned cesarean and planned vaginal birth for breech presentations at term. The combined outcome of perinatal or neonatal death and serious neonatal morbidity was found to be significantly lower among babies delivered by planned cesarean section. In this study we conducted a cost analysis of the 2 approaches to breech presentations at delivery.

Methods: We used a third-party–payer (i.e., Ministry of Health) perspective. We included all costs for physician services and all hospital-related costs incurred by both the mother and the infant. We

collected health care utilization and outcomes for all study participants during the trial. We used only the utilization data from countries with low national rates of perinatal death ($\leq 20/1000$). Seven hospitals across Canada (4 teaching and 3 community centres) were selected for unit cost calculations.

Results: The estimated mean **cost of a planned cesarean was significantly lower than that of a planned vaginal birth (\$7165 v. \$8042 per mother and infant; mean difference -\$877, 95% credible interval -\$1286 to -\$473)**. The estimated mean cost of a planned cesarean was lower than that of a planned vaginal birth for both women having a first birth (\$7255 v. \$8440) and women having had at least one prior birth (\$7071 v. \$7559). Although the treatment effect was largest in the subgroup of women having their first child, there was no statistically significant interaction between treatment and parity since the 95% credible intervals for difference in treatment effects between parity equalling zero and parity of one or greater all include zero.

Interpretation: Planned cesarean section was found to be less costly than planned vaginal birth for the singleton fetus in a breech presentation at term in the Term Breech Trial.