Developing a Program for Midwives as First Assistants for Caesarean Sections in Ontario in an Isolated Setting

Développer un programme pour les Sages-femmes en tant que Premières Assistantes dans les Cas de Césariennes en Ontario en Environnement Isolé.

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ABSTRACT
This paper documents the development of the midwifery first assist program in Sault Ste. Marie, Ontario. It outlines the need for midwives to expand their scope of practice, provides a short history of the midwife as first assist, the training process, the implementation and an evaluation of the program.

KEYWORDS
midwifery, perioperative nurse, surgical first assist, collaborative care

This article has been peer reviewed.

RÉSUMÉ
Le but de cet article est de décrire de façon rationnelle le rôle et le processus d'établissement du premier programme assisté par des sages-femmes à Sault Ste. Marie, Ontario, ainsi qu'un aperçu historique du rôle de première assistante.

MOTS CLÉS
pratique sage-femme, infirmière péri opératoire, première assistante en chirurgie, soin collaboratif.

Cet article a été évalué par des pairs.

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Introduction

One of the fundamental principles of the midwifery profession is the provision of continuous, personalized and non-authoritarian care, with the goal of obtaining the best outcome for both the woman and her newborn.[1] Maintaining this important precept of midwifery care can be difficult in circumstances where the woman requires a caesarean section for the birth of her baby. Depending on the midwife's scope of practice she can either be excluded from the caesarean birth or expected to work in concert with the other health care providers.

The 2008-2009 caesarean section rate for midwifery clients in Ontario was 12.3%.[2] This percentage represents approximately 2,000 midwifery clients whose care will inevitably be interrupted at the time of their birth. Women have indicated that they are more satisfied with their overall experience if they receive care from one designated primary clinician.[3] Midwives who train for the role of first assistants are capable of providing this continuity by collaborating with the obstetrician in circumstances where their clients develop clinical concerns and require a transfer of care for a caesarean section.

Our community of Sault Ste. Marie, Ontario is experiencing the same health care shortages that exist in the rest of the system. Over the past five years, it has become increasingly difficult to find family physicians willing to interrupt their schedules to assist at an unexpected caesarean section. The obstetrician's alternative for help at an urgent or emergent birth is a trained Registered Nurse First Assistant. (RNFA). This is relatively expensive for the hospital as they are contractually required to reimburse the nurse for a minimum of four hours at a rate of time and a half. The cost for a second midwife at a birth is slightly less than it would be for a general practitioner and much less than the cost of utilizing a RNFA.

When a member of the client's midwifery team is capable of assisting, it not only reduces the amount of time needed to prepare for the surgery, but it also results in a financial cost saving to the health care system.

This paper documents the development of the midwifery first assist program in Sault Ste. Marie. It outlines the need for midwives to expand their scope of practice, provides a short history of the midwife as first assist, the training process, the implementation and an evaluation of the program.

History and Background

The role of a surgical first assistant has historically been associated with perioperative nurses and physicians.[4] American operating room nurses who had been functioning as first assistants attempted to gain formal recognition for their work by forming the Association of Perioperative Registered Nurses and lobbying to have the role accepted. They were successful in 1992 when all states introduced legislation to allow certified registered nurses to assist in surgery.[5] This was followed by the development of a certification process to ensure national standards.

In Canada, the evolution of the registered nurse as surgical first assist took a slightly different course. The stimulus to expand the role for nurses in the operating room was the human resource shortage of physician first assistants. The Operating Room Nurses Association of Canada (ORNAC) initiated a project in April 1992 to investigate an expanded role for the perioperative nurse. In 1994, ORNAC ratified a definition of Perioperative Nursing Practice. That same year, Quebec became the first province to formally acknowledge the RN First Assistant (RNFA) role.[6]

In the United States, the introduction of the midwife as first assist at caesarean sections began in urgent situations due to the decreasing availability of physician first assists as well as the costs of OR surgical assists. Attempts to formalize the first assist position for midwives created controversy within the medical, administrative and nursing professions. Both surgeons and RNFAs expressed scepticism regarding the midwife's training and abilities in the role of first assist. Administrators worried about possible litigation. Despite these dissenting views, a few hospitals felt that developing this service was a reasonable course of action. In 1995, New York Presbyterian Hospital developed an educational and clinical training program to expand the role of the midwife to include first assisting in emergencies.

They later analyzed the practice of 24 of their midwives who had been credentialed to first assist and discovered that there were no increases in liability insurance claims or duration of caesarean sections. The review found a decreased interval from decision to incision and an increase in patient satisfaction.[5]

By 2000, the American College of Nurse Midwives reported that 58 midwives had formally included first assisting in their scope of practice. This was a threefold increase from the year before.[5]

In Canada, using trained RNs as first assistants has become a common practice. It has been shown that collaborative practice and extending the skill set of paramedical practitioners is good health economics. Using midwives as first assistants is a logical new endeavour. A midwifery first assist program in a maternal/child department resolves many of the current problems in our health care system. Specifically, it addresses the shortage of available physician first assistants, the persistent difficulties integrating midwifery into the hospital hierarchy and constraints in hospital budgets.

