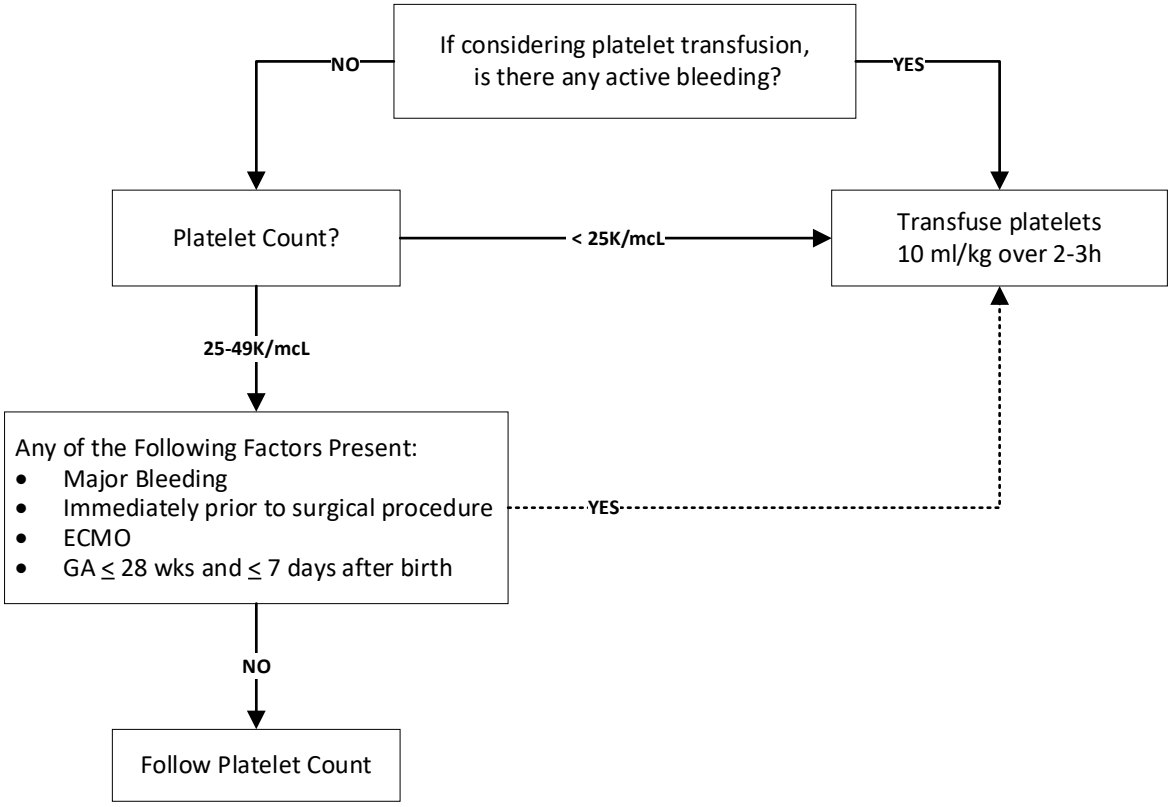
Neonatal Platelet Transfusion

Background

There is no clear evidence that prophylactic administration of platelet transfusions to non-bleeding preterm neonates with severe thrombocytopenia reduces or prevents bleeding. On the contrary, there is evidence for potential harm associated with unnecessary platelet transfusions in neonates[1]. Infants randomized to a higher platelet transfusion threshold of 50 K/mcL compared with 25 K/mcL had a higher rate of death or significant neurodevelopmental impairment at a corrected age of 2 years supporting evidence of harm caused by high prophylactic platelet transfusion thresholds in preterm infants[2].



Considerations

- Platelet transfusions should be administered to thrombocytopenic neonates with active bleeding.
- High-risk, critically ill neonates benefit from the lower platelet prophylaxis threshold as much as low-risk, stable neonates[3].

References

1. Sola-Visner M, Leeman KT, Stanworth SJ. Neonatal platelet transfusions: New evidence and the challenges of translating evidence-based recommendations into clinical practice. J Thromb Haemost. 2022 Mar;20(3):556-564. doi: 10.1111/jth.15664. Epub 2022 Feb 16. PMID: 35112471.
2. Moore CM, et al. Arch Dis Child Fetal Neonatal Ed 2023;0:F1–F6. doi:10.1136/archdischild-2022-324915
3. Davenport, P., & Sola-Visner, M. (2021). Hemostatic Challenges in Neonates. *Frontiers in pediatrics*, *9*, 627715. https://doi.org/10.3389/fped.2021.627715