

Original Research Article

Comparative study about early full versus conventional partial enteral feeding in preterm new-born infants of 28-34 weeks

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ABSTRACT

Background: Enteral feeding is a critical component of neonatal care for preterm infants. Enteral feeding is indicated for a range of medical conditions, including prematurity, where infants cannot suck and swallow effectively; neurological disorders such as cerebral palsy or brain injuries; congenital anomalies like cleft palate; and critical illnesses that prevent adequate oral intake. This study aims to evaluate and compare the outcomes of early full enteral feeding with conventional partial enteral feeding in preterm newborn infants born between 28 and 34 weeks of gestation, focusing on parameters such as growth and development, long term morbidity and mortality.

Methods: This is a comparative prospective observational study designed to compare full enteral feeding with partial feeding on preterm. Total 180 preterm infants were included in the study. Participants were allocated into two groups - 90 preterm: full feed, and 90 preterm: partially feed.

Results: A study of 180 infants compared full and partial feeding groups, each with 90 babies. The full-feeding group showed fewer complications (16% total) with no necrotizing colitis, while the partial-feeding group had more issues (30.33% total), including 3% with necrotizing colitis. Full-fed babies had better outcomes with higher discharge rates (88% versus 80%) and lower death rates (9% versus 15%). While both groups showed similar length growth, full-fed babies maintained more stable weight gain over 15 days.

Conclusions: This study concludes that full enteral feeding is more beneficial approach in the nutritional management of preterm infants leading to improved growth in terms of weight, length and head circumference gain.

Keywords: Breastfeeding, Necrotizing colitis, Enteral breastfeeding, Infant growth

INTRODUCTION

Enteral feeding is a critical component of neonatal care for preterm infants. It requires meticulous planning and individualized approaches to ensure optimal growth and development while minimizing risks. Regular monitoring and adjustments based on the infant's tolerance and growth are essential for successful enteral feeding. Breast milk is the preferred feeding choice, offering numerous benefits that significantly impact the health outcomes of preterm infants. It is vital for the growth and development of preterm infants. It requires careful planning and

monitoring to ensure that nutritional needs are met while minimizing complications.¹

Enteral feeding, also known as tube feeding, is a method of delivering nutrition directly into the gastrointestinal (GI) tract through a tube. This approach is used when an individual cannot consume food orally but has a functioning digestive system. Enteral feeding can be applied in various medical situations, including for preterm infants, critically ill patients, and those with swallowing disorders.²

Current practices of enteral feeding in preterm infants have evolved significantly with a focus on balancing nutritional needs and minimizing risks such as necrotizing enterocolitis (NEC).² Rates of enteral feeding initiation and progression vary worldwide, reflecting differing clinical guidelines and available resources. According to recent findings, infants who are extremely preterm or very low birth weight (VLBW) benefit from progressive enteral feeding, which is initiated before the age of four days and advanced at rates more than 24 ml/kg/day.³ This improves growth outcomes without raising the risk of neonatal epilepsy. This strategy is now more widely adopted.⁴

Enteral feeding is indicated for a range of medical conditions, including prematurity, where infants cannot suck and swallow effectively; neurological disorders such as cerebral palsy or brain injuries; congenital anomalies like cleft palate; and critical illnesses that prevent adequate oral intake.⁵ It is also essential for post-surgical recovery, chronic illnesses such as cancer or severe gastrointestinal disorders, severe malnutrition or failure to thrive, gastrointestinal disorders like severe GER, temporary inability to eat due to acute illness or injury, and long-term feeding needs due to chronic conditions. These indications ensure that patients receive necessary nutrition to support growth, development, and overall health.⁶

Enteral feeding is crucial for preterm infants as it provides the essential nutrients needed for rapid growth and development, supports the maturation of the gastrointestinal tract, and helps prevent serious complications such as NEC.⁷ It enhances immune function, particularly when using breast milk, which contains vital antibodies and bioactive components. Enteral feeding also reduces the risk of infections by maintaining gut integrity and promoting a healthy gut microbiome. Overall, it ensures that preterm infants receive adequate nutrition to support their immediate health and long-term developmental outcomes.⁸

