National Institute for Health and Care Excellence

Final

Postnatal care

[A] Length of postpartum stay

NICE guideline NG194

Evidence review underpinning recommendations 1.1.10 to 1.1.13

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Final

These evidence reviews were developed by the National Guideline Alliance, part of the Royal College of Obstetricians and Gynaecologists

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Contents

Length of postpartum stay

Review question

This evidence report contains information on two review questions relating to length of postpartum stay:

- How does the length of postpartum stay affect women and their babies (single births)?
- How does the length of postpartum stay affect women and their babies (twins and triplets)?

Introduction

The length of time that women spend in postnatal wards following a normal delivery has progressively shortened. It is now usual for women to go home a few hours after delivery. While most women are keen to return home as soon as possible, there may be a risk of being discharged before they feel ready. The committee was also concerned that short stays might be associated with subsequent problems such as postpartum haemorrhage or infection, leading to some readmission to hospital and emotional upset to mothers, as well as additional health service costs. The aim of this review is to determine how length of postpartum stay impacts on the outcomes of women and babies and whether there is an optimal length of stay. In this review, the term 'discharge' is used to express the transfer of care from place of birth to the home setting.

Summary of the protocol

Please see Table 1 for a summary of the Population, Intervention, Comparison and Outcome (PICO) characteristics of this review.

Table 1: Summary of the protocol (PICO table)

Population	Pregnant women and women who have given birth vaginally to a healthy baby at term (or to healthy twins or triplets)in a hospital or standalone birth centre. All types of vaginal deliveries, including instrumental deliveries, will be considered.
Intervention	Early discharge defined as a shorter length of hospital stay than the comparator.
Comparison	Late discharge, defined as a length of hospital stay that is longer than the intervention.
Outcomes	**Critical** • maternal mortality • neonatal mortality **Important** • proportion of women with unplanned attendance for complications related to childbirth or feeding (for example postpartum haemorrhage, retained products of conception, infection, postpartum psychosis) in the first six weeks after the birth • proportion of women scoring above the cut-off score indicating probable depression or anxiety on a well-validated standardised instrument at six to eight weeks, three months and six months after the

	birth. If data at 6 to 8 weeks is not available, use follow-ups between 3 and 5 weeks • proportion of women breastfeeding (exclusively or partially) at six weeks, 12 weeks and six months after the birth. If data at 6 weeks is not available, use follow-ups between 3 and 8 weeks • proportion of women satisfied with their postnatal care • proportion of infants' unplanned attendance for neonatal morbidity (including jaundice, dehydration, infections or for feeding problems) within 28 days.

For further details see the review protocol in appendix A.

Methods and process

This evidence review was developed using the methods and process described in Developing NICE guidelines: the manual 2014. Methods specific to this review question are described in the review protocol in appendix A.

Declarations of interest were recorded according to NICE's 2014 conflicts of interest policy until March 2018. From April 2018 until June 2019, declarations of interest were recorded according to NICE's 2018 conflicts of interest policy. From July 2019 onwards, the declarations of interest were recorded according to NICE's 2019 conflicts of interest policy. Those interests declared before July 2019 were reclassified according to NICE's 2019 conflicts of interest policy (see Register of Interests).

Clinical evidence

Included studies

Nine randomised controlled trials (RCTs) identified from a systematic review (Brown 2002) on early postnatal discharge from hospital for healthy mothers and term infants were included in this review. The 9 studies compared early and late postnatal discharge (Boulvain 2004; Carty 1990; Gagnon 1997; Hellman 1962; Sainz Bueno 2005; Smith-Hanrahan 1995; Waldenström 1987; Winterburn 2000; Yanover 1976). The timing of 'early' and 'late' discharge differed between the studies. The systematic review was used to extract relevant information on these 9 trials, but the original articles were also sought to extract additional information. For 1 study (Waldenström 1987) 4 publications were included and for another study (Carty 1990) 2 publications were included. For the rest of the studies, 1 publication was included for each study.

All studies were designed to select women at low medical risk. All studies only included women with a vaginal birth, except for two studies (Boulvain 2004 and Winterburn 2000), which included a proportion of women with caesarean sections (11% and 19%, respectively). Three studies reported that all women had a singleton birth (Boulvain 2004, Gagnon 1997, Waldenström 1987). Five studies did not report whether women had singleton or multiple births (Carty 1990, Gagnon 1997, Hellman 1962, Sainz Bueno 2005, Smith-Hanrahan 1995). One study reported that there were 3 women with multiple births (Winterburn 2000). All studies recruited both primiparous and multiparous women except for 1 study that recruited first-time mothers (Winterburn 2000).

The included studies are summarised in Table 2.

See the literature search strategy in appendix B and study selection flow chart in appendix C.

Excluded studies

Studies not included in this review with reasons for their exclusion are provided in appendix K.

Summary of clinical studies included in the evidence review

Summaries of the studies that were included in this review are presented in Table 2.

Table 2: Summary of included studies

Study	Population	Intervention and Comparison	Outcomes
Boulvain 2004 RCT Switzerland	N=459 women randomised • Early discharge: n=228 • Late discharge: n=231 Minority of women had caesarean section (CS): early discharge: 24/228 (11%) had CS; late discharge: 27/231 (12%) had CS.	• Early discharge: between 24 and 48 hours following vaginal births and between 72 and 84 hours after CS • Late discharge: 4 to 5 days following vaginal births and 6 to 7 days after CS Both groups received minimum 2 nurse home visits and 10 phone calls; number and timing were determined by the family	• Proportion of women readmitted within 6 weeks • Proportion of women with 1 or more visits to a gynaecologist during the first month • Proportion of women depressed at 28 days • Proportion of women breastfeeding at one month and at 6 months • Maternal dissatisfaction with postnatal care • Proportion of infants with 2 or more visits to a paediatrician during the first month • Proportion of infants readmitted within 8 weeks
Carty 1990 RCT Canada	N=131 women randomised (189 women volunteered to take part in the study but 58 were later found to be not eligible or withdrew consent) • Early discharge group 1: n=44 • Early discharge group 2: n=49 • Late discharge: n=38 Women with normal labour and vaginal birth	• Early discharge group 1: 12 to 24 hours + 5 home visits post discharge • Early discharge group 2: 25 to 48 hours + 3 home visits post discharge • Late discharge: 4 days + 1 home visit post discharge All women also received one home visit antenatally by a nurse. Study nurses participated in two weeks special training for the early discharge program.	• Proportion of women readmitted within 6 weeks • Proportion of women with maternal problems requiring physician referral in the first 10 days • Proportion of women breastfeeding exclusively at 1 month • Proportion of infants requiring physician referrals for infant health issues in the first 10 days

Study	Population	Intervention and Comparison	Outcomes
Gagnon 1997 RCT Canada	N=360 women randomised • Early discharge: n=183 randomised, n=78 final number analysed • Late discharge: n=177 randomised, n=97 final number analysed Women with normal pregnancy (no medical conditions and no breech) and vaginal birth	• Early discharge at 6 to 36 hours + 1 home visit or phone call antenatally, 2 post discharge home visits and 2 phone calls • Late discharge: at 48 to 72 hours + follow-up as determined by physicians	• Proportion of women breastfeeding at 1 month • Infant health service contacts with health services at 1 month
Hellman 1962 RCT US	N=2257 (the authors pre-specified a control sample of 10%) • Early discharge: n=1941 • Late discharge: n=316 Women with vaginal live births. Baby gestation not specified, babies predominantly >2500 g.	• Early discharge before 72 hours + 3 home visits post discharge • Late discharge: after 5 days + 2 visits post discharge Post discharge home visits were conducted by midwife for examination of mother and baby.	• Neonatal mortality • Proportion of women readmitted within 6 weeks • Proportion of women breastfeeding at 3 weeks • Proportion of infants readmitted within 8 weeks
Sainz Bueno 2005 RCT Spain	N=430 women randomised • Early discharge: n=213 • Late discharge: n=217 Primiparous and multiparous women with vaginal birth.	• Early discharge <24 hours + monitored at home for first 24 to 48 hours post discharge by qualified nurse • Late discharge: ≥48 hours Women in both groups attended visit	• Proportion probably depressed at 4 weeks • Proportion of women breastfeeding at 1 month, 3 months and 6 months • Proportion of women dissatisfied with postnatal care • Proportion of infants readmitted within 8 weeks

Study	Population	Intervention and Comparison	Outcomes
	≥37 week gestation with baby of appropriate weight for gestational age.	in clinic at 7 to 10 days postpartum	
Smith-Hanrahan 1995 RCT Canada	N=125 randomised • Early discharge: n=58 • Late discharge: n=67 Vaginal births. No obstetrical complications and no infant complications. Another adult present at home at least 12 hours per day for first two days post discharge was an inclusion criteria.	• Early discharge: <60 hours + usual visits + extra phone support. Early group received phone call from nurse within 24 hours of discharge leading to a decision to visit or continue to consult by phone; also received phone number to contact at any time. Followed by usual visits. • Late discharge: >60 hours + usual visits. Usual visits were to paediatric office at 2 weeks and obstetric office at 6 weeks	• Proportion of women readmitted within 6 weeks • Proportion of women breastfeeding at 6 weeks • Proportion of infants readmitted within 8 weeks
Waldenström 1987 RCT Sweden	N=164 women randomised • Early discharge: n=85 randomised, n=50 final number analysed • Late discharge: n=79 randomised, n=54 final number analysed • Vaginal births, singleton, pregnancy and birth free from significant complications, gestational age >37 weeks	• Early discharge: 24 to 48 hours + 1 antenatal nurse home visit, daily nurse home visits for 3 to 4 days post discharge, visit to hospital on day 5 for paediatric examination • Late discharge: >48 hours + no visit post discharge	• Neonatal mortality • Proportion of women depressed at 6 weeks • Proportion of women breastfeeding at 2 and 6 months • Maternal dissatisfaction with care • Proportion of infants readmitted within 8 weeks

Study	Population	Intervention and Comparison	Outcomes
Winterburn 2000 RCT UK	N=255 women recruited, 248 completed the study • Early discharge: n=121 randomised (only 31 experienced a short stay, 90 went home late). • Late discharge: n=127 (107 experienced a long stay, 20 went home early) 47/248 (19%) had CS.	• Early discharge: 6 to 48 hours after vaginal births • Late discharge: >48 hours Both groups received midwife home visits to support breastfeeding (number of visits and over what time period not reported)	• Proportion of women breastfeeding at 1 month
Yanover 1976 RCT US	N=128 recruited and randomised. 40 did not complete participation. • Early discharge: n=44 • Late discharge: n=44	• Early discharge: 12 to 48 hours postpartum. Prenatal early discharge preparation classes; daily home visits through 4th day postpartum; nursing staff was intensively trained • Late discharge: >48 hours postpartum; prenatal education; paediatric visit at 2 weeks postpartum; obstetric visit at 6 weeks	• Proportion of women readmitted within 6 weeks • Proportion of infants readmitted within 8 weeks

All times indicated in the table are postpartum, for example, at 2 weeks means 2 weeks postpartum.
CS: caesarean section; RCT: randomised controlled trial

See the full evidence tables in appendix D and the forest plots in appendix E.

Quality assessment of studies included in the evidence review

See the evidence profiles in appendix F.

Economic evidence

Included studies

One economic study was identified which was relevant to this review (Petrou 2004).

A single economic search was undertaken for all topics included in the scope of this guideline. See the literature search strategy in appendix B and economic study selection flow chart in appendix G.

Excluded studies

Three studies were reviewed at full text and excluded from this review. Economic studies not included in this review are listed, and reasons for their exclusion are provided, in appendix K.

Summary of the study included in the economic evidence review

Petrou 2004 conducted a cost-minimisation analysis alongside a pragmatic RCT (Boulvain 2004; N=459) to assess the cost effectiveness of early postnatal discharge (scheduled for 24-48 hours after a vaginal delivery or 72-96 hours after a caesarean section) combined with home midwifery support compared with traditional postnatal discharge (scheduled for 4-5 days after a vaginal delivery or 6-7 days after a caesarean section) without subsequent home midwifery support unless clinically indicated for women who delivered a single infant at term following an uncomplicated pregnancy in a hospital in an urban area in Switzerland. The analysis adopted a societal perspective; direct costs were also analysed separately. The time horizon of cost measurement was from discharge from delivery suite and up to 28 days postpartum. Costs included hospital and community health and social services (postnatal care, hospital readmissions, outpatient care, community health and social care, costs borne by women and their informal carers, and productivity losses). Local prices were used.

The RCT on which the cost-minimisation analysis was based had not shown any statistically significant difference between the two strategies in the pre-specified clinical or psychosocial outcomes, which comprised the proportion of women continuing breastfeeding beyond 28 days postpartum, the total duration of breastfeeding, the women's satisfaction with the care received by themselves and their infants, as well as maternal and neonatal safety.

The number of post-discharge midwifery contacts was higher in the earlier discharge group (mean 4.7, standard deviation [SD] 2.3) compared with the traditional discharge group (mean 1.8, SD 2.1), leading to a significantly higher community care cost for the early discharge group. On the other hand, as expected, the cost of planned postnatal hospital care (that is, pre-discharge) was significantly lower in the earlier discharge group compared with the traditional discharge group. Costs of hospital readmissions and outpatient visit costs did not differ significantly between the two groups. Earlier discharge was found to be overall significantly less costly than traditional discharge in terms of both societal and direct costs, and therefore it was the dominant option as the two options had similar effects. Results were robust to 25% changes in staff costs, a 20% change in occupied bed-days, a 30% change in community service utilisation, and the use of 95% confidence interval (CI) of levels of home midwifery support. The study is partially applicable to the NICE decision-making context as it was conducted in Switzerland, where routine practice, resource use and unit costs may be different from the UK. It also needs to be noted that 11% of women in the study had a caesarean section, and therefore they were different

from the population in the guideline review question. The study is characterised by minor limitations.

See the economic evidence table in appendix H and the economic evidence profile in appendix I.

Economic model

No economic modelling was conducted for these review questions because there was no adequate evidence to suggest significant differences between early and late discharge in terms of unplanned attendances for women and babies, and therefore no major resource implications were anticipated to be related to these review questions.

Evidence statements

Clinical evidence statements

Comparison 1. Discharge at 12 to 24 hours versus 25 to 48 hour

Critical outcomes

Maternal mortality

No evidence was identified for this outcome.

Neonatal mortality

No evidence was identified for this outcome.

Important outcomes

Proportion of women with unplanned attendance for complications related to childbirth or feeding

- Very low quality evidence from 1 RCT (N=93 women and their babies) found no clinically significant difference in the proportion of women requiring physician referral within 10 days postpartum between women discharged early (12 to 24 hours + 5 home visits post discharge) and women discharged late (25 to 48 hours + 3 home visits post discharge). All women also received 1 home visit antenatally by a nurse.

Proportion of women scoring above the cut-off score indicating probable depression or anxiety

No evidence was identified for this outcome.

Proportion of women breastfeeding

No evidence was identified for this outcome.

Proportion of women satisfied with their postnatal care

No evidence was identified for this outcome.

Proportion of infants' unplanned attendance for neonatal morbidity

No evidence was identified for this outcome.

Comparison 2. Discharge at <24 hours versus >48 hours

Critical outcomes

Maternal mortality

No evidence was identified for this outcome.

Neonatal mortality

No evidence was identified for this outcome.

Important outcomes

Proportion of women with unplanned attendance for complications related to childbirth or feeding

- Very low quality evidence from 1 RCT (N=430 women and their babies) found no clinically significant difference in the proportion of women readmitted within 6 weeks between women discharged early (<24 hours + monitored at home for first 24 to 48 hours post discharge by qualified nurse) and women discharged late (≥48 hours). Women in both groups attended a visit in a clinic at 7 to 10 days postpartum.

Proportion of women scoring above the cut-off score indicating probable depression or anxiety

- Low quality evidence from 1 RCT (N=430 women and their babies) found no clinically significant difference in the proportion of women probably depressed between women discharged early (<24 hours + monitored at home for first 24 to 48 hours post discharge by qualified nurse) and women discharged late (≥48 hours). Women in both groups attended a visit in a clinic at 7 to 10 days postpartum.

Proportion of women breastfeeding

- Low quality evidence from 1 RCT (N=430 women and their babies) found no clinically significant difference in the proportion of women breastfeeding at 1 month between women discharged early (<24 hours + monitored at home for first 24 to 48 hours post discharge by qualified nurse) and women discharged late (≥48 hours). Women in both groups attended a visit in a clinic at 7 to 10 days postpartum. Low quality evidence from the same study found a clinically significant higher proportion of women breastfeeding at 12 weeks in the early discharge group compared to the late discharge group. Very low quality evidence from the same study also found that there may be a clinically significant higher proportion of women breastfeeding at 6 months in the early discharge group compared to the later discharge group, however there is some uncertainty in the effect estimate.

Proportion of women dissatisfied with their postnatal care

- Low quality evidence from 1 RCT (N=297 women and their babies) found a clinically significant lower proportion of women dissatisfied with postnatal care in the early discharge group (<24 hours + monitored at home for the first 24 to 48 hours post discharge by qualified nurse) compared to the late discharge group (≥48 hours). Women in both groups attended a visit in a clinic at 7 to 10 days postpartum.

Proportion of infants' unplanned attendance for neonatal morbidity

- Very low quality evidence from 1 RCT (N=430 women and their babies) found no clinically significant difference in health service consultations for neonate pathology in the first 28 days between the group discharged early (<24 hours + monitored at home for first 24 to 48 hours post discharge by qualified nurse) and the group discharged late (≥48 hours). Both groups attended a visit in a clinic at 7 to 10 days postpartum.

- Very low quality evidence from 1 RCT (N=430 women and their babies) found no clinically significant difference in the proportion of infants readmitted within 8 weeks between women discharged early (<24 hours + monitored at home for first 24 to 48 hours post discharge by qualified nurse) and women discharged late (≥48 hours). Women in both groups attended a visit in a clinic at 7 to 10 days postpartum.

Comparison 3. Discharge at 6 to 36 hours versus 48 to 72 hours

Critical outcomes

Maternal mortality

No evidence was identified for this outcome.

Neonatal mortality

No evidence was identified for this outcome.

Important outcomes

Proportion of women with unplanned attendance for complications related to childbirth or feeding

No evidence was identified for this outcome.

Proportion of women scoring above the cut-off score indicating probable depression or anxiety

No evidence was identified for this outcome.

Proportion of women breastfeeding

- Very low quality evidence from 1 RCT (N=175 women and their babies) found a clinically significant higher proportion of women breastfeeding at one month in the group discharged early (at 6 to 36 hours + 1 home visit or phone call antenatally, 2 post discharge home visits and 2 phone calls) compared to those discharged late (at 48 to 72 hours + follow-up as determined by physicians).

Proportion of women satisfied with their postnatal care

No evidence was identified for this outcome.

Proportion of infants' unplanned attendance for neonatal morbidity

- Very low quality evidence from 1 RCT (N=175 women and their babies) found no clinically significant difference in the number of health service contacts at 1 month between the group discharged early (at 6 to 36 hours + 1 home visit or phone call antenatally, 2 post discharge home visits and 2 phone calls) and those discharged late (at 48 to 72 hours + follow-up as determined by physicians).

Comparison 4. Discharge at ≤48 hours versus >48 hours

Critical outcomes

Maternal mortality

No evidence was identified for this outcome.

Neonatal mortality

- Very low quality evidence from 1 RCT (N=104 women and their babies) found no neonatal deaths in the group discharged early (24 to 48 hours + 1 antenatal nurse home visit, daily nurse home visits for 3 to 4 days post discharge, visit to hospital on day 5) and the group discharged late (>48 hours + no visit post discharge).

Important outcomes

Proportion of women with unplanned attendance for complications related to childbirth or feeding

- Very low quality evidence from 2 RCTs (N=192) found no clinically significant difference in the proportion of women readmitted within 6 weeks between women discharged early (≤48 hours + home visits post discharge) and women discharged late (>48 hours and no home visits post discharge).

Proportion of women scoring above the cut-off score indicating probable depression or anxiety

No evidence was identified for this outcome.

Proportion of women breastfeeding

- Very low quality evidence from 2 RCTs (n=349 women and their babies) found no clinically significant difference in the proportion of women breastfeeding in the first 8 weeks between women discharged early (≤48 hours + home visits post discharge) and women discharged late (>48 hours; one study: no visit post discharge, one study: midwife home visits to support breastfeeding).

