

Platelet transfusion practices among neonatologists in Saudi Arabia: A nationwide crosssectional survey

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Abstract: The etiologies of thrombocytopenia are highly diverse; however, early neonatal thrombocytopenia might be more common among extremely low-weight neonates. Therefore, in this study, we aimed to examine the current neonatal platelet (PLT) transfusion practices in Saudi Arabia. This is a cross-sectional online survey study that was conducted between October and December 2022. Convenience sampling was used to recruit the participants. In this study, we developed a questionnaire based on an extensive literature review to examine current neonatal PLT transfusion practices. A total of 81 neonatologists participated. The vast majority of them (85.2%) were practicing in a level 3 neonatal intensive care unit, with 60.0% of them reporting that they transfuse PLTs over 1 hour. Around 53% reported that they typically order 10 mL/kg per PLT transfusion. Up to 34.6% of the study participants reported that they use pooled whole-blood-derived PLT products in their practicing unit. Almost half (48.0%) of the study participants reported that they have written guidelines for PLT transfusion in their practicing unit, with 81.1% reporting that the PLT transfusion threshold was stated in the guidelines. Neonatal thrombocytopenia is typically treated with PLT transfusions. PLT transfusion criteria should be lowered in light of recent evidence suggesting that doing so may be counterproductive. However, there is some disagreement about whether a PLT count constitutes a medical emergency requiring a transfusion for a newborn baby. Furthermore, there is a great deal of variation in the administration of PLT infusions in Saudi Arabia because of the absence of clear protocols. Strict neonatal PLT transfusion standards and carefully planned clinical research are needed to address the risks and/or benefits of these diverse methods.