Reviewing the Blood Ordering Schedule in a Tertiary Trauma Center

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Article abstract:

Background: To evaluate the present status of blood utilization and develop practice guidelines in teaching hospitals in Northern Iran.

Methods: We retrospectively analyzed the amount of blood prepared and used preoperatively for 11 elective procedures, from March 2010 to March 2011 in teaching hospitals in Northern Iran. Study variables included the crossmatch transfusion ratio, the transfusion index and transfusion probability. The crossmatch transfusion ratio and the transfusion index were also calculated for each type of elective surgery performed during the study period.

Results: During the study period, 5981 units of blood were crossmatched for 1970 cases. Out of these 1835 units of blood were transfused which means only 31% of blood was utilized while 69% was not needed. The overall crossmatch transfusion ratio for 11 procedures was 31.1 and many procedures were found to have a high transfusion ratio and a low transfusion index.

Conclusion: The introduction of maximum surgical blood-order schedule will lead to a reduction of blood outdating and crossmatch workload. Although routine cross match seems necessary for two elective surgical procedures (coronary artery bypass graft and hysterectomy); in vast majority of elective surgical procedures type and antibody screening is recommended. Keywords: Blood, transfusion, crossmatch, ratio, probability, index.

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