

## Multivariate predictors of blood transfusion in patients undergoing coronary artery bypass graft in Mashhad, Iran

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[View references \(22\)](#)

### Abstract

**Background:** Determining the factors associated with increased risk of transfusion in coronary artery bypass graft (CABG) surgery can help to decrease the rate of transfusion. This study was performed to determine the rate of blood transfusion in our CABG surgeries and the clinical and demographic variables associated with increased risk of blood transfusion. **Methods:** Data were prospectively collected from patients undergoing CABG surgery in Emam Reza Hospital affiliated to Mashhad University of Medical Sciences in Mashhad, Iran from March 2008 and April 2008. Patients' variables including age, sex, height, weight, body mass index, surface body, estimated blood volume and preoperative hemoglobin concentration in relation to the need for blood transfusion were evaluated. **Results:** Transfusion rate was 44.1%. Whole blood transfusion rate was more than that of packed red blood cells. In 40% of patients, transfusion was 1-2 units. The prediction rule included surgeon and height of patients. **Conclusion:** This study and other transfusion guidelines help to change individual physician behavior and restrict factors in relation to the need for blood transfusion in CABG, such as hemoglobin. These changes result in a major reduction in the transfusion rate. ©Iranian Red Crescent Society.

### Author keywords

Balanced salt solution; Comea; Epithelial cell; Mitomycin - C

### Indexed Keywords

**EMTREE drug terms:** hemoglobin

**EMTREE medical terms:** adult; age; article; blood transfusion; blood volume; body height; body mass; body surface; body weight; controlled study; coronary artery bypass graft; demography; erythrocyte transfusion; female; gender; hemoglobin blood level; human; Iran; major clinical study; male; physician attitude; practice guideline; prediction; preoperative evaluation; prospective study; surgeon; university hospital

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