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Report on the findings of the Consensus Conference on Obstetrical Services in Rural or Remote Communities, Vancouver, BC, Feb. 24–26, 2000

Edited by Elizabeth Torr, BScN, MSc

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Background

The British Columbia Reproductive Care Program (BCRCP) is a provincial program whose mission is to optimize maternal/fetal/infant health. Its mandate includes consultation with perinatal care providers, promotion of education and care networks, guidelines for patient care and the development and maintenance of the British Columbia Perinatal Database Registry.

There are at least 30 hospitals in BC that have ceased to offer maternity services, or which do not have full time cesarean section (C section) capability. Over several years, the BCRCP has received requests for guidance from several of these latter sites regarding the level of obstetrical service generally considered acceptable without operative delivery capability. One question that was asked consistently was whether nulliparous women should be allowed to labour and deliver at such a site. In response to these questions and others the BCRCP convened a Consensus Conference, held on Feb. 24–26, 2000, where perinatal providers, experts and regional representatives were invited to answer the following 2 questions.

- Is it safe for apparently low-risk women (i.e., at no appreciable risk) to labour and deliver in their home communities (thereby minimizing disruption of family and community) when there is no on-site C section capability?
- Assuming it is reasonable and good practice, what risk management strategies should be adopted in order to provide optimal care for both mother and newborn? What are the

minimum requirements?

By consensus, we agreed to broaden our debate to include considerations having to do with small/rural communities with or without C section capability, electing to focus on general risk management strategies for such communities.

Attendance was by invitation only; our purpose being to bring together those persons who by reason of professional affiliation, research/educational pursuit or government appointment could inform this debate and assist us in the pursuit of a common solution. Two regional delegates were solicited from each of the health regions and they were joined by invited faculty from the University of British Columbia and the British Columbia Institute of Technology, representatives of the Ministries of Health, Children and Families and Skills and Training, and other expert stakeholders. Delegates represented not only their region, but also the facilities within their region or community health services societies. Individual representation was secured from the College of Physicians and Surgeons of BC, the College of Family Physicians of BC, the College of Midwives of BC, the SRPC, the Society of Obstetricians and Gynaecologists of Canada (SOGC), the BC Public Health Nursing Council and the Registered Nurses Association of BC.

The following paper is a review of the discussion and summary of the consensus reached at the conference.

Please see Appendix 1 for a complete list of all attendees.

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Rural hospitals should, within a regionalized, integrated risk management system, offer maternity care to a low-risk population. The evidence suggests that a local, rural maternity service, even if limited in scope, offers better outcomes than no maternity service. While anesthetic and surgical services are desirable, the available evidence suggests that good outcomes can be sustained without local access to operative delivery.

The capacity (or not) to provide a local operative delivery service has led to a number of rural communities electing to transfer many women, especially nulliparous women, for birthing elsewhere. This is based on the assumption that this group, in particular, represent a higher level of risk and require a higher intensity of care than the multiparous woman. The evidence, however, suggests that the nulliparous woman is no more likely to require urgent C section than the multiparous woman. The same principles of risk management apply to client selection for

operative birth in all sites in a regionalized perinatal system, where a proportion of women identified a priori as being high risk, are transferred to those facilities offering a higher level of care. An effective patient selection/screening process must be in place, backed up by an organized audit and feedback program.

With these principles in mind, lack of on-site C section capability should not constitute a reason for withdrawing obstetrical services for low risk women. In addition, C section capability should be maintained where it exists and consideration given to adding this capability where appropriate and feasible within the context of a regional maternity care plan. The existence of local C section capability can allow more women to receive appropriate care in or near their community and obviate some of the negative social effects of elective transfer.

There is a need to sustain and restore the availability of maternity services in smaller, rural communities. The loss of maternity services is not inevitable or irreversible.

