ABSTRACT

Objective: To ensure safe care of mothers and babies after birth, irrespective of length of hospital stay, and to ensure effective links between hospital and community postnatal services.

Methods: Program aimed toward consumers and professionals working with them in Ottawa-Carleton (750,000 persons.) All pregnant women in the community included. Program developed by professionals, institutions and community agencies. Information on current practices elsewhere and early discharge literature studied. New provincial survey on practice changes performed in Ontario. Emergency room utilization data analyzed. Discharge and post-discharge criteria, and a common prenatal education curriculum, developed.

Results: Multidisciplinary, multi-sectoral committees, institutions and agencies have developed programs for appropriate discharge practice and improved postnatal follow-up. Professionals have supported flexible discharge guidelines.

Conclusions: Provided discharge criteria and follow-up are available, flexible discharge timing and safety appear compatible. The Ottawa-Carleton process to develop criteria and programs has allowed a collaborative, consensus-based approach to 'early' newborn discharge.

ABRÉGÉ

Objectif: Garantir à la mère et à l'enfant des soins sécuritaires après la naissance, indépendamment de la durée du séjour à l'hôpital, et assurer de bons rapports entre l'hôpital et les services de soins postnatals de la collectivité.

Méthodes: Programme s'adressant aux consommateurs et aux professionnels qui s'en occupent dans la région d'Ottawa-Carleton (750 000 personnes). Inclusion de toutes les femmes enceintes dans la collectivité. Programme mis au point par des professionnels, des établissements et des organismes communautaires. Information relative aux pratiques courantes et étude de la littérature sur les sorties rapides de l'hôpital. Nouvelle enquête provinciale sur les changements aux pratiques en Ontario. Analyse des données relatives à l'utilisation de la salle d'urgence. Définition de critères de sortie et d'après-sortie, et mise au point d'un programme commun d'éducation prénatale.

Résultats: Mise au point de programmes sur les pratiques appropriées pour ce qui concerne les sorties de l'hôpital et sur l'amélioration du suivi postnatal. Appui des professionnels à des directives souples en matière de sorties.

Conclusions: À condition que suivi et critères de sortie soient disponibles, soins sécuritaires et souplesse au niveau des sorties sont compatibles. Le processus suivi dans la région d'Ottawa-Carleton pour définir des critères et mettre au point des programmes a permis d'adopter une approche de collaboration et de consensus en matière de sorties « rapides » des nouveau-nés.

Discharge of Mothers and Babies from Hospital after Birth of a Healthy Full-term Infant: Developing Criteria Through a Community-wide Consensus Process

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Early obstetrical discharge is not a new phenomenon – an Ottawa-based program was reported in 1984.¹ However, critical reviews of early discharge studies^{2,3} suggest early discharge has not been established as the standard of care, even if associated with various forms of compensatory follow-up.

Subsequently, a report has appeared showing an increase in newborn readmissions across Ontario during the period when mean postnatal hospital length of stay (LOS) decreased from 4.5 to 2.7 days.⁴ However, there is evidence such increases have been avoided where programs to ensure early follow-up have been instituted.⁵⁻⁹

Until 1997 there were no national Canadian recommendations to guide professionals and institutions in safe practice related to mother and baby discharge after birth. The Canadian Paediatric Society has now published national guidelines on facilitating discharge of mother and baby¹⁰ which have been endorsed by the Society of Obstetricians and Gynaecologists of Canada.

In Ottawa-Carleton, consistent with provincial and national trends, the average LOS after vaginal birth for mothers and

babies in Ottawa-Carleton has fallen to approximately two days. In Ottawa-Carleton, after hospitals in some other Canadian communities had announced mandatory shorter LOS after vaginal birth, it was recognized in our community that a proactive approach to the needs of new babies and their families was needed. The objective was to ensure both safe care to mothers and infants after birth, irrespective of length of hospital stay, and the development of effective links between hospital and community postnatal services.

