

Article details: 2014-0055	
Title	Maternal and newborn outcomes after a prior cesarean birth by planned mode of delivery and history of prior vaginal birth in British Columbia, Canada: a retrospective cohort study
Authors	Celeste D Bickford BSc, Patricia A. Janssen, PhD
Reviewer 1	Dr. Keyna Bracken
Institution	McMaster University, Family Medicine, Hamilton, Ont.
General comments	<p>Overall I do not feel this paper adds anything to current debate about VBAC after C/S.</p> <p>Introduction: 1. Some of referenced trials such as Wen et al are old and although still cited for instance in ALARM, they are prefaced by saying other trials have not replicated this data and are in contradictory. What about including more recent work from Chaillet, Bujold, Dube and Grobman 'Validation of a Predictive model for vaginal birth after c/s' JOGC May 2012 which has a more updated reference list and comments on previous vaginal birth as positive predictive factor?</p> <p>Methods: 2. How was the decision made to offer a trial of labour? We know non-recurring reasons for c/s such as fetal presentation make successful VBAC more likely. This is not known from this retrospective cohort study which is limited as they always are by potential selection bias which we know nothing about in addition to the limitations mentioned by the author. Some of these women may not have been good candidates especially early in the 2000s when this analysis started (e.g. placenta issues not commented on).</p> <p>3. Line 43-should read 'gestational hypertension' rather than pregnancy induced hypertension as per new SOGC hypertension guidelines. Exclusion criteria vague - gestational diabetics left in for example, what about other maternal conditions that may have affected outcomes. Under fetal/neonatal outcomes admission to NICU considered life threatening. In many hospitals NICU is the only place babies can go for observation and certainly does not mean life threatening outcome. This may have artificially made neonatal life threatening events higher.</p> <p>Results: 4. As indicated above what factors were considered in planning for vaginal births? No indication of many of accepted positive predictors (i.e. non recurrent indication), women with previous c/s and no vaginal birth may represent more complex patient-selection biases in other words not acknowledged.</p>
Author response	<ol style="list-style-type: none"> The reviewer suggests that we add a reference from Chaillet et al. We are very familiar with the work of Dr. Chaillet and his group in modeling predictive factors for VBAC and have consulted with him by phone. We have acknowledged his work in our discussion, page 10, para 1. We have also referenced some of the same authors as he has referenced (Wen, Guise, and earlier work by Chaillet et al). The reviewer notes that some of these women may not have been good candidates for VBAC in the 2000s. The women in this cohort would have been offered trial of labour in accordance with the clinical practice guidelines published by the Society of Obstetricians and Gynaecologists of Canada (SOGC). An earlier version (1997) and the current version (2005) state that a planned vaginal delivery is contraindicated in the presence of placenta previa, transvers lie or any other known contraindications of labour. We have changed "pregnancy induced hypertension" to "gestational hypertension" as requested on page 5, para 2. <p>With respect to exclusion criteria, the SOGC guidelines do not list any pre-existing conditions or conditions arising in pregnancy as contra-indications other than those directly relating to a uterine scar. Adherence to SOGC guidelines would have excluded these women. We chose in addition to exclude women with pre-existing diabetes, pregnancy induced hypertension and cardiac disease because we believed that each of these conditions would warrant individual assessment by an experienced obstetrician and did not feel that our study results could be generalizable to women with these high risk conditions.</p> <p>We included admission to a level III NICU in the list of life threatening</p>

	<p>neonatal outcomes, as admission to tertiary NICUs is restricted to infants who require mechanical ventilation and immediate access to subspecialty care. We agree that admissions to level II nurseries may be for observation purposes and thus included them in the list of non-life threatening neonatal outcomes.</p> <p>4. We agree that the nature of the indication for the previous cesarean section may represent more complex patient-selection biases, but this level of analysis was not possible with the data elements in the Perinatal Services BC database. We have acknowledged this, as the author requests, in our limitations, page 10, last sentence.</p>
Reviewer 2	Lesley A. Tarasoff
Institution	University of Toronto, Dalla Lana School of Public Health, Toronto, Ont.
General comments	<p>The paper is straightforward and well written; however, I would like to see a more thorough interpretation/discussion section.</p> <ol style="list-style-type: none"> 1. Not sure why Hysterectomy is listed as a keyword 2. In introduction provide, please provide c-section rates in BC 3. Are there other reasons for lack of adherence to guidelines beyond fear of litigation by physicians? 4. Inconsistency with acronyms: page 5 = BC, page 6 = B.C. 5. Does the BC Perinatal Registry include women living on First Nations Reserves or in group dwellings? 6. Typo on page 11, second paragraph: "weight" should be "weigh" 7. Interpretation in Abstract and conclusions/recommendations on page 11 are somewhat vague. 8. Is there no conclusion section?
Author response	<ol style="list-style-type: none"> 1. We included hysterectomy as it is an important consequence of uterine rupture, the major maternal morbidity associated with vaginal birth after cesarean section. 2. We have provided the c-section rates in BC, page 4, para 1. 3. The reviewer asks if there are other reasons for lack of adherence to guidelines beyond fear of litigation. Other reasons include physician preference/beliefs, convenience, and logistical reasons, such as location in rural areas. We listed fear of litigation specifically because we believe that this is a modifiable barrier that we hope our study will address, in terms of giving quantitative measures of risk. 4. Inconsistency of acronyms for "BC" corrected, page 5 and 6. 5. Yes, the BC Perinatal Registry includes women living on First Nations Reserves or in group dwellings. 6. Typo page 11, "weight" corrected to "weigh". 7. We agree that the interpretations in the abstract and in conclusions/recommendations on page 11 are vague and they have been revised. 8. Additional headings have been added at the editor's request, including "conclusion."