Caesarean Delivery Rate Review: OHTAC Recommendation

ONTARIO HEALTH TECHNOLOGY ADVISORY COMMITTEE

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All authors at Health Quality Ontario are impartial. There are no competing interests or conflicts of interest to declare.
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Health Quality Ontario's research is published as part of the Ontario Health Technology Assessment Series, which is indexed in MEDLINE/PubMed, Excerpta Medica/Embase, and the Centre for Reviews and Dissemination database. Corresponding Ontario Health Technology Advisory Committee recommendations and other associated reports are also published on the Health Quality Ontario website. Visit http://www.hqontario.ca for more information.

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The Ontario Health Technology Advisory Committee (OHTAC) is a standing advisory subcommittee of the Board of Directors of Health Quality Ontario. Based on the evidence provided by Health Quality Ontario and its partners, OTHAC makes recommendations about the uptake, diffusion, distribution, or removal of health interventions within the provincial health system. When making its recommendations, OHTAC applies a unique decision-determinants framework that takes into account overall clinical benefit, value for money, societal and ethical considerations, and the economic and organizational feasibility of the health care intervention in Ontario.

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Once finalized and approved by the Board of Directors of Health Quality Ontario, the research is published as part of the Ontario Health Technology Assessment Series, which is indexed in MEDLINE/PubMed, Excerpta Medica/Embase, and the Centre for Reviews and Dissemination database. Corresponding OHTAC recommendations and associated reports are also published on the HQO website. Visit http://www.hqontario.ca for more information.

When sufficient data are available, OHTAC tracks the ongoing use of select interventions it has previously reviewed, compiling data by time period and region. The results are published in the Ontario Health Technology Maps Project Report.

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This report was prepared by Health Quality Ontario or one of its research partners for the Ontario Health Technology Advisory Committee and was developed from analysis, interpretation, and comparison of scientific research. It also incorporates, when available, Ontario data and information provided by experts and applicants to HQO. The analysis may not have captured every relevant publication and relevant scientific findings may have been reported since the development of this recommendation. This report may be superseded by an updated publication on the same topic. Please check the Health Quality Ontario website for a list of all publications: http://www.hqontario.ca/evidence/publications-and-ohtac-recommendations.
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BACKGROUND

Health Quality Ontario conducted an evidence-based analysis (1) to answer the following research questions:

- What are the factors affecting the likelihood of having a caesarean delivery in a low-risk obstetrical population?
- What is the Ontario provincial caesarean delivery rate for a low-risk obstetrical population, and does this rate vary within the province?
- What are the likely reasons for caesarean delivery rate variation in Ontario, if it exists?
CONCLUSIONS

- Nine factors were significantly associated with either an increased or decreased likelihood of having a caesarean delivery, and 5 factors had no influence. Moderate-quality evidence supported the finding that in a low-risk population, an elective induction policy would significantly reduce the rate of caesarean deliveries compared with a policy of expectant management.

- The provincial caesarean delivery rate for a very-low-risk population was 17.0%. However, rates varied among Ontario hospitals (4.5% to 35.5%) and were independent of PCMCH level-of-care classifications or birth volumes (based on data for 2011/2012).

- An evaluation of an Ontario administrative database suggested that variation in caesarean delivery rates may be due to maternal age and/or obstetrical practice variation. There was no clinically or statistically significant variation in rates associated with neighbourhood income quintile, neighbourhood educational attainment, rural or urban status, or primary language.
OHTAC RECOMMENDATIONS

After considering the evidence and the recommendations from the Expert Advisory Panel on Rate Variation in Caesarean Sections Across Ontario, OHTAC recommended that:

- The Better Outcomes Registry & Network (BORN) Ontario, with the Provincial Council for Maternal Child Health (PCMCH), provide audit and feedback to individual hospitals regarding their low-risk obstetrical population to support quality improvement in maternal-infant care.
- Health Quality Ontario, in collaboration with BORN, track induction rates\(^1\) and caesarean delivery rates\(^2\) as key performance indicators.

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\(^1\) Proportion of women who were induced with an indication of post-dates and were less than 41 weeks' gestation at delivery.

\(^2\) Caesarean delivery rates in low-risk nulliparous women.
REFERENCE