The joint position of the SOGC, the SRPC and the College of Family Physicians of Canada is that maternity care should be provided as close as possible to the rural patient's home location, within the limits of safe practice; regardless of on-site C section support, women in rural communities achieve better delivery outcomes when cared for by local intrapartum programs. There must be an integrated initiative to support the physical, administrative and practitioner environments that make these services available. This involves issues such as maintaining a complement of adequately trained nurses, physicians and midwives, appropriate equipment for labour and birth, an efficient system of emergency transport for mothers and infants and, of course, funding support.

Convinced by the evidence of several position papers (see Bibliography) and the deliberations of the 2-day consensus focus groups, the conference attendees supported the continuation of these essential services to childbearing women in BC under the following circumstances.

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Disclosure and informed consent

Community residents should be aware of the level of service offered and the system of care of which the local service is part. When discussing the options for care during pregnancy and delivery, the mother and her family need to be informed of the advantages, limitations and risks of local maternity care services as well as those of travelling for care. They should be told the estimates of how likely a low-risk woman at the start of her pregnancy will

- remain a candidate for delivery at the local hospital by the end of her pregnancy;
- require transport to another hospital during labour for a non-life threatening condition (e.g., dystocia);
- require transport to another hospital with a life-threatening condition that might result in serious morbidity or mortality for the mother or her infant (e.g., abruptio placentae, cord prolapse).

This will allow the woman and her family to make an informed choice in light of her circumstances.

Current information should be disseminated to the community to allow women to consider their options with respect to place of delivery. Caregivers should be assisted in the process of disclosure by the local hospital and the community it serves. Such disclosure should begin early in antenatal care and should occur throughout the antenatal education program and at the caregiver's office. Documentation should be developed, unique to the local perinatal service, to summarize the information and give the expectant family an opportunity to have their informed consent formally recorded prior to the onset of labour.

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System planning and coordination

Each community, including regional planners and the local perinatal team, must determine its own capabilities and the limitations of the local maternity services. This includes deciding which specific cases (including both maternal and newborn care) are appropriate to be undertaken in the community; all decisions should reflect evidence of best practice.

Even with exemplary planning, some women and their infants will inevitably develop problems requiring a higher level of care than is available in the local community. An integrated and well coordinated transport service is critical to ensure an appropriate level of care. Conference participants raised concerns, particularly about regional/local transfer where there was seldom any transport infrastructure in place. Care providers were often unaware as to how to access such services and lacked expertise in understanding the issues related to transport. The appointment of local transport advisors, familiar with the ambulance service and patient needs, was recommended.

The development of standards was considered important. Good communication was emphasized, particularly between referring physicians/midwives and the receiving physician. Finding competent escort personnel is often a problem in a small community, particularly when the family practitioner may be the only physician on call in the community. Such problems are further exacerbated when the escort personnel are left to find their own way home at the end of the transport.

Transfer by the high-risk maternal and newborn transport team in BC is generally well organized. However, occasionally those involved in the organizing of a transport had a poor understanding of local geography and were not always responsive to potential local solutions. Being more receptive to local input was felt to potentially make it easier and faster for the woman, in particular, to receive an appropriate level of care.

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Clinical decision-making

While the evidence indicates that nulliparous women will require transfer for C section (primarily for dystocia) more often than multiparous women, they are no more likely to require urgent C section than multiparous women. Therefore, nulliparity is not a reason to exclude a woman from delivery if her community lacks C section capability.

Augmentation (with oxytocin) and/or induction of labour (by artificial rupture of membranes, Prostin E_2 Vaginal Gel® or oxytocin) may be offered in communities without local C section capability. If caring for a woman in labour is appropriate in the community, then caring for her during an augmented/induced labour is equally appropriate when there is support by trained local staff and resources. The decision to support induction of labour in a rural community setting must be made with an awareness of what the increased likelihood of C section is and therefore what the need for the availability of support services is.

Regional analgesia may be offered to women in the absence of local C section capability where this can be supported by local staff and resources.

Hospitals offering planned vaginal birth after cesarean (VBAC) should be capable of providing emergency C section.