METHODS

In late 1994, an interdisciplinary ad-hoc committee was formed with representation from the local health department, hospitals, community agencies and the regional perinatal education program. The ad-hoc committee commenced evaluation of the status quo in our community, evaluated scientific literature on early discharge and post-discharge programs elsewhere, and assisted the community in developing new criteria and programs. The committee functioned through three subcommittees as follows:

Data subcommittee

This subcommittee 1) analyzed data on paediatric admissions and emergency room visits in Ottawa-Carleton; 2) participated in a provincial survey to assess recent post-natal practice changes; and 3) collected information from the medical literature and from other institutions, municipalities and

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provinces in Canada about guidelines, practices and postnatal follow-up programs.

Although the birth rate in Ottawa-Carleton was stable over the years studied and there was no overall increase in pediatric emergency room utilization, visits of infants <14 days old increased significantly for those with jaundice, feeding problems and dehydration. Although overall hospital admissions at <14 days old were not increased, there was a trend towards increased admissions for dehydration (from 2-3 annually before 1993 to 9-10 after 1995.)

Review of these cases revealed that the patients were typically breastfed babies discharged from hospital at 24-72 hours of age and re-admitted within two to seven days. Problems with timing of feedings (e.g., insufficient frequency) and technique (e.g., inadequate latch or suckling) were common. Alternative diagnoses were often suspected (e.g., sepsis) but rarely confirmed. Often at re-admission these infants had not yet seen a health professional for a physical check since the time of their discharge from the hospital of birth. Hence the discharge criteria described in summary below specifically address evaluation of effectiveness of feeding before discharge and timing of first physical check by a health professional after discharge.

The provincial survey showed a decrease in mean LOS for a vaginal birth across Ontario in 1995, with the Eastern Ontario mean LOS at 2.2 days in 1995. Most hospitals had reduced their LOS in the preceding 12 months. Thus the increase in paediatric ER utilization above occurred at the same time as rapidly decreasing average postnatal LOS in our region.

Hospital-based and other local data were combined with information on guidelines and programs elsewhere in Canada. We found a broad range of programs in use across Canada to help prepare parents for early discharge, to give guidance or ensure safety of the practice, or to provide support and follow-up to families after birth and discharge from hospital. For Ottawa-Carleton, a number of existing community resources for families in the early postnatal period were identified, including a week-day parent-baby information line, prenatal classes, well baby drop-ins, parenting classes and breastfeeding drop-ins. Several area

hospitals did routine follow-up and made phone help available on a 24-hour basis to their clients. In addition, while universal postnatal follow-up by the public health department had disappeared, there were mechanisms to ensure timely follow-up for 'at risk' families.

Prenatal Education Subcommittee

This subcommittee has worked on standardizing education for expectant parents across all courses given in the region, whether by hospitals, health units, community agencies or private organizations. It is intended that all such courses will include content on the common problems seen in newborns after birth, including breastfeeding technique and dehydration, as well as initial actions to take.

Discharge Criteria Subcommittee

The discharge criteria subcommittee developed discharge and follow-up guidelines specific to our community's needs. The approach used was to examine the question, "Under what circumstances are mothers and babies ready to go home safely?", rather than focussing on an arbitrary time line for 'routine' hospital discharge. The subcommittee included the expertise of members from several disciplines to ensure a comprehensive perspective.

The follow-up guidelines developed by the Discharge Criteria Subcommittee¹¹ are similar in many respects to those published subsequently by the American Academy of Pediatrics (AAP)¹² and the Society of Obstetricians and Gynaecologists of Canada (SOGC) and Canadian Paediatric Society (CPS).¹⁰ After review and modification by the Early Discharge Committee and regional Perinatal Committee, the final document was approved in March 1996.

Our guidelines¹¹ attempt to ensure the safety of earlier discharge, when chosen. In summary, they suggest that:

- 1) The mother should be physically ready for discharge.
- 2) The baby should also be ready for discharge (including observed efficacy of feeding.)
- 3) The mother and family should wish the baby and mother to be discharged and should be ready to care for both.