- Very low quality evidence from 1 RCT (N=108 women and their babies) found no clinically significant difference in the proportion of women breastfeeding at 6 months between women discharged early (24 to 48 hours + 1 antenatal nurse home visit, daily nurse home visits for 3 to 4 days post discharge, visit to hospital on day 5) and women discharged late (>48 hours + no visit post discharge).

Proportion of women dissatisfied with their postnatal care

- Moderate quality evidence from 1 RCT (N=104 women and their babies) found a clinically significant lower proportion of women dissatisfied with postnatal care in the group discharged early (24 to 48 hours + 1 antenatal nurse home visit, daily nurse home visits for 3 to 4 days post discharge, visit to hospital on day 5) compared to those discharged late (>48 hours + no visit post discharge).

Proportion of infants' unplanned attendance for neonatal morbidity

- Very low quality evidence from 2 RCTs (N=192) found no clinically significant difference in the proportion of infants readmitted within 8 weeks between women discharged early (≤48 hours + home visits post discharge) and women discharged late (>48 hours and no home visits post discharge).

Comparison 5. Discharge at <60 hours versus >60 hours

Critical outcomes

Maternal mortality

No evidence was identified for this outcome.

Neonatal mortality

No evidence was identified for this outcome.

Important outcomes

Proportion of women with unplanned attendance for complications related to childbirth or feeding

- Moderate quality evidence from 1 RCT (N=81 women and their babies) found no women readmitted within 6 weeks among women discharged early (<60 hours + extra phone support leading to a decision to visit or continue to consult by phone + usual visits) and women discharged late (>60 hours + usual visits). Usual visits were to paediatric office at 2 weeks and obstetric office at 6 weeks.

Proportion of women scoring above the cut-off score indicating probable depression or anxiety

No evidence was identified for this outcome.

Proportion of women breastfeeding

- Low quality evidence from 1 RCT (N=81 women and their babies) found no clinically significant difference in the proportion of women breastfeeding at 6 weeks between women discharged early (<60 hours + extra phone support leading to a decision to visit or continue to consult by phone + usual visits) and women discharged late (>60 hours + usual visits). Usual visits were to paediatric office at 2 weeks and obstetric office at 6 weeks.

Proportion of women satisfied with their postnatal care

No evidence was identified for this outcome.

Proportion of infants' unplanned attendance for neonatal morbidity

- Moderate quality evidence from 1 RCT (N=81 women and their babies) found no infants readmitted within 8 weeks among women discharged early (<60 hours + extra phone support leading to a decision to visit or continue to consult by phone + usual visits) and women discharged late (>60 hours + usual visits). Usual visits were to paediatric office at 2 weeks and obstetric office at 6 weeks.

Comparison 6. Discharge at 12 to 24 hours versus 4 days

Critical outcomes

Maternal mortality

No evidence was identified for this outcome.

Neonatal mortality

No evidence was identified for this outcome.

Important outcomes

Proportion of women with unplanned attendance for complications related to childbirth or feeding

- Very low quality evidence from 1 RCT (N=82 women and their babies) found no clinically significant difference in the proportion of women requiring physician referral within 10 days between women discharged early (12 to 24 hours + 5 home visits post discharge) and women discharged late (4 days + 1 home visit post discharge). All women also received one home visit antenatally by a nurse.

Proportion of women scoring above the cut-off score indicating probable depression or anxiety

No evidence was identified for this outcome.

Proportion of women breastfeeding

No evidence was identified for this outcome.

Proportion of women satisfied with their postnatal care

No evidence was identified for this outcome.

Proportion of infants' unplanned attendance for neonatal morbidity

No evidence was identified for this outcome.

Comparison 7. Discharge at ≤48 hours versus 4 to 5 days

Critical outcomes

Maternal mortality

No evidence was identified for this outcome.

Neonatal mortality

No evidence was identified for this outcome.

Important outcomes

Proportion of women with unplanned attendance for complications related to childbirth or feeding

- Very low quality evidence from 1 RCT (N=459 women and their babies) found that there may be a clinically significant lower proportion of women with one or more visits to a gynaecologist in first month in the group discharged early (24 to 48 hours following vaginal births and 72 to 84 hours after CS) compared to women discharged late (4 to 5 days following vaginal births and 6 to 7 days after CS), however there is uncertainty around the effect estimate. Both groups received minimum 2 nurse home visits and 10 phone calls; number and timing were determined by the family.

- Very low quality evidence from 1 RCT (N=87 women and their babies) found no clinically significant difference in the proportion of women requiring physician referral within 10 days between women discharged early (25 to 48 hours + 3 home visits post discharge) and women discharged late (4 days + 1 home visit post discharge). All women also received one home visit antenatally by a nurse.

- Very low quality evidence from 2 RCTs (n=590 women and their babies) found no clinically significant difference in the proportion of women readmitted within 6 weeks between women discharged early (≤48 hours plus home visits post discharge) and women discharged late (4 to 5 days plus home visits post discharge).

Proportion of women scoring above the cut-off score indicating probable depression or anxiety

- Very low quality evidence from 1 RCT (N=459 women and their babies) found no clinically significant difference in the proportion of women probably depressed between women discharged early (24 to 48 hours following vaginal births and 72 to 84 hours after CS) and women discharged late.

Proportion of women breastfeeding

- Very low quality evidence from 2 RCTs (N=544 women and their babies) found no clinically significant difference in the proportion of women breastfeeding at one month between women discharged early (≤48 hours plus home visits post discharge) and women discharged late (4 to 5 days plus home visits post discharge).

- Very low quality evidence from 1 RCT (n=435 women and their babies) found no clinically significant difference in breastfeeding at 6 months between women discharged early (24 to 48 hours following vaginal births and 72 to 84 hours after CS) and women discharged late (4 to 5 days following vaginal births and 6 to 7 days after CS). Both groups received minimum 2 nurse home visits and 10 phone calls; number and timing were determined by the family.

Proportion of women dissatisfied with their postnatal care

- Very low quality evidence from 1 RCT (N=440 women and their babies) found no clinically significant difference in the proportion of women dissatisfied with postnatal care between women discharged early (24 to 48 hours following vaginal births and 72 to 84 hours after CS) and women discharged late (4 to 5 days following vaginal births and 6 to 7 days after CS). Both groups received minimum 2 nurse home visits and 10 phone calls; number and timing were determined by the family.

Proportion of infants' unplanned attendance for neonatal morbidity

- Very low quality evidence from 1 RCT (N=131 women and their babies) found no clinically significant difference in the proportion of infants requiring physician referral in first 10 days between the group discharged early (≤48 hours + 3 to 5 home visits post discharge) and the group discharged late (4 days + 1 home visit post discharge). All women also received one home visit antenatally by a nurse.

- Very low quality evidence from 1 RCT (N=459 women and their babies) found no clinically significant difference in the proportion of infants readmitted within 8 weeks between women discharged early (24 to 48 hours following vaginal births and 72 to 84 hours after CS) and women discharged late (4 to 5 days following vaginal births and 6 to 7 days after CS). Both groups received minimum 2 nurse home visits and 10 phone calls; number and timing were determined by the family.

Comparison 8. Discharge at <72 hours versus >5 days

Critical outcomes

Maternal mortality

No evidence was identified for this outcome.

Neonatal mortality

- Very low quality evidence from 1 RCT (N=2,077 women and their babies) found no clinically significant difference in infant mortality between the group discharged early (before 72 hours + 3 home visits post discharge) and women discharged late (after 5 days + 2 visits post discharge).

Important outcomes

Proportion of women with unplanned attendance for complications related to childbirth or feeding

- Very low quality evidence from 1 RCT (N=2,094 women and their babies) found no clinically significant difference between the group discharged early (before 72 hours + 3 home visits post discharge) and the group discharged late (after 5 days + 2 visits post discharge).

Proportion of women scoring above the cut-off score indicating probable depression or anxiety

No evidence was identified for this outcome.

Proportion of women breastfeeding

- Low quality evidence from 1 RCT (N=2,077 women and their babies) found a clinically significant higher proportion of women breastfeeding at 3 weeks in the group discharged early (before 72 hours + 3 home visits post discharge) compared to women discharged late (after 5 days + 2 visits post discharge).

Proportion of women satisfied with their postnatal care

No evidence was identified for this outcome.

Proportion of infants' unplanned attendance for neonatal morbidity

- Very low quality evidence from 1 RCT (N=2,151 women and their babies) found no clinically significant difference in the proportion of infants readmitted within 8 weeks between the group discharged early (before 72 hours + 3 home visits post discharge) and the group discharged late (after 5 days + 2 visits post discharge).

Economic evidence statements

Evidence from 1 Swiss study conducted alongside a pragmatic RCT (N=459) suggests that earlier postnatal discharge combined with home midwifery support has similar clinical and psychosocial effects and is significantly less costly than traditional postnatal discharge without subsequent home midwifery support for women delivering a single infant at term following an uncomplicated pregnancy in hospital. The study is partially applicable to the NICE decision-making context and is characterised by minor limitations.

The committee's discussion of the evidence

Interpreting the evidence

The outcomes that matter most

Maternal and neonatal mortality were considered to be critical outcomes for decision making as mothers and babies are under observation during their stay in hospital and the length of hospital stay may be vital in identifying serious acute postnatal and neonatal adverse outcomes.

The proportion of women with unplanned attendance for complications related to childbirth or feeding and the proportion of infants with unplanned attendance for neonatal morbidity were rated as important outcomes because the committee wanted to see if early discharge would lead to more complications and to increased use of health services. The proportion of women scoring above the cut-off score indicating probable depression or anxiety was prioritised as an important outcome, because mental health problems are known to impact many women in the postnatal period and the committee wanted to see if early or late discharge could have an impact on this. The proportion of women breastfeeding was prioritised as an important outcome because it is possible that early or late discharge would lead to different kinds or levels of breastfeeding support and the committee was interested in whether this could impact on breastfeeding outcomes.

There was no evidence on maternal mortality (critical outcome) and on the proportion of women scoring above a cut-off score indicating probable anxiety (important outcome) for any of the comparisons. There was only evidence on neonatal mortality (critical outcome) for 2 comparisons (≤48 hours versus >48 hours; <72 hours versus 5 days) out of the 8 comparisons identified.

The quality of the evidence

The quality of the evidence ranged from very low to moderate. All included studies had unclear risk of selection bias. There was insufficient information to assess whether random sequence generation was adequate in all included studies. Moreover, in 5 trials it was unclear whether there was allocation concealment. All trials had a high risk of performance bias as blinding of participants and personnel was not feasible. Whereas, the risk of detection bias was unclear or high as blinding of outcome assessment was not reported or was inadequate. Some studies reported substantial non-compliance and differential cross-over between intervention and control groups. Studies were downgraded for deviations from intended intervention where significant crossover occurred. The Cochrane review (Brown 2002) states that several studies had "very limited power to assess differences in relation to reported outcomes"; in the current review, some outcomes were downgraded due to imprecision, which in turn is related to small sample size.

Data in 2 studies (Boulvain 2004 and Winterburn 2000) were downgraded due to indirectness of the population because a minority with caesarean sections (11% and 19%, respectively) were included.

Five trials did not clarify whether breastfeeding data referred to partial or exclusive breastfeeding (Boulvain 2004, Hellman 1962, Sainz Bueno 2005, Smith-Hanrahan 1995, Waldenstrom 1987).

The committee noted that no study evaluated discharge before 12 hours postpartum. Moreover, only 1 study was conducted in the UK (Winterburn 2000), which reported on 1 relevant outcome (proportion of women breastfeeding). As per the protocol,

evidence from non UK high income countries was included and therefore was not downgraded for indirectness. However in discussing the results of the review the committee agreed that in fact care received in hospital and in the community in other high income countries could potentially differ from the UK and that this might affect health outcomes. The committee agreed that the kind of community care provided in the immediate postnatal period after discharge was likely to have an important impact on health outcomes.

Benefits and harms

Due to the fact that the majority of evidence was low quality and inconsistent, the recommendations were drafted by the committee through consensus using their experience and expertise rather than the clinical evidence. The committee raised particular concern that the evidence regarding breastfeeding rates was inconsistent. For some comparisons (6 to 36 hours versus 48 to 72 hours, <72 hours versus >5 days), higher breastfeeding rates were observed with early discharge, but for other comparisons (≤48 hours versus >48 hours, <60 hours versus >60 hours, ≤48 hours versus 4 to 5 days), there was no significant difference in breastfeeding rates between early and late discharge. The only study from the UK (Winterburn 2000) showed no clinically significant difference between the proportion of women breastfeeding at 4 weeks between the early (≤48 hours) and late discharge (>48 hours). For one comparison (<24 hours versus >48 hours), whether or not a significant difference in breastfeeding rates was observed depended on length of follow-up. The committee noted that in the included studies, women discharged early received extra support at home and speculated that this may have impacted positively on breastfeeding rather than the length of stay itself.

There was some evidence of lower dissatisfaction with early discharge for two comparisons (<24 hours versus >48 hours, ≤48 hours versus >48 hours), but no significant difference in dissatisfaction was observed for the comparison ≤48 hours versus 4 to 5 days. The committee speculated that some women may prefer to be at home as opposed to the hospital and this may increase their satisfaction with postnatal care rather than the length of stay itself.

For all other outcomes; neonatal mortality; proportion of women with unplanned attendance for complications related to childbirth or feeding; proportion of women scoring above the cut off score indicating probable depression or anxiety; and proportion of infants unplanned attendance for neonatal morbidity, there was no clinically significant difference between early and late discharge.

The committee noted that in their experience transfer to home or community care for low risk women usually occurred within 12 hours of birth in current practice, but they highlighted that there was no evidence to support this compared to for example 6 hours or 24 hours. In light of this, the committee agreed to draft recommendations on assessments to be conducted prior to discharge, as opposed to the exact time a woman and baby should be discharged.

The committee agreed that the wellbeing of the woman should be assessed prior to discharge or before midwife leaves after a home birth, to reduce the risk of adverse outcomes for the woman. The committee agreed that the content of the assessment should be aligned with recommendations on the assessment and care of the women focusing on assessing the woman's psychological health, emotional wellbeing, and physical health from the content of postnatal care contacts in evidence review F.

The committee raised concerns that some women and babies may be discharged too early after birth. The committee agreed that in order to minimise harm for the woman and baby, that there should be prerequisites that are fulfilled prior to discharge. The

same recommendations would also apply before a midwife leaves after a home birth. Firstly, to assess urinary function the woman's first void after giving birth should be measured to rule out urinary retention.

The baby's general health should be assessed, through a physical inspection and observation of general behaviour. Not passing meconium within the first 24 hours could indicate bowel obstruction, therefore before discharge parents should be advised to seek advice from a healthcare professional if this is the case. This might be a midwife or a doctor, or in cases where the parents think the baby is in distress and might be seriously ill, it might the emergency services. Some babies might pass meconium when still in the maternity unit in which case this would not be relevant. Furthermore, there should be a plan for the baby's feeding and this should include that at least 1 effective feed (regardless of the method of feeding) should be observed by a healthcare professional to ensure that there are no major complications with the baby's feeding. For a first feed at the breast or with a bottle, effective feeding is shown by the baby latching to the breast or drawing the teat into mouth when offered and showing some rhythmic sucking.

The committee highlighted that the timing of discharge should be discussed with the woman to individualise care as much as possible based on the woman's and baby's needs and preferences. The committee agreed that this would be both beneficial and reduce harm by identifying any underlying issues.

The committee discussed that women or parents may feel insecure or uncertain about what happens and how to manage the care of the baby once the healthcare professionals are no longer present to support them. Before transferring to community care or before the midwife leaves after a home birth, information should be provided about what happens during the postnatal period, what support is available, including the routine statutory support by midwives, health visitors and GPs as well as available support by charities. Importantly, information should be given about who to contact if there are concerns at different stages. This way the families can feel that they are supported and that they are not left on their own. Women should also be given information about the importance of pelvic floor exercises after birth. Pelvic floor exercises can help to prevent potentially serious and long-term conditions such as incontinence or pelvic organ prolapse.

The committee emphasised that discharge planning should identify factors that could delay a safe and timely transfer of care from the maternity unit, these concerns could include safeguarding issues, such as problems with unsafe housing or home environment, including domestic abuse. The committee acknowledged that the NICE guideline on domestic violence and abuse applied to the discharge planning of postnatal women, therefore the committee agreed to cross refer to this guideline when planning the woman's and baby's discharge home. The committee agreed that in order to reduce the risk of adverse outcomes for the woman and her baby, and to potentially reduce the need for reattendance or readmission, the timing of discharge should be based on the assessments of the health of the woman and the baby, and the preferences of the woman, and take into consideration any concerns, including safeguarding issues.

Given the low quality and conflicting evidence identified in this review, a recommendation for research on the length of postpartum stay was made. The committee agreed to combine a research recommendation on the timing of first postnatal contact by midwife in evidence review C to understand whether the timing of postpartum discharge and the first midwife visit are likely to cause unplanned health contacts.

Cost effectiveness and resource use

Existing economic evidence suggested that early postnatal discharge (scheduled for 24-48 hours after a vaginal delivery or 72-96 hours after a caesarean section) combined with home midwifery support has similar clinical and psychosocial effects and is significantly less costly than traditional postnatal discharge (scheduled for 4-5 days after a vaginal delivery or 6-7 days after a caesarean section) without subsequent home midwifery support for women delivering a single infant at term following an uncomplicated pregnancy in hospital. The study is partially applicable to the NICE decision-making context and is characterised by minor limitations. The committee took this evidence into account but agreed that this is only partially applicable to the UK as it was conducted in Switzerland. Moreover, it was noted that 'early discharge', as described in the study, in fact comprises routine 'late discharge' care in the UK and the 'traditional discharge' in the study reflects rather 'very late discharge' by UK practice standards. Another point that reduced the applicability of the study was that 11% of women in the study had a caesarean section, and therefore they were different from the population in the guideline review question. The committee also noted that the number of post-discharge midwifery contacts was higher in the earlier discharge group compared with the traditional discharge group and concluded that the extra support at home is likely to have impacted positively on mothers' and babies' outcomes.

The committee noted that clinical evidence was limited, but available evidence suggested that there were no clinically significant differences in outcomes between earlier and later postpartum discharge, although they noted that shorter postpartum discharge was balanced with better support at home. In particular, there was no robust evidence to suggest differences in unplanned healthcare contacts, including admission, post-discharge (and, therefore cost differences further down the care pathway) between earlier and later postpartum discharge.

The committee discussed the immediate ward costs associated with early versus late postpartum discharge, and they agreed that, although the timing of discharge affects (and may be affected by) staff and bed capacity, reducing the time of discharge by a few hours has small impact on ward costs.

The committee also agreed that, in general, the timing of discharge (early versus late) does not affect the total number of community postnatal visits, unless there are clinical indications. Increasing the number of community postnatal contacts is not routine practice and occurs only when additional health needs are identified.

Overall, and after considering the limited available evidence and routine practice, the committee acknowledged that currently there is no evidence to suggest that offering early versus late postpartum discharge entails important resource implications either in the number of unplanned healthcare contacts post-discharge or in the community postnatal services.

Therefore, the committee made recommendations regarding the timing of postpartum discharge based on the assessment of the clinical and psychosocial needs of mothers and babies as well as mothers' preferences.

Other factors the committee took into account

The committee noted during protocol development that certain subgroups of women may require special consideration due to their potential vulnerability:

- young women (19 years or under)
- women with physical or cognitive disabilities

- women with severe mental health illness
- women who have difficulty accessing postnatal care services.

A stratified analysis was therefore predefined in the protocol based on these subgroups. However, considering the lack of evidence for these sub-groups, the committee agreed not to make separate recommendations and that the recommendations they did make should apply universally.

The committee acknowledged that the included studies had different definitions and cut-offs for early and late discharge, this made it very difficult to meta-analyse the studies and the results were often presented as individual comparative timeframes.

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Appendices

Appendix A – Review protocols

Review protocol for review questions:

How does the length of postpartum stay affect women and their babies (single births)?

How does the length of postpartum stay affect women and their babies (twins or triplets)?

