Early discharge with home support of gavage feeding for stable preterm infants who have not established full oral feeds

Collins Carmel T, Makrides Maria, McPhee Andrew J

Authors' objectives
Background: Early discharge of stable preterm infants still requiring gavage feeds has the potential benefits of uniting families sooner and reducing health care and family costs compared to discharge home when on full sucking feeds. Potential disadvantages of early discharge include the increased burden for the family and the possibility of complications related to gavage feeding.

Objectives: To determine the effects of a policy of early discharge of stable preterm infants with home support of gavage feeding compared with a policy of discharge of such infants when they have reached full sucking feeds.

Search methods: The standard search strategy of the Cochrane Neonatal Review Group was used together with additional searches of the Cochrane Central Register of Controlled Trials (Issue 3, 2007), CINAHL (1982 to June week 4 2007), EMBASE (1980 to 2003 week 15) and MEDLINE (1950 to June week 4 2007). No new trials were found.

Selection criteria: All randomised and quasi-randomised trials among infants born < 37 weeks and requiring no intravenous nutrition at the point of discharge were included. Included trials were required to compare early discharge home with gavage feeds and health care support with later discharge home when full sucking feeds were attained.

Data collection and analysis: Two reviewers independently assessed trial quality and extracted data. Study authors were contacted for additional information. Data analysis was done in accordance with the standards of the Cochrane Neonatal Review Group.

Main results: Data from one quasi-randomised trial with 88 infants from 75 families were included in the review. Infants in the early discharge program with home gavage feeding had a mean hospital stay that was 9.3 days shorter \([\text{MD} -9.3 (-18.49 \text{ to} -0.11)]\) than infants in the control group. Infants in the early discharge program also had a lower risk of clinical infection during the home gavage period compared with the corresponding time in hospital for the control group \([\text{relative risk} 0.35 (0.17 \text{ to} 0.69)]\). There were no significant differences between groups in duration and extent of breast feeding, weight gain, re-admission within the first 12 months post discharge from the home gavage program or from hospital, scores reflecting parental satisfaction, or health service use.

Authors' conclusions: Experimental evidence to evaluate the benefits and risks in preterm infants of early discharge from hospital with home gavage feeding compared with later discharge upon attainment of full sucking feeds is limited to the results of one small quasi-randomised controlled trial. High quality trials with concealed allocation, complete follow-up of all randomised infants and adequate sample size are needed before practice recommendations can be made.


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