



# Umbilical Cord Milking versus Delayed Cord Clamping

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## Introduction

- Intraventricular hemorrhage affects approximately 20% of preterm neonates and there is no specific treatment
- Umbilical cord milking is a process where after an infant's birth, the umbilical cord is grasped and squeezed firmly to the infant from the placenta to facilitate blood flow prior to clamping.
- Delayed cord clamping has personnel wait anywhere from 25 seconds to 5 minutes to give time for blood to transfer from the placenta

## PICOT

Among preterm neonates, does umbilical cord milking compared to delayed cord clamping decrease incidence of intraventricular hemorrhage?

## Methods

**Database:** PubMed

**Keywords:** "neonate" AND "cord milking" AND "hemorrhage"

**Inclusion criteria:** Published 2014 to 2024, clinical trial, free full text, English

**Exclusion criteria:** PICOT elements not the focus of the study and authors were not the primary researchers.

**Results:** Five articles were chosen for evidence review.

## Acknowledgements

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## Evidence Summary

Authors (year)	Results and Recommendations	Level Quality
Atia et al. (2022)	UCM and DCC are equally efficient at placental transfusion, but UCC causes more comorbidities and interventions	Level I B
El-Naggar et al. (2021)	For the first 12 hours of age, UCM and ECC showed no difference in blood flow for both cerebral arteries.	Level I B
Jaiswal et al. (2015)	UCM had a statistically significant occurrence of severe IVH in the categories of gestational age 23-27+6 weeks and vaginal deliveries.	Level I A
Katheria et al. (2019)	UCM had more severe IVH cases in preterm infants and vaginal births which caused early cancellation and post hoc analysis.	Level I C
Katheria et al. (2020)	UCM resulted in more severe IVH cases and lower SpO2 levels.	Level I B

## Conclusion

- Two studies found UCM inferior
- Three studies said UCM and DCC are equally effective
- Two studies had a small sample size
- None of the studies had a control group
- This research can be used as a reason to keep DCC as the common practice
- DCC compared to other cord methods and UCM in full term infants are possible future research topics

## Implications for Nursing Practice and Role of CNL

The evidence is not sufficient to alter current practice. Therefore, a CNL can use their unique position to develop and disseminate a policy for clear guidance on managing cord handling and cutting. Future research should analyze the effects on full term infants. Nurses should monitor for research updates and use them to adapt policy to reflect the best evidence-based research.

## References



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