

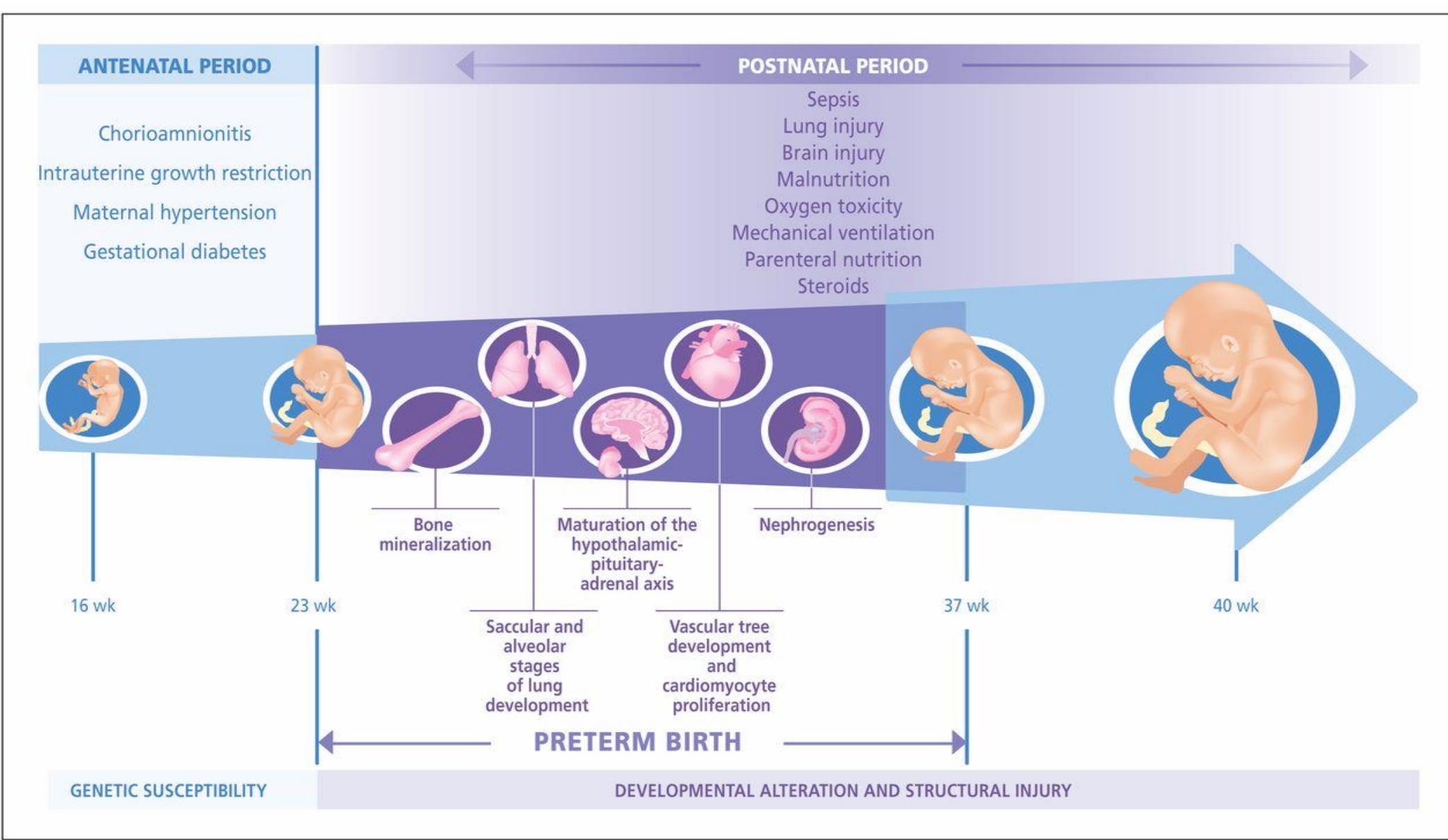
Authors: Moonsun Bharj⁽¹⁾, Mia Ashley⁽¹⁾, Yatra Kapatel⁽²⁾, Sana Mughal⁽²⁾, Janavi Shah⁽³⁾, Stamatina Ilodromiti⁽¹⁾, Steve Thornton⁽¹⁾.