- 4) It should be established that the family has a realistic plan for follow-up of mother and baby.
- 5) There need to be community resources in place to support the family after discharge. If the baby is going home before 48 hours, there should be contact with the family within 24 hours of discharge and a physical check by a health care provider capable of identifying significant problems within 48 hours of discharge. For babies going home at more than 48 hours of age, the current recommendation is a physical check within seven days of discharge.

RESULTS

There appears to be substantial buy-in by the community of Ottawa-Carleton. At the time of writing no hospital has arbitrarily shortened its routine postnatal LOS. Hospitals are developing in-house mechanisms to ensure early physical examination of those newborns who are discharged at 48 hours or less. The Perinatal Committee is working on the second phase of this program which is to facilitate a change in practice to earlier newborn examination by the region's pediatricians and family physicians and recent telephone surveys by the regional health department suggest this change is already happening. There has also been a concerted effort to educate health care providers about how to identify when breastfeeding is being normally established in the first 3-5 days and when parents should seek help, and the regional Health Department now does universal telephone call-backs to all families being discharged with infants. Finally, the Children's Hospital of Eastern Ontario has recently established an evening and weekend Health Information Line for parents (to supplement the existing Parent Baby Information Line operated by the regional Health Department during weekdays).

We are continuing to monitor emergency room visits of infants <14 days old on an annual basis. In spite of the new criteria and programs, to date there has been no decrease in visits for neonatal jaundice, feeding problems or dehydration. However, we have observed an interesting

trend in emergency room visits where the discharge diagnosis is 'no illness'. These visits were increasing rapidly until implementation of this process; since then they have decreased to levels similar to those of the early nineties. We speculate that such visits may often represent anxiety in new parents and that the new criteria and associated programs may have led to a decrease in this anxiety.

DISCUSSION

The program described here is a unique attempt to involve all the professionals, institutions and community agencies in a large metropolitan region in jointly planning a proactive approach to early obstetric and newborn discharge. We believe a program such as this, which attempts to use a community-wide collaborative process to change practice, has the potential to be used in many Canadian centres.

However, the efficacy of such a program may vary according to the ability of each community to involve and ensure buy-in of the many potential partners in the process. Thus it is difficult to speculate on how effective this process would be in larger or smaller communities than the one in which it was developed.

CONCLUSIONS AND RECOMMENDATIONS

Many problems are predictable following early discharge and should be managed accordingly. For example, babies with conditions or family history predisposing to jaundice should not be discharged early; those with elevated unconjugated bilirubins must be reliably recognized and treated. Successful feeding should be observed before discharge or should be able to be

observed by a professional within 48 hours of discharge; parents should be educated before discharge on the signs of feeding problems and dehydration. Babies should have early follow-up to ensure continued weight gain and successful feeding. Compliance with follow-up should be ensured and close monitoring provided in high-risk situations.

We suggest that the important issue is not when we discharge mother and baby but rather whether we have in place criteria and programs to meet their needs. Our community's approach ensures a safe standard of care and supports the option of a shorter stay in hospital for mother and baby if the family wishes this, provided that criteria are met before discharge and that appropriate follow-up arrangements ensuring the safety of mother and baby are available. This prudent but balanced approach requires thoughtful provision of services by health care providers, hospitals and community agencies. A community-wide process to develop guidelines and coordinate services, such as that described for Ottawa-Carleton, will help ensure choice and safety for families and will be adaptable to other Canadian communities.

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Copies of the Perinatal Committee of Eastern Ontario's guidelines, "Suggested criteria for discharge of mothers and babies

from hospital after birth of a healthy full-term infant" are available from the Perinatal Program of Eastern Ontario, CHEO, 401 Smyth Road, Ottawa, ON K1H 8L1.

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Correction

In the July-August issue of the Journal, the article "Proposed air quality objectives for fine particulate air pollution", by T.L. Guidotti, contains an error. The proposed US EPA standard for fine particles was remanded by the United States Court of Appeals for the District of Columbia Circuit. EPA is appealing to the Supreme Court.