Table 3: Review protocol

Field (based on PRISMA-P)	Content
Review question	How does the length of postpartum stay affect women and their babies (single births)? How does the length of postpartum stay affect women and their babies (twins or triplets)?
Type of review question	Intervention
Objective of the review	The aim of this review is to determine how length of postpartum stay impacts on the outcomes of women and babies.
Eligibility criteria – population	Pregnant women and women who have given birth vaginally to a healthy baby at term (or to healthy twins or triplets) in a hospital or standalone birth centre. All types of vaginal deliveries, including instrumental deliveries, will be considered. Women receiving specialist care due to a high-risk pregnancy (for example, due to diabetes or pre-eclampsia) and women who become high risk due to intrapartum complications will be excluded.
Eligibility criteria – intervention	Early discharge defined as a shorter length of hospital stay than the comparator. The committee highlighted that this is an area where decisions about length of stay have been made on the basis of operational or resources factors (rather than on evidence). For this reason, they decided not to define a threshold for early discharge. Although early discharge is defined purely in terms of time, data on additional interventions (for example, number and frequency of home visits, telephone calls by a healthcare professional) will be captured and presented with the evidence, as this could influence morbidity and mortality outcomes.

Field (based on PRISMA-P)	Content
Eligibility criteria – comparator	Late discharge, defined as a length of hospital stay that is longer than the intervention. The committee highlighted that this is an area where decisions about length of stay have been made on the basis of operational or resources factors (rather than on evidence). For this reason, they decided not to define a threshold for late discharge. Although late discharge is defined purely in terms of time, data on additional interventions (for example, number and frequency of home visits, telephone calls by a healthcare professional) will be captured and presented with the evidence, as this could influence morbidity and mortality outcomes.
Outcomes and prioritisation	**Critical outcomes** • Maternal mortality (MID: any statistically significant change) • Neonatal mortality (MID: any statistically significant change) **Important outcomes** • Proportion of women with unplanned attendance for complications related to childbirth or feeding (for example postpartum haemorrhage, retained products of conception, infection, postpartum psychosis) in the first six weeks after the birth (default MIDs). • Proportion of women scoring above the cut-off score indicating probable depression or anxiety on a well-validated standardised instrument at six to eight weeks, three months and six months after the birth (default MIDs). If data at 6 to 8 weeks is not available, use follow-ups between 3 and 5 weeks • Proportion of women breastfeeding (exclusively or partially) at six weeks, 12 weeks and six months after the birth (any statistically significant change). If data at 6 weeks is not available, use follow-ups between 3 and 8 weeks • Proportion of women satisfied with their postnatal care (default MIDs). • Proportion of infants' unplanned attendance for neonatal morbidity (including jaundice, dehydration, infections or for feeding problems) within 28 days (default MIDs).
Eligibility criteria – study design	Published full text papers only: • Systematic reviews of RCTs • RCTs Conference abstracts will not be considered.
Other inclusion exclusion criteria	Studies from low- and middle-income countries will be excluded, as the configuration of antenatal and postnatal services in these countries might not be representative of that in the UK.
Proposed sensitivity/sub-group	Groups that will be reviewed and analysed separately:

Field (based on PRISMA-P)	Content
analysis, or meta-regression	• young women (19 years or under) • women with physical or cognitive disabilities • women with severe mental health illness • women who have difficulty accessing postnatal care services • mode of birth (non-instrumental vaginal birth/instrumental vaginal birth) • different lengths of stay (for example, early discharge <24 hours will be presented separately from early discharge <5 days) In the presence of heterogeneity, the following subgroups will be considered for sensitivity analysis: • singletons, twins and triplets • women who chose to not breastfeed versus women who chose to breastfeed • primiparous versus multiparous women • 'early discharge' accompanied by co-interventions (antenatal preparation or not, policy on enhanced recovery or not, home visits or not) • women who had epidural versus those who did not. Statistical heterogeneity will be assessed by visually examining the forest plots and by calculating the I^2 inconsistency statistic (with an I^2 value of more than 50% indicating considerable heterogeneity)
Selection process – duplicate screening/selection/analysis	Review questions selected as high priorities for health economic analysis (and those selected as medium priorities and where health economic analysis could influence recommendations) will be subject to dual weeding and study selection; any discrepancies above 10% of the dual weeded resources will be resolved through discussion between the first and second reviewers or by reference to a third person. This review question was prioritised for health economic analysis however no formal dual weeding, study selection (inclusion/exclusion) or data extraction into evidence tables will be undertaken because the technical team was aware of an existing Cochrane review on the subject and agreed to use this to check the weeding and study selection steps. (Moreover, internal (NGA) quality assurance processes will include consideration of the outcomes of weeding, study selection and data extraction and the committee will review the results of study selection and data extraction).
Data management (software)	Pairwise meta-analyses will be performed using Cochrane Review Manager (RevMan5). 'GRADEpro' will be used to assess the quality of evidence for each outcome. Where default MIDs are used to assess the clinical significance of outcomes they will also be used to rate imprecision. For those outcomes for which any statistically significant difference is clinically significant, imprecision will be assessed as follows: • Downgrade once if the confidence interval crosses the line of no effect

Field (based on PRISMA-P)	Content
	• Downgrade once if the sample size is below 400 for continuous outcomes and if the total events is below 300 events for dichotomous outcomes.
Information sources – databases and dates	The following databases will be searched: • CCRCT • CDSR • DARE • Embase • EMCare • HTA Database • MEDLINE and MEDLINE IN-PROCESS • PsycINFO Searches will be restricted by: • Date limitations: database inception to 4th December 2019 • English language • Human studies • RCTs • Systematic reviews Other searches: • Inclusion lists of systematic reviews
Identify if an update	This guideline will update the NICE guideline on postnatal care up to 8 weeks after birth (CG37). All reviews are being conducted afresh. The CG37 (2006) did not include recommendations on this topic.
Author contacts	National Guideline Alliance https://www.nice.org.uk/guidance/indevelopment/gid-ng10070
Highlight if amendment to previous protocol	For details please see section 4.5 of Developing NICE guidelines: the manual 2014https://www.nice.org.uk/article/pmg20/chapter/4-Developing-review-questions-and-planning-the-evidence-review - planning-the-evidence-review

Field (based on PRISMA-P)	Content
Search strategy – for one database	For details please see appendix B.
Data collection process – forms/duplicate	A standardised evidence table format will be used, and published as appendix D (clinical evidence tables) or H (economic evidence tables) of the full guideline.
Data items – define all variables to be collected	For details please see evidence tables in appendix D (clinical evidence tables) or H (economic evidence tables) of the full guideline.
Methods for assessing bias at outcome/study level	Standard study checklists were used to critically appraise individual studies. For details please see section 6.2 of Developing NICE guidelines: the manual The risk of bias across all available evidence was evaluated for each outcome using an adaptation of the 'Grading of Recommendations Assessment, Development and Evaluation (GRADE) toolbox' developed by the international GRADE working group http://www.gradeworkinggroup.org/
Criteria for quantitative synthesis (where suitable)	For details please see section 6.4 of Developing NICE guidelines: the manual
Methods for analysis – combining studies and exploring (in)consistency	For a full description of methods see Supplement 1.
Meta-bias assessment – publication bias, selective reporting bias	For details please see section 6.2 of Developing NICE guidelines: the manual
Assessment of confidence in cumulative evidence	For details please see sections 6.4 and 9.1 of Developing NICE guidelines: the manual

Field (based on PRISMA-P)	Content
Rationale/context – Current management	For details please see the introduction to the evidence review.
Describe contributions of authors and guarantor	A multidisciplinary committee developed the guideline. The committee was convened by the National Guideline Alliance and chaired by Dr David Jewell in line with section 3 of Developing NICE guidelines: the manual Staff from the National Guideline Alliance undertook systematic literature searches, appraised the evidence, conducted meta-analysis and cost-effectiveness analysis where appropriate, and drafted the guideline in collaboration with the committee. For a full description of methods see Supplement 1.
Sources of funding/support	The National Guideline Alliance is funded by NICE and hosted by the Royal College of Obstetricians and Gynaecologists
Name of sponsor	The National Guideline Alliance is funded by NICE and hosted by the Royal College of Obstetricians and Gynaecologists
Roles of sponsor	NICE funds the National Guideline Alliance to develop guidelines for those working in the NHS, public health, and social care in England
PROSPERO registration number	This protocol has not been registered in PROSPERO

BMI: body mass index; CDSR: Cochrane Database of Systematic Reviews; CINAHL: Cumulative Index of Nursing and Allied Health Literature; CCRT:: Cochrane Central Register of Controlled Trials; DARE: Database of Abstracts of Reviews of Effects; GRADE: Grading of Recommendations Assessment, Development and Evaluation; HTA: Health Technology Assessment; MID: minimally important difference; NGA: National Guideline Alliance; NHS EED: National Health Service Economic Evaluation Database; NICE: National Institute for Health and Care Excellence; RCT: randomised controlled trial

Appendix B – Literature search strategies

Literature search strategies for review questions:

How does the length of postpartum stay affect women and their babies (single births)?

How does the length of postpartum stay affect women and their babies (twins or triplets)?

Clinical search

The search for this topic was last run on 4th December 2019.

Database: Emcare, Embase, Medline, Medline Ahead of Print and In-Process & Other Non-Indexed Citations, PsycINFO – OVID [Multifile]

#	Search
1	perinatal period/ or exp postnatal care/
2	1 use emczd, emcr
3	postpartum period/ or peripartum period/ or postnatal care/
4	3 use ppez
5	perinatal period/ or postnatal period/
6	5 use psyh
7	(((first time or new) adj mother*) or nullipara* or peri natal* or perinatal* or postbirth or post birth or postdelivery or post delivery or postnatal* or post natal* or postpartum* or post partum* or primipara* or puerpera* or puerperium* or ((after or follow*) adj2 birth*)).ti,ab.
8	or/2,4,6-7
9	"length of stay"/ or hospital discharge/ or treatment duration/
10	9 use emczd, emcr
11	"length of stay"/ use ppez or patient discharge/ use ppez
12	treatment duration/ or exp hospital discharge/
13	12 use psyh
14	((hours or length or long* or rapid or short*) adj3 stay*).ti,ab.
15	(hospital* adj3 stay*).ti,ab.
16	(patient* adj3 discharg*).ti,ab.
17	((hospital* or postnatal* or post natal* or postpartum* or post partum*) adj3 discharg*).ti,ab.
18	((6 hour* or 12 hour* or 24 hour* or early or late or rapid or short*) adj3 discharg*).ti,ab.
19	or/10,11,13-18
20	8 and 19
21	meta analysis/ or "meta analysis (topic)"/ or systematic review/
22	21 use emczd, emcr
23	meta analysis.sh,pt. or "meta-analysis as topic"/ or "review literature as topic"/
24	23 use ppez
25	(literature review or meta analysis).sh,id,md. or systematic review.id,md.
26	25 use psyh

#	Search
27	(exp bibliographic database/ or (((electronic or computer* or online) adj database*) or bids or cochrane or embase or index medicus or isi citation or medline or psyclit or psychlit or scisearch or science citation or (web adj2 science)).ti,ab.) and (review*.ti,ab,sh,pt. or systematic*.ti,ab.)
28	27 use emczd, emcr
29	(exp databases, bibliographic/ or (((electronic or computer* or online) adj database*) or bids or cochrane or embase or index medicus or isi citation or medline or psyclit or psychlit or scisearch or science citation or (web adj2 science)).ti,ab.) and (review*.ti,ab,sh,pt. or systematic*.ti,ab.)
30	29 use ppez
31	(computer searching.sh,id. or (((electronic or computer* or online) adj database*) or bids or cochrane or embase or index medicus or isi citation or medline or psyclit or psychlit or scisearch or science citation or (web adj2 science)).ti,ab.) and (review*.ti,ab,pt. or systematic*.ti,ab.)
32	31 use psyh
33	((analy* or assessment* or evidence* or methodol* or quantativ* or systematic*) adj2 (overview* or review*)).tw. or ((analy* or assessment* or evidence* or methodol* or quantativ* or systematic*).ti. and review*.ti,pt.) or (systematic* adj2 search*).ti,ab.
34	(metaanal* or meta anal*).ti,ab.
35	(research adj (review* or integration)).ti,ab.
36	reference list*.ab.
37	bibliograph*.ab.
38	published studies.ab.
39	relevant journals.ab.
40	selection criteria.ab.
41	(data adj (extraction or synthesis)).ab.
42	(handsearch* or ((hand or manual) adj search*)).ti,ab.
43	(mantel haenszel or peto or dersimonian or der simonian).ti,ab.
44	(fixed effect* or random effect*).ti,ab.
45	((pool* or combined or combining) adj2 (data or trials or studies or results)).ti,ab.
46	or/22,24,26,28,30,32-45
47	exp "clinical trial (topic)"/ or exp clinical trial/ or crossover procedure/ or double blind procedure/ or placebo/ or randomization/ or random sample/ or single blind procedure/
48	47 use emczd, emcr
49	exp clinical trial/ or exp "clinical trials as topic"/ or cross-over studies/ or double-blind method/ or placebos/ or random allocation/ or single-blind method/
50	49 use ppez
51	(clinical trials or placebo or random sampling).sh,id.
52	51 use psyh
53	(clinical adj2 trial*).ti,ab.
54	(crossover or cross over).ti,ab.
55	(((single* or doubl* or trebl* or tripl*) adj2 blind*) or mask* or dummy or doubleblind* or singleblind* or trebleblind* or tripleblind*).ti,ab.

#	Search
56	(placebo* or random*).ti,ab.
57	treatment outcome*.md. use psyh
58	animals/ not human*.mp. use emczd, emcr
59	animal*/ not human*/ use ppez
60	(animal not human).po. use psyh
61	or/58-60
62	or/48,50,52-57 not 61
63	or/46,62
64	20 and 63
65	limit 64 to english language

Database: CDSR, CCRCT [Wiley]

#	Search
#1	mesh descriptor: [postpartum period] explode all trees
#2	mesh descriptor: [peripartum period] this term only
#3	mesh descriptor: [postnatal care] this term only
#4	((((“first time” or new) near/1 mother*) or nullipara* or "peri natal*" or perinatal* or postbirth or "post birth" or postdelivery or "post delivery" or postnatal* or "post natal*" or postpartum* or "post partum*" or primipara* or puerpera* or puerperium* or ((after or follow*) near/2 birth*))):ti,ab,kw
#5	#1 or #2 or #3 or #4
#6	mesh descriptor: [length of stay] this term only
#7	mesh descriptor: [patient discharge] this term only
#8	mesh descriptor: [duration of therapy] this term only
#9	(((hours or length or long* or rapid or short*) near/3 stay*)):ti,ab,kw
#10	((hospital* near/3 stay*)):ti,ab,kw
#11	((patient* near/3 discharg*)):ti,ab,kw
#12	(((hospital* or postnatal* or "post natal*" or postpartum* or "post partum*") near/3 discharg*)):ti,ab,kw
#13	((("6 hour*" or "12 hour*" or "24 hour*" or early or late or rapid or short*) near/3 discharg*)):ti,ab,kw
#14	#6 or #7 or #8 or #9 or #10 or #11 or #12 or #13
#15	#5 and #14

Database: DARE, HTA (global) [CRD Web]

#	Search
1	mesh descriptor postpartum period in dare,hta
2	mesh descriptor peripartum period in dare,hta
3	mesh descriptor postnatal care in dare,hta
4	(nullipara* or peri natal* or perinatal* or postbirth or post birth or postdelivery or post delivery or postnatal* or post natal* or postpartum* or post partum* or primipara* or puerpera* or puerperium* or ((after or follow*) near2 birth*)) in dare, hta
5	#1 or #2 or #3 or #4
6	mesh descriptor breast feeding explode all trees in dare,hta

#	Search
7	mesh descriptor lactation in dare,hta
8	(breastfeed* or breast feed* or breastfed* or breastfeed* or breast fed or breastmilk or breast milk or expressed milk* or lactat* or (nursing next (baby or infant* or mother* or neonate* or newborn*))) in dare, hta
9	#6 or #7 or #8
10	mesh descriptor bottle feeding in dare,hta
11	mesh descriptor infant formula in dare,hta
12	(((bottle or formula or synthetic) near2 (artificial or fed or feed* or infant* or milk*)) or (artificial next (formula or milk)) or bottlefed or bottlefeed or cup feeding or (milk near2 (substitut* or supplement*)) or ((infant or milk or water or glucose or dextrose or formula) next supplement) or formula supplement* or supplement feed or milk feed or ((baby or babies or infant* or neonate* or newborn*) next (formula* or milk)) or formulafeed or formulated or (milk near2 powder*) or hydrolyzed formula* or (((feeding or baby or infant) next bottle*) or infant feeding or bottle nipple* or milk pump*)) in dare, hta
13	#10 or #11 or #12
14	#5 or #9 or #13

Health economic search

The search for this topic was last run on 5th December 2019.

Database: Emcare, Embase, Medline, Medline Ahead of Print and In-Process & Other Non-Indexed Citations (global) – OVID [Multifile]

#	Search
1	puerperium/ or perinatal period/ or postnatal care/
2	1 use emczd, emcr
3	postpartum period/ or peripartum period/ or postnatal care/
4	3 use ppez
5	(nullipara* or peri natal* or perinatal* or postbirth or post birth or postdelivery or post delivery or postnatal* or post natal* or postpartum* or post partum* or primipara* or puerpera* or puerperium* or ((after or follow*) adj2 birth*)).ti,ab.
6	or/2,4-5
7	breast feeding/ or breast feeding education/ or lactation/
8	7 use emczd, emcr
9	exp breast feeding/ or lactation/
10	9 use ppez
11	(breastfeed* or breast feed* or breastfed* or breastfeed* or breast fed or breastmilk or breast milk or expressed milk* or lactat* or (nursing adj (baby or infant* or mother* or neonate* or newborn*))).ti,ab.
12	or/8,10-11
13	artificial food/ or bottle feeding/ or infant feeding/
14	13 use emczd, emcr
15	bottle feeding/ or infant formula/
16	15 use ppez
17	(((bottle or formula or synthetic) adj2 (artificial or fed or feed* or infant* or milk*)) or (artificial adj (formula or milk)) or bottlefed or bottlefeed or cup feeding or (milk adj2 (substitut* or supplement*)) or ((infant or milk or water or glucose or dextrose or formula) adj supplement) or

#	Search
	formula supplement* or supplement feed or milk feed or ((baby or babies or infant* or neonate* or newborn*) adj (formula* or milk)) or formulafeed or formulated or (milk adj2 powder*) or hydrolyzed formula* or (((feeding or baby or infant) adj bottle*) or infant feeding or bottle nipple* or milk pump*)).ti,ab.
18	or/14,16-17
19	or/6,12,18
20	budget/ or exp economic evaluation/ or exp fee/ or funding/ or exp health care cost/ or health economics/
21	20 use emczd, emcr
22	exp budgets/ or exp "costs and cost analysis"/ or economics/ or exp economics, hospital/ or exp economics, medical/ or economics, nursing/ or economics, pharmaceutical/ or exp "fees and charges"/ or value of life/
23	22 use ppez
24	budget*.ti,ab. or cost*.ti. or (economic* or pharmaco?economic*).ti. or (price* or pricing*).ti,ab. or (cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab. or (financ* or fee or fees).ti,ab. or (value adj2 (money or monetary)).ti,ab.
25	or/21,23-24
26	economic model/ or quality adjusted life year/ or "quality of life index"/
27	(cost-benefit analysis.sh. and (cost-effectiveness ratio* and (perspective* or life expectanc*)).tw.)
28	((quality of life or qol).tw. and cost benefit analysis.sh.)
29	or/26-28 use emczd, emcr
30	models, economic/ or quality-adjusted life years/
31	(cost-benefit analysis.sh. and (cost-effectiveness ratio* and (perspective* or life expectanc*)).tw.)
32	((quality of life or qol).tw. and cost-benefit analysis.sh.)
33	or/30-32 use ppez
34	(eq-5d* or eq5d* or eq-5* or eq5* or euroqual* or euro qual* or euroqual 5d* or euro qual 5d* or euro qol* or euroqol*or euro quol* or euroquol* or euro quol5d* or euroquol5d* or eur qol* or eurqol* or eur qol5d* or eurqol5d* or eur?qul* or eur?qul5d* or euro* quality of life or european qol).tw.
35	(euro* adj3 (5 d* or 5d* or 5 dimension* or 5dimension* or 5 domain* or 5domain*)).tw.
36	(hui or hui2 or hui3).tw.
37	(illness state* or health state*).tw.
38	(multiattibute* or multi attribute*).tw.
39	(qaly* or qal or qald* or qale* or qtime* or qwb* or daly).tw.
40	(quality adjusted or quality adjusted life year*).tw.
41	(sf36 or sf 36 or sf thirty six or sf thirtysix).tw.
42	sickness impact profile.sh.
43	(time trade off*1 or time tradeoff*1 or tto or timetradeoff*1).tw.
44	(utilit* adj3 (score*1 or valu* or health* or cost* or measur* or disease* or mean or gain or gains or index*)).tw.
45	utilities.tw.
46	((qol or hrqol or quality of life).tw. or *quality of life/) and ((qol or hrqol* or quality of life) adj2 (change*1 or declin* or decreas* or deteriorat* or effect or effects or high* or impact*1 or impacted or improve* or increas* or low* or reduc* or score or scores or worse)).ab.