Affiliations: 1: Queen Mary, University of London, London, UK. 2: Royal Holloway, University of London, London, UK. 3: NHS, Surrey, UK

Introduction

Preterm Birth (PTB):

- Delivery before 37 weeks gestation
- Leading cause of mortality in under 5s with ~900,000 babies were born preterm in 2020⁽¹⁾.

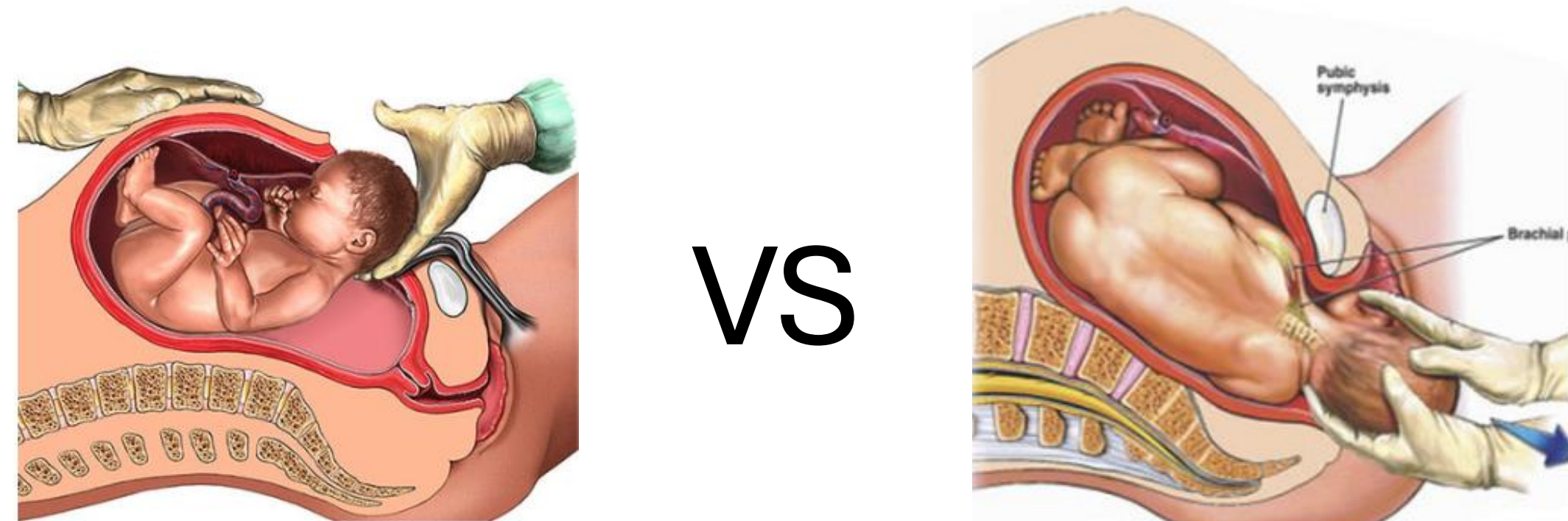


Problem:

- Increased risk of morbidity and mortality with decreased gestational age.
- No clear guidelines on optimal MOD in PTB⁽²⁾.

