

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 2.26units/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 37units 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 142units total)
- 9 TE had Hb recorded >5days pre-transfusion
- 36 TE had Hb recorded >2days 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
2. Silverman JA, Barrett J, Callum JL. The appropriateness of red blood cell transfusion in the peripartum patient. Obstetrics and Gynecology 2004; 104:1000-1004