The conference delegates supported the continued development and dissemination of practical

clinical management guidelines (SOGC, BCRCP), including documented transport protocols and communication pathways.

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Facilities and equipment

Hospitals providing planned maternity services must have suitable equipment available, as well as processes for emergency triage and transfer. See Appendix 2.

Providers

The primary consideration for perinatal care providers is that team competency is required. Competency of the individual practitioner or discipline is insufficient to offer a consistent service. See Appendix 3.

Communication and peer support

Delegates share the professional, intellectual and emotional isolation experienced by health care providers in remote areas. They endorsed the availability of advice (clinical and administrative) via both local and regional networks among all levels of service providers. Telephone consultations to Level 3 centres should be maintained, with person-to-person advance notice of impending problems where possible.

Electronic links such as email, as well as Internet search capabilities should be available at all sites providing maternal/newborn care.

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Risk management

A formally documented risk management strategy should be developed for each rural maternity service. It should include processes to identify, assess and manage risk; it must also utilize

appropriate continuous quality improvement strategies to evaluate its effectiveness. Policies of disclosure and informed consent should also be developed.

An effective risk management program for communities without local operative delivery is the acquisition of these services where they could be supported by caregivers and the community. The support thus provided to the care providers and the reduction in outflow will help sustain the local maternity care service.

Note: There was an extensive discussion around the issue of risk identification as it relates to risk scoring. There was no consensus on whether or not it helps to diminish untoward events. Risk management, on the other hand, was strongly advocated by all representatives.

Outcome evaluation and monitoring

Outcomes, both for individual cases and for the maternity population of the entire community, should be documented and reviewed on a regular basis. This requires a perinatal database that is based on the residence of the mother and the institution(s) where she received care, and a reporting system based on the catchment areas of the rural hospitals.

The capability (or not) of C section alters the pattern of risk litigation. Careful outcome analysis, including perinatal mortality and morbidity audit will allow care providers to carefully plan and revise delivery systems on an ongoing basis.

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Consensus Statements

1. Women in Canada who reside in a rural community should receive high quality maternity care. Evidence suggests that the presence of a local rural obstetrics service, even if limited in scope, offers better outcomes for mothers and newborns than no service.
2. While local anesthetic and surgical services are desirable and would allow more women to receive appropriate care in their community, the available evidence suggests that good outcomes can be sustained within a regionalized risk management system without local access to operative delivery.
3. Where adequate human and physical resources are present each woman, who can anticipate a safe birth in a rural community, should be supported by physicians, midwives and nurses with local access to advanced maternity skills, including C section . Existing hospitals with C section capability should work to sustain this service.

4. Each community, including planners and the perinatal care team, must be involved in high level system planning and decision-making to determine the capabilities and limitations of the local maternity service. This will include deciding which specific cases (both maternal and newborn) are appropriate to be undertaken in the community. This should reflect evidence of best practice.
5. While the evidence indicates that nulliparous women will require transfer for C section more often than multiparous women, they are no more likely to require urgent C section than multiparous women. Therefore, nulliparity is not a reason to exclude a woman from delivery if her community lacks C section capability.
6. Augmentation of labour may be offered in communities without local C section capability. If caring for a woman in labour is appropriate in the community, then caring for her during an augmented labour is equally appropriate when there is support by trained local staff and resources. Caution should be exercised in augmenting the labour of a multiparous woman whose labour arrests in the active phase.
7. Induction of labour, for appropriate indications, may be offered in communities without local C section capability. If caring for a woman in spontaneous labour is appropriate in the community, then caring for her during an induced labour is equally appropriate when there is support by trained local staff and appropriate resources. Providers must be aware of the increased likelihood of C section and therefore the need for the availability of support services.
8. Regional analgesia may be offered to women in the absence of local C section capability where this can be supported by trained local staff and resources.
9. Hospitals offering planned VBAC should be capable of providing emergency C section.
10. A formally documented risk management strategy should be developed for each rural maternity service. It should include processes to identify, assess and manage risk. It must also utilize appropriate continuous quality improvement strategies to evaluate its effectiveness.
11. When discussing the options for care during pregnancy and delivery, the mother and her family need to be informed of the advantages, limitations and risks of local maternity care services as well as those associated with traveling for care. This will allow the woman and her family to make an informed choice in light of her circumstances.
12. Written information reflecting the services available in a particular community should be provided to the expectant woman and her family in order to give them an opportunity to understand their options prior to delivery. Disclosure should begin early in antenatal care and should occur throughout the antenatal education program and at the caregiver's office. The chance of requiring emergency transport in labour, the rare possibility of a catastrophic event and the implications of moving out of the community to give birth should all be clarified. Caregivers should be assisted in the process of disclosure by the local hospital and the community it serves.
13. Basic competencies for physicians, midwives and registered nurses must be established a priori and maintained. Practitioners must be able to cope with the following conditions.
    - Spontaneous term singleton vertex labour and birth
    - Management of dystocia in the 1st and 2nd stages of labour by nonpharmalogical

