



Retrospective Analysis of Donor Deferral Data of Bloodbank of V.S. Hospital

Dr. Anjali Goyal	Associate Professor, Smt. N.H.L. Municipal Medical College, V.S. General Hospital, Ahmedabad-6
Dr. Hitesha Radadia	1st year Resident Doctor, Smt. N.H.L. Municipal Medical College, V.S. General Hospital, Ahmedabad-6
Dr. C.K.Shah	Professor, Smt. N.H.L. Municipal Medical College, V.S. General Hospital, Ahmedabad-6
Dr. Nailesh Shah	Professor and Head of the Department of Pathology, Smt. N.H.L. Municipal Medical College, V.S. General Hospital, Ahmedabad-6

ABSTRACT

INTRODUCTION: Donor deferral causes loss of precious blood donors and availability of blood products. Knowing incidence of deferrals can help to make reliable donor recruitment strategies and knowing causes of deferrals can help to direct efforts for elimination of preventable variables and to decrease deferral incidence.

METHODS & MATERIALS: Deferrals data of donor presenting as voluntary or replacement donors at V.S. blood bank and donation camp for period of 13months (Jan'15 to Jan'16) was analyzed retrospectively.

RESULTS: Out of 16699 donors screened, 1126(6.8 %) donors were deferred. Out of these, most common cause for deferral was low hemoglobin (screening done with CuSO₄ technique) 37.6% of donors were deferred due to it. Second and third most common causes were recent medication (21.5%) and low weight (17.9%) respectively. Other causes were recent history of jaundice (9.8%), alcohol intake (2.4%) and high blood pressure (2.1%). Study showed that female donors (29.1%) deferred more frequently than male donors (6.5%).

CONCLUSION: Incidences of donor deferral can be utilized to direct efficient recruitment and retention strategies. Prevalence of deferral causes and their prevention can promote effective blood donation practice.

KEYWORDS

Donor Deferral, Retrospective Analysis, Low Hb, Recent Medication, Incidence, Prevalence, Efficient Recruitment

INTRODUCTION

Blood donor deferral is a painful and sad experience for the blood donor as well as the blood center screening the donor. These deferrals "bleed" the donor-recruiting efforts of a blood center, necessitating more efforts diverted to new recruitments.¹ Moreover, deferring prospective donors often leaves them with negative feelings about themselves as well as the blood donation process. Additionally these donors are less likely to return for blood donation in future.² Nonetheless; criteria for these deferrals and their implementation strongly influence the quality of blood supply in a population. Thus, every blood centre has to balance the fulcrum between acceptable quality and desired quantity.

Nodal agencies like the National AIDS Control Organization (NACO) and the State Blood Transfusion Councils (SBTCs) formats data collection more inclined toward "quantity" of supply and deferrals due solely to infectious marker positivity in donated units.

As a result most of the efforts at government, community, and individual level are focused at recruiting more and more new donors while ignoring the retention and re-entry of those recruited but deferred due to various causes. This can be achieved by analyzing the reason of these deferrals amongst blood donors, addressing the issue and ameