



August 2016 – SUPPORT Summary of a systematic review

What are the effects of early postnatal discharge from hospital on healthy mothers and term infants?

The duration of postnatal hospital stays has declined dramatically over the last thirty years and whether spending less time in hospital is harmful or beneficial remains a controversial concern. In practice, what constitutes an ‘early discharge from hospital’ varies across different countries and according to standard patterns of care.

Key messages

- **Early discharge may lead to little or no difference in the number of infant or maternal readmissions.**
 - Higher levels of postnatal support may influence this outcome.
- **Early discharge may lead to little or no difference in breastfeeding rates at two months.**
- **The effect of early discharge on the cost of care is uncertain.**
 - Although the costs of hospitalisation are probably lower in the early discharge group, the postnatal costs associated with early postnatal discharge from hospital and total costs are uncertain.
- **All the included studies were conducted in high-income countries.**
 - The effects in low-income countries might be different because of differences in the availability of practical support for mothers who are discharged early, the availability of postnatal support in the community, and the quality of care in hospitals or other facilities.



Who is this summary for?

Persons making decisions about early postnatal discharge

! This summary includes:

- **Key findings** from research based on a systematic review
- **Considerations about the relevance of this research** for low-income countries

X Not included:

- Recommendations
- Additional evidence not included in the systematic review
- Detailed descriptions of interventions or their implementation

This summary is based on the following systematic review:

Brown S, Small R, Faber B, Krastev A, Davis P. Early postnatal discharge from hospital for healthy mothers and term infants. Cochrane Database of Systematic Reviews. 2002, Issue 3.

What is a systematic review?

A summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise the relevant research, and to collect and analyse data from the included studies

SUPPORT was an international project to support the use of policy relevant reviews and trials to inform decisions about maternal and child health in low- and middle-income countries, funded by the European Commission (FP6) and the Canadian Institutes of Health Research.

Glossary of terms used in this report:
www.supportsummaries.org/glossary-of-terms

Background references on this topic:
See back page

Background

The length of postnatal hospital stays has continued to decline in a number of countries despite lack of clear evidence of its safety and effectiveness. Studies have reported patients being discharged from hospitals after 12 to 72 hours. Possible adverse outcomes of early postnatal discharge include delays in detecting and treating infant and maternal morbidity and a greater occurrence of breastfeeding problems. Possible advantages include a decrease in mother and infant exposure to nosocomial infections and enhanced maternal confidence in caring for the baby in the home environment.

This summary is based on a review published in 2002 (with updated searches in 2008) on the effects of early postnatal discharge from hospital for healthy mothers and term infants.

How this summary was prepared

After searching widely for systematic reviews that can help inform decisions about health systems, we have selected ones that provide information that is relevant to low-income countries. The methods used to assess the reliability of the review and to make judgements about its relevance are described here: www.supportsummaries.org/how-support-summaries-are-prepared/

Knowing what's not known is important

A reliable review might not find any studies from low-income countries or might not find any well-designed studies. Although that is disappointing, it is important to know what is not known as well as what is known.

A lack of evidence does not mean a lack of effects. It means the effects are uncertain. When there is a lack of evidence, consideration should be given to monitoring and evaluating the effects of the intervention, if it is used.

About the systematic review underlying this summary

Review objective: Assess the safety, impact and effectiveness of a policy of early discharge for healthy mothers and term infants, with respect to the health and well-being of mothers and babies

Types of	What the review authors searched for	What the review authors found
Study designs & Interventions	Randomised trials that evaluate a policy of early postnatal discharge from hospital for healthy mothers and infants born at term	10 trials of early discharge were included in the review. Early discharge defined as a discharge after <48 hours (5 studies), <60 hours (1), and after periods ranging from 12 to 72 hours (4).
Participants	Women who give birth in a hospital to a healthy infant that weighs at least 2,500 grams at term (37 to 42 weeks) and are deemed eligible for 'early discharge'	Women were recruited after the birth (4 studies) or during pregnancy (6 studies).
Settings	Hospital based	Studies were undertaken in USA (3 studies), Canada (3), UK (1), Spain (1), Sweden (1) and Switzerland (1).
Outcomes	Infant or maternal readmissions (and duration of the later), maternal emotional well-being, breastfeeding problems, satisfaction and costs of care	Infant readmissions (8 studies), maternal readmissions (8), maternal emotional well-being (5), breastfeeding problems (8), satisfaction with care (4), and costs of care (4)

Date of most recent search: December 2008

Limitations: This is a well-conducted systematic review with only minor limitations

Brown S, Small R, Faber B, Krastev A, Davis P. Early postnatal discharge from hospital for healthy mothers and term infants. Cochrane Database of Systematic Reviews. 2002, Issue 3.

Summary of findings

Ten trials of early discharge from hospital were included in the review. All the studies were conducted in high-income countries.

In some studies, co-interventions were administered, such as antenatal home visits (2 studies), postnatal home visits (6), postnatal home visits and phone calls (4), and a 'preparation for discharge' class (1).

Early discharge from hospital versus standard discharge

- Early discharge from hospital may lead to little or no difference in the number of infant readmissions in the first 8 weeks. The certainty of this evidence is low.
- Early discharge from hospital may lead to little or no difference in the number of maternal readmissions within 3 to 6 weeks postpartum. The certainty of this evidence is low.
- Early discharge from hospital may lead to little or no difference in breastfeeding rates at two months. The certainty of this evidence is low.
- Early discharge from hospital may lead to little or no difference in the incidence of maternal depression one month after birth. The certainty of this evidence is low.
- Early discharge from hospital may lead to little or no difference in women's satisfaction with care. The certainty of this evidence is low.
- It is uncertain whether early discharge from hospital affects the total cost of care including readmission.

About the certainty of the evidence (GRADE) *

⊕⊕⊕⊕

High: This research provides a very good indication of the likely effect. The likelihood that the effect will be substantially different† is low.

⊕⊕⊕○

Moderate: This research provides a good indication of the likely effect. The likelihood that the effect will be substantially different† is moderate.

⊕⊕○○

Low: This research provides some indication of the likely effect. However, the likelihood that it will be substantially different† is high.

⊕○○○

Very low: This research does not provide a reliable indication of the likely effect. The likelihood that the effect will be substantially different† is very high.

* This is sometimes referred to as 'quality of evidence' or 'confidence in the estimate'.

† Substantially different = a large enough difference that it might affect a decision

See last page for more information.

Does early discharge affect neonatal or maternal health in healthy mothers and term infants?						
People	Healthy postpartum mothers and term infants					
Settings	Hospital based					
Intervention	Early discharge					
Comparison	Standard discharge					
Outcomes	Impacts		Relative effect (95% CI)	Number of participants (Studies)	Certainty of the evidence (GRADE)	Comments
	Standard discharge	Early discharge				
Proportion of infants readmitted within eight weeks Follow-up: Mean 8 weeks	18 per 1,000	24 per 1,000 (11 to 51)	RR 1.29 (0.6 to 2.79)	3,435 (7 studies)	⊕⊕○○ Low	In one study, the majority of readmission visits during this period were for routine care or bilirubin monitoring.
Proportion of women readmitted within 6 weeks Follow-up: Mean 6 weeks	14 per 1,000	15 per 1,000 (7 to 33)	RR 1.1 (0.51 to 2.4)	3,509 (8 studies)	⊕⊕○○ Low	None of the studies reported data on the duration of maternal readmissions or on the total duration of the hospitalisation of mothers in the first six weeks after the birth.
Proportion of women not breastfeeding in first 8 weeks postpartum	440 per 1,000	396 per 1,000 (334 to 466)	RR 0.9 (0.76 to 1.06)	3,845 (8 studies)	⊕⊕○○ Low	
Proportion of women probably depressed Follow-up: Range 4 to 6 weeks post-partum	68 per 1000	45 per 1000 (26 to 76)	RR 0.66 (0.39 to 1.12)	993 (3 studies)	⊕⊕○○ Low	
Proportion of women dissatisfied with postnatal care	363 per 1000	218 per 1000 (131 to 363)	RR 0.60 (0.36 to 1.00)	841 (3 studies)	⊕⊕○○ Low	
Total cost of care	Two studies reported outcomes on the cost of care. In both of these trials, the cost of hospitalisation was lower in the early discharge group. In one trial, the combined costs of community care and maternal and neonatal readmissions were higher in the early discharge group. In the other one, the combined costs were higher in the standard care group.					

CI: Confidence Interval RR: Risk Ratio GRADE: GRADE Working Group grades of evidence (see above and last page)

