

## The Study of Blood Consumption for Stem Cell Transplant Patients in Shahid Ghazi Tabatabaei Hospital, Tabriz, Iran

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**Abstract :** Background And Objective: Haematopoietic stem cell transplant is a potentially curative treatment option in various benign and malignant haematological diseases. Patients undergoing stem cell transplant procedure require blood transfusion on a daily basis. Currently, there is paucity of data from developing countries on transfusion practices. This audit was undertaken to determine the consumption of packed red blood cells (PRBCs) transfusion in the bone marrow transplant unit of the Shahid Ghazi Tabatabaei Hospital, Tabriz, Iran. Subjects And Methods: A retrospective audit was conducted for packed red cell transfusion ordering practice over a period from March 2017 to march 2018. All consecutive patients admitted for stem cell transplant procedure for various underlying diseases were included. Outcome measures used in this study were (i) cross match to transfusion (C: T) ratio and (ii) transfusion trigger. Results: During the study period, n=13 patients underwent a haematopoietic stem cell transplant. There were n=10 males and n=3 females. One patient was less than 15 years of age, while rests were adults. Median age $\pm$ SD was 26.5 $\pm$ 14.5 years (12~54 years). The underlying diagnosis included Aplastic anemia (n=4), Thalassemia major (n=1), Multiple Myeloma (n=3), Acute leukemia (n=3), Hodgkin's lymphoma (n=1), PRCA (n=1). Grand total consumption of PRBCs during the study period was 204, while 258 products were crossmatch. The C:T ratio was 1.26. The transfusion trigger was Hb level of less than 8 gr/dl. Conclusion: The results of our BMT unit indicate that the C:T ratio and transfusion trigger is comparable to the international criteria and pioneer country in BMT transplantation. Also, we hope that our blood consumption become less than it is now.

**Keywords :** blood consumption, C: T ratio, PRBCs, stem cell transplant, tabriz, Iran

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