
Abstract:

BACKGROUND: The importance of adverse reactions in terms of donor safety recently has received significant attention, but their role in subsequent donation behavior has not been thoroughly investigated.

STUDY DESIGN AND METHODS: Six REDS-II blood centers provided data for this analysis. Summary minor and major adverse reaction categories were created. The influence of adverse reactions on donation was examined in two ways: Kaplan-Meier curves were generated to determine the cumulative pattern of first return, and adjusted odds ratios (AORs) for demographic and other factors positively and negatively associated with return were estimated using multivariable logistic regression.

RESULTS: Donors who had major reactions had longer times to return than donors with minor or no reactions. The AOR of returning for donors with major reactions was 0.32 (95% confidence interval [CI], 0.28-0.37) and with minor reactions 0.59 (95% CI, 0.56-0.62) when compared to donors who did not have reactions. Conversely, the most important factors positively associated with return were the number of donations in the previous year and increasing age. Subsequent return, whether a major, minor, or no reaction occurred, varied
by blood center. Factors that are associated with the risk of having adverse reactions were not substantial influences on the return after adverse reactions.

CONCLUSION: Having an adverse reaction leads to significantly lower odds of subsequent donation irrespective of previous donation history. Factors that have been associated with a greater risk of adverse reactions were not important positive or negative predictors of return after a reaction.