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Assessing the Impact of Methods for Postnatal Monitoring of Mother and Newborn in the Context of Early Obstetric Discharge

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We cannot overlook the invitation of the perinatal advisory committee with the Régie régionale de la santé et des services sociaux de Montréal-Centre to participate as observers in the discussions surrounding preparation of the paper *Rôles et modalités d'articulation en périnatalité: Centres hospitaliers accoucheurs/CLSC/médecins traitants (période postnatale)*. This invitation provided us with a better understanding of the concerns of managers and decision makers and an opportunity to open a dialogue between researchers and decision makers.

Key Implications for Decision Makers

The sharp decline in length of obstetric hospital stays in recent years has raised doubts about coordination methods and cooperative relationships between community group-practice clinics (CLSCs) and hospitals.

The study reveals the following.

- Early telephone calls are an effective method for detecting problems and setting priorities for home visits. The average call delay (4 to 5 days) is too long, however, compared with the 24-hour delay recommended by the Régie régionale (Montréal-Centre).
- Discrepancies between the recommendations of the Régie régionale on home visits and the current situation are very large. More than half of mothers and newborns are not visited by a nurse after discharge from hospital and only 7.8 percent are visited within the recommended period (72 hours).
- The accessibility of services provided by CLSCs is uneven, with visit rates ranging from 8.7 to 89.5 percent, depending on the CLSC territory.
- Mothers who receive only a call, — with no follow-up visit or appointment — believe they have not received sufficient postnatal services.
- Rapid intervention within 72 hours of discharge (call, home visit or appointment) has a positive impact on the mother's mental health one month after delivery.
- The lack of complementarity between hospitals and CLSCs diminishes efficiency of the system. This situation results in duplication of services (up to 50 percent). It also results in mothers and newborns who are not seen again after discharge from hospital (33 percent).
- Sharing of roles and responsibilities between hospitals and CLSCs is unclear and there are no coordination mechanisms. In regions with many partners, developing links is harder and requires proportionally greater effort.
- Cooperation between institutions poses a challenge for operation of the healthcare system. There is a need to develop cooperation processes that foster better teamwork between professionals from different institutions and cultures.
- The level of involvement by CLSCs has a greater effect than that by hospitals on service accessibility and the probability of continuing to breast feed.

Executive Summary

The length of obstetric hospital stays has declined sharply in recent years. In Quebec, for example, the average length of stay for a vaginal delivery without complications declined from 3.1 days in 1994 to 2.4 days in 1999. This practice entails major changes to service delivery by institutions. Health Canada (2000), the Ministère de la santé et des services sociaux (MSSS, 1999) and the Régie régionale de la santé et des services sociaux de Montréal-Centre (RRSSSM-C, 2000) are proposing organizational approaches that guarantee continuity and accessibility of postnatal services and ensure the health and well-being of mothers and newborns. Redefinition of the responsibilities of community group-practice clinics (CLSCs) and hospitals, coordination methods, and cooperative relationships between these two players are major issues for decision makers in the system.

The research project forms part of this perspective. It strived to describe the services provided by institutions and those actually received by mothers. It was also designed to assess the impact of postnatal monitoring methods on the health of mothers and newborns following early discharge from vaginal delivery without complications. Specifically, the project sought to determine whether there is a link between the type of and delay in postnatal services received and the health of mothers and newborns.

Consequences

Analysis of data from the survey of mothers shows that the vast majority (95.3 percent) were contacted by telephone within two weeks of returning home. In only 67.0 percent of cases, however, baby and mother were seen again by a healthcare professional, either during a home visit by a CLSC nurse, or during a routine appointment scheduled in a hospital, private clinic, or CLSC.

Postnatal services received by mothers differ widely from recommendations issued by socio-health authorities, especially on the timing of the call or home visit. For example, the RRSSSM-C¹ recommends that a CLSC nurse telephone 100 percent of mothers discharged early from hospital, within the first 24 hours. In our sample, only 17.1 percent of mothers received a call within 24 hours of discharge, and in most cases, the call was from a hospital nurse. The Régie régionale also recommends that all mothers be visited within 72 hours of returning home. Only 7.8 percent were actually visited within this period.

