

ABSTRACT

EVALUATION OF BLOOD UTILIZATION PRACTICE IN OBSTETRICS- A PROSPECTIVE STUDY

Background: The optimal blood usage in modern therapeutics avoids transfusion risks and aid better blood inventory management. The maximum blood utilization in the developing country is for the Obstetrics. Frequent requests are made to cross-match units as a precautionary measure for Caesarean Sections in patients with anticipated blood loss, resulting in wastage of health care resources. Hence, studying the current Clinical Transfusion Practice in Obstetrics would ensure the appropriate blood usage in modern health care services.

Aim and Objectives: To assess the Red cell utilization in Obstetrics Transfusion Practice and to assess its appropriate use.

Materials & Methods: The study conducted for one year (August 2014-July 2015) on the Obstetrics in-patients for whom blood transfusion requests were given. The requests were processed and cross-matched as per the hospital transfusion guidelines. The data collected on the clinical and blood transfusion particulars of the patients were analyzed for the Red cell usage according to their diagnosis. Blood utilization indices calculated and compared with the standard cut - off values to know the current red cell transfusion practice. The appropriateness of red cell use was assessed by RCOG guidelines for Blood transfusion in Obstetrics, Green-top guidelines no. 47.

Results: Total Obstetrics in-patients for whom requests for cross- match given- 1010. 96% (n=969) of the patients had been transfused with blood components of various combinations. Anemia is the common indication for transfusion (30.1%). A total of 352 Caesarean cases (emergency cases=316, repeat section

cases-142 cases) utilized 505 red cell units. 86.1% of transfused red cell units were for emergency LSCS. C/T Ratio -1.03, Transfusion Probability -96%. Transfusion Index -1.3, Single unit transfusion rate - 61.3%, Whole blood transfusion rate - 6.9% was the outcome of the study. Plasma(497 units used for 88 cases), platelet (191 units used for 34 cases), and cryoprecipitate (26 units used for 3 cases) were issued to 35 cases of APH, 42 cases of PPH, 23 cases of DIC, and 5 cases of HELLP in various combinations. As per RCOG guidelines, 141 patients were inappropriately (28.6%) transfused with RBC units.

Conclusion

The single unit transfusion rate could be kept to a minimum with the optimal correction of anemia during pregnancy. Blood utilization indices were well within normal limits because majority of the blood units (86.1%) transfused were for emergency LSCS. However, inappropriate use of red cell units (28%) can be reduced further by avoiding transfusion in patients with Hb of more than 10 gm% and also in asymptomatic anemic patients with Hb of 8-10 gm%.

Adequate blood inventory always allays Obstetrician's apprehension of blood availability. At the same time, in a developing country like India where demand is always more than its supply, appropriate use of blood components is repeatedly emphasized.

Key Words: cross-match/transfusion ratio(C/T ratio), Transfusion Probability (%T), Transfusion Index (TI), anemia, appropriateness, Hb-hemoglobin.