# Investigating the status of blood usage and wastage in Shohada Kargar Hospital, Yazd, Iran

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## Introduction

Blood components are increasingly used worldwide, and their wastage is a challenge that must be managed. Most blood supplies are used during pregnancy complications, gynecology, trauma, surgery, hemato-oncological diseases, transfusion-dependent hemoglobinopathies, and chronic diseases. Shohada-e-Kargar Hospital is one of the topmost blood consumers in Yazd province, so in this study, we decided to study the trend of blood consumption and wastage in this hospital from 2016 to 2020.

## Materials and Methods

The study was cross-sectional. Using the checklist prepared based on predetermined variables; we referred to the relevant databases in Shahada Kargar Hospital. The required information included the number of blood products requested, issued, discarded, and the type of products that were collected. The data was analyzed using SPSS version 23 and the chi-score test.

## Results

The total number of requested blood components was 15,338 units. Total blood components demand, issued, and used decreased during the study period ($p<0.001$). The highest number of blood component requests was related to surgical wards (8520 units). The most requested product was Red Blood Cells (11800 units). The lowest requested blood component was Cryoprecipitate (542 units). A total of 399 blood components ( 3% of all blood components) were wasted. The ratio of crossmatch to blood transfusion was equal to 1.034.

## Conclusion

The results showed that the demand and use of the blood components had a decreasing trend throughout the years of the study. The ratio of cross-match to blood transfusion was acceptable. It is suggested to use blood optimally and only request it when necessary where there is no substitute for blood to lower costs and preserve blood reserves, thus preventing shortages of blood and improving the outcome of patients.

## Keywords

Blood wastage  usage  Blood component