AIM:

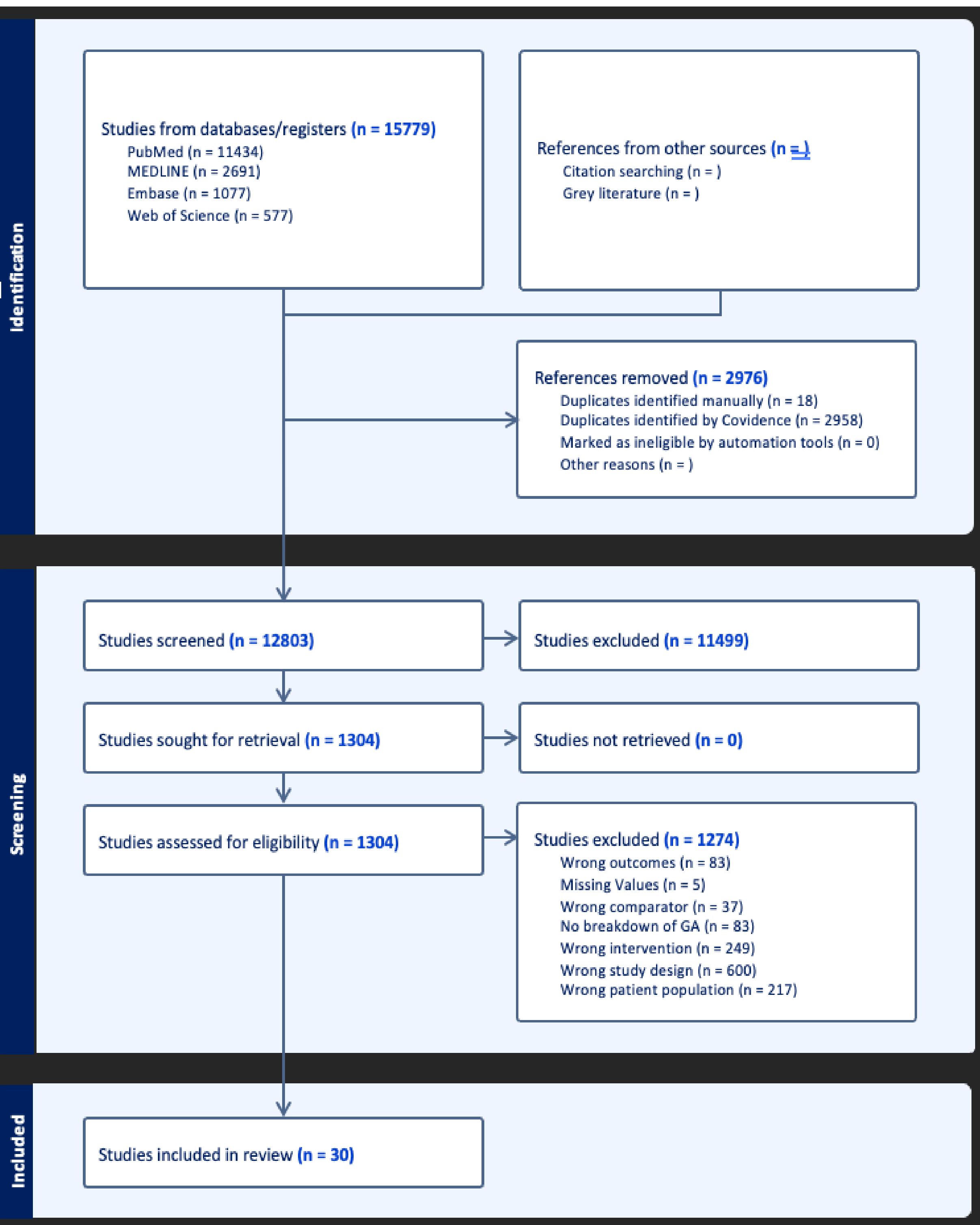
To determine the most appropriate MOD in extremely preterm infants (<28 weeks), very preterm infants (29-32 weeks), and moderate to late preterm infants (33-37 weeks).



Methods

PICO Framework:

- **Population:** Pregnant women at risk of giving birth preterm.
- **Intervention:** MOD (CD vs VD).
- **Comparison:** MOD between WHO gestational age categories (GACs).
- **Outcomes:** Neonatal mortality, APGAR Score <7 at 5 minutes RDS, BPD, ICH, NEC, Hypoxia, NICU stay and potential adverse neurodevelopmental outcomes at follow-up.