#	Search
47	quality of life.sh. and ((health-related quality of life or (health adj3 status) or ((quality of life or qol) adj3 (chang* or improv*)) or ((quality of life or qol) adj (measure*1 or score*1))).tw. or (quality of life or qol).ti. or ec.fs.)
48	or/29,33-47
49	or/25,48
50	19 and 50
51	limit 50 to english language
52	(animals/ not humans/) or exp animals, laboratory/ or exp animal experimentation/ or exp models, animal/ or exp rodentia/
53	52 use ppez
54	(animal/ not human/) or nonhuman/ or exp animal experiment/ or exp experimental animal/ or animal model/ or exp rodent/
55	54 use emczd, emcr
56	(rat or rats or mouse or mice).ti.
57	or/53,55-56
58	51 not 57

Database: HTA, NHS EED (global) [CRD Web]

#	Search
1	mesh descriptor postpartum period in hta, nhs eed
2	mesh descriptor peripartum period in hta, nhs eed
3	mesh descriptor postnatal care in hta, nhs eed
4	(nullipara* or peri natal* or perinatal* or postbirth or post birth or postdelivery or post delivery or postnatal* or post natal* or postpartum* or post partum* or primipara* or puerpera* or puerperium* or ((after or follow*) near2 birth*)) in hta, nhs eed
5	#1 or #2 or #3 or #4
6	mesh descriptor breast feeding explode all trees in hta, nhs eed
7	mesh descriptor lactation in hta, nhs eed
8	(breastfeed* or breast feed* or breastfed* or breastfeed* or breast fed or breastmilk or breast milk or expressed milk* or lactat* or (nursing next (baby or infant* or mother* or neonate* or newborn*))) in hta, nhs eed
9	#6 or #7 or #8
10	mesh descriptor bottle feeding in hta, nhs eed
11	mesh descriptor infant formula in hta, nhs eed
12	(((bottle or formula or synthetic) near2 (artificial or fed or feed* or infant* or milk*)) or (artificial next (formula or milk)) or bottlefed or bottlefeed or cup feeding or (milk near2 (substitut* or supplement*)) or ((infant or milk or water or glucose or dextrose or formula) next supplement) or formula supplement* or supplement feed or milk feed or ((baby or babies or infant* or neonate* or newborn*) next (formula* or milk)) or formula feed or formulated or (milk near2 powder*) or hydrolyzed formula* or (((feeding or baby or infant) next bottle*) or infant feeding or bottle nipple* or milk pump*)) in hta, nhs eed
13	#10 or #11 or #12
14	#5 or #9 or #13

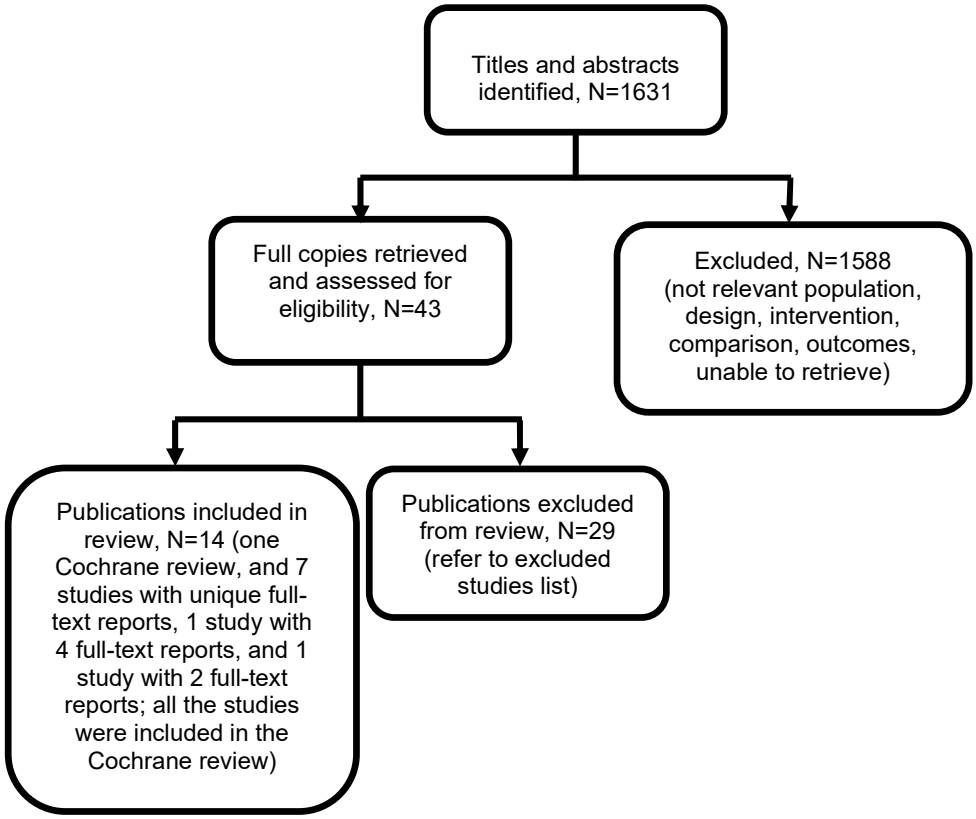
Appendix C – Clinical evidence study selection

Clinical study selection for review questions:

How does the length of postpartum stay affect women and their babies (single births)?

How does the length of postpartum stay affect women and their babies (twins or triplets)?

Figure 1: Study selection flow chart



Appendix D – Clinical evidence tables

Clinical evidence tables for review questions:

How does the length of postpartum stay affect women and their babies (single births)?

How does the length of postpartum stay affect women and their babies (twins or triplets)?

Table 4: Clinical evidence table

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Full citation Boulvain, M, Perneger, Tv, Othenin-Girard, V, Petrou, S, Berner, M, Irion, O, Home-based versus hospital-based postnatal care: a randomised trial, BJOG: An International Journal of Obstetrics & GynaecologyBjog, 111, 807-813, 2004 **Ref Id** 697883 **Country/ies where the study was carried out** See Brown 2002 **Study type** See Brown 2002	**Sample size** See Brown 2002 **Characteristics** See Brown 2002 **Inclusion criteria** See Brown 2002 **Exclusion criteria** See Brown 2002	**Interventions** See Brown 2002	**Details** See Brown 2002	**Results** See Brown 2002	**Limitations** See Brown 2002 **Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Aim of the study See Brown 2002 **Study dates** See Brown 2002 **Source of funding** See Brown 2002					
Full citation Brown, Stephanie, Small, Rhonda, Argus, Brenda, Davis, Peter G, Krastev, Ann, Early postnatal discharge from hospital for healthy mothers and term infants, Cochrane Database of Systematic Reviews, 2002 **Ref Id** 786843 **Country/ies where the study was carried out**	**Sample size** **Boulvain 2004** N=459 recruited and randomised. Early discharge: n=228; late discharge: n=231 **Carty 1990** N=189 randomised. Early discharge group 1: n=44; early discharge group 2: n=49; late discharge: n=38 **Gagnon 1997** N=1354 women approached; 938 met inclusion criteria; 578 declined participation; 360 randomised. Early discharge: n=183 randomised, n=78 final number analysed; late	**Interventions** **Boulvain 2004** Early discharge: 24 < 48 hours following vaginal births and 72 < 84 hours after CS Late discharge: 4 to 5 days following vaginal births and 6 to 7 days after CS Both groups received minimum 2 nurse home visits and 10 phone calls; number and timing were determined by the family. **Carty 1990**	**Details** Country*: **Boulvain 2014** Switzerland **Carty 1990** Canada **Gagnon 1997** Canada **Hellman 1962** United States **Sainz Bueno 2005** Spain **Smith-Hanrahan 1995**	**Results** **Boulvain 2004** Proportion of women readmitted within six weeks: early discharge 4/228 vs late discharge 2/231 Proportion of women with one or more visits to a gynaecologist during the first month* (reasons not reported): early discharge: 33/228 vs late discharge: 48/231 Proportion of women probably depressed (based on Edinburgh Postnatal Depression Scale (EPDS)): early discharge:	**Limitations** Risk of bias assessment was taken from Cochrane review, which assessed the methodological quality of included trials according to criteria in the Cochrane Handbook for Systematic Reviews of Interventions (Higgins 2008). **Boulvain 2004** Sequence generation: unclear risk (Insufficient information in the report to assess whether sequence generation was adequate) Allocation concealment: low risk (adequate) Blinding (all outcomes): High risk (Adequate for participants and personnel because blinding not

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Brown 2002: Not applicable, systematic review. See details section for countries of each primary study **Study type** Systematic review of RCTs **Aim of the study** Brown 2002: "To 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, satisfaction with postnatal care, overall costs of health care and broader impacts on families". **Study dates** Brown 2002: Date of last search: 1 December 2008 **Source of funding**	discharge: n=177 randomised, n=97 final number analysed **Hellman 1962** N=2257 recruited and randomised. Early discharge: n=1941; late discharge: n=316 **Sainz Bueno 2005** N=430 recruited and randomised. Early discharge: n=213; late discharge: n=217 **Smith-Hanrahan 1995** N=139 approached, 158 agreed and randomised. Early discharge: n=58; late discharge: n=67 **Waldenstrom 1987** N=1604 women eligible at 30 weeks: 1440 refused to take part; 164 women recruited and randomised. Early discharge: n=85 randomised, n=50 final number analysed; late discharge: n=79 randomised, n=54 final number analysed **Winterburn 2000** N=255 recruited, 248 completed study. Early discharge: n=121 randomised (only 31 experienced a short stay, 90 went home late); late discharge: n=127 randomised (107	Early discharge group 1: 12 to 24 hours + 5 home visits post discharge Early discharge group 2: 25 to 48 hours + 3 home visits post discharge Late discharge: 4 days + 1 home visit post discharge All women also received one home visit antenatally by a nurse. Study nurses participated in two weeks special training for the early discharge program. **Gagnon 1997** Early discharge at 6 to 36 hours + 1 home visit or phone call antenatally, 2 post discharge home visits and 2 phone calls Late discharge: at 48 to 72 hours + follow-up as determined by physicians. **Hellman 1962** Early discharge: before 72 hours + 3	Canada **Waldenstrom 1987** Sweden **Winterburn 2000** UK **Yanover 1976** USA *Data was extracted from primary paper rather than from Cochrane.	16/228 vs late discharge: 21/231 Proportion of women breastfeeding at one month postpartum: early discharge: 202/224 vs late discharge: 194/223 * (paper does not specify partially or exclusively but reports complementary feeding at fourth week postpartum) Proportion of women breastfeeding at six months: early discharge: 78/220 vs late discharge: 78/215 * (paper does not specify partially or exclusively) Proportion of women dissatisfied with postnatal care: early discharge: 31/217 vs late discharge: 31/223 Please note, this paper also reported mean number of midwife home visits but this outcome was not included in the analysis for the current review as not reflected in the protocol. Proportion of infants with two or more visits to a paediatrician	feasible and inadequate for outcome assessors) Incomplete outcome data addressed (all outcomes): low risk (Adequate - loss to follow-up = 3.5%) Free of selective reporting: low risk Free of other bias: low risk **Carty 1990** Sequence generation: unclear risk (Insufficient information in the report to assess whether sequence generation was adequate) Allocation concealment: low risk (adequate) Blinding (all outcomes): high risk (Adequate for participants and personnel because blinding not feasible and inadequate for outcome assessors) Incomplete outcome data addressed (all outcomes): low risk (Inadequate - loss to follow-up 30.7%. However the majority of loss to follow-up occurred as a result of post-randomisation exclusion of women having CS or operative vaginal birth, unlikely to bias outcomes) Free of selective reporting: low risk Free of other bias: low risk **Gagnon 1997** Sequence generation: unclear risk (Insufficient information in the report

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Brown 2002: Internal sources of support: La Trobe University, Australia. Royal Women's Hospital, Melbourne, Australia. Murdoch Childrens Research Institute, Australia. No external sources of support supplied	experienced a long stay, 20 went home early) **Yanover 1976** N=362 women screened; 271 interviewed; 128 recruited and randomised; 40 did not complete participation. Early discharge: n=44 in final group, questionnaire data on n=41; late discharge: n=44 in final group, questionnaire data on n=41. **Characteristics** **Boulvain 2004** Caesarean sections*: I 24/228 (11%) C 27/231 (12%); instrumental births*: I 40/228 (18%) C 27/231 (12%); maternal age: I mean 29 years (SD 4.8), C mean 29 years (SD 5.5); primiparous I 60%, C 57%; married I 83%, C 82%; income <50,000 CHF I 27%, C 24%; tertiary education I 48%, C 49%; Swiss origin I 31%, C 30%; current smoker I 25%, C 17%, infant birthweight I 3420 (SD 435), C 3480 (SD 405); newborn admitted to neonatal care unit*: I 4.4% C 6.1% **Carty 1990**	home visits post discharge Late discharge: after 5 days + 2 visits post discharge Post discharge home visits were conducted by midwife for examination of mother and baby and data collection (not for supporting mothers) **Sainz Bueno 2005** Early discharge: <24 hours + monitored at home for first 24 to 48 hours post discharge by qualified nurse Late discharge: ≥48 hours Women in both groups attended visit in clinic at 7 to 10 days postpartum. **Smith-Hanrahan 1995** Early discharge: <60 hours + usual visits + extra phone support. Early discharge group received phone call from nurse within 24		during the first month* (reasons not reported): early discharge: 38/228 vs late discharge: 37/231 Proportion of infants readmitted within eight weeks: early discharge 12/228 vs late discharge 5/231 **Carty 1990** Proportion of women readmitted within six weeks: early discharge 1/93 vs late discharge 1/38 Proportion of women with maternal problems requiring physician referral in the first 10 days postpartum*: early discharge group1+2: 5/93 (early discharge group 1: 2/44, early discharge group 2: 3/49) vs early discharge group 2: vs late discharge: 3/38 (one instance of each problem was reported, by group, as follows: early discharge group 1 - urinary tract infection and episiotomy infection; early discharge group 2: mastitis, episiotomy infection, subinvolution); late discharge: endometritis, episiotomy infection, and subinvolution). Of	to assess whether sequence generation was adequate) Allocation concealment: low risk (adequate) Blinding (all outcomes): high risk (Adequate for participants and personnel because blinding not feasible and inadequate for outcome assessors) Incomplete outcome data addressed (all outcomes): high risk ¥ (Inadequate - loss to follow-up = 51.4%. Differential loss to follow-up (higher in the intervention group. 18 withdrew from early discharge group and 3 withdrew from late discharge group*)). Free of selective reporting: low risk Free of other bias: low risk (33% non-compliance with allocation to early discharge introduces significant risk of bias, direction of bias unclear) **Hellman 1962** Sequence generation: unclear risk (Insufficient information in the report to assess whether sequence generation was adequate) Allocation concealment: unclear risk (unclear) Blinding (all outcomes): ¥high risk (Adequate for participants and personnel because blinding not

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
	Participants were 53% primiparous; mean maternal age 30.2 (SD 3.8); 93% married or living with partner; 58% combined family income >$40,000; 65% completed junior college or university; 95% 'Caucasian'; mean paternal age 32.9 (SD 5.5). No significant group differences found on demographic characteristics (but no data provided by group) **Gagnon 1997** Characteristics of participants: Mean maternal age (SD): early 29.6 (4.7), standard 29.1 (5.3). Parity (% nullip): early 38%, standard 34%. Living with a partner: early 85.5%, standard 93.8%. % 'blue collar': early 21.8%, standard 16.5%. Mean years of maternal education (SD): early 13.8 (3.8), standard 14.0 (3.9). % recent immigrants: early 14.7%, standard 24.7%. Mean birthweight (SD): early 3389g (419), standard 3496g (364). Mean gestation (SD): early 39.3 (1.3), standard 39.5 (1.1). Planned to breastfeed: early 70.5%, standard 54.6%. Smoking in pregnancy: early	hours of discharge leading to a decision to visit or continue to consult by phone; also received phone number to contact at any time. Late discharge: >60 hours + usual visits. Usual visits were to paediatric office at 2 weeks and obstetric office at 6 weeks. **Waldenstrom 1987** Early discharge: 24 to 48 hours + 1 antenatal nurse home visit, daily nurse home visits for 3 to 4 days post discharge, visit to hospital on day 5 Late discharge: >48 hours + no visit post discharge. **Winterburn 2000** Early discharge: 6 to 48 hours after vaginal births Late discharge: >48 hours Both groups received midwife home visits to		the women referred to a physician, two were hospitalised (see proportion of women readmitted below) Proportion of women exclusively breastfeeding at one month postpartum: early discharge: 63/72 vs late discharge: 20/25 ** (this data was calculated by subtracting no. of women not breastfeeding in Cochrane from totals - roughly but not exactly corresponds to percentages presented in primary study (87% in early discharge groups and 79% in late discharge group - numerators not provided in primary study). Proportion of infants requiring physician referral in the first 10 days postpartum*^: early discharge: 4/93 vs late discharge: 1/38 (reasons for referral: early discharge group 1: one case of hyperbilirubinemia, early discharge group 2: one case of cord infection; reasons unclear for 2 other babies in early discharge groups; later discharge: ABO incompatibility and diaper rash) (authors mention that in total 6 babies	feasible and inadequate for outcome assessors) Incomplete outcome data addressed (all outcomes): high risk (Loss to follow-up not reported). Free of selective reporting: low risk Free of other bias: low risk **Sainz Bueno 2005** Sequence generation: unclear risk (Insufficient information in the report to assess whether sequence generation was adequate) Allocation concealment: low risk (adequate) Blinding (all outcomes): ¥high risk (Adequate for participants and personnel because blinding not feasible and unclear for outcome assessors). Incomplete outcome data addressed (all outcomes): low risk for most outcomes (Adequate for most outcomes - loss to follow-up = 8.5%); high risk for dissatisfaction (Inadequate for satisfaction and dissatisfaction - differential missing data for maternal satisfaction with care (17.8% for early discharge, and 42% for late discharge. For dissatisfaction, differential missing data introduces significant risk of bias potentially favouring late discharge) Free of selective reporting: low risk