Various studies related enteral feeding found that early enteral feeding can potentially accelerate growth and reduce the duration of parenteral nutrition, the risk of NEC remains comparable between early and delayed feeding strategies. Morgan et al conducted a randomized controlled trial that found early full enteral feeding was associated with faster achievement of full enteral feeds and improved growth compared to delayed feeding. The study suggested that early feeding could enhance nutrient intake and growth rates without significantly increasing the risk of NEC.⁹ Walsh et al in their Cochrane review, analysed data from six trials with 526 premature babies. The research revealed conflicting findings about growth; some trials found no discernible difference between early feeding and improved weight gain. Crucially, compared to delayed or progressive feeding, there was no conclusive evidence that early complete enteral feeding raised the risk of NEC.¹⁰

Young et al performed a systematic review on the delayed introduction of progressive enteral feeds. They found that delaying feeds did not significantly reduce NEC risk or mortality but was associated with a slight reduction in feed intolerance and an increased risk of invasive infection.¹¹ Kennedy and Tyson also reviewed early versus delayed initiation of enteral feedings and found no significant effects on weight gain or NEC, though some benefits of early feeding included fewer days on parenteral nutrition and fewer cases of sepsis.¹²

The goal of this study is to determine the effects of early complete enteral feeding on growth and adverse outcomes such as necrotizing enterocolitis in preterm patients, in comparison to delayed or progressive enteral feeds.

This study aims to compare the outcomes of early full enteral feeding with conventional partial enteral feeding in preterm infants born between 28 and 34 weeks of gestation. It focuses on assessing growth patterns, including weight gain, length, and head circumference, as well as evaluating feeding-related complications such as necrotizing enterocolitis.

Additionally, the study examines overall clinical outcomes, including morbidity and mortality, to determine the impact of early full enteral feeding on the health and development of preterm newborns compared to conventional feeding practices.

METHODS

Study centre

The study was conducted at the Neonatal Care Facility of Department of Paediatrics of G. G. G. Hospital and Shri M. P. Shah Government Medical College, Jamnagar.

Study duration

The study was carried out between September 2023 and September 2024 (12 months).

Study design

This is a comparative prospective observational study designed to compare full enteral feeding with partial feeding on preterm

Sample size

A total of 180 preterm infants were included in the study. Calculation of sample size + 20% dropout rate was considered. Randomization was performed with the technique of simple random sampling. Participants were allocated into two groups. The first group consisted of 90 preterm infants who received full feeding, while the second group included 90 preterm infants who were partially fed.

Inclusion criteria

Preterm infants born at 28–34 weeks of gestation and weighing 1–1.5 kg.

Exclusion criteria

Infants with congenital anomalies or those whose parents or guardians did not provide informed consent.

Study procedure

Enrolment and consent

Eligible preterm infants were enrolled in the study after obtaining informed consent from parents or guardians.

Baseline assessment

Initial assessments including gestational age, birth weight, length and head circumference were recorded.

Feeding protocol assignment

Infants were randomly assigned to either the full enteral feeding group or the conventional partial feeding group. Double blinding was there during the allocation of groups.

Feeding regimen

The full enteral feeding group received only enteral feeds from the start, while the partial feeding group received a combination of enteral and parenteral nutrition as per standard care.

Monitoring and follow-up

Regular follow-up assessments were conducted to monitor growth parameters, complications, and overall health status.

Data analysis

The statistical analysis was conducted using IBM statistical package for the social sciences (SPSS) Statistics for Windows, version 25.0 (released 2017, IBM Corp., Armonk, NY). Data were analyzed to compare the growth outcomes and complications between the two groups. Statistical methods such as t-tests or Chi-square tests were used to determine the significance of differences observed.