Results

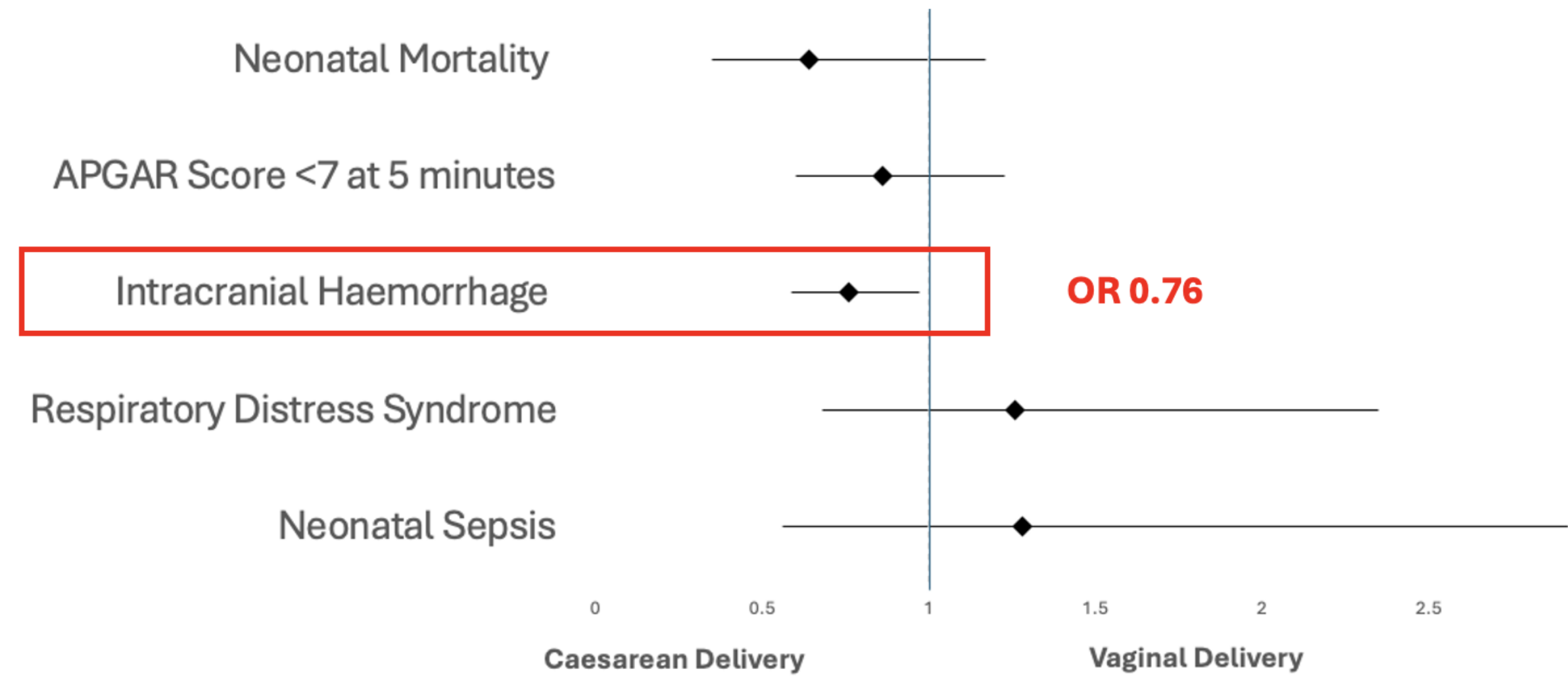


Figure 1. Forest plot: Odds ratios of Neonatal Outcomes in Extreme Preterm Birth (<28 Weeks)

