



ENDORSEMENT: Executive Summary of Recommendations and Expert Consensus for Plasma and Platelet Transfusion Practice in Critically Ill Children: From the Transfusion and Anemia EXpertise Initiative-Control/Avoidance of Bleeding (TAXI-CAB).

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Recent observational studies estimate that 10-15% of children admitted to a pediatric intensive care unit (PICU) have at least one episode of clinically relevant bleeding. Critically ill pediatric patients often also receive both platelet and plasma transfusions to either treat or prevent bleeding, where literature suggests over two-thirds of these transfusions occur in the absence of bleeding. Bleeding and blood transfusion are independently associated with adverse clinical outcomes including longer length of mechanical ventilation, increased infections, and mortality. Given the lack of guidance in critically ill pediatric patients, the TAXI-CAB initiative was formed through the Pediatric Critical Care Blood Research Network of the Pediatric Acute Lung Injury and Sepsis Investigators Network; to develop evidence-based recommendations where possible. The submitted guidelines primarily focus on expert consensus-based statements given the lack of evidence to inform evidence-based recommendations.

Two transfusion medicine experts from the NAC and four pediatric transfusion medicine experts independently utilized the AGREEII (Appraisal of Guidelines for Research and Evaluation) tool to assess the methodological rigour and quality in which the guideline was developed, in accordance with the process detailed in the *NAC Guideline Endorsement Framework*. The guideline achieved scores deemed acceptable by NAC membership, achieving at least 50% in all Domains and a minimum score of 70% in the Domain of Rigour of Development (Domain 3).

The NAC endorses the TAXI-CAB recommendations for evidence-based practice with caveats. The caveat is that reviewers above recognized the authors were highly hampered by the lack of evidence, but broadly agreed with the recommendations themselves. This may limit clinical impact but also highlight gaps for future research. The AGREEII tool identified opportunities for improvement in a future update including: a procedure for updating, more guidance in regards to implementation, incorporating views and preferences of the target population and/or their caregivers, external review of the guidelines, and a monitoring/auditing framework.

Guideline Citation: Nellis ME et al. Executive Summary of Recommendations and Expert Consensus for Plasma and Platelet Transfusion Practice in Critically Ill Children: From the Transfusion and Anemia EXpertise Initiative-Control/Avoidance of Bleeding (TAXI-CAB). *Pediatr Crit Care Med*. 2022 Jan 1;23(1):34-51.

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