Data collection methods

Anthropometric measurements

Weight, length and head circumference were measured at birth and at regular intervals (day 1 to day 15) until the partial feed preterm reached to full feeding.

Feeding protocol

Infants were randomly assigned to either the full enteral feeding group or the conventional partial feeding group based on predefined criteria.

Clinical monitoring

Regular monitoring for signs of feeding intolerance, complications and overall health status was conducted.

Growth assessment

Growth parameters were compared between the two groups to assess the impact of the feeding protocols.

We used AI language models (ChatGPT and Claude) solely to enhance grammar and readability. All scientific content, methodology, and conclusions are entirely our own, and AI tools are not listed as authors.

RESULTS

A total of 180 preterm newborns (28-34 weeks) were included in the study and analysis and interpretation of the collected data are displayed in this chapter.

A total 90 babies received partial feeding and 90 babies received full feeding. They were compared and the results were analysed.

Regarding feeding type, 90 (50%) babies received partial feeding and 90 (50%) received full feeding (Figure 1).

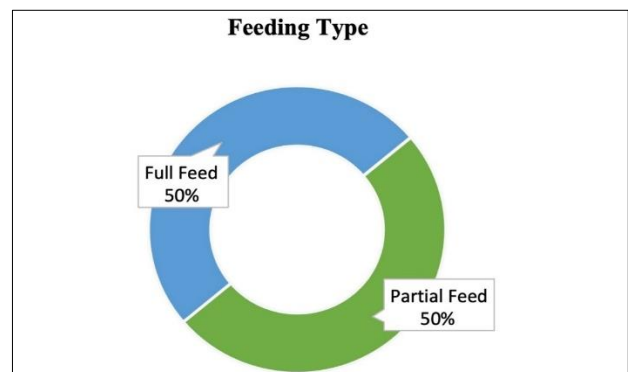


Figure 1: Feeding of study participants (n=180).

The gender distribution shows that 86 (47.7%) were male and 94 (52.2%) were female babies in the study. Gender distribution was equal among full feed babies and minor female predominance seen in partial feed babies. No significant difference was observed between gender and type of feeding. The mean gestational age was 33.15 ± 3.13 weeks, with a median of 33.17 weeks a minimum being 26 weeks and a maximum of 39 weeks in the total study sample. Among the Full-feed babies, the mean gestational age was 34.03 ± 2.98 with a minimum being 27 and a

maximum 39 weeks. Among partially feed babies the mean gestational age was 31.96 ± 3.00 with a minimum being 26 and a maximum of 39 weeks. There was a significant difference between the gestational age of the two groups (Table 1).

Table 1: Gender-wise distribution and gestational age of study participants.

Variables	Full feed (n=90)	Partial feed (n=90)	Total (n=180)
*Gender (%)			
Male	46 (51.11)	38 (42.22)	86 (47.7)
Female	44 (48.88)	52 (57.77)	94 (52.2)
**Gestational age			
Mean	34.03 ± 2.98	31.96 ± 3.00	33.15 ± 3.13
Median	34.16	32.01	33.17
Minimum	27	26	26
Maximum	39	39	39

*P value=0.29, p value <0.0001** (highly significant)

Table 2 displays that, 15 (8.33%) babies had the presence of comorbidities and 163 (90.55%) had no comorbidities. Among full-feed babies, 79 (87.77%) had no comorbidity and among partially feed babies 84 (93.33%) had no comorbidity. No significant difference was noted between co morbidity and feeding groups.

Table 2: Comorbidities of study participants (n=180).

Comorbidity	Full feed (n=90) (%)	Partial feed (n=90) (%)	Total (n=180) (%)
Yes	11 (12.2)	4 (6.67)	15 (8.33)
No	79 (87.77)	84 (93.33)	163 (90.55)

P value=0.11

The weight, length, and head circumference gains from day 1 to day 15 were noted in both groups. The mean values were 0.54 kg, 1.2 cm, and 1.0 cm for weight, length and head circumference gain respectively in full feed. The mean values were 0.49 kg, 1.1 cm, and 0.9 cm for weight, length and head circumference gain respectively in partial feed. Statistical significant difference was noted between length and head circumference gain between two feeding groups (Table 3).