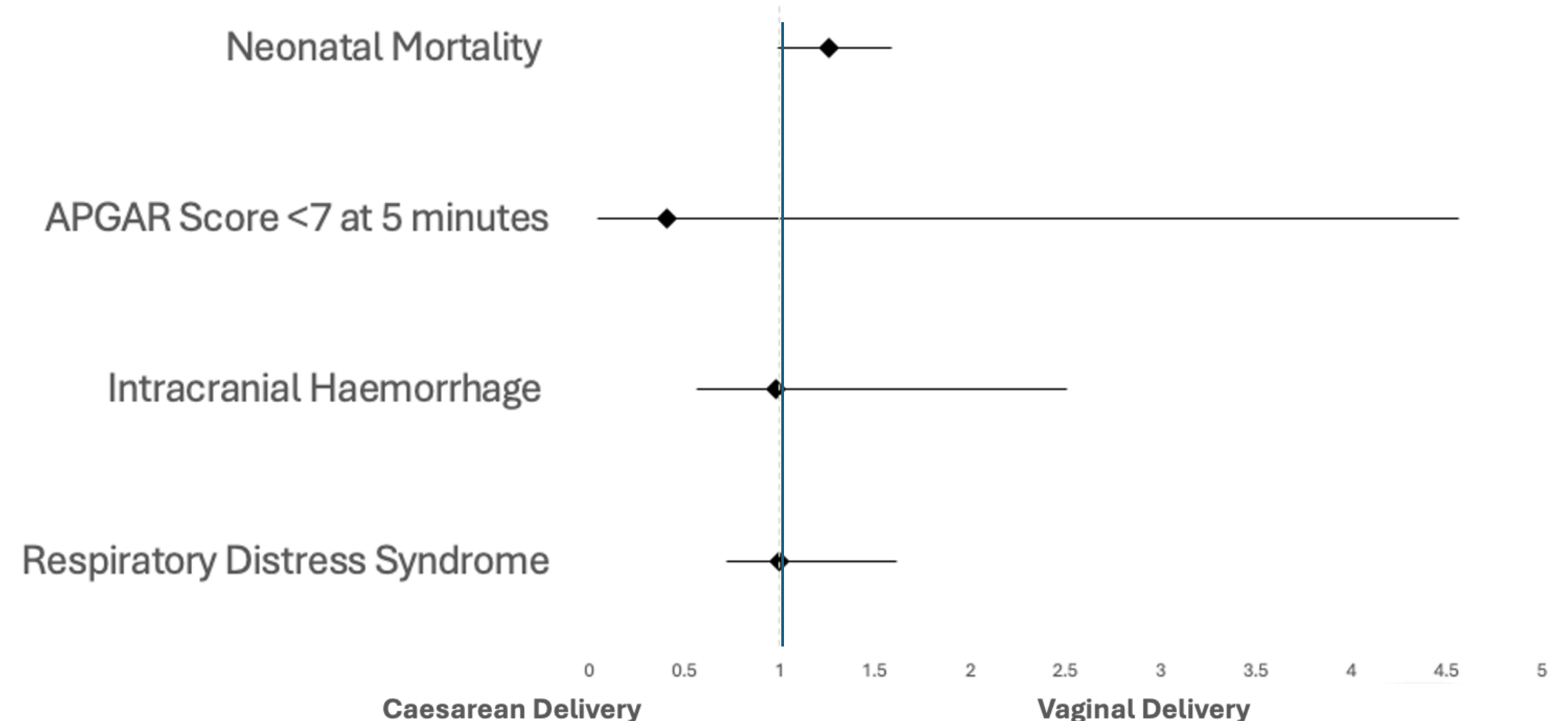


Figure 2. Forest plot: Odds ratios of Neonatal Outcomes in Very Preterm Birth (28-32 Weeks)

