CHRD 2021: Abstract & Poster Submission Form

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Research Category:

○ Basic Science

○ Clinical

⊙ Community Health / Policy

What was your role in the project?

☐ Design

☐ Perform Experiments

☐ Analyze Data

☑ Write Abstract

☑ Data collection, interpretation of results

Presenter Status:

⊙ Undergraduate Students

○ Masters Student

○ PhD Student

○ Post-Doctoral Fellows

○ Residents

○ Non-Trainee

Title

Nutritional trends and perinatal factors associated with feeding mother's-own-(breast)milk among preterm babies admitted to NICU.

Background

Prematurity is the leading cause of death in neonates globally, with significant risk of short- and long-term morbidity amongst survivors. Despite known benefits of maternal breast milk in reducing morbidity of prematurity and improving outcomes, breastfeeding amongst preterm infants – those who would benefit most from breastfeeding – remains understudied.

Objective

Our objective was to quantify trends, volumes, and perinatal factors associated with feeding of mothers-own-(breast) milk, or "MOM", amongst preterm neonates admitted to NICU.

Methods

This was a retrospective cohort study (2010-2019). Neonates born <32 weeks and admitted to NICU with stored nutrition profiles were eligible for inclusion. Information about daily feeding patterns (volume and source(s)), maternal demographics, birth data, and postnatal conditions were abstracted using standard data collection forms. Descriptive and inferential statistics (Chi-square, student t-, Wilcoxon rank sum tests) were used to analyze results and compare groups.

Results

436 newborns met eligibility criteria and after exclusions, 372 were included in the final analysis. While 87.9% of neonates had MOM feeds initiated, only 53.5% continued MOM until discharge. Over the study period, there was a significant decline in both initiation (p=0.002) and continuation of MOM (p<0.0001). Factors positively associated with continued MOM included older maternal age (p=0.0002), primiparity (p=0.002) and early initiation of MOM. Continuation of MOM was associated with earlier date of first MOM feed and higher volumes of MOM production (p<0.004): volume of MOM on Day 7 of admission was significant in predicting continuation to discharge. Factors negatively associated with continuation of MOM to discharge included high BMI (p=0.009), cigarette smoking (p=0.004), substance abuse (p=0.0001), multiples (p=0.038), and remote residence (p=0.002).

Conclusion

Early initiation of MOM improves continuation throughout NICU admission until discharge. Further investigation into barriers of MOM continuation and targeted supports for mothers (particularly those that are younger, multiparous, and/or from remote locations) are urgently needed.

Authors

- For each author, please click "**[+] Add Item**" and provide the author's information

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