In babies with full feed, abdominal complications (2%), vomiting (10%) and other complications (4%) were noted. In this full feeding group, no necrotizing colitis was noted.

Complications like abdominal complications (3%), vomiting (13%), diarrhoea (3%) and other complications (11%) were noted among babies on partial feed. Necrotising colitis was noted among 2% of the babies from partially feeding group babies. More complications were noted among partially feed babies compared to full feed babies. The problem of not gaining weight was noted more in partially feeding group. There were no significant

association noted between two feeding groups and complications (Table 4).

Table 3: Short term growth assessment (n=180).

Day 1 to 15	Full feed (n=90) (%)	Partial feed (n=90) (%)	P value
Weight gain (kg)	0.54	0.49	0.114
Length gain (cm)	1.2	1.1	0.001*
Head circumference gain (cm)	1.0	0.9	0.0018*

*P value <0.05 – significant, **p value <0.001 – highly significant

Table 4: Complication-wise distribution of study participants (n=180).

Complications	Full feed (n=90) (%)	Partial feed (n=90) (%)	P value
Abdominal complication	2 (2.22)	3 (3.33)	1.00
Necrotising colitis	0 (0.00)	2 (2.22)	0.497
Diarrhoea	0 (0.00)	3 (3.33)	0.246
Vomiting	9 (10)	12 (13.33)	0.643
Not gaining weight	9 (10)	16 (17.77)	0.195
Other	4 (4.44)	10 (11.11)	0.162

Among full feed babies, 88% were discharged, 3% had taken DAMA and death was noted among 9%. Among partial feed babies, 80% were discharged, 4% had taken DAMA and death was noted among 15%. There was no association noted between the outcome of the two feeding groups (Table 5).

Table 5: Outcome of study participants (n=180).

Outcome	Full feed (n=90) (%)	Partial feed (n=90) (%)
Discharged	79 (87.78)	49 (80.00)
Discharged against medical advice (DAMA)	3 (3.33)	4 (4.44)
Death	11 (8.89)	8 (15.56)

P value=0.83

An average 6.91 ± 2.97 were noted for partial feed babies to reach the full feed (Table 6).

During the 15-days weight assessment, two groups were measured with their respective daily gains and percentage changes in weight. The partial feed group starts at 1.495 kg on day 1, showing an initial weight gain of 0.0855 kg

(+5.72%) by day 3. During follow up this group experiences weight fluctuations, with slight losses recorded on day 5 (-0.017 kg, -1.08%), day 7 (-0.018 kg, -1.15%) and a more by day 9 (-0.0455 kg, -2.94%). Overall, the partial feed group demonstrated weight changes, including periods of loss and recovery, with a final weight of 1.6455 kg. The full feed group starts at 1.8815 kg and demonstrates consistent daily gains. By day 3, the group gains 0.006 kg (+0.32%) and continues towards steady progress, with slight increases of 0.003 kg (+0.16%) on day 5, 0.0135 kg (+0.71%) on day 7, and 0.0085 kg (+0.45%) on day 9. Notable gain occurs by day 11, with an increase of 0.044 kg (+2.30%), followed by smaller and steady gains of 0.022 kg (+1.12%) on day 13 and 0.033 kg (+1.67%) on day 15. The full feed group does not experience any weight loss and maintains consistent growth throughout the study period, reaching a final weight of 2.0115 kg. The partial feed group undergoes significant fluctuations with both gains and losses, the full feed group exhibits more stable and gradual growth. This suggests that full feeding leads to more predictable and sustained weight gain, resulting in a higher 15 day's weight than the partial feed group (Table 7).