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The Midwives of Algoma is one of the first practices in Ontario to create certified midwife first assistant positions in their community. The midwifery practice was established in September 1998. The midwives use a primary model of care, with both clients and midwives enjoying the benefits of continuity of care and care provider. Their hospital privileges are with the Sault Area Hospital which offers a modified level three standard of perinatal care.

Sault Ste. Marie is the third largest city in Northern Ontario, after Sudbury (300 km east) and Thunder Bay (700 km west), with an area population of 80,098 in 2006. Over 90% of the population is of European origin; Native Canadians constitute 7.8% and those who are of Chinese, Asian, African and Filipino ancestry make up the remainder of the population. The largest employer is Essar Steel Corporation.[7]

Like other communities in Northern Ontario, Sault Ste. Marie has suffered a decline in the number of physicians, and those available for surgical assists. The hospital trained two Registered Nurses as surgical first assists in 2006. This has worked extremely well for elective surgery, but can become quite costly for cases outside of the regular scheduled shifts.

Implementation

In early 2008, the obstetric department adopted a more collaborative model of health care delivery with the purpose of improving the quality of care and to address long standing resource shortages. The lack of family physicians available to assist at caesarean sections resulted in the Registered Nurse First Assists being called to assist more frequently than was planned. This created issues with respect to OR staff scheduling, as well as increased cost to the Maternal/Child department. As a result, the obstetricians identified the need to more aggressively pursue a midwifery first assist program.

It made good sense to train qualified midwives to assist at caesarean sections of their clients. First, the continuity of care was appreciated by both the patient and the obstetrician who, at a critical moment, was often meeting the midwifery client for the first time. Secondly, with the shortage of other first assists, it increased the timeliness of the intervention. Also, medico-legally, it was a good fit.

The Midwives of Algoma concurred with this initiative and, in May 2008, approached the College of Midwives of Ontario seeking its approval for an expansion of the midwifery role to include that of First Assists. The College gave their sanction with the following caveats:

- This guideline provides recommendations so that midwives with special training in surgical First Assist may scrub in to help the surgeon ensuring timely access to care in an emergency, contributing to efficient use of human resources and promoting continuity of care.[9]
- Specialized practice certification in this competency area may be obtained through a course or program approved by the College of Midwives of Ontario that meets the requirements set out in this guideline.
- Documentation of this specialized practice certification must be provided to and recognized by the hospital in which the midwife holds privileges, unless the hospital itself is administering the certification process.
- If midwives are to perform any of the controlled acts in the course of assisting with cesarean

sections, they must have the controlled act delegated by a physician pursuant to subsection 30(3) of the *Regulated Health Professions Act* (see the Federation of Health Regulatory College's *An Interprofessional Guide on the Use of Orders, Directives and Delegation for Regulated Health Professions in Ontario*)[13]

It also specified that a rigorous clinical experience be undertaken under the supervision of an obstetrician, and, after verifying knowledge and skill, function with full competency at a minimum of 10 assists.

The "Midwife First Assist for Caesarean Section" course offered by Philadelphia University was reviewed by the College of Midwives of Ontario (CMO), Chief of Obstetrics at SAH, and the Maternal/Child program director. It was approved by all three and thought to be a comprehensive study of the skills required for first assisting at caesarean sections.

APPENDIX 1
Educational Process

Interactive Online Course: First Assisting for Caesarean Birth offered by Philadelphia University
The course is six weeks in length and requires ten hours per module.

Course Format:
1. Introduction: Review of Surgical Asepsis and Professional Issues
2. Role of the First Assistant: Principles of Surgical First Assisting
3. Operative Anatomy and Physiology, Pathophysiology and Pre-operative care
4. First Assisting During Caesarean Birth: Instruments, Sequence and Variation
5. Role of First Assistant: Surgical Techniques for Caesarean Delivery
6. Post-operative care: Complications, Professional Issues, and Course Summary

Clinical Experience
Clinical training is arranged by the midwife under a qualified surgeon. Assistance at a minimum of ten caesarean sections are required, however, more could be necessary to attain competence.

In order to allow midwives to begin to first assist at caesarean sections and eventually have these skills included in their privileges, SAH needed confirmation of professional liability coverage. The risk management department of the Association of Ontario Midwives was instrumental in acting as the intermediary with Healthcare Insurance Reciprocal of Canada (HIROC), the insurance provider for midwives in Ontario. HIROC confirmed that acting as a first assist at caesarean sections would be considered a delegated act. Therefore, if midwives were to perform any of the controlled acts in the course of assisting with caesarean sections, they must have the controlled act delegated by a physician pursuant to subsection 30(3) of the *Regulated Health Professions Act*.[10]

The six week online course from Philadelphia University began in May 2008. The clinical instruction was concurrent with the didactic course content. The operating room personnel volunteered to help with a portion of the training by teaching aseptic technique and instrument handling. The midwives began by acting as second assistants and when the surgeons were confident in their skills, they began first assisting. The clinical experience was varied. Each obstetrician on staff as well as locum physicians instructed the midwives by reinforcing the didactic content of their course with hands on experience. The Chief of Obstetrics evaluated their progress. By March 2009 they had completed the required number of first assists and applied for certification.