and pharmalogical (including oxytocin) means
    - Fetal surveillance/monitoring
    - Augmentation and induction of labour, for appropriate indications, where this can be supported by trained local staff resources
    - Intrauterine/extrauterine resuscitation
    - Outlet and low vacuum extractor or forceps assisted deliveries
    - Management of shoulder dystocia
    - Basic neonatal resuscitation including intubation and management of meconium
    - Repair of laceration or episiotomy
    - Manual removal of placenta
    - Management of postpartum hemorrhage
    - Examination and care of the newborn
14. Maintenance of competence should be assured by
    - interdisciplinary standards (i.e., one-on-one nursing care in labour;
    - professional responsibility for continuing education;
    - mentoring;
    - specific workshops or certification (ALARM/ALSO/ NRP);
    - transferability and recognition of advanced competencies.
15. Any decision regarding the provision of maternity services is a multidisciplinary one. This requires interdisciplinary communication and cooperation.
16. Where it is feasible, opportunities should be explored for inter-community (geographically close) and/or regional sharing of resources.
17. There is general support for equipment guidelines outlined in Health Canada's National Maternal/Newborn Family Centered Guidelines (April 2000) and the BC Intermediate Perinatal Care Task Force (1993). See Appendix 3.
18. Prearranged systems for coordination/cooperation between sites are essential.
    - Agreements with neighbouring referral facilities
    - Need for referring physician/midwife to talk directly with the physician to whom the woman or her newborn is being referred
    - Communication systems — Internet, Telehealth, email — for education, reference and consults
19. The delivery of safe perinatal care in any community is facilitated by a well coordinated, integrated transport service capable of transferring a woman or her newborn in a safe and expedient manner. Care providers, hospital managers (local, regional and tertiary) together with local and provincial ambulance services are critical to the development and implementation of the transport infrastructure. Issues that need to be addressed are
    - development and implementation of clinical guidelines for transfer;
    - consideration of using local and provincial transport advisors/coordinators;
    - use of competent escort personnel and return of such personnel back to their own community;
    - transport equipment, supplies and maintenance.
20. Outcomes, both for individual cases and for the maternity population of the entire community, should be documented and reviewed on a regular basis. This requires a

perinatal database that is based on the residence of the mother and the institution(s) where she received care, and a reporting system based on the catchment areas of the rural hospitals.

Competing interests: None declared.

The Consensus Conference on Obstetrical Services in Rural or Remote Communities was endorsed by the Obstetrics Committee of the Society of Rural Physicians of Canada (SRPC) with the following caveat.

"The Diagnostic Facilities: Appendix B," represent useful support services for a rural maternity care service. Some are beyond the reach of rural facilities, in particular the wish for 24 hour ultrasound. The absence of any of these diagnostic facilities would not detract from the benefits of providing a local maternity care service.

Correspondence to: Elizabeth Torr, Program Director; 604 875-3773, etorr@interchange.ubc.ca

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