The length measurement of two groups, over 15 days, with their respective daily gains and percentage increases shows that the partial feed group starts at a length of 41.1 cm on day 1, showing no change by day 3. From day 5 onward, the group noted a consistent increase of +0.050 cm every two days, resulting in a total length of 41.4 cm by day 15, reflecting an overall growth of +0.12% per time point. The full feed group begins at 42.37 cm on day 1,

with no growth by day 3. A steady gains of +0.050 cm every two days, reaching 42.675 cm by day 15 in this group. The percentage gain in both groups is noted similar +0.12% at day 15. Both feeding groups follow the same growth pattern in terms of length, with consistent and equivalent gains throughout the study, indicating no notable difference in length increase between partial and full feed groups by the end of the 15-day period (Table 8).

Table 6: Mean days to reach full feed.

Reached full feed	Partial feed (n=90)
Mean days	6.91±2.97

The changes in head circumference (HC) for two groups during the 15-days period. Over a 15-day period, the partial feed group which starts with an HC of 29.8 cm and shows no change by day 3. By day 5, there is a small increase of +0.050 cm (+0.17%), followed by another gain on day 9. Growth continues steadily until day 11, after which the head circumference stabilizes at 29.95 cm, with no further increases through day 15.

Full feed group begins at 31.675 cm and shows no growth by day 3. On day 5, the group experiences a gain of +0.050 cm (+0.16%), with subsequent increases on day 9 and day 13. By day 15, the head circumference stabilizes at 31.825 cm. Both groups demonstrate similar patterns of growth followed by stabilization towards the end of the study (Table 9).

Table 7: Daily weight gain and % gain among partial feed and full feed group.

Time point	Partial feed			Full feed		
	Weight (kg)	Daily gain (kg)	% Gain	Weight (kg)	Daily gain (kg)	% Gain
Day 1	1.495	-	-	1.8815	-	-
Day 3	1.5805	+0.0855	+5.72	1.8875	+0.0060	+0.32
Day 5	1.5635	-0.0170	-1.08	1.8905	+0.0030	+0.16
Day 7	1.5455	-0.0180	-1.15	1.9040	+0.0135	+0.71
Day 9	1.5000	-0.0455	-2.94	1.9125	+0.0085	+0.45
Day 11	1.5975	+0.0975	+6.50	1.9565	+0.0440	+2.30
Day 13	1.6355	+0.0380	+2.38	1.9785	+0.0220	+1.12
Day 15	1.6455	+0.0100	+0.61	2.0115	+0.0330	+1.67

Table 8: Daily length gain and % gain among partial feed and full feed group.

Time point	Partial feed			Full feed		
	Weight (kg)	Daily gain (kg)	% Gain	Weight (kg)	Daily gain (kg)	% Gain
Day 1	41.1	-	-	42.375	-	-
Day 3	41.1	+0.0000	+0.00	42.375	+0.0000	+0.00
Day 5	41.15	+0.0500	+0.12	42.425	+0.0500	+0.12
Day 7	41.2	+0.0500	+0.12	42.475	+0.0500	+0.12
Day 9	41.25	+0.0500	+0.12	42.525	+0.0500	+0.12
Day 11	41.3	+0.0500	+0.12	42.575	+0.0500	+0.12
Day 13	41.35	+0.0500	+0.12	42.625	+0.0500	+0.12
Day 15	41.4	+0.0500	+0.12	42.675	+0.050	+0.12

Table 9: Daily HC gain and % gain among partial feed and full feed group.

Time point	Partial feed			Full feed		
	HC (cm)	Daily gain (kg)	% Gain	HC (cm)	Daily gain (kg)	% Gain
Day 1	29.8	-	-	31.675	-	-
Day 3	29.8	+0.0000	+0.00	31.675	+0.0000	+0.00
Day 5	29.85	+0.0500	+0.17	31.725	+0.0500	+0.16
Day 7	29.85	+0.0000	+0.00	31.725	+0.0000	+0.00
Day 9	29.9	+0.0500	+0.17	31.775	+0.0500	+0.16
Day 11	29.95	+0.0500	+0.17	31.775	+0.0000	+0.00
Day 13	29.95	+0.0000	+0.00	31.825	+0.0500	+0.16
Day 15	29.95	+0.0000	+0.00	31.825	+0.0000	+0.00

DISCUSSION

This study provides a comprehensive comparison between early full enteral feeding and conventional partial enteral feeding in preterm babies born between 28 and 34 weeks of gestation. The findings highlight several key areas where full enteral feeding offers significant advantages over partial feeding.

