

C.3 HOME VISITS

Recommendation and remarks

RECOMMENDATION C.3 (NEW)

Home visits by trained health workers are recommended to support families to care for their preterm or low-birth-weight infant. (*Strong recommendation, moderate-certainty evidence*)

Remarks

- Trained health workers can include nurses, midwives, doctors and community health workers.
- The GDG noted that there were limited data on the content, frequency, duration and intensity of home visits for preterm and LBW infants. Based on the trials included in the evidence review, the GDG recommended that extra home visits (i.e. additional to the routine scheduled postnatal contacts for all infants [22]) should be made, and that their content, frequency, duration and intensity should be based on clinical judgement.
- The GDG noted that home visits also increased exclusive breastfeeding, immunization visits and parental-infant attachment and decreased parental stress, though these were not critical outcomes.

Background and definitions

Families need support at all stages, from before conception, and including at the identification of a high-risk pregnancy, at the birth of the baby, in the health-care facility, at discharge, and especially when the baby reaches home (189,194). Studies over the last 10 years in high-, middle- and low-income

countries have shown that home visiting during the antenatal and postnatal periods can improve both the demand for and the use of antenatal, delivery and postnatal services and reduce maternal and newborn mortality (22,195). However, there is limited information on the effects of home visiting for preterm and LBW infants.

Summary of the evidence

OVERVIEW	C.3 Home visits
PICO	<p>Population - Families of preterm or LBW infants</p> <p>Intervention - Home visits to support families to care for their preterm or LBW infant in the home</p> <p>Comparator - Usual care</p> <p>Outcomes - All-cause mortality, morbidity, growth, neurodevelopment at latest follow-up</p>
Timing, setting, subgroups	<p>Timing of the intervention - Birth to 6 months of age</p> <p>Setting - Health-care facility or home in any country or setting</p> <p>Subgroups</p> <ul style="list-style-type: none"> • Gestational age at birth (< 32 weeks, ≥ 32 weeks) • Birth weight (< 1.5 kg, ≥ 1.5 kg)

Effectiveness: Comparison - Home visits to support families to provide care versus usual care

Sources and characteristics of the evidence

The effectiveness evidence was derived from a systematic review of nine trials enrolling a total

of 8742 preterm or LBW infants from India, the Netherlands, Taiwan (China) and the USA (193). The interventions were delivered by health workers, community health workers, trained intervention workers or trained volunteers. They started and continued in the home, immediately following

discharge from the facility. The content included well-being strategies and newborn-care practices but also “anticipatory guidance” (i.e. what to expect), financial and social support information, and referral pathways.

Critical outcomes

For home visits to support families to provide care compared with usual care, two trials reported all-cause mortality, one trial reported morbidity (hospitalizations) and two trials reported neurodevelopment (cognitive and motor neurodevelopment). No trials reported growth outcomes. (Full details are provided in GRADE Table C.3, in the Web Supplement.)

- **Mortality:** Moderate-certainty evidence from one trial with 6984 participants suggests decreased all-cause mortality by 180 days of age (RR 0.71, 95% CI 0.57 to 0.89). Low-certainty evidence from one observational study with 970 participants suggests decreased all-cause mortality by 12 months (RR 0.14, 95% CI 0.02 to 1.16).
- **Morbidity:** Low-certainty evidence from one observational study with 970 participants suggests a decrease in hospitalizations by 12 months (MD 0.34, 95% CI 0.16 to 0.52).
- **Neurodevelopment:** Moderate-certainty evidence from two trials totalling 652 participants suggests little or no effect on cognitive neurodevelopment (BSID-III) by 12 months (SMD 0.03, 95% CI -0.12 to 0.19). Low-certainty evidence from one trial with 136 participants suggests little or no effect on motor neurodevelopment (BSID-III) by 12 months (MD 0.02, 95% CI -0.35 to 0.32).

Other outcomes

There was little or no effect on infant temperament at 6 months of age (MD 0.70, 95% CI -0.60 to 1.46; 1 trial, 161 participants) or parent-infant attachment at 6 months of age (MD -1.20, 95% CI -2.79 to 0.39; 1 trial, 136 participants).

There was an increase in EBF at 6 months (RR 4.48, 95% CI 0.28 to 72.9; 3 trials, 7221 participants) and an increase in immunization visits in the first

year (MD 1.21, 95% CI 0.93 to 1.49; 1 trial, 970 participants).

Subgroup analyses

The effect of gestational age and birth weight could not be assessed as there were insufficient trials for any critical outcome.

Values and acceptability

The systematic review about what matters to families about the care of the preterm or LBW infant (see Table 1.1) reported that families want to be involved in delivering care to infants, including supporting all newborn-care practices, and want to take an active role in deciding what interventions are given to infants, including what newborn-care practices they receive and how they are implemented (74). No specific evidence was located about whether families value home visiting for their preterm or LBW baby or whether they find it more or less acceptable than other care.

Resources required and implementation considerations

Organization of care

A minimum of four postnatal care contacts is recommended for all infants (22). Extra home visits (i.e. additional to the routine scheduled postnatal contacts for all infants) are needed for preterm and LBW babies. Their content, frequency, duration and intensity should follow national and local guidance for health-care facilities and should be based on clinical judgement.

Infrastructure, equipment and supplies

National or local guidance for health-care facilities should be used.

Workforce, training, supervision and monitoring

Health workers at all levels can provide home visits. However, standardized packages are needed for training, supervision and monitoring. Further guidance on follow-up care is being developed and will be published separately.

Feasibility and equity

There was no specific evidence about the feasibility and equity of home visiting interventions for preterm or LBW infants. Home visiting is a core part of the

health programmes for both term and preterm infants in many high-, middle- and low-income countries (22,195).

Summary of judgements

Comparison: Home visits to support families to provide care vs usual care (C.3)

Justification	<ul style="list-style-type: none">▪ Evidence of moderate benefits: moderate decrease in mortality (<i>moderate-certainty evidence</i>) and small decrease in number of hospitalizations (<i>very-low-certainty evidence</i>)▪ Evidence of little or no effect on cognitive or motor neurodevelopment (<i>low- to moderate-certainty evidence</i>)▪ No evidence of harms▪ No evidence on other critical outcomes
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Evidence-to-Decision summary

Benefits	Moderate
Harms	Trivial or none
Certainty	Low to moderate
Balance	Favours home visits
Values	No uncertainty or variability about outcomes
Acceptability	Probably acceptable
Resources	Moderate
Feasibility	Probably feasible
Equity	Probably equitable