

Research

“You’re not my obstetrician” (and it may not matter)

Chaim M. Bell MD PhD, Joel G. Ray MD MSc

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Transferring care or “handing off” patient care to another physician is an essential component of practising medicine. In the “24–7” system of hospital care, physicians need to be able to convey essential patient information to another physician concisely, accurately and safely, and they must do so using a format that can be easily recalled and updated. Gaps in this process, or “fumbled handoffs,” may affect quality of care and increase the risk of adverse events.^{1,2} Obstetric care in hospitals certainly has the potential for deficits in both communication and continuity of care.

In this issue, Abenhaim and colleagues use a novel approach to investigate whether obstetric outcomes differ between women attended by their regular-care obstetrician (i.e., the obstetrician who provided routine antenatal care) and those attended by an on-call obstetrician who did not provide antenatal care.³ The authors observed only a minor relative increase (13%) in the rate of cesarean delivery among women attended by an on-call obstetrician. This corresponds to a number needed to harm of about 200; that is, about 200 women in labour would need to be attended by an on-call obstetrician to subsequently receive a cesarean section. This single-centre study may represent a best-case scenario: at this centre, although the rate of non-elective cesarean deliveries is close to the national average,⁴ about 75% of women receive care from their regular-care obstetrician. It is plausible that the rate of cesarean deliveries and complications may differ at centres where patient care involves more groups of obstetricians caring for single patients and larger teams of physicians and nurses. However, Abenhaim and colleagues did not detect an alarming difference in the rate of maternal complications between women attended by an on-call obstetrician and those attended by their regular-care obstetrician.

Abenhaim and colleagues have attempted to adjust for inherent differences between deliveries attended by regular-care and on-call obstetricians; however, the way they controlled for some potential confounders may further limit their findings. For example, the authors appropriately considered time of day; however, adjusting for 12-hour day (7 am–7 pm) and night (7 pm–7 am) shifts may not have been appropriate. In a case–control study,⁵ fetuses that sustained injuries severe enough to result in death were more than twice as likely as controls to be delivered between 11 pm and 8 am. Factors that contributed to this result may have included poorer overnight staffing, a different case mix between day and night deliveries and late-night caregiver fatigue.^{5,6} Adjustment for weekend versus weekday labour may also account for staffing differences (fewer staff may be available on weekends). Furthermore, the current findings by Abenhaim and colleagues may

Key points

- The study by Abenhaim and colleagues was conducted at a single centre, where 75% of deliveries are performed by regular-care obstetricians
- Abenhaim and colleagues observed a small increase in the rate of cesarean deliveries among women attended by on-call obstetricians compared with regular-care obstetricians. This corresponds to a number needed to harm of 200
- The observed effect may be related to a lack of familiarity of the on-call obstetrician with the patient and a heavy reliance on continuous electronic fetal monitoring, which has a high rate of false-positive results. The usefulness of this method requires further evaluation
- Further study of formalized transfer of care mechanisms in obstetrics is warranted

be more reflective of obstetric practice at the specific academic institution studied than at other facilities. Since most hospitals now have 24-hour on-call obstetricians, it is difficult to imagine that over 75% of deliveries would be performed by patients’ regular-care obstetricians.

Abenhaim and colleagues did not report on perinatal events; thus, it is unknown whether the observed differences in the mode of delivery extend to disparities in neonatal morbidity and mortality. However, the caveat lies in the adjusted odds ratio of 1.73 (95% confidence interval 1.45–2.07) for cesarean deliveries attended by on-call obstetricians when the indication was nonreassuring fetal heart tracing. Why might there be a higher incidence of nonreassuring fetal heart tracing when a woman is attended by an obstetrician other than her own? The answer is that the incidence probably isn’t higher. Rather, the observed differences are likely a reflection of other factors. Indeed, one such factor may be the obstetrician’s familiarity and relationship with the patient and the obstetrician’s threshold for action. Accordingly, if an obstetrician has not had any prior interaction with the patient, he or she may be more apt to watch her more carefully or to react more hastily to “concerning” signs such as a nonreassuring fetal heart tracing. This may be partly out of fear of litigation,⁷ as Abenhaim and colleagues postulate, or it may be because

Chaim Bell and Joel Ray are with the Departments of Medicine and Health Policy Management and Evaluation, University of Toronto, and the Department of Medicine and the Keenan Research Centre, Li Ka Shing Knowledge Institute, St. Michael’s Hospital, Toronto. Joel Ray is with the Department of Obstetrics and Gynecology, St. Michael’s Hospital, University of Toronto, Toronto, Ont.

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on-call obstetricians are simply stationed in closer proximity to the patient and are more apt to frequently review the progress of labour. Too much focus on continuous electronic fetal monitoring strips may not be in the patient's best interest because of false-positive results, higher rates of surgical delivery and increased costs.^{8,9} Compared with intermittent auscultation, continuous electronic fetal monitoring leads to an increase of 38 cesarean and 30 forceps deliveries per 1000 births.⁹ Hence, when pressed for time (e.g., attending more than one delivery) or in need of sleep, an on-call obstetrician who is not well acquainted with the patient may take a conservative approach to managing nonreassuring fetal heart tracing and proceed to cesarean delivery in the first stage of labour.

Although the current study did not evaluate the handoff process, differences in this process between on-call and regular-care obstetricians is unlikely to explain the higher observed intervention rate among on-call obstetricians. To its credit, the practice of obstetrics has been at the forefront in establishing personal patient files and signover strategies. In Canada, obstetricians use standardized provincial antenatal forms that are to be sent to the labour and delivery area to be included in the inpatient chart. If the antenatal forms are not available in the labour and delivery area, as in the case of a woman presenting with preterm labour late at night, a gap in care may arise. The field of obstetrics has also pioneered the use of activity boards, which are found in most labour and delivery areas. The activity board succinctly describes each case in terms of gravidity, salient comorbidities, progress of labour and degree of cervical dilatation. Both standardized antenatal care forms and activity boards are good ways to enhance communication, especially if a patient's condition is uncomplicated.

Abenhaim and colleagues do not call for any substantive changes in practice based on their findings. However, they indirectly point to a call for action. First, it is unacceptable for a labouring woman's antenatal care record to be inaccessible when she arrives in the labour and delivery area of her own hospital. As a standard of care, we suggest that, at 20 weeks' gestation, the detachable pages of the antenatal care record should be sent to the labour and delivery area of the woman's hospital. (An electronic record may eventually replace the latter entirely). Second, further study is required on the usefulness of electronic fetal monitoring in low-risk cases.^{8,9} We suggest that research priority be given to determining which types of nonreassuring fetal heart tracing patterns warrant more aggressive management, given this method's wide-

spread use and poor predictive value for fetal distress.^{8,9} Finally, there are no data available to evaluate how obstetricians and midwives hand off patient care to each other. In medicine and surgery, improving the process of patient handover (including crossover of shifts) is associated with improved efficiency and safety.^{10,11}

Seamless information transfer, consistent care transitions and system redundancies help to bridge potential care gaps and thereby provide the best possible pathway to optimal care for women and their babies.

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Correspondence to: Dr. Chaim M. Bell, St. Michael's Hospital, 30 Bond St., Toronto ON M5B 1W8; fax 416 864-5485; bellc@smh.toronto.on.ca