Out of the 180 study participants, a comparison was done between 90 babies on full feeding and 90 on partial feeding. A similar study was conducted by Nangia et al with a similar sample size and study groups.¹³ The initiated Feeds as total enteral feeds in the ETEF group and as minimal enteral nutrition (20 ml/kg) in the CEF group.

In this study, gender distribution was equal among full-feed babies. Minor female predominance was seen in partial-feed babies. A similar finding for gender distribution was noted by Nangia et al and they also found no significant difference between gender and feeding type.¹³

In this study, the mean gestational age was 34.03 ± 2.98 and 31.96 ± 3.00 weeks among partially feed babies. There was a significant difference between the gestational age of the two groups. Contrary to this Nangia et al found an association between gestational age and feeding groups.¹³

One of the most significant barriers to initiating and advancing enteral feeding in preterm infants is fear of NEC. The study also demonstrates a clear reduction in complications among infants receiving One of the most significant barriers to initiating and advancing enteral feeding in preterm infants is fear of NEC. The study also demonstrates a clear reduction in complications among infants receiving full enteral feeding. Notably, the full-feeding group experienced fewer instances of abdominal complications, vomiting, and other health issues.

Importantly, there were no cases of NEC in the full-fed group, whereas the partial-feeding group had a 3% incidence rate of NEC. This finding is significant as NEC is a severe and often fatal condition in preterm infants. The lower complication rates in the full feeding group

suggest that early full enteral feeding is not only safe but may also provide a protective effect against certain gastrointestinal complications. Nangia et al noted a greater proportion of NEC among partially feed groups.¹³

The study further indicates improved survival and discharge rates in the full- feeding group. With 88% of full-fed infants being discharged compared to 80% in the partial feeding group and a lower mortality rate (9% versus 15%), the data suggest that full enteral feeding may contribute to better overall clinical outcomes. This could be attributed to the enhanced nutritional status and reduced incidence of complications in the full-fed infants significant association was noted between death and two feeding groups and a similar finding was noted by Nangia et al.¹³

Thoene et al noted that enteral feeding, especially early initiation and more rapid enteral advancement, impact preterm infant health during the first one month of life by enhancing micronutrient delivery, promoting intestinal development and maturation, stimulating microbiome development, reducing inflammation, and enhancing brain growth and neurodevelopment.¹⁴ Terefe et al noted that neonates whose birth weight was between 1500 and 2499 gram attains full enteral feeding at a median postnatal day of 4 while those whose BW was between 1000 and 1499 gram reached at FEF at their median age of 11 postnatal days (95% CI: 9–12).¹⁵

One of the most notable outcomes of this study is the superior growth metrics observed in the full feeding group. Infants receiving full enteral feeding had higher mean gains in weight, length, and head circumference compared to those receiving partial feeding. These differences underscore the potential of full feeding to better support the nutritional needs and overall growth of preterm infants.

Adequate nutrition during the neonatal period is critical for the development of vital organs and long-term health outcomes. The enhanced growth parameters in the full-fed group suggest that early full enteral feeding may help mitigate the growth restrictions commonly observed in preterm infants.

Liu et al noted that early enteral feeding may improve the health outcomes of preterm infants.¹⁶ These findings have significant implications for neonatal care practices. Early full enteral feeding appears to provide numerous benefits, including improved growth, reduced complications and quicker achievement of full feeds which collectively enhance the overall health and development of preterm infants.

