

Clinical Practice Guidelines

Use of Blood Components in Newborns

January 2020

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Contents

1. Executive Summary
2. Introduction
3. Scope and Questions for clinical practice
4. Summary of evidence and recommendations
5. References

Annexure 1. GRADE profile tables and search strategies - see online version

Annexure 2. Algorithms and job-aides - see online version

Table 1: Summary of Recommendations for use of blood components in newborns

S.No.	Recommendations	Strength of recommendations	Quality of evidence
1.	Restrictive threshold packed red blood cell transfusion approach is strongly recommended in preterm neonates.	Strong	Moderate
2.	In neonates requiring packed red blood cell transfusion, smaller volume (10-15 ml/kg) is preferred.	Weak	Low
3.	Use of "fresh (< 7 days old) packed red blood cell only" for the transfusion is not recommended. The units should follow the existing standard practice used by the blood bank for issuing packed red blood cell (oldest first).	Strong	High
4.	Use of irradiated packed red blood cells and other cellular blood components is strongly recommended. It is more important to use irradiated products only in situations where the volume transfused is quite large (> 20 ml/kg).	Strong	Low
5.	The enteral feeds should be withheld in preterm neonates during packed red blood cell transfusion. The feed should be withheld three hours prior until the end of transfusion.	Weak	Moderate
6.	Provision of CMV safe blood for transfusion in preterm neonates by using CMV seronegative donors or leucoreduction or a combination of both is strongly recommended. For intrauterine transfusions use of CMV negative and leucodepleted packed red blood cell is strongly recommended.	Strong	Low
7.	A higher threshold (platelet count <25000/mm ³) should be used for prophylactic platelet transfusions for prevention of major bleeding in preterm neonates.	Strong	Moderate
8.	In neonatal alloimmune thrombocytopenia (NAIT), maintaining platelet count >30,000/mm ³ is strongly recommended.	Strong	Very low
9.	The routine use of platelet transfusion for PDA closure in thrombocytopenic preterm neonates with hsPDA is not recommended.	Weak	Moderate

10.	The routine use of prophylactic fresh frozen plasma in preterm neonates is not recommended.	Strong	Low
11.	Prophylactic fresh frozen plasma transfusion (FFP) is not recommended in non-bleeding neonates receiving therapeutic hypothermia and having deranged coagulation parameters.	Strong	Moderate
12.	Neonates with deranged coagulation parameters and planned for surgical or invasive procedure should receive Fresh Frozen Plasma.	Strong	Very low
13.	Fresh Frozen Plasma(FFP) transfusion is preferred over Cryoprecipitate in the management of Disseminated Intravascular Coagulation. <i>Cryoprecipitate may be used if there is persistent hypofibrinogenemia (<1.0 g/L) despite FFP transfusion, rapidly falling fibrinogen, or major hemorrhage.</i>	Weak, Conditional	Low
14.	Routine coagulation profile screening for neonates admitted in the NICU is not recommended.	Strong	Very low