Blood use on delivery suite: rational or extravagant?

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Introduction
Blood products are a valuable and costly resource. Guidelines have recommended Haemoglobin (Hb) of 7g/dl as a transfusion trigger (1). Obstetric studies show a tendency to over transfusion and anaemia pre-delivery is a preventable risk factor for transfusion (2). Over transfusion exposes the patient to risks eg: ABO incompatibility, infection.

Method
A 2 year retrospective audit of packed red cell (PRC) transfusion on delivery suite (3800 deliveries/year) was performed. The standard was a transfusion trigger of Hb 7g/dl (1). Pre- and post-transfusion Hb and indications for transfusion were obtained.

Results
- Total 128 transfusion episodes (TE)
- 290 units (£131/unit = £37,990) transfused (average 2.26 units/episode, range 1– 6)
- 20(15%) TE had pre-transfusion Hb<7g/dl
- 30 TE(23%) had pre-transfusion Hb>10g/dl (15 of these, transfused 37 units total, had post-transfusion Hb>10g/dl)
- 61 TE(47%) had post-transfusion Hb 8-10g/dl
- 52 TE(40%) had post-transfusion Hb>10g/dl (transfused 142 units total)
- 9 TE had Hb recorded >5 days pre-transfusion
- 36 TE had Hb recorded >2 days post-transfusion
- Poor indications on requests for transfusion

Conclusion
This audit showed
- Over transfusion
- Post-transfusion Hb check not done for all TEs
- Potential for saving costs from 13%-53% [(37x131) £4847-£18,602 (142x131)] and reducing risks with use of guidelines

References
1. AAGBI guidelines. Red Cell Transfusion 2001