Limitations

While this study offers important insights, it has several limitations. Specifically, it does not examine long-term developmental outcomes, which are essential for comprehensively understanding the impact of early full enteral feeding on preterm infants. Future research should prioritize larger, multicentric trials to validate these findings and investigate the long-term benefits and potential risks associated with full enteral feeding.

CONCLUSION

This study concludes that full enteral feeding is more beneficial approach in the nutritional management of preterm infants leading to improved growth in terms of weight, length and head circumference gain. Early full enteral feeding in preterm newborns (28-34 weeks) appears to be associated with better growth outcomes, lesser complications and a quicker transition to full feeding compared to conventional partial feeding.

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REFERENCES

- Berghella V. Preterm birth: Prevention and management. 1st Edition. Chichester, England: Wiley-Blackwell. 2010.
- Institute for Health Metrics and Evaluation. GBD Results. Available at: <http://ghdx.healthdata.org/gbd-results-tool>. Accessed on 23 May 2024.
- Dutta S, Singh B, Chessell L, Wilson J, Janes M, McDonald K, et al. Guidelines for feeding very low birth weight infants. *Nutrients*. 2015;7(1):423-42.
- SIFT Investigators Group. Early enteral feeding strategies for very preterm infants: current evidence from Cochrane reviews. *Arch Dis Child Fetal Neonatal Ed*. 2013;98(6):F470-2.
- World Health Organization. WHO Technical Review on Optimal Feeding of Low Birth Weight Infants. Available at: https://iris.who.int/bitstream/handle/10665/43602/9789241595094%20_eng.pdf?sequence=1. Accessed on 23 May 2024.
- Kleinman RE, Greer FR, editors. *Paediatric Nutrition*. 8th Edition. American Academy of Pediatrics. 2019.
- Chitale R, Ferguson K, Talej M, Yang WC, He S, Edmond KM, et al. Early Enteral Feeding for Preterm or Low Birth Weight Infants: a Systematic Review and Meta-analysis. *Pediatrics*. 2022;150(1):e2022057092E.
- National Institute for Health and Care Excellence (NICE). Neonatal parenteral nutrition. 2020. Available at: <https://www.nice.org.uk/guidance/ng154>. Accessed on 23 May 2024.
- Abiramalatha T, Thomas N, Thanigainathan S. High versus standard volume enteral feeds to promote growth in preterm or low birth weight infants. *Cochrane Database Syst Rev*. 2021;3(3):CD012413.
- Walsh V, Brown JVE, Copperthwaite BR, Oddie SJ, McGuire W. Early full enteral feeding for preterm or low birth weight infants. *Cochrane Database Syst Rev*. 2020;12(12):CD013542.
- Young L, Oddie SJ, McGuire W. Delayed introduction of progressive enteral feeds to prevent necrotising enterocolitis in very low birth weight infants. *Cochrane Database Syst Rev*. 2022;1(1):CD001970.
- Kennedy KA, Tyson JE, Chamnanvanikij S. Early versus delayed initiation of progressive enteral feedings for parenterally fed low birth weight or preterm infants. *Cochrane Database Syst Rev*. 2000;(2):CD001970.
- Nangia S, Bishnoi A, Goel A, Mandal P, Tiwari S, Saili A. Early Total Enteral Feeding in Stable Very Low Birth Weight Infants: A Before and After Study. *J Trop Pediatr*. 2018;64(1):24-30.
- Thoene M, Anderson-Berry A. Early Enteral Feeding in Preterm Infants: A Narrative Review of the Nutritional, Metabolic, and Developmental Benefits. *Nutrients*. 2021;13(7):2289.
- Terefe A, Demtse A, Abebe F, Mislu E, Tachbele E. Predictors of time to full enteral feeding in low birth weight neonates admitted to neonatal intensive care unit: a prospective follow up study. *BMC Pediatr*. 2024;24(1):64.
- Liu K, Abudusalamu A, Yang J, Su Y. Effectiveness of early enteral feeding on health outcomes in preterm infants: an overview of systematic reviews. *Eur J Clin Nutr*. 2023;77(6):628-36.

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