To receive specialized practice certification for first assist at caesarean sections the midwives were required to provide documentation that demonstrated they had achieved the necessary level of theoretical and practical knowledge by completing the course from Philadelphia University and successfully assisting at ten caesarean sections and two hysterectomies. The Chief of Obstetrics verified the clinical portion of their training. These documents were then submitted to the CMO to request official certification.

Once the midwives were certified, the hospital's maternal child department established appropriate policies for credentialing and written protocols for

midwives as first assists, including definitions of which duties constituted "assisting" and which were delegated acts, as per Section 28-6 of the *Regulated Health Professions Act.*[10]

At this point the program was presented to the hospital administration outside of the Maternal/ Child department. The Chief of the medical staff was thoroughly informed of the proposed program. He felt the department, obstetricians and midwives had been innovative in attempting to resolve a long standing problem. The specific policies, protocols and directives were then sent to the hospital credentialing committee to have first assist at caesarean sections added to the midwives' scope of practice (see Appendix 2). From here the program was reviewed by the Medical Advisory Committee. Following their approval, in May 2009, the change was presented to the hospital board.

The effort of instituting a program that would allow a certified midwife to assist at caesarean sections took the better part of a year, a year filled with study, clinical practice, meetings, negotiations, phone calls, letters, and developing policies, protocols and directives.

Role of the First Assistant

The first assistant's role during caesarean delivery is to apply the basic principles of assisting, as follows:

1. maintaining asepsis;
2. safe delivery of the infant;
3. providing adequate exposure to the operative site;
4. insuring safe tissue handling;
5. preventing blood loss and ensuring haemostasis; and
6. assisting with closure by following the suture or suturing.[12]

The first assistant is expected to be knowledgeable about the anticipated sequence of the procedure and the individual variations for each obstetrician. To make this possible they must be able to identify common landmarks and anatomic structures encountered during the caesarean section. They must also learn each of the instruments in the caesarean set up and their function. Manual dexterity is practiced with both the left and right hand to allow for adept instrument handling.

Evaluation

Overall, the program has been and continues to be a success. The administrative staff, nursing staff, RFNAs and obstetricians have been helpful and enthusiastic. Since completing the number of assists required for the clinical portion of the course, the midwifery assists have been limited by the midwifery caesarean section rate of fifteen percent, or approximately forty, to date. However, in order to maintain proficiency the midwives have requested that the obstetricians call a midwife in urgent situations when no other first assist is available.

There is no current structure for reimbursing midwives for obstetrical cases. Assisting with

APPENDIX 2
First Assistant in OB/GYN Application for Privileges at Sault Area Hospital

1. Perform first assistant responsibilities in accordance with the standards of practice with the College of Midwives.
2. Perform pre-operative history and physical on select OB/GYN surgical patients.
3. Order pre-op testing, medications, IV fluids as indicated by diagnosis.
4. Assist in positioning, skin preparation, and draping of the patient.
5. Provide exposure during OB/GYN surgery through appropriate use of instruments retractors, suctioning and sponging.
6. Provide homeostasis by use of electrocautery, clamping and/or litigating blood vessels, or other means as appropriate.
7. Perform wound closure, including suturing, as directed by surgeon.
8. Place and/or secure drain(s) and/or dressings as directed by surgeon.
9. Assist in transporting the patient postoperatively.
10. Communicate information to the nursing staff.
11. Communicate information to the family as appropriate.
12. Perform inpatient post-operative rounds for patient evaluation, and post-op care.
13. Perform post-op evaluation in the outpatient or office setting.
14. Order pre- and post-op testing, medications, IV fluids, and other orders as indicated by diagnosis.

caesarean sections for non-midwifery clients is thought to be useful in maintaining surgical skills and contributing to promoting good midwife/nurse/obstetrician relations.

There have been no cases in which midwives were involved presented at morbidity and mortality rounds. Provision has been made for another obstetrician to be called to a surgery if a caesarean section should require a hysterectomy.

Conclusion

In the years since midwifery has been legislated and gradually integrated into the health care system our scope of practice has continued to expand. A shortage of primary maternity care providers and continued need to provide 24/7 care to labouring women make it essential to find expedient and innovative approaches to providing this care.

A midwife choosing to expand her practice to include first assist will be promoting continuity of care for those women requiring unanticipated caesarean sections. The midwife trained to assist in surgery will be capable of following her client and assisting with the birth of her baby.

The increased collaboration that comes with midwives assisting at caesarean sections enhances the ability of physicians to deliver timely, safe care in partnership with a health care provider the client knows well. In these instances the clients have reported a greater confidence at what must be a stressful time in their pregnancy.

We plan to develop a mentorship program for our other practice midwives who want to expand their scope of practice to include first assist at caesarean sections.

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