Mehrnoosh Ghandili, Orthop Muscular Syst 2017, 6:3 (Suppl)
DOI: 10.4172/2161-0533-C1-035

A survey on transfusion status in orthopedic surgery at a trauma center

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Background & Aim: Increased costs and mortality associated with inappropriate blood transfusion have led to investigations about blood request and blood transfusion techniques. We investigated the transfusion status in patients who underwent orthopedic surgery in Poursina Hospital (Rasht, Iran) to optimize blood usage and determine if a scheduled transfusion program for every orthopedic surgery could improve transfusion management.

Method: In this descriptive-prospective study, all orthopedic surgeries in Poursina Hospital, Rasht, during April to June 2013 were reviewed. All patient information was recorded, including: Demographics, type of surgery, hemoglobin level, cross-match test, duration of surgery and blood loss and transfusion. Based on the one-way ANOVA and independent samples test analysis, cross-match to transfusion ratio and transfusion possibility, the transfusion index and maximal surgical blood order schedule were calculated to determine blood transfusion status.

Results: Among 872 selected orthopedic surgery candidates, 318 of them were crass-matched and among those, 114 patients received a blood transfusion. In this study, the cross-match to transfusion ratio was 6.4, transfusion possibility 36.47%, transfusion index 0.6 and maximal surgical blood order schedule 0.9.

Conclusion: We found that blood ordering was moderately higher than the standard; so it is highly recommended to focus on the knowledge of evidence based on transfusion and standard guidelines for blood transfusion to avoid over-ordering.

Biography

Mehrnoosh Ghandili is a Medical graduate and has been working in a Pathology Laboratory since 2016 and studying for United States Medical Licensing Examination (USMLE).

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