Relevance of the review for low-income countries

→ Findings	▷ Interpretation*
APPLICABILITY	
→ All the included studies were conducted in high-income countries.	<p>▷ <i>The effects in low-income countries might be different because of differences in the availability of practical support for mothers who are discharged early, the availability of postnatal support in the community, and the quality of care in hospitals or other facilities.</i></p> <p>▷ <i>Policies that promote shorter hospital stays may not always be implemented. In some of the studies, accompanying primary care support was provided in the days following discharge, but this may not always be done in practice. It remains unclear how important home midwifery or nursing support is to the safety and acceptability of early discharge programmes.</i></p>
EQUITY	
→ The systematic review did not address equity issues.	<p>▷ <i>Policies promoting early discharge from hospitals should also specify that some degree of accompanying home midwifery or nursing support should be provided. The infrastructural support for this type of care, however, may be less common in disadvantaged populations. Policies supporting early discharge from hospital may lead to inequity if they are implemented without the necessary support.</i></p>
ECONOMIC CONSIDERATIONS	
→ It is uncertain whether the intervention affects the costs of care. Cost data (when provided) were difficult to compare as different methods were used and different costs measured.	<p>▷ <i>The evaluation of an early discharge policy needs to consider factors such as hospital costs, primary care support for women and infants following discharge from hospital (including midwife home visits, telephone follow-up, and other contacts with health professionals), and the costs incurred by women and their families for the practical support needed in the days immediately following a birth. Although hospitalisation costs appeared to be lower in the early discharge group, it is unclear how the postnatal associated interventions costs affected the total costs.</i></p>
MONITORING & EVALUATION	
→ Although early postnatal discharge appeared not to have adverse effects, the certainty of the evidence is low and none of the included studies were conducted in low-income countries.	<p>▷ <i>The effects of changes in policies regarding postnatal discharge should be monitored and, ideally, evaluated in randomised trials.</i></p> <p>▷ <i>Outcomes such as differences in mortality or readmissions require larger studies to detect or refute important differences. The low rate of women that consent to take part in the studies, may have compromised the results obtained thus far due to differences between the patients included in the studies and the non-participants.</i></p>

*Judgements made by the authors of this summary, not necessarily those of the review authors, based on the findings of the review and consultation with researchers and policymakers in low-income countries. For additional details about how these judgements were made see: www.supportsummaries.org/methods

Additional information

Related literature

Conseil d'Évaluation des Technologies de la Santé du Québec. Evaluation of the risks and benefits of early postpartum discharge. Report submitted to the Minister of Health and Social Services of Québec. Québec: CETS, 1997.

Braveman P, Egeter S, Pearly M, Marchi K, Miller C. Early discharge of newborns and mothers: a critical review of the literature. *Pediatrics* 1995;96:716–26.

This summary was prepared by

Sebastián García Martí and Agustín Ciapponi, Argentine Cochrane Centre IECS – Institute for Clinical Effectiveness and Health Policy – Iberoamerican Cochrane Network, Argentina

Conflict of interest

None declared. For details, see: www.supportsummaries.org/coi

Acknowledgements

This summary has been peer reviewed by: Charles Okwundu, Charles Wiysonge, and Stephanie Brown.

This review should be cited as

Brown S, Small R, Faber B, Krastev A, Davis P. Early postnatal discharge from hospital for healthy mothers and term infants. *Cochrane Database of Systematic Reviews*. 2002, Issue 3.

The summary should be cited as

García Martí S, Ciapponi A. What are the effects of early postnatal discharge from hospital on healthy mothers and term infants? A SUPPORT Summary of a systematic review. August 2016. www.supportsummaries.org

About certainty of the evidence (GRADE)

The “certainty of the evidence” is an assessment of how good an indication the research provides of the likely effect; i.e. the likelihood that the effect will be substantially different from what the research found. By “substantially different” we mean a large enough difference that it might affect a decision. These judgements are made using the GRADE system, and are provided for each outcome. The judgements are based on the study design (randomised trials versus observational studies), factors that reduce the certainty (risk of bias, inconsistency, indirectness, imprecision, and publication bias) and factors that increase the certainty (a large effect, a dose response relationship, and plausible confounding). For each outcome, the certainty of the evidence is rated as high, moderate, low or very low using the definitions on page 3.

For more information about GRADE:
www.supportsummaries.org/grade

SUPPORT collaborators:

The Cochrane Effective Practice and Organisation of Care Group (EPOC) is part of the [Cochrane Collaboration](http://www.cochrane.org). The Norwegian EPOC satellite supports the production of Cochrane reviews relevant to health systems in low- and middle-income countries. www.epocoslo.cochrane.org

The Evidence-Informed Policy Network (EVIPNet) is an initiative to promote the use of health research in policymaking in low- and middle-income countries. www.evipnet.org

The Alliance for Health Policy and Systems Research (HPSR) is an international collaboration that promotes the generation and use of health policy and systems research in low- and middle-income countries. www.who.int/alliance-hpsr

Norad, the Norwegian Agency for Development Cooperation, supports the Norwegian EPOC satellite and the production of SUPPORT Summaries. www.norad.no

The Effective Health Care Research Consortium is an international partnership that prepares Cochrane reviews relevant to low-income countries. www.evidence4health.org

To receive e-mail notices of new SUPPORT summaries or provide feedback on this summary, go to:
www.supportsummaries.org/contact