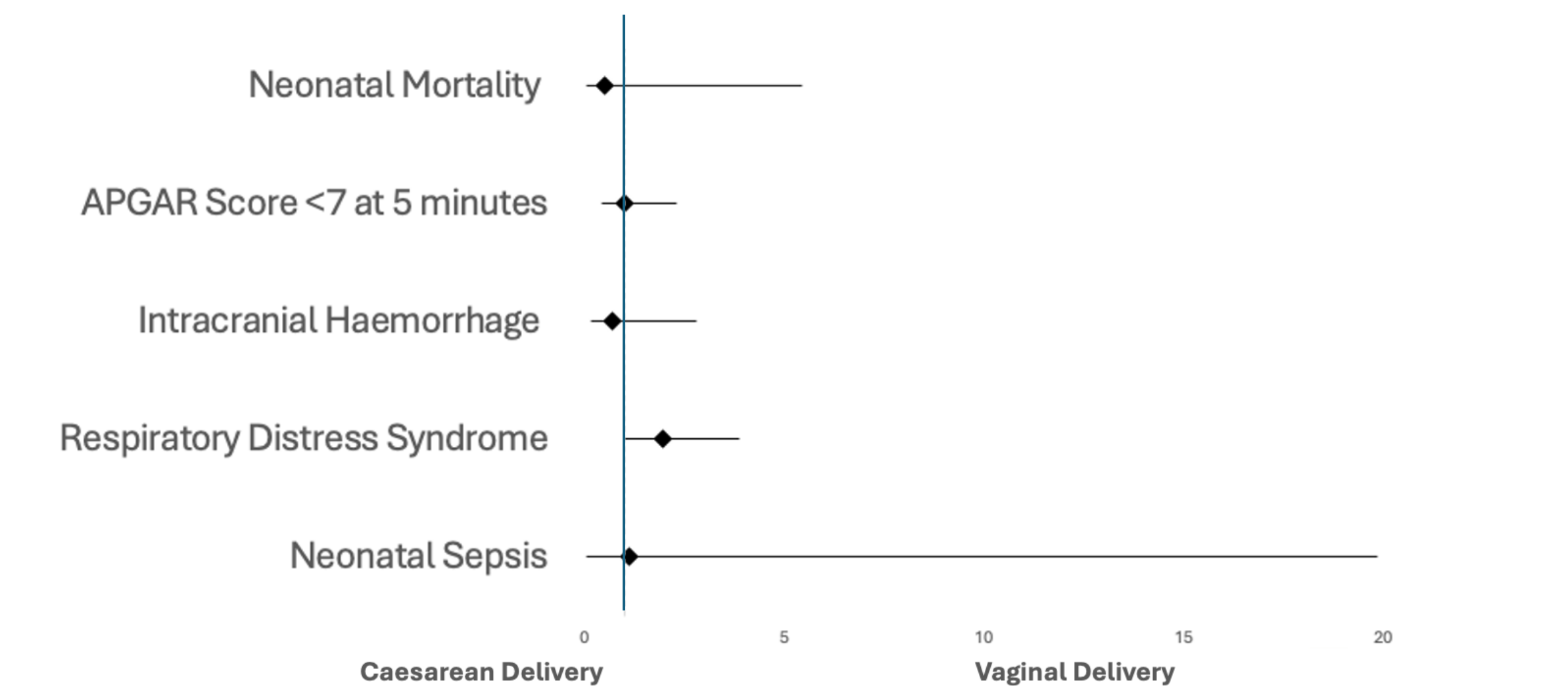


Figure 3. Forest plot: Odds ratios of Neonatal Outcomes in Moderate to Late Preterm Birth (32-37 Weeks)



Figure 4. Forest plot: Odds ratios of Neonatal Outcomes in Extreme Preterm Birth and Breech Presentation (<28 Weeks)

Discussion/ Conclusions

- **Caesarean section:** associated with a reduction in the risk of intracranial haemorrhage in <28 weeks
- **Caesarean section:** associated with a lower risk of neonatal mortality in <28 weeks with breech presentation
- **Limitations:** adjustment for maternal and foetal confounders

References

1. Perin J, Mulick A, Yeung D, Villavicencio F, Lopez G, Strong KL, et al. Global, regional, and national causes of under-5 mortality in 2000-19: an updated systematic analysis with implications for the Sustainable Development Goals. *Lancet Child Adolesc Health*. 2022 Feb;6(2):106-15.
2. Racusin D, Antony K, Haase J, Bondy M, Aagaard K. Mode of Delivery in Premature Neonates: Does It Matter? *American Journal of Perinatology Reports*. 2016 Jul 22;06(03):e251-9.