Despite the differences observed in timing, institutions have set priorities for their interventions—priorities that reflect the problems faced by the mother or newborn, as well as the decision to breast feed. Some mothers therefore will be contacted sooner. Thus, although in the sample as a whole we found no negative impact of postnatal monitoring methods on readmission rates and emergency room visits by mothers and newborns, early intervention appears to have a beneficial effect on the mother's mental health one month after delivery. Early intervention also appears to have a beneficial

¹ The survey was conducted as the RRSSSM-C was drawing up its recommendations for developing postnatal monitoring methods and thus was intended as an update of the situation prevailing on the Island of Montreal before implementation of the recommendations.

effect on risk of readmission or emergency consultation for a health problem involving the newborn.

In addition to the shortcomings identified, analysis of the data reveals serious duplication in service delivery. Overall, one in two mothers received an intervention by the hospital² and CLSC. Specifically, one in three mothers received a telephone call from both sources, and one in five was visited at home by the CLSC nurse and had a routine appointment at the clinic. Maintaining these practices is likely to reduce the efficiency of postnatal services.

The analysis of organizational arrangements and cooperative processes between hospitals and CLSCs identified factors that explain the presence of duplication, shortcomings and undue delays in service delivery. CLSCs and birthing hospitals have instituted few coordination mechanisms to reach mothers after they return home. The research revealed considerable delays in forwarding information from the hospital to the CLSC, preventing the CLSC nurse from calling the mother within 24 hours of discharge. Furthermore, information sent to the CLSC is often incomplete. The date of discharge, length of stay in hospital and the mother's choice to breast feed are all factors that would promote better prioritization of CLSC interventions. The problems linked to forwarding information result from the absence of an agreement between hospitals and CLSCs specifying the coordination mechanisms between institutions. The data gathered from managers show that agreements between institutions are very uncommon and that cooperative arrangements between institutions (joint training, socialization, etc.) are virtually non-existent.

The lack of coordination and cooperative relationships between institutions does not foster the emergence of a shared vision of the respective responsibilities of partners and the monitoring approaches to be instituted. We can point out that at the time of the survey, hospitals were extensively involved in the field of postnatal services, while at the same time, CLSCs did not appear able to meet all expectations of the Régie régionale. Yet the results indicate that CLSC interventions appear to have a decisive impact on the health of mothers and newborns.

Some specific traits of the Montreal area — primarily the large number of institutions and the scattering of births among all the hospitals and CLSCs — greatly contribute to the difficulty of establishing cooperative relationships between institutions. In this context, it appears relevant to continue the initiative begun by the Régie régionale de Montréal-Centre as part of reorganizing perinatal ambulatory services. This approach served two main objectives: 1) ensure adequate organization of integrated, continuous care and services for the postnatal period; and 2) provide mechanisms for cooperation and rapid communication between various partners. The study highlights the central coordination role of the Régie régionale which contributes to greater system efficiency and quality of services provided to mothers.

² This category includes routine appointments scheduled by the attending physician (pediatric specialist or family physician) before discharge, whether scheduled at the hospital's outpatient clinic or at a private practice.

Approach

The study consisted of two components. First, a telephone survey was conducted of 1,158 mothers living on the Island of Montreal who gave birth in one of the island's nine hospitals. To qualify, the mothers in part had to have stayed in hospital less than 60 hours following a vaginal delivery without complications. The survey was conducted one month after the return home, in the spring of 1999. The response rate was 79.6 percent. The telephone interview gathered information on the following factors: 1) monitoring of pregnancy, 2) progress of delivery, 3) immediate postnatal (in hospital), 4) healthcare services received by the mother during postnatal monitoring at home, 5) health of the mother and newborn during the first month following birth, 6) length of breast feeding and 7) utilization of healthcare services.

The second component of the study consisted of a survey of managers in birthing hospitals and CLSCs on the Island of Montreal. All nine hospitals and 28 of the 29 CLSCs took part in the study. The postal questionnaire sent to managers was designed to document prenatal and postnatal services available, the characteristics of organizations, and inter-organizational relations. Two versions of the questionnaire were developed, one for hospital managers and the other for CLSCs managers.