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
	23.1%,standard 9.3%. As compared with late discharge participants, more early discharge participants planned to breastfeed, more smoked, fewer were recent immigrants, and the infants weighed an average of 107 gm less at birth. **Hellman 1962** Characteristics of participants: Median age: early 23.6 yrs, standard 23.8 yrs. No living children: early 28%, standard 29%. Married: early 70%, standard 73%. Welfare/no income: early 16%, standard 13%. Ethnicity: Negro/Puerto Rican early 81%, standard 85%. Few details available on babies. **Sainz Bueno 2005** Characteristics: age > 30 years I 41.8%, C 41.1%; primiparous I 36.6%, C 37.8%; married I 97.2%, C 97.2%; completed secondary education I 22.5%, C 14.7%; infant birthweight I 3348 grams (SD 396), C 3335 grams (SD 372); gestation I 39.5 weeks (SD 1.13), C 39.5 weeks (SD 1.12); spontaneous vaginal birth I 87.8%, C 88.5% **Smith-Hanrahan 1995**	support breastfeeding (number of visits and over what time period not reported). **Yanover 1976** Early discharge: 12 to 48 hours + prenatal early discharge preparation classes; daily home visits though 4th day postpartum; nursing staff intensively trained for early discharge Late discharge: >48 hours + prenatal education; paediatric visit at 2 weeks postpartum; obstetric visit at 6 weeks		were referred to physicians by study nurses, which seems to clash with the percentages provided, which would suggest 5 babies in total, however there is lack of clarity because only percentages, and not numerators, are provided). **Gagnon 1997** Proportion of women predominantly breastfeeding at one month: early discharge: 43/78 vs late discharge: 38/97 * (early discharge participants "were 1.41 (1.02 to 1.94) times more likely to be predominantly breast-feeding at 1 month; this effect was reduced to 1.25 (0.88 to 1.75) after adjustment for the 15.9% difference in those planning to breastfeed at baseline")*. Proportion of infants for which there were contacts with health services at one month: early discharge: 12/78 vs late discharge: 17/97 * ^ (contacts were for problems pertaining to infant feeding, crying, sleeping, or care of umbilical cord)	Free of other bias: low risk **Smith-Hanrahan 1995** Sequence generation: unclear risk (Insufficient information in the report to assess whether sequence generation was adequate) Allocation concealment: unclear risk (unclear) Blinding (all outcomes): ¥high risk (Adequate for participants and personnel because blinding not feasible and unclear for outcome assessors). Incomplete outcome data addressed (all outcomes): low risk (Inadequate - loss to follow-up = 35.2%, but loss to follow-up as a result of post-randomisation exclusions unlikely to bias results). Free of selective reporting: low risk Free of other bias: low risk (29 women were allocated to late discharge but sent home early due to bed shortages. For this review these women have been analysed as late discharge, as per intention to treat analysis) **Waldenstrom 1987** Sequence generation: unclear risk (Insufficient information in the report to assess whether sequence generation was adequate)

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
	Characteristics of participants: Maternal age: early mean 29.5 (SD 4.5), standard mean 29.3 (SD 4.63). Parity: early 37.1% primiparous, standard 58.7% primiparous. Marital status: early 97.1% married, standard 95.7% married. All vaginal births. Income - % >40,000+: early 74.1%, standard 55%. Completed college/university education: early 73.5%, standard 54.6%. % not of Canadian/US nationality: early 39.5%, standard 23.5% **Waldenstrom 1987** Characteristics of participants: mean maternal age: early 28, standard 27. Proportion primiparous: early 20%, standard 30%. Maternal university education: early 28%, standard 19%. Mean birthweight: early 3658g, standard 3481g. In comparison with non-participants, trial participants had less education, were more 'family-oriented' and confident about parenthood, and more negative about care in hospital **Winterburn 2000**			All outcomes: Adjusted analyses of outcomes other than predominant breastfeeding showed no important confounding by the four characteristics differing at baseline **Hellman 1962** Infant mortality: early discharge: 4/1941 vs late discharge: 1/316 * (early discharge group: one death on 35th day, apparently of aspiration of milk although no necropsy was performed. The second died on the 16th day, cause of death unknown. The third died on the 3rd day with a diagnosis of necropsy of massive bronchopneumonia. The fourth died on the 3rd day due to congenital heart disease. Late discharge group: died at 22 days of acute bilateral pyelonephritis) Proportion of women readmitted within six weeks: early discharge 32/1778 vs late discharge 2/316	Allocation concealment: unclear risk (unclear) Blinding (all outcomes): ¥high risk (Adequate for participants and personnel because blinding not feasible and unclear for outcome assessors). Incomplete outcome data addressed (all outcomes): unclear risk (Inadequate - loss to follow-up = 36.6%. Majority of loss to follow-up as a result of post-randomisation exclusions. 13 women who went home later than allocation were excluded, but 5 women allocated to standard discharge who went home early were retained in the analysis. Withdrawals from ED arm introduces risk of bias potentially favouring late discharge) Free of selective reporting: low risk Free of other bias: low risk **Winterburn 2000** Sequence generation: unclear risk (Insufficient information in the report to assess whether generation was adequate) Allocation concealment: unclear risk (unclear) Blinding (all outcomes): ¥high risk (Adequate for participants and personnel because blinding not

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
	Characteristics of participants: Caesarean sections*: I 27/121 (22.3 %) C 20/127 (15.7%); forceps*: I 5/121 (4.1%) C 4/127 (3.1%); breech*: I 1/121 (0.8%) C 0/127 (0%); ventouse*: I 20/121 (16.5%) C 13/127 (10.3%); twins*: I 2/121 (1.7%) vs C 1/127 (0.8%). No other information about socio-demographic characteristics. **Yanover 1976** Characteristics of participants: 'No differences between groups on maternal age, race, father's occupation, planned pregnancy, duration of marriage, time to conceive, maternal and paternal education, presence of another child at home, maternal preferences for infant feeding, prenatal education or natural childbirth; BUT no data given' *Data extracted from primary study rather than from Cochrane review **Inclusion criteria** **Boulvain 2004** Primiparous and multiparous women at low risk of Caesarean section delivery and/or postnatal			Proportion of women breastfeeding at 3 weeks postpartum: early discharge: 291/1941 vs late discharge: 19/316 * (paper does not mention if this was partially or exclusively breastfeeding or both) Proportion of infants readmitted within eight weeks: early discharge 20/1818 vs late discharge 2/333 **Sainz Bueno 2005** Proportion of women readmitted within six weeks: early discharge 4/213 vs late discharge 5/217 Proportion of women with increase in anxiety-depressive pathology based on hospital anxiety and depression (HAD) scale, reported in Cochrane as "probably depressed", at one month: early discharge: 2/213 vs late discharge: 8/217 Proportion of women breastfeeding at one month: early discharge: 190/213 vs late discharge: 182/217 *	feasible and unclear for outcome assessors). Incomplete outcome data addressed (all outcomes): low risk (Adequate - loss to follow-up = 2.7%). Free of selective reporting: low risk Free of other bias: low risk **Yanover 1976** Sequence generation: unclear risk (insufficient information in the report to assess whether sequence generation was adequate) Allocation concealment: unclear risk (unclear) Blinding (all outcomes): high risk of (adequate for participants and personnel because blinding not feasible and inadequate for outcome assessors) Incomplete outcome data addressed (all outcomes): high risk ¥ (loss to follow-up: 31.3%, 10/40 withdrawals due to inability or unwillingness to attend classes could introduce bias, because intervention and control included different kinds of prenatal classes; 6 withdrawals for lack of interest in research and 4 for other reasons could also introduce bias; 15/40 withdrawals for medical reasons unlikely to introduce bias, 5/40 withdrawals due to removal from the

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
	complications >37 weeks gestation **Carty 1990** Normal labour and hospital birth. **Gagnon 1997** Parity 0 to 4; normal pregnancy (no medical conditions, not breech); English, French or Spanish speaking. **Hellman 1962** Hospital birth, mothers deemed eligible for early discharge, babies predominantly > 2500gms, baby gestation not specified. **Sainz Bueno 2005** Primiparous and multiparous women deemed eligible for early discharge, =>37 weeks gestation with baby of appropriate weight for gestational age; vaginal birth; residence within 20km of the hospital **Smith-Hanrahan 1995** English or French speaking; another adult present at home at least 12 hours/day for 1st two days post discharge; no major obstetrical complications at any			Proportion of women breastfeeding at three months: early discharge: 141/213 vs late discharge: 119/217 * Proportion of women breastfeeding at six months: early discharge: 94/213 vs late discharge: 76/217 * Proportion of women satisfied or very satisfied with postnatal care:* early discharge: 142/172 vs late discharge: 76/125 (this outcome was not included in the analysis, the dissatisfaction outcome reported in Cochrane was reported instead, and for consistency with other studies, more specifically, with the Boulvain study, which reported only dissatisfaction, data on dissatisfaction was extracted rather than on satisfaction) Proportion of women dissatisfied with postnatal care: early discharge: 99/172 vs late discharge: 111/125 Proportion of infants readmitted within eight weeks: early	area unlikely to introduce bias. Crossover between intervention and control; 12/44 in early discharge group were discharged later than 48 hours; 5/44 in late discharge group were discharged earlier than 48 hours; direction of bias unclear; intention to treat analysis was applied in relation to cross-overs) Free of selective reporting: low risk Free of other bias: low risk ¥ Risk of bias was assessed differently in current review as opposed to Cochrane **Other information** **Boulvain 2004** Significant non-compliance in early discharge group: 114/228 (50%) in early discharge group stayed in hospital for longer than planned; mean length of stay was 65 hours. In the late discharge group, 64/231 (27.7%) left earlier than planned; mean length of stay was 106 hours. However intention to treat analysis was used. **Carty 1990** Mean length of stay: 12 to 24 hrs: 1.12 days (SD 0.4). 25 to 48 hrs: 2.06 days (SD 0.6). 4 days: 4.03

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
	stage; no prolonged mother-infant separation in hospital (24hrs+); medical follow-up plan before discharge; no complications in infant: 2,500-4,500gms; good colour/activity level; vital signs normal; voided and stooled; feeding established. **Waldenstrom 1987** Pregnancy and birth free from significant complications; vaginal delivery; singleton; gestational age >37 weeks, birthweight ≥3000g, Apgar ≥7 at 5 min; and no significant infant or maternal morbidity in first 24 hours. **Winterburn 2000** First time mothers wanting to breastfeed and with no preference about length of hospital stay; no specified early discharge criteria **Yanover 1976** parity 0 or 1; maternal age 19 to 35; low medical risk; at least 12th grade education; father willing to attend prenatal classes; prospective parents living together, adequate			discharge 3/213 vs late discharge 2/2117 Health service consultations for neonate pathology in the first 28 days:* early discharge: 18/213 vs late discharge: 13/217 (early discharge: 3 readmissions (1 case of fever, 1 case of dehydration, 1 for icterus) and 15 cases that did not need readmissions (2 cases of suspected cardiac pathology, 4 cases of infectious pathology, 6 cases of orthopedic pathology, 1 case of congenital spherocytosis, 1 case of cephalohematoma, 1 case of hydrocele); late discharge: 5 readmissions (3 cases of icterus, 1 case of fever, and 1 for important weight loss) and 10 cases that did not need readmissions (6 cases of infectious pathology, 2 cases of orthopedic pathology, 1 case of cephalohematoma, and 1 case of umbilical hernia) **Smith-Hanrahan 1995** Proportion of women readmitted within six weeks: early	days (SD 0.7). The authors mention that 10 women (5% of those randomised) did not comply with group allocation and were excluded for this reason, but do not specify whether non-compliance was differential between groups. **Gagnon 1997** 33% non-compliance with allocation to early discharge. However intention to treat analysis was used.* **Hellman 1962** None **Sainz Bueno 2005** 15 women (3.5%) did not want to participate in the assigned group. These women were included in the results (analysis by intention to treat)* **Smith-Hanrahan 1995** 29 women were allocated to late discharge but sent home early due to bed shortages. For this review these women have been analysed as late discharge, to approximate more closely intention to treat analysis **Waldenstrom 1987** 13 women who went home later than allocation were excluded, but 5

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
	English; living within 32 km of hospital; and assessment of mother and infant as eligible for early discharge (range of pre-specified criteria) **Exclusion criteria** **Boulvain 2004** Exclusion criteria: Women with a strong preference for long or short length of stay; placenta praevia; pre-eclampsia; diabetes treated with insulin; medical complications of pregnancy requiring postnatal surveillance; past history of postnatal complications (e.g. postnatal depression); difficult socio-economic situation; multiple pregnancy; suspected intrauterine growth retardation or large infant for gestational age; fetal malformation or genetic disease **Carty 1990** Exclusion criteria: CS, forceps delivery. **Gagnon 1997** Caesarean sections, Blood loss at birth>500 ml, Premature rupture of membranes, third or fourth degree tear, eligible for,			discharge 0/35 vs late discharge 0/46 Proportion of women breastfeeding at 6 weeks*: early discharge: 17/35 vs late discharge: 29/46 ** Proportion of infants readmitted within eight weeks: early discharge 0/35 vs late discharge 0/46 **Waldenstrom 1987** Neonatal mortality: early discharge: 0/50 vs late discharge: 0/54 - please note, paper reports 1 sudden infant death at 2 1/2 months in early discharge group but this outcome was not included in the analysis because it is not neonatal mortality - according to WHO, neonatal mortality is up to 4 weeks after birth Proportion of women readmitted within six weeks: early discharge 1/50 vs late discharge 0/54 Proportion of women probably depressed in first 6 weeks: early discharge: 3/50 vs late discharge: 5/54 (this was not	women allocated to standard discharge who went home early were retained in the analysis **Winterburn 2000** High crossover of participants. 74% of women randomised to early discharge (90/121) stayed in hospital for longer than planned, and 16% of women randomised to late discharge (20/127) went home later than planned. This resulted in only 51 women experiencing early discharge and 197 experiencing late discharge. Unclear whether home visits offered to all women who went home <48 hours, regardless of allocated group status. Intention to treat analysis was used. **Yanover 1976** 40 did not complete participation; of these, 15 did not complete participation due to a change in medical status (reasons: stillbirth: n=4; pre-eclampsia: n=4; premature labour: n=4, caesarean section: n=2, or other: n=3).* Median stay in early discharge group: 26 hours, range: 12-86 hours; median stay in late discharge group: 68 hours, range: 31 to 167 hours. * Extracted from primary study rather than from Cochrane review

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
	but not given, RhoGAM, medical conditions requiring close supervision, fundus not firm, excessive bleeding postpartum, unable to void, unable to ambulate, unable to care for self or infant. Or, for the infant, birth weight <2500 gm, gestational age <36 weeks, abnormal results at physical examination, minimum of 1 feeding not tolerated in hospital. * **Hellman 1962** Exclusion criteria: caesarean section, stillbirth, no English. **Sainz Bueno 2005** Not reported **Smith-Hanrahan 1995** Not reported **Waldenstrom 1987** Exclusion reasons on assessment of mothers 24 hours after birth: caesarean sections, excessive blood loss > 1000 ml, hypertension, pre-eclampsia, thromboemphlebitis, rubella suspects, visual field constrictions, non-obstetrical complications. Exclusion reasons on assessment of infants 24 hours after birth:			included in the analysis because Cochrane does not include it in the analysis focusing on non-standardised measures) Proportion of women breastfeeding at 8 weeks* postpartum: 37/49 early discharge: vs late discharge: 45/52 * Proportion of women breastfeeding at six months: early discharge: 28/49 vs late discharge: 27/59 ** (primary study only provides percentages, so numbers taken from Cochrane's data on "not breastfeeding") Proportion of women dissatisfied with postnatal care: early discharge: 14/50 vs late discharge: 47/54 Proportion of infants readmitted within eight weeks: early discharge 0/50 vs late discharge 1/54 Please note, the paper also reports the number of home visits by Child Health Centre nurse from birth to 6 months, the visits to Child Health Centre	

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
	Gestational age <= 37 weeks, birth weight < 3000 g, respiratory difficulties, jitteriness, jaundice, hypothermia, sepsis suspected, Apgar score <= 7 at 5 minutes, hypoglycaemia, nausea and oral cyanosis, shift of plaster, anemia. **Winterburn 2000** Not reported **Yanover 1976** Not reported * Data extracted from primary study rather than from Cochrane review			nurse from birth to 6 months, and visits to paediatrician from birth to 6 months; these outcomes were not included in the analysis for the current review because the follow-up does not reflect the protocol. Please note, the paper also reports the proportion of infants referred to the neonatal unit but these outcomes were not included in the analysis for the current review because they were not considered a good proxy of all unplanned attendances. **Winterburn 2000** Proportion of women breastfeeding at one month postpartum: early discharge: 86/121 vs late discharge: 94/127 * Analyses were repeated using a sub sample of 141 mothers who had had normal births. Again, no significant difference in breastfeeding rates was found. However, no relevant data are provided. *	

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
				Yanover 1976 Proportion of women readmitted within 6 weeks: early discharge: 0/44 vs late discharge: 0/44 Proportion of infants readmitted within 8 weeks: early discharge: 2/44 vs late discharge: 0/44 * Data extracted from primary study rather than from Cochrane review ^ Numerators calculated by NGA technical team based on percentages in primary study ** Numbers on breastfeeding calculated by the NGA technical team based on Cochrane data on women not breastfeeding.	
Full citation Carty, Em, Bradley, Cf, A randomized, controlled evaluation of early postpartum hospital discharge, Birth (Berkeley, Calif.), 17, 199-204, 1990 **Ref Id** 697992	**Sample size** See Brown 2002 **Characteristics** See Brown 2002 **Inclusion criteria** See Brown 2002	**Interventions** See Brown 2002	**Details** See Brown 2002	**Results** See Brown 2002	**Limitations** See Brown 2002 **Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Country/ies where the study was carried out See Brown 2002 **Study type** See Brown 2002 **Aim of the study** See Brown 2002 **Study dates** See Brown 2002 **Source of funding** See Brown 2002	**Exclusion criteria** See Brown 2002				
Full citation Carty, Em, Bradley, Cf, A randomized, controlled evaluation of early postpartum hospital discharge, Breastfeeding review, 2, 168-172, 1991 **Ref Id**	**Sample size** See Brown 2002 **Characteristics** See Brown 2002 **Inclusion criteria**	**Interventions** See Brown 2002	**Details** See Brown 2002	**Results** See Brown 2002	**Limitations** See Brown 2002 **Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
697993 **Country/ies where the study was carried out** See Brown 2002 **Study type** See Brown 2002 **Aim of the study** See Brown 2002 **Study dates** See Brown 2002 **Source of funding** See Brown 2002	See Brown 2002 **Exclusion criteria** See Brown 2002				
Full citation Gagnon, Aj, Edgar, L, Kramer, Ms, Papageorgiou, A, Waghorn, K, Klein, Mc, A randomized trial of a program of early postpartum discharge with nurse visitation, American	**Sample size** See Brown 2002 **Characteristics** See Brown 2002	**Interventions** See Brown 2002	**Details** See Brown 2002	**Results** See Brown 2002	**Limitations** See Brown 2002 **Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Journal of Obstetrics and Gynecology, 176, 205-211, 1997 **Ref Id** 786963 **Country/ies where the study was carried out** See Brown 2002 **Study type** See Brown 2002 **Aim of the study** See Brown 2002 **Study dates** See Brown 2002 **Source of funding** See Brown 2002	**Inclusion criteria** See Brown 2002 **Exclusion criteria** See Brown 2002				
Full citation	**Sample size**	**Interventions**	**Details**	**Results**	**Limitations**
Sainz, Bueno Ja, Romano, Mr, Teruel, Rg, Benjumea,	See Brown 2002	See Brown 2002	See Brown 2002	See Brown 2002	See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Ag, Palacín, Af, González, Ca, Manzano, Mc, Early discharge from obstetrics-pediatrics at the Hospital de Valme, with domiciliary follow-up, American Journal of Obstetrics and Gynecology, 193, 714-726, 2005 **Ref Id** 787260 **Country/ies where the study was carried out** See Brown 2002 **Study type** See Brown 2002 **Aim of the study** See Brown 2002 **Study dates** See Brown 2002 **Source of funding**	**Characteristics** See Brown 2002 **Inclusion criteria** See Brown 2002 **Exclusion criteria** See Brown 2002				**Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
See Brown 2002					
Full citation Smith-Hanrahan,C., Deblois,D., Postpartum early discharge: impact on maternal fatigue and functional ability, Clinical Nursing Research, 4, 50-66, 1995 **Ref Id** 197829 **Country/ies where the study was carried out** See Brown 2002 **Study type** See Brown 2002 **Aim of the study** See Brown 2002 **Study dates** See Brown 2002	**Sample size** See Brown 2002 **Characteristics** See Brown 2002 **Inclusion criteria** See Brown 2002 **Exclusion criteria** See Brown 2002	**Interventions** See Brown 2002	**Details** See Brown 2002	**Results** See Brown 2002	**Limitations** See Brown 2002 **Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Source of funding See Brown 2002					
Full citation Waldenstrom, U, Early discharge with domiciliary visits and hospital care: parents' experiences of two modes of post-partum care, Scandinavian journal of caring sciences, 1, 51-58, 1987 **Ref Id** 787371 **Country/ies where the study was carried out** See Brown 2002 **Study type** See Brown 2002 **Aim of the study** See Brown 2002 **Study dates**	**Sample size** See Brown 2002 **Characteristics** See Brown 2002 **Inclusion criteria** See Brown 2002 **Exclusion criteria** See Brown 2002	**Interventions** See Brown 2002	**Details** See Brown 2002	**Results** See Brown 2002	**Limitations** See Brown 2002 **Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
See Brown 2002 **Source of funding** See Brown 2002					
Full citation Waldenstrom, U., Early and late discharge after hospital birth: Fatigue and emotional reactions in the postpartum period, Journal of Psychosomatic Obstetrics and Gynaecology, 8, 127-135, 1988 **Ref Id** 787372 **Country/ies where the study was carried out** See Brown 2002 **Study type** See Brown 2002 **Aim of the study** See Brown 2002	**Sample size** See Brown 2002 **Characteristics** See Brown 2002 **Inclusion criteria** See Brown 2002 **Exclusion criteria** See Brown 2002	**Interventions** See Brown 2002	**Details** See Brown 2002	**Results** See Brown 2002	**Limitations** See Brown 2002 **Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Study dates See Brown 2002 **Source of funding** See Brown 2002					
Full citation Waldenström, U, Sundelin, C, Lindmark, G, Early and late discharge after hospital birth: breastfeeding, Acta Paediatrica Scandinavica, 76, 727-732, 1987 **Ref Id** 787377 **Country/ies where the study was carried out** See Brown 2002 **Study type** See Brown 2002	**Sample size** See Brown 2002 **Characteristics** See Brown 2002 **Inclusion criteria** See Brown 2002 **Exclusion criteria** See Brown 2002	**Interventions** See Brown 2002	**Details** See Brown 2002	**Results** See Brown 2002	**Limitations** See Brown 2002 **Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Aim of the study See Brown 2002 **Study dates** See Brown 2002 **Source of funding** See Brown 2002					
Full citation Waldenström, U, Sundelin, C, Lindmark, G, Early and late discharge after hospital birth. Health of mother and infant in the postpartum period, Upsala Journal of Medical Sciences, 92, 301-314, 1987 **Ref Id** 787378 **Country/ies where the study was carried out** See Brown 2002	**Sample size** See Brown 2002 **Characteristics** See Brown 2002 **Inclusion criteria** See Brown 2002 **Exclusion criteria** See Brown 2002	**Interventions** See Brown 2002	**Details** See Brown 2002	**Results** See Brown 2002	**Limitations** See Brown 2002 **Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Study type See Brown 2002 **Aim of the study** See Brown 2002 **Study dates** See Brown 2002 **Source of funding** See Brown 2002					
Full citation Winterburn, S., Fraser, R., Does the duration of postnatal stay influence breast-feeding rates at one month in women giving birth for the first time? A randomized control trial, Journal of Advanced Nursing, 32, 1152-1157, 2000 **Ref Id** 787394	**Sample size** See Brown 2002 **Characteristics** See Brown 2002 **Inclusion criteria** See Brown 2002 **Exclusion criteria**	**Interventions** See Brown 2002	**Details** See Brown 2002	**Results** See Brown 2002	**Limitations** See Brown 2002 **Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Country/ies where the study was carried out See Brown 2002 **Study type** See Brown 2002 **Aim of the study** See Brown 2002 **Study dates** See Brown 2002 **Source of funding** See Brown 2002	See Brown 2002				
Full citation Yanover, Mj, Jones, D, Miller, Md, Perinatal care of low-risk mothers and infants. Early discharge with home care, New England Journal of Medicine, 294, 702-705, 1976	**Sample size** See Brown 2002 **Characteristics** See Brown 2002 **Inclusion criteria**	**Interventions** See Brown 2002	**Details** See Brown 2002	**Results** See Brown 2002	**Limitations** See Brown 2002 **Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Ref Id 787400 **Country/ies where the study was carried out** See Brown 2002 **Study type** See Brown 2002 **Aim of the study** See Brown 2002 **Study dates** See Brown 2002 **Source of funding** See Brown 2002	See Brown 2002 **Exclusion criteria** See Brown 2002				
Full citation Hellman, L. M., Kohl, S. G., Palmer, Joan, EARLY HOSPITAL DISCHARGE IN OBSTETRICS, The	**Sample size** See Brown 2002 **Characteristics** See Brown 2002	**Interventions** See Brown 2002	**Details** See Brown 2002	**Results** See Brown 2002	**Limitations** See Brown 2002 **Other information** See Brown 2002

Study details	Participants	Interventions	Methods	Outcomes and Results	Comments
Lancet, 279, 227-232, 1962 **Ref Id** 800368 **Country/ies where the study was carried out** See Brown 2002 **Study type** See Brown 2002 **Aim of the study** See Brown 2002 **Study dates** See Brown 2002 **Source of funding** See Brown 2002	**Inclusion criteria** See Brown 2002 **Exclusion criteria** See Brown 2002				

C: comparison; CS: caesarean section; I: intervention; RhoGAM: Rho(D) immune globulin (human); SD: standard deviation

Appendix E – Forest plots

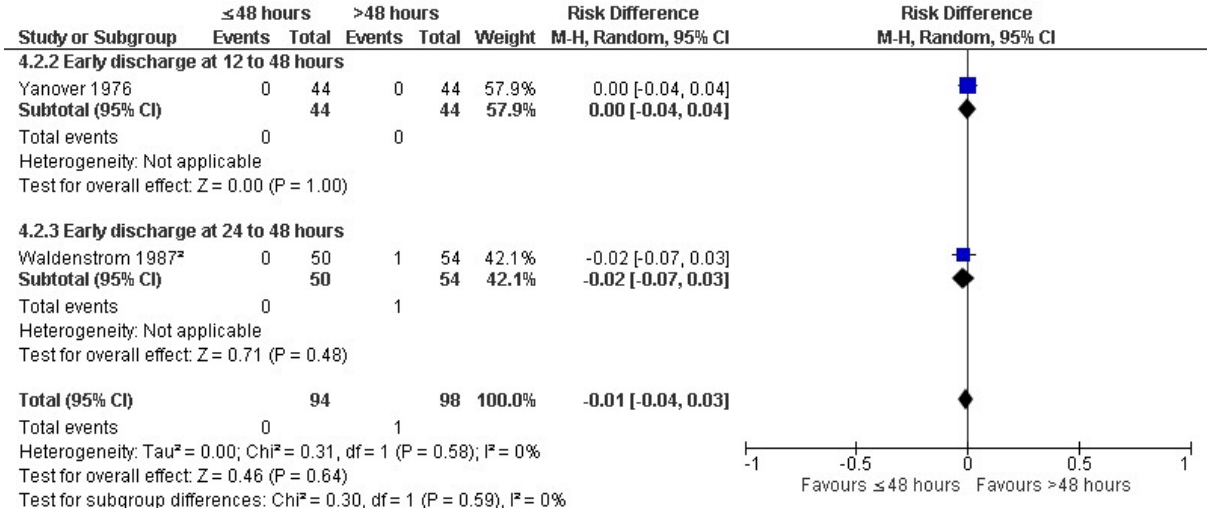
Forest plots for review questions:

How does the length of postpartum stay affect women and their babies (single births)?

How does the length of postpartum stay affect women and their babies (twins or triplets)?

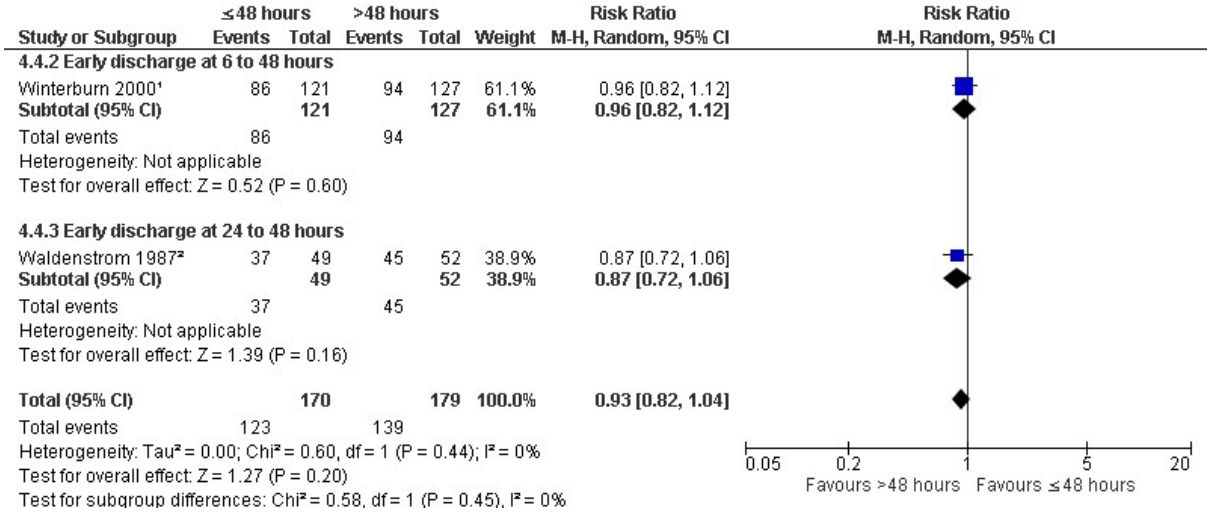
This section includes forest plots only for outcomes that are meta-analysed. Outcomes from single studies are not presented here; the quality assessment for such outcomes is provided in the GRADE profiles in appendix F.

Figure 2: Proportion of women readmitted within 6 weeks



CI: confidence interval; M-H: Mantel-Haenszel

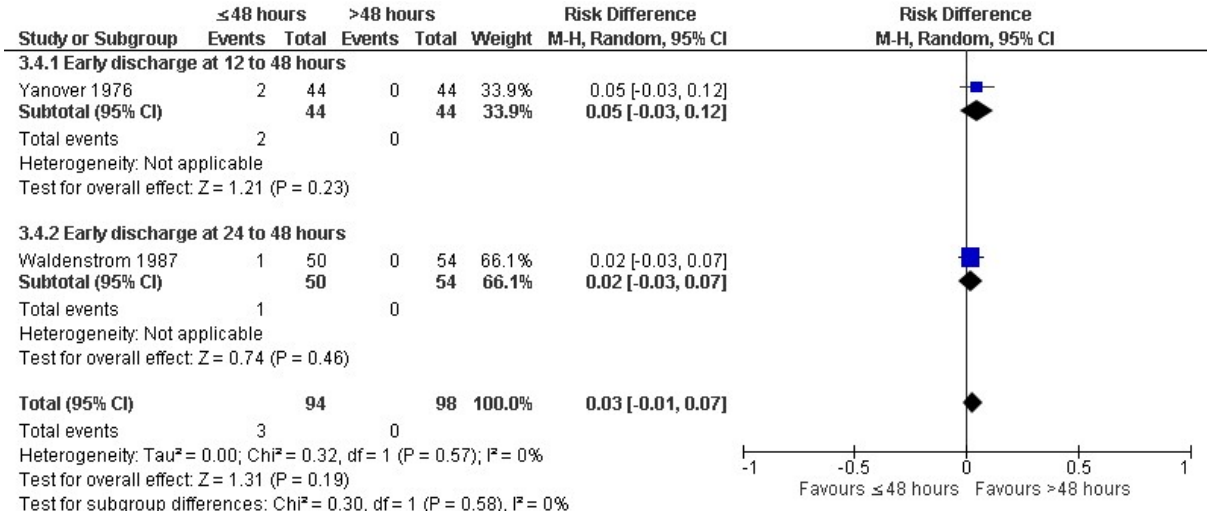
Figure 3: Proportion of women breastfeeding in first 8 weeks



CI: confidence interval; M-H: Mantel-Haenszel

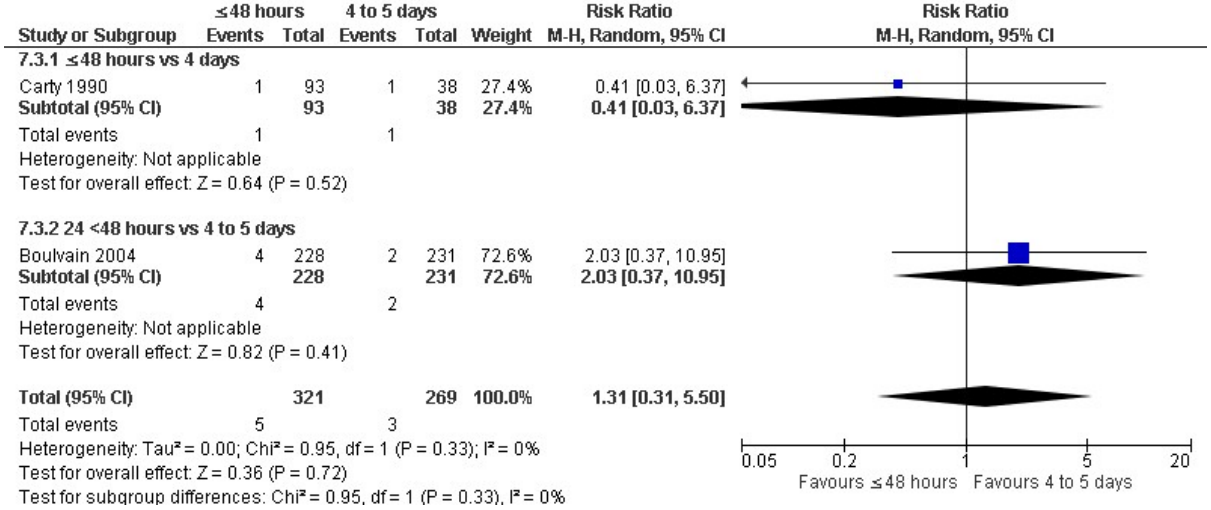
[1] Exclusively and partially breastfeeding women were grouped together. Breastfeeding rates reported at 4 weeks.
[2] Unclear whether women were breastfeeding exclusively or partially. Breastfeeding rates reported at 8 weeks.

Figure 4: Proportion of infants readmitted within 8 weeks



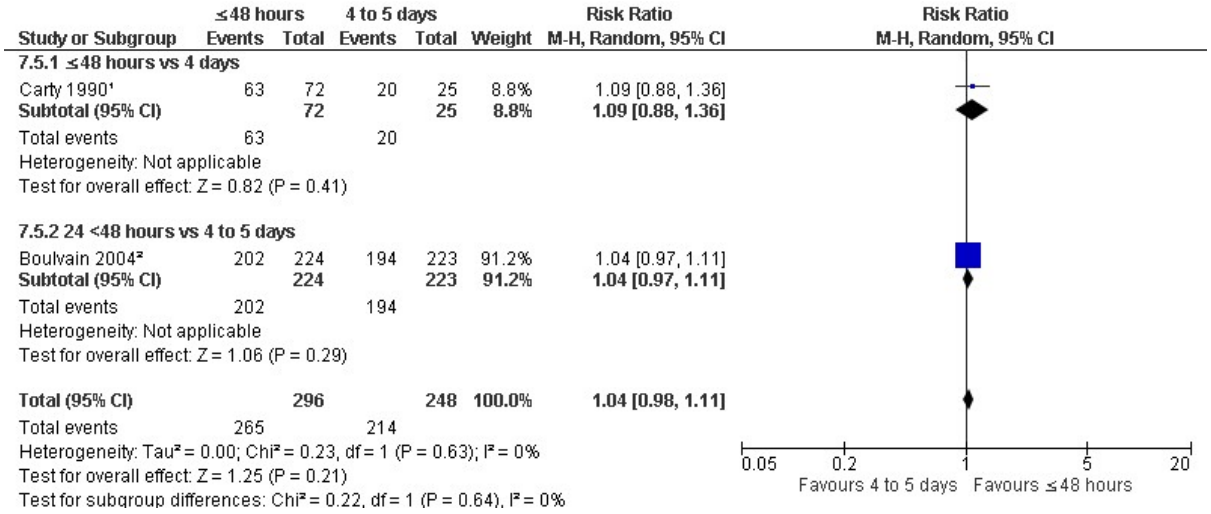
CI: confidence interval; M-H: Mantel-Haenszel

Figure 5: Proportion of women readmitted within 6 weeks



CI: confidence interval; M-H: Mantel-Haenszel

Figure 6: Proportion of women breastfeeding at one month



CI: confidence interval; M-H: Mantel-Haenszel
[1] Breastfeeding defined as "exclusive"
[2] Unclear whether women were breastfeeding exclusively or partially

Appendix F – GRADE tables

GRADE tables for review questions:

How does the length of postpartum stay affect women and their babies (single births)?

How does the length of postpartum stay affect women and their babies (twins or triplets)?

Table 5: Clinical evidence profile for comparison discharge at 12 to 24 hours versus 25 to 48 hours

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	12 to 24 hours	25 to 48 hours	Relative (95% CI)	Absolute	Quality	Importance
Proportion of women requiring physician referral within 10 days												
1 (Carty 1990)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	None	2/44 (4.5%)	3/49 (6.1%)	RR 0.74 (0.13 to 4.24)	16 fewer per 1000 (from 53 fewer to 198 more)	VERY LOW	IMPORTANT

CI: confidence interval; RR: risk ratio

[1]The quality of the evidence was downgraded by 1 due to unclear risk of selection bias (insufficient information in the report to assess whether sequence generation was adequate) and high risk of performance and detection bias (non-blinded for participants, personnel, and outcome assessors).

[2] The quality the evidence was downgraded by 2 due to very serious imprecision as 95% CI crosses both default MIDs

Table 6: Clinical evidence profile for comparison discharge at <24 hours versus >48 hours

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration	<24 hours	≥48 hours	Relative (95% CI)	Absolute	Quality	Importance
Proportion of women readmitted within 6 weeks												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration	<24 hours	≥48 hours	Relative (95% CI)	Absolute		
1 (Sainz Bueno 2005)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	None	4/213 (1.9%)	5/217 (2.3%)	RR 0.82 (0.22 to 2.99)	4 fewer per 1000 (from 18 fewer to 46 more)	VERY LOW	IMPORTANT
Proportion of women probably depressed at 1 month												
1 (Sainz Bueno 2005)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[3]	None	2/213 (0.94%)	8/217 (3.7%)	RR 0.25 (0.05 to 1.19)	28 fewer per 1000 (from 35 fewer to 7 more)	LOW	IMPORTANT
Proportion of women breastfeeding at 1 month												
1 (Sainz Bueno 2005)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[4]	None	190/213 (89.2%)	182/217 (83.9%)	RR 1.06 (0.99 to 1.15)	50 more per 1000 (from 8 fewer to 126 more)	LOW	IMPORTANT
Proportion of women breastfeeding at 12 weeks												
1 (Sainz Bueno 2005)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	serious[5]	None	141/213 (66.2%)	119/217 (54.8%)	RR 1.21 (1.03 to 1.41)	115 more per 1000 (from 16 more to 225 more)	LOW	IMPORTANT
Proportion of women breastfeeding at 6 months												
1 (Sainz Bueno 2005)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[6]	None	94/213 (44.1%)	76/217 (35%)	RR 1.26 (1 to 1.6)	91 more per 1000 (from 0 more to 210 more)	VERY LOW	IMPORTANT
Proportion of women dissatisfied with postnatal care												
1 (Sainz Bueno 2005)	randomised trials	very serious[7]	no serious inconsistency	no serious indirectness	no serious imprecision	None	99/172 (57.6%)	111/125 (88.8%)	RR 0.65 (0.56 to 0.75)	311 fewer per 1000 (from 222 fewer to 391 fewer)	LOW	IMPORTANT

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration	<24 hours	≥48 hours	Relative (95% CI)	Absolute		
Health service consultations for neonate pathology in the first 28 days												
1 (Sainz Bueno 2005)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	None	18/213 (8.5%)	13/217 (6%)	RR 1.41 (0.71 to 2.81)	25 more per 1000 (from 17 fewer to 108 more)	VERY LOW	IMPORTANT
Proportion of infants readmitted within 8 weeks												
1 (Sainz Bueno 2005)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	None	3/213 (1.4%)	5/217 (2.3%)	RR 0.61 (0.15 to 2.53)	9 fewer per 1000 (from 20 fewer to 35 more)	VERY LOW	IMPORTANT

CI: confidence interval; RR: risk ratio

[1] The quality of the evidence was downgraded by 1 due to unclear risk of selection bias (insufficient information to assess whether sequence generation was adequate) and high risk of performance and detection bias (non-blinded for participants, personnel, and unclear for outcome assessors).

[2] The quality of the evidence was downgraded by 2 due to very serious imprecision as 95% CI crosses both default MIDs

[3] The quality of the evidence was downgraded by 1 due to serious imprecision as 95% CI crosses 1 default MID

[4] The quality of the evidence was downgraded by 1 due to serious imprecision as the 95% CI crosses the line of no effect.

[5] The quality of the evidence was downgraded by 1 due to serious imprecision as there are fewer than 300 events.

[6] The quality of the evidence was downgraded by 2 due to very serious imprecision as the 95% CI crosses the line of no effect and there are fewer than 300 events.

[7] The quality of the evidence was downgraded by 2 due to unclear risk of selection bias (insufficient information in the report to assess whether sequence generation was adequate), high risk of performance and detection bias (non-blinded for participants, personnel, and outcome assessors , and high risk of attrition bias (differential missing data for maternal satisfaction with care, 17.8% for early discharge, and 42% for late discharge, which introduces risk of bias potentially favouring late discharge).

Table 7: Clinical evidence profile for comparison discharge at 6 to 36 hours versus 48 to 72 hours

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	6 to 36 hours	48 to 72 hours	Relative (95% CI)	Absolute		
Proportion of women breastfeeding at one month												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**6 to 36 hours**	**48 to 72 hours**	**Relative (95% CI)**	**Absolute**		
1 (Gagnon 1997)	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	43/78 (55.1%)	38/97 (39.2%)	RR 1.41 (1.02 to 1.94)	161 more per 1000 (from 8 more to 368 more)	VERY LOW	IMPORTANT
Infant health service contacts at one month												
1 (Gagnon 1997)	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	12/78 (15.4%)	17/97 (17.5%)	RR 0.88 (0.45 to 1.73)	21 fewer per 1000 (from 96 fewer to 128 more)	VERY LOW	IMPORTANT

CI: confidence interval; RR: risk ratio
[1] The quality of the evidence was downgraded by 2 due to unclear risk of selection bias (insufficient information in the report to assess whether sequence generation was adequate), high risk of performance and detection bias (non-blinded for participants, personnel, and outcome assessors), high risk of attrition bias (loss to follow-up was 51.4%, and it was higher in the early discharge group), and high risk of deviations from intended intervention (33% non-compliance with allocation to early discharge)
[2] The quality of the evidence was downgraded by 1 due to serious imprecision as there are less than 300 events
[3] The quality of the evidence was downgraded by 2 due to very serious imprecision as 95% CI crosses both default MIDs

Table 8: Clinical evidence profile for comparison discharge at ≤48 hours versus >48 hours

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**≤48 hours**	**>48 hours**	**Relative (95% CI)**	**Absolute**		
Neonatal mortality												
1 (Waldenstrom 1987)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/50 (0%)	0/54 (0%)	RD 0.00 (-0.04 to 0.04)	0 fewer or more per 1000 (from 40 fewer to 40 more)	VERY LOW	CRITICAL

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**≤48 hours**	**>48 hours**	**Relative (95% CI)**	**Absolute**		
Proportion of women readmitted within 6 weeks												
2 (Waldenstrom 1987 and Yanover 1976)	randomised trials	serious[3]	no serious inconsistency	no serious indirectness	very serious[2]	None	0/94 (0%)	1/98 (1%)	RD -0.01 (-0.04 to 0.02)	10 fewer per 1000 (from 40 fewer to 20 more)	VERY LOW	IMPORTANT
Proportion of women breastfeeding in first 8 weeks												
2 (Waldenstrom 1987 and Winterburn 2000)	randomised trials	serious[3]	no serious inconsistency	serious[4]	very serious[2]	None	123/170 (72.4%)	139/179 (77.7%)	RR 0.93 (0.83 to 1.05)	54 fewer per 1000 (from 132 fewer to 39 more)	VERY LOW	IMPORTANT
Proportion of women breastfeeding at 6 months												
1 (Waldenstrom 1987)	randomised trials	serious[5]	no serious inconsistency	no serious indirectness	Very serious[2]	None	28/49 (57.1%)	27/59 (45.8%)	RR 1.25 (0.86 to 1.81)	114 more per 1000 (from 64 fewer to 371 more)	VERY LOW	IMPORTANT
Proportion of women dissatisfied with postnatal care												
1 (Waldenstrom 1987)	randomised trials	serious[5]	no serious inconsistency	no serious indirectness	no serious imprecision	None	14/50 (28%)	47/54 (87%)	RR 0.32 (0.20 to 0.51)	592 fewer per 1000 (from 426 fewer to 696 fewer)	MODERATE	LESS IMPORTANT
Proportion of infants readmitted within 8 weeks												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	≤48 hours	>48 hours	Relative (95% CI)	Absolute		
2 (Waldenstrom 1987 and Yanover 1976)	randomised trials	serious[3]	no serious inconsistency	no serious indirectness	very serious[2]	none	3/94 (3.2%)	0/98 (0%)	RD 0.03 (-0.01 to 0.08)	30 fewer per 1000 (from 10 fewer to 80 more)	VERY LOW	IMPORTANT

CI: confidence interval; RD: risk difference; RR: risk ratio
[1] The quality of the evidence was downgraded by 1 due to unclear risk of selection bias (insufficient information in the report to assess whether sequence generation was adequate, and it was unclear whether there was allocation concealment), unclear risk of attrition bias (13 women who went home later than allocation were excluded).
[2] The quality of the evidence was downgraded by 2 due to very serious imprecision as the 95% CI interval crosses the line of no effect and there are less than 300 events in each group.
[3] The quality of the evidence was downgraded by 2 due to unclear risk of selection bias in both studies), high risk of performance and detection bias (non-blinded for participants, personnel, and outcome assessors in Yanover 1976; non-blinded for participants, personnel, and unclear for outcome assessors for Waldenstronm 1987), high risk of attrition bias (13 women who went home later than allocation were excluded in Waldenstrom 1987; 31.3% loss to follow up in Yanover 1976).
[4] The quality of the evidence was downgraded by 1 due to indirectness because the study population in one study included a minority of women that had caesarean sections
[5] The quality of the evidence was downgraded by 1 due to unclear risk of selection bias (insufficient information in the report to assess whether sequence generation was adequate, and it was unclear whether there was allocation concealment), high risk of performance and detection bias (non-blinded for participants and personnel, and unclear for outcome assessors), unclear risk of attrition bias (13 women who went home later than allocation were excluded).

Table 9: Clinical evidence profile for comparison discharge at <60 hours versus >60 hours

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	<60 hours	>60 hours	Relative (95% CI)	Absolute		
Proportion of women readmitted within 6 weeks												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**<60 hours**	**>60 hours**	**Relative (95% CI)**	**Absolute**		
1 (Smith-Hanrahan 1995)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/35 (0%)	0/46 (0%)	RD 0.00 (-0.05 to 0.05)	0 fewer or more per 1000 (from 50 fewer to 50 more)	MODERATE	IMPORTANT
Proportion of women breastfeeding at 6 weeks												
1 (Smith-Hanrahan 1995)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	17/35 (48.6%)	29/46 (63%)	RR 0.77 (0.51 to 1.16)	145 fewer per 1000 (from 309 fewer to 101 more)	VERY LOW	IMPORTANT
Proportion of infants readmitted within 8 weeks												
1 (Smith-Hanrahan 1995)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/35 (0%)	0/46 (0%)	RD 0.00 (-0.05 to 0.05)	0 fewer or more per 1000 (from 50 fewer to 50 more)	MODERATE	IMPORTANT

CI: confidence interval; RD: risk difference; RR: risk ratio

[1] The quality of the evidence was downgraded by 1 due to unclear risk of selection bias (insufficient information in the report to assess whether sequence generation was adequate, and it was unclear whether there was allocation concealment), high risk of performance and detection bias (non-blinded for participants and personnel, and unclear for outcome assessors).

[2] The quality of the evidence was downgraded by 2 due to very serious imprecision as 95% CI crosses the line of no effect and there are less than 300 events

Table 10: Clinical evidence profile. Comparison 6. Discharge at 12 to 24 hours versus 4 days

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**12 to 24 hours**	**4 days**	**Relative (95% CI)**	**Absolute**		
Proportion of women requiring physician referral within 10 days												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	12 to 24 hours	4 days	Relative (95% CI)	Absolute		
1 (Carty 1990)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	2/44 (4.5%)	3/38 (7.9%)	RR 0.58 (0.1 to 3.27)	33 fewer per 1000 (from 71 fewer to 179 more)	VERY LOW	IMPORTANT

CI: confidence interval; RR: risk ratio
[1] The quality of the evidence was downgraded by 1 due to unclear risk of selection bias (insufficient information in the report to assess whether sequence generation was adequate) and high risk of performance and detection bias (non-blinded for participants, personnel, and outcome assessors).
[2] The quality of the evidence was downgraded by 2 due to very serious imprecision as 95% CI crosses both default MIDs

Table 11: Clinical evidence profile for comparison discharge at ≤48 hours versus 4 to 5 days

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other consideration	≤48 hours	4 to 5 days	Relative (95% CI)	Absolute		
Proportion of women with one or more visits to a gynaecologist in first month												
1 (Boulvain 2004)	randomised trials	serious[1]	no serious inconsistency	serious[2]	serious[3]	None	33/228 (14.5%)	48/231 (20.8%)	RR 0.70 (0.47 to 1.04)	62 fewer per 1000 (from 113 fewer to 8 more)	VERY LOW	IMPORTANT
Proportion of women requiring physician referral within 10 days												
1 (Carty 1990)	randomised trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	None	3/49 (6.1%)	3/38 (7.9%)	RR 0.78 (0.17 to 3.63)	17 fewer per 1000 (from 66 fewer to 208 more)	VERY LOW	IMPORTANT
Proportion of women readmitted within 6 weeks												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other consideration**	**≤48 hours**	**4 to 5 days**	**Relative (95% CI)**	**Absolute**		
2 (Boulva in 2004 and Carty 1990)	randomised trials	serious[5]	no serious inconsistency	serious[6]	very serious[4]	None	5/321 (1.6%)	3/269 (1.1%)	RR 1.35 (0.35 to 5.26)	4 more per 1000 (from 7 fewer to 48 more)	VERY LOW	IMPORTANT
Proportion of women probably depressed												
1 (Boulva in 2004)	randomised trials	very serious[1]	no serious inconsistency	serious[2]	very serious[4]	None	16/228 (7%)	21/231 (9.1%)	RR 0.77 (0.41 to 1.44)	21 fewer per 1000 (from 54 fewer to 40 more)	VERY LOW	IMPORTANT
Proportion of women breastfeeding at one month												
2 (Boulva in 2004 and Carty 1990)	randomised trials	serious[5]	no serious inconsistency	serious[6]	serious imprecision[7]	None	265/296 (89.5%)	214/248 (86.3%)	RR 1.04 (0.98 to 1.11)	35 more per 1000 (from 17 fewer to 95 more)	VERY LOW	IMPORTANT
Proportion of women breastfeeding at 6 months												
1 (Boulva in 2004)	randomised trials	very serious[1]	no serious inconsistency	serious[2]	very serious[8]	None	78/220 (35.5%)	78/215 (36.3%)	RR 0.98 (0.76 to 1.26)	7 fewer per 1000 (from 87 fewer to 94 more)	VERY LOW	IMPORTANT
Proportion of women dissatisfied with postnatal care												
1 (Boulva in 2004)	randomised trials	very serious[1]	no serious inconsistency	serious[2]	very serious[4]	None	31/217 (14.3%)	31/223 (13.9%)	RR 1.03 (0.65 to 1.63)	4 more per 1000 (from 49 fewer to 88 more)	VERY LOW	LESS IMPORTANT
Proportion of infants requiring physician referral in first 10 days												

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other consideration**	**≤48 hours**	**4 to 5 days**	**Relative (95% CI)**	**Absolute**		
1 (Carty 1990)	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	None	4/93 (4.3%)	1/38 (2.6%)	RR 1.63 (0.19 to 14.15)	17 more per 1000 (from 21 fewer to 346 more)	VERY LOW	IMPORTANT
Proportion of infants readmitted within 8 weeks												
1 (Boulvain 2004)	randomised trials	very serious[1]	no serious inconsistency	serious[2]	serious[3]	None	12/228 (5.3%)	5/231 (2.2%)	RR 2.43 (0.87 to 6.79)	31 more per 1000 (from 3 fewer to 125 more)	VERY LOW	IMPORTANT

CI: confidence interval; RR: risk ratio

[1] The quality of the evidence was downgraded by 2 due to unclear risk of selection bias (insufficient information in the report to assess whether sequence generation was adequate), high risk of performance and detection bias (non-blinded for participants, personnel, and outcome assessors), and high risk of deviations from intended intervention (50% and 27.7% non-compliance with allocation to early discharge and late discharge, respectively)

[2] The quality of the evidence was downgraded by 1 due to indirectness because the study population included a minority of women that had caesarean sections (51/459=11.1%)

[3] The quality of the evidence was downgraded by 1 due to serious imprecision as 95% CI crosses 1 default MID

[4] The quality of the evidence was downgraded by 2 due to very serious imprecision as 95% CI crosses both default MIDs

[5] The quality of the evidence was downgraded by 2 due to unclear risk of selection bias (insufficient information in the report to assess whether sequence generation was adequate in both studies) and high risk of performance and detection bias (non-blinded for participants, personnel, and outcome assessors), and high risk of deviations from intended intervention (50% and 27.7% non-compliance with allocation to early discharge and late discharge, respectively in Boulvain 2004).

[6] The quality of the evidence was downgraded by 1 due to indirectness because the population of one study (Boulvain 2004) included a minority of women that had caesarean sections (51/459=11.1%)

[7] The quality of the evidence was downgraded by 1 due to serious imprecision because the 95% CI crosses the line of no effect

[8] The quality of the evidence was downgraded by 2 due to very serious imprecision because the 95% CI crosses the line of no effect and there are less than 300 events

Table 12: Clinical evidence profile for comparison discharge at <72 hours versus >5 days

Quality assessment							No of patients		Effect			
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	<72 hours	>5 days	Relative (95% CI)	Absolute	Quality	Importance
Infant mortality												
1 (Hellman 1962)	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	4/1941 (0.21%)	1/316 (0.32 %)	RR 0.65 (0.07 to 5.81)	1 fewer per 1000 (from 3 fewer to 15 more)	VERY LOW	CRITICAL
Proportion of women readmitted within 6 weeks												
1 (Hellman 1962)	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	32/1778 (1.8%)	2/316 (0.63 %)	RR 2.84 (0.68 to 11.81)	12 more per 1000 (from 2 fewer to 68 more)	VERY LOW	IMPORTANT
Proportion of women breastfeeding at 3 weeks												
1 (Hellman 1962)	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	291/1941 (15%)	19/316 (6%)	RR 2.49 (1.59 to 3.91)	90 more per 1000 (from 35 more to 175 more)	LOW	IMPORTANT
Proportion of infants readmitted within 8 weeks												
1 (Hellman 1962)	randomised trials	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	20/1818 (1.1%)	2/333 (0.6%)	RR 1.83 (0.43 to 7.8)	5 more per 1000 (from 3 fewer to 41 more)	VERY LOW	IMPORTANT

CI: confidence interval; RR: risk ratio

[1] The quality of the evidence was downgraded by 2 due to unclear risk of selection bias (insufficient information in the report to assess whether sequence generation was adequate, and it was unclear whether there was allocation concealment), high risk of performance and detection bias (non-blinded for participants, personnel, and outcome assessors) and high risk of attrition bias (loss to follow-up not reported).

[2] The quality of the evidence was downgraded by 2 due to very serious imprecision because the 95% CI crosses both default MIDs

[3] The quality of the evidence was downgraded by 2 due to very serious imprecision because the 95% CI crosses the line of no effect and there are less than 300 events

Appendix G – Economic evidence study selection

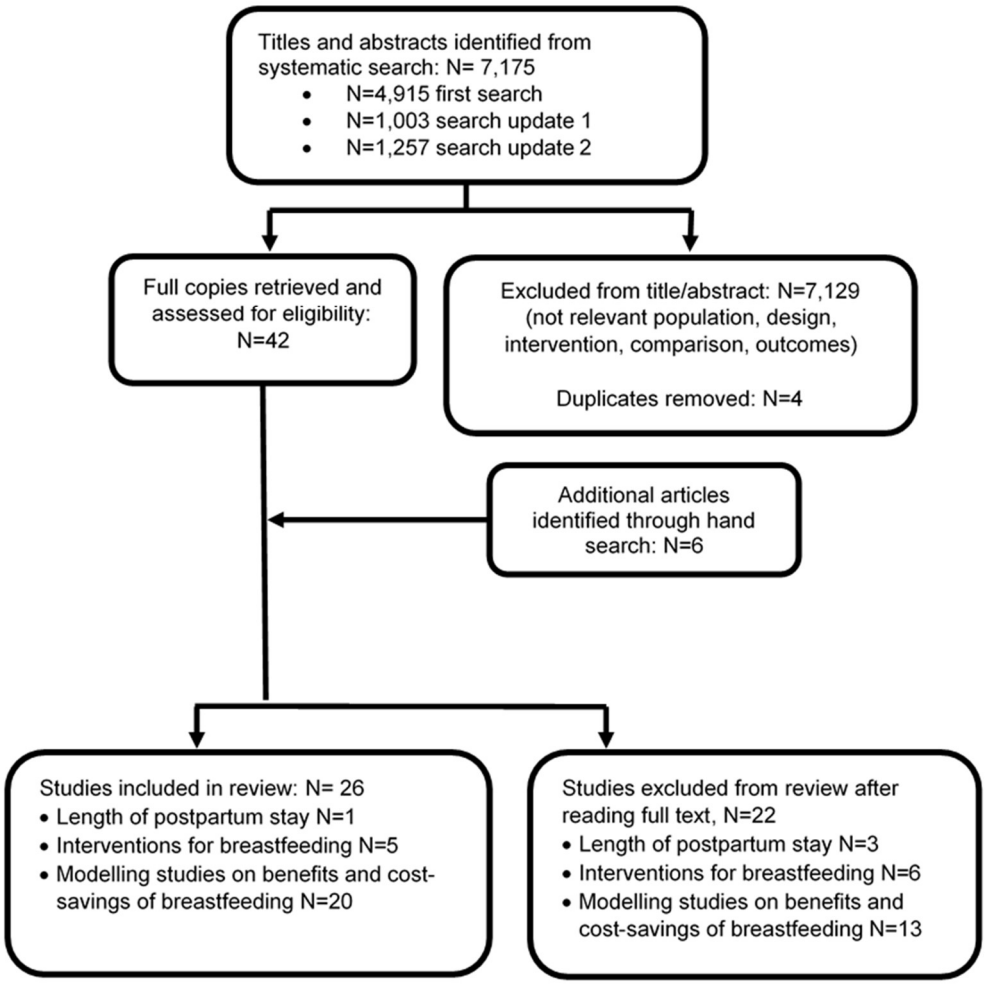
Economic evidence study selection for review questions:

How does the length of postpartum stay affect women and their babies (single births)?

How does the length of postpartum stay affect women and their babies (twins or triplets)?

A global health economics search was undertaken for all areas covered in the guideline. Figure 2 shows the flow diagram of the selection process for economic evaluations of postnatal care interventions, including modelling studies on the benefits and cost-savings of breastfeeding.

Figure 2. Flow diagram of selection process for economic evaluations of postnatal care interventions and modelling studies on the benefits and cost-savings of breastfeeding



Appendix H – Economic evidence tables

Economic evidence tables for the review questions:
How does the length of postpartum stay affect women and their babies (single births)?
How does the length of postpartum stay affect women and their babies (twins or triplets)?

Table 13: Economic evidence table for the length of postpartum stay

Study Country Study type	Intervention details	Study population Study design Data sources	Costs and outcomes: description and values	Results: Cost-effectiveness	Comments
Petrou 2004 Switzerland Cost-effectiveness analysis (effectively cost-minimisation analysis as there was no difference in outcomes)	Interventions: Early postnatal hospital discharge (scheduled for 24-48 hours after a vaginal delivery or 72-96 hours after a caesarean section) + home midwifery support during the first 10 days postpartum (number of visits & interval between visits determined by the needs of the family) Standard postnatal hospital discharge (scheduled for 4-5 days after a vaginal delivery or 6-7 days after a caesarean section), without	Women who delivered a single infant at term following an uncomplicated pregnancy in a hospital in an urban area Pragmatic RCT Source of efficacy data: RCT (N=459) Source of resource use data: RCT (N=459) Source of unit costs: local sources	Costs: hospital and community health & social services (postnatal care, hospital readmissions, outpatient care, community health and social care), costs borne by women and their informal carers, productivity losses Total direct costs (SD): Early discharge 6164 (6229) Standard discharge 7273 (4084) Bootstrapped mean difference -1130 (95%CI -2020 to -151) Primary outcome measures: proportion of women continuing	Early discharge dominant option Results robust to 25% changes in staff costs, 20% change in occupied bed-days, 30% change in community service utilisation, use of 95% CI of levels of home midwifery support	Perspective: societal; direct costs reported separately Currency: Swiss francs Cost year: 2000 Time horizon: from discharge from delivery suite and up to 28 days postpartum Discounting: NA Applicability: partially applicable Quality: minor limitations

Study Country Study type	Intervention details	Study population Study design Data sources	Costs and outcomes: description and values	Results: Cost-effectiveness	Comments
	subsequent home midwifery support unless clinically indicated		breastfeeding beyond 28 days postpartum; total duration of breastfeeding; women's satisfaction with the care received by themselves and their infants; maternal and neonatal safety No statistically significant differences in any of the pre-specified clinical or psychosocial outcomes		

CI: confidence interval; RCT: randomised clinical trial; SD: standard deviation

Appendix I – Economic evidence profiles

Economic evidence profiles for the review questions:
How does the length of postpartum stay affect women and their babies (single births)?
How does the length of postpartum stay affect women and their babies (twins or triplets)?

Table 14: Economic evidence profile for the length of postpartum stay

Economic evidence profile: early versus standard hospital discharge following birth of a healthy baby							
Study and country	**Limitations**	**Applicability**	**Other comments**	**Incremental cost (£)[1]**	**Incremental effect**	**ICER (£/effect)[1]**	**Uncertainty[1]**
Petrou 2004 Switzerland	Minor limitations[2]	Partially applicable[3]	• Cost-effectiveness analysis (effectively cost- minimisation analysis as there was no difference in outcomes) • Primary outcomes: proportion of women continuing breastfeeding beyond 28 days postpartum; total duration of breastfeeding; women's satisfaction with care; maternal and neonatal safety • No statistically significant	[direct] -713 (-1,275 to -95)	No significant difference	Early discharge dominant	Cost difference statistically significant Results robust to 25% changes in staff costs, 20% change in occupied bed-days, 30% change in community service utilisation, use of 95% CI of levels of home midwifery support

Economic evidence profile: early versus standard hospital discharge following birth of a healthy baby							
			differences in any of the outcomes				

1. Costs converted and uplifted to 2018 UK pounds using purchasing power parity (PPP) exchange rates and the UK hospital and community health services index (Curtis & Burns, Unit costs of Health and Social Care 2018. Canterbury: Personal Social Services Research Unit, The University of Kent 2018).
2. Time horizon 28 days postpartum; analysis based on RCT (N=459); local unit costs used; bootstrapping and sensitivity analysis conducted
3. Swiss study; societal perspective, but direct costs reported separately; cost-effectiveness analysis; 11% of women had a caesarean section

CI: confidence interval; ICER: incremental cost-effectiveness ratio; NA: not applicable

Appendix J – Economic analysis

Economic analysis for the review questions:

How does the length of postpartum stay affect women and their babies (single births)?

How does the length of postpartum stay affect women and their babies (twins or triplets)?

No economic analysis was conducted for these review questions.

Appendix K – Excluded studies

Excluded studies for review question:

How does the length of postpartum stay affect women and their babies (single births)?

How does the length of postpartum stay affect women and their babies (twins or triplets)?

Clinical studies

Table 15: Excluded studies and reasons for their exclusion

Study	Reason for exclusion
Benahmed, N., San Miguel, L., Devos, C., Fairon, N., Christiaens, W., Vaginal delivery: How does early hospital discharge affect mother and child outcomes? A systematic literature review, BMC Pregnancy and Childbirth, 17 (1) (no pagination), 2017	Relevant included studies were also included in the Cochrane review on early postpartum discharge. The authors mention that they used the Cochrane review to extract data. The current review also used the Cochrane review and the primary studies to extract data.
Braveman, P., Egerter, S., Pearl, M., Marchi, K., Miller, C., Problems associated with early discharge of newborn infants. Early discharge of newborns and mothers: a critical review of the literature, Pediatrics, 96, 716-726, 1995	Relevant included studies were also included in the Cochrane review (Brown 2002), from which data were extracted.
Bravo, P., Uribe, C., Contreras, A., Early postnatal hospital discharge: The consequences of reducing length of stay for women and newborns, Revista da Escola de Enfermagem, 45, 758-763, 2011	Literature review. Relevant included studies were also included in Cochrane review on early postpartum discharge.
Burnell, I, McCarthy, M, Chamberlain, Gvp, Hawkins, Df, Elbourne, Dr, Patient preference and postnatal hospital stay, Journal of Obstetrics and Gynaecology, 3, 43-47, 1982	Data are provided by actual length of stay, not by randomised trial allocation.
Calhoun, Bc, Gries, D, Barfield, W, Kovac, C, Hume, R, Cost consequences of implementation of an early obstetrical discharge programme in a military teaching hospital, Australian & New Zealand Journal of Obstetrics & Gynaecology, 39, 35-40, 1999	Observational study.
Escobar, Gj, Braveman, Pa, Ackerson, L, Odouli, R, Coleman-Phox, K, Capra, Am, Wong, C, Lieu, Ta, A randomized comparison of home visits and hospital-based group follow-up visits after early postpartum discharge, Pediatrics, 108, 719-727, 2001	No relevant comparison. Post-discharge home health visits versus post-discharge hospital-based follow-up. "To minimize any potential effects of study participation on the mother's LOS [length of stay], the research nurses attempted to enroll mothers after the decision to discharge them had been made".
Farhat, R., Rajab, M., Length of postnatal hospital stay in healthy newborns and re-hospitalization following early discharge, North American Journal of Medical Sciences, 3, 146-151, 2011	Observational study.

Study	Reason for exclusion
Forster, D. A., Savage, T. L., McLachlan, H. L., Gold, L., Farrell, T., Rayner, J., Yelland, J., Rankin, B., Lovell, B., Individualised, flexible postnatal care: a feasibility study for a randomised controlled trial, BMC Health Services Research, 14, 569, 2014	Feasibility study to inform a future RCT. No control group was included, as the aim was to determine the feasibility of the intervention.
Gagnon, Aj, Dougherty, G, Jimenez, V, Leduc, N, Randomized trial of postpartum care after hospital discharge, Pediatrics, 109, 1074-1080, 2002	No relevant comparison. Post-discharge community follow-up versus post-discharge hospital follow-up. All study subjects participated in the hospital's short stay programme, which involved discharge within 36 hours of birth.
Grullon, K. E., Grimes, D. A., The safety of early postpartum discharge: a review and critique, Obstetrics & Gynecology, 90, 860-5, 1997	Relevant included studies were also included in the Cochrane review (Brown 2002), from which data was extracted.
James, L., Sweet, L., Donnellan-Fernandez, R., Breastfeeding initiation and support: A literature review of what women value and the impact of early discharge, Women & Birth: Journal of the Australian College of MidwivesWomen Birth, 30, 87-99, 2017	This review includes only one RCT. This RCT has been included in the current review and data has been extracted from the Cochrane review on early postpartum discharge.
Laliberte, C, Dunn, S, Pound, C, Sourial, N, Yasseen, As, Millar, D, White, Rr, Walker, M, Lacaze-Masmonteil, T, A randomized controlled trial of innovative postpartum care model for mother-baby dyads, PLoS ONE, 11, 2016	No relevant comparison. Post-discharge follow-up by newly established postpartum community-based clinic versus standard post-discharge follow-up. Both groups were discharged based on current hospital standards.
Lassi, Z. S., Das, J. K., Salam, R. A., Bhutta, Z. A., Evidence from community level inputs to improve quality of care for maternal and newborn health: interventions and findings, Reproductive Health, 11, 2014	This review reports findings from 43 systematic reviews relating to community level interventions. It does not mention a systematic review focused on early postpartum discharge.
Levitt, C., Shaw, E., Wong, S., Kaczorowski, J., Springate, R., Sellors, J., Enkin, M., Systematic review of the literature on postpartum care: Methodology and literature search results, Birth, 31, 196-202, 2004	Relevant included studies were assessed for inclusion in the current review. No relevant outcome data.
Lieu, Ta, Braveman, Pa, Escobar, Gj, Fischer, Af, Jensvold, Ng, Capra, Am, A randomized comparison of home and clinic follow-up visits after early postpartum hospital discharge, Pediatrics, 105, 1058-1065, 2000	No relevant comparison. Post-discharge home visits versus post-discharge paediatric clinic visits. Nurses attempted to enrol mothers in the study after a decision to discharge them had been made.
McKeever, P, Stevens, B, Miller, Kl, MacDonell, Jw, Gibbins, S, Guerriere, D, Dunn, Ms, Coyte, Pc, Home versus hospital breastfeeding support for newborns: a randomized controlled trial, Birth (Berkeley, Calif.), 29, 258-265, 2002	Breastfeeding rates were assessed from 5 to 12 days postpartum (time of outcome assessment different from review protocol). Data on satisfaction of mothers of term newborns is provided for the early discharge group but not for the late discharge group.
O'Connor, K. S., Mowat, D., Scott, H., Larson, M., Horton, N., Galbraith, A., Routine home visits may not be needed for postpartum care in low-risk cases, Evidence-Based Healthcare, 7, 182-184, 2003	Abstract and commentary of a paper that has been separately assessed for inclusion in the current review.

Study	Reason for exclusion
Paul, Im, Beiler, Js, Schaefer, Ew, Hollenbeak, Cs, Alleman, N, Sturgis, Sa, Yu, Sm, Camacho, Ft, Weisman, Cs, A randomized trial of single home nursing visits vs office-based care after nursery/maternity discharge: the Nurses for Infants Through Teaching and Assessment After the Nursery (NITTANY) Study, Archives of Pediatrics & Adolescent MedicineArch Pediatr Adolesc Med, 166, 263-70, 2012	No relevant comparison. Post-discharge home nursing visits versus standard post-discharge office-based care.
Paul, Im, Downs, Ds, Schaefer, Ew, Beiler, Js, Weisman, Cs, Postpartum anxiety and maternal-infant health outcomes, Pediatrics, 131, e1218-24, 2013	Secondary analysis of RCT data. The RCT has been separately assessed for inclusion and excluded from the current review. This secondary analysis focuses on the prevalence of anxiety and its association with maternal and child health outcomes.
Petrou, S., Boulvain, M., Simon, J., Maricot, P., Borst, F., Perneger, T., Irion, O., Home-based care after a shortened hospital stay versus hospital-based care postpartum: an economic evaluation, BJOG: An International Journal of Obstetrics & Gynaecology, 111, 800-6, 2004	No relevant outcomes.
Steel, O'Connor Ko, Mowat, Dl, Scott, Hm, Carr, Pa, Dorland, Jl, Young, Tai Kf, A randomized trial of two public health nurse follow-up programs after early obstetrical discharge: an examination of breastfeeding rates, maternal confidence and utilization and costs of health services, Canadian journal of public health = revue canadienne de sante publique, 94, 98-103, 2003	No relevant comparison. Post-discharge home visits versus post-discharge screening telephone call. All women were discharged within 2 days of the birth of their infants.
Stevens, B, Guerriere, D, McKeever, P, Croxford, R, Miller, Kl, Watson-MacDonell, J, Gibbins, S, Dunn, M, Ohlsson, A, Ray, K, Coyte, P, Economics of home vs. hospital breastfeeding support for newborns, Journal of Advanced Nursing, 53, 233-243, 2006	No relevant outcomes.
Thompson, Jf, Roberts, Cl, Ellwood, Da, Early discharge after childbirth: too late for a randomized trial?, Birth (Berkeley, Calif.), 26, 192-195, 1999	Pilot study to assess the feasibility of an RCT. No relevant outcomes.
Waldenström, U, Early and late discharge after hospital birth: father's involvement in infant care, Early Human Development, 17, 19-28, 1988	No relevant outcomes.
Waldenström, U, Lindmark, G, Sundelin, C, Methodological problems of clinical trials in nursing illustrated by a study of post-partum care, Scandinavian journal of caring sciences, 1, 15-22, 1987	No relevant outcomes.
Waldenström, U, Nilsson, Ca, No effect of birth centre care on either duration or experience of breast feeding, but more complications: findings from a randomised controlled trial, Midwifery, 10, 8-17, 1994	No relevant comparison. Birth centre care versus standard obstetric care. Birth centre care involved early discharge within 24 hours, and standard obstetric care involved discharge at 3 to 4 days, however there were other differences

Study	Reason for exclusion
	between the two models of care. For example, at the birth centre, parents were cared for by the same team of midwives from the outset of pregnancy, during birth, and postnatally. This did not occur with obstetric standard care. Therefore, it would be difficult to relate outcomes to early or late discharge.
Waldenström, U, Nilsson, Ca, Experience of childbirth in birth center care. A randomized controlled study, Acta Obstetricia et Gynecologica Scandinavica, 73, 547-554, 1994	No relevant outcomes.
Waldenström, U, Nilsson, Ca, Winbladh, B, The Stockholm birth centre trial: maternal and infant outcome, British Journal of Obstetrics and Gynaecology, 104, 410-418, 1997	No relevant comparison. Birth centre care versus standard maternity care. Birth centre care involved early discharge within 24 hours, and standard maternity care involved discharge at 3.5 days on average, however there were other differences between the two models of care. For example, at the birth centre, parents were cared for by the same team of midwives from the outset of pregnancy, during birth, and postnatally. This did not occur with maternity standard care. Therefore, it would be difficult to relate outcomes to early or late discharge.
Zadoroznyj, M., Postnatal care in the community: Report of an evaluation of birthing women's assessments of a postnatal home-care programme, Health and Social Care in the Community, 15, 35-44, 2007	Not an RCT. No relevant comparison. This study uses both qualitative and quantitative methods to evaluate a new postnatal home-care support worker.

RCT: randomised controlled trial

Economic studies

Table 16: Excluded studies and reasons for their exclusion

Study	Reason for exclusion
Bostanci Ergen E, Ozkaya E, Eser A, Abide Yayla C, Kilicci C, Yenidede I, Eser SK, Karateke A. Comparison of readmission rates between groups with early versus late discharge after vaginal or cesarean delivery: a retrospective analyzes of 14,460 cases. J Matern Fetal Neonatal Med 2018; 31(10):1318-1322.	No details of the economic analysis reported; only related figure is the difference in costs between early and late discharge without any cost analysis / cost data reported.
Bowers J, Cheyne H. Reducing the length of postnatal hospital stay: implications for cost and quality of care. BMC Health Serv Res 2016; 16:16.	No economic evaluation; financial model developed to explore the quantitative and organisational consequences of reducing the length of postpartum stay, taking into account excess demand, work intensity and bed occupancy.
Ellberg L, Högberg U, Lundman B, Lindholm L. Satisfying parents' preferences with regard to various models of postnatal care is cost-minimizing. Acta Obstet Gynecol Scand 2006; 85(2): 175-81.	The study compared 5 models of postnatal care, all of which comprised a mixture of 3 different options post-delivery:

Study	Reason for exclusion
	• admission to the maternity ward, when the mother or baby needed special medical or nursing care • transfer to family suite for healthy mothers and babies, where all families had their own room and family members could stay all hours if desired; midwives offered support and assistance during the day, and at night, a nurse was available at the reception desk • early discharge for healthy mothers and babies, at no less than 6 hours and no later than 72 hours

Appendix L – Research recommendations

Research recommendations for review questions:

How does the length of postpartum stay affect women and their babies (single births)?

How does the length of postpartum stay affect women and their babies (twins or triplets)?

Research question

How does the length of postpartum stay and the timing of the first midwife visit after discharge affect unplanned or emergency health contacts for women and babies?

Why this is important

The review on the length of postpartum stay found no overall identifiable disadvantages for mothers or babies from early postnatal discharge and some advantages in terms of maternal satisfaction with care. However, no data were located about the impact of earlier discharge on unplanned, out-of-hours or emergency health contacts by women or babies. There was also a lack of data from another review about the impact of the timing of first postnatal contact by midwives on these unplanned admissions or attendances. The committee were in agreement about the relatively high financial and personal impact to families and healthcare providers of such unplanned contacts so they recommended that future research should take account of the association between early discharge and the impact on health services and the extent to which the first midwife visit interacts with this.

Table 13: Research recommendation rationale

Research question	How does the length of postpartum stay and the timing of the first midwife visit after discharge affect unplanned or emergency health contacts for women and babies?
Why is this needed	
Importance to 'patients' or the population	Whilst some women will have a personal preference for the length of their postnatal hospital stay, and obstetric or neonatal problems will be important determinants for some women and babies, the advantages and disadvantages of early discharge are unclear. The review found some evidence in favour of early postpartum discharge based on breastfeeding and dissatisfaction outcomes. However, there are no data about the impact of early discharge on health service outcomes, such as unplanned attendance or emergency admissions for either women or babies. It is possible that these negative outcomes outweigh the potential benefits. Furthermore, the timing of the first midwife visit following discharge may mitigate these negative outcomes but supporting evidence is lacking. It is therefore important to understand the impact of both early hospital discharge and early midwife visits on outcomes for the women, their babies and families.
Relevance to NICE guidance	There is currently insufficient evidence about the timing of postpartum discharge so the committee recommended that

Research question	How does the length of postpartum stay and the timing of the first midwife visit after discharge affect unplanned or emergency health contacts for women and babies?
	discharge timing is based on the clinical and psychological needs of women and babies and the woman's preferences. Due to the low quality and indirectness of the evidence the committee drafted recommendations about the timing of the first midwife visit on the basis of informal consensus. Understanding whether the timing of postpartum discharge and the first midwife visit are likely to cause unplanned health contacts will support the development of stronger, more specific future recommendations and enable clinicians to plan appropriately timed discharge and reduce adverse outcomes.
Relevance to the NHS	The timing of postpartum discharge and the timing of the first midwife visit may affect health service outcomes but this is currently unclear from the evidence. If the associations could be established through a prospective, observational study, this could lead to a change in practice and significant cost-savings for the NHS as well as an improvement in women's satisfaction with their care in the postnatal period.
National priorities	Making the best use of NHS resources and improving outcomes for women and babies is a national priority.
Current evidence base	There is currently some evidence in favour of early discharge, based on breastfeeding and dissatisfaction outcomes, however, evidence is lacking on how this impacts unplanned attendance and readmission rates. The evidence base for the timing of the first midwife contact is lacking.
Equality	It is important that the duration of postnatal hospital stay takes account of the needs and wishes of the woman and baby – those living in disadvantaged conditions my benefit from a longer hospital stay, whilst women with other caring responsibilities (e.g. older children or other dependents) may benefit from earlier discharge if adequately supported.
Feasibility	Since the proposed study design is observational the research would not require significant infrastructure.
Other comments	-

Table 18: Research recommendation modified PICO table

Criterion	Explanation
Population	Women and their babies during the first 2 months after birth
Intervention (exposure)	Primary: Timing of discharge Secondary: Timing of first midwife visit
Comparator	Different timing of discharge Different timing of first midwife visit
Co-variables	• Timing of first midwife visit (for primary exposure) • Timing of discharge (for secondary exposure) • Obstetric complications • Mode of birth • Maternal characteristics • Gestational age of the baby • Birth weight of the baby

Criterion	Explanation
Outcomes	• Unplanned attendance in primary care for woman and/ or baby • Unplanned attendance in secondary care • Hospital readmissions for woman and/or baby • Costs and cost-effectiveness • Morbidity (in woman, in baby) • Mortality (in woman, in baby)
Context	Postnatal period
Study design	Prospective cohort study
Additional information	In the absence of robust data, the committee drew on their own expert knowledge to recommend that the first midwife visit should occur 12-36 hours after birth. Therefore, the 12-36 hour timing for the first midwife visit should be incorporated in the design of the research, namely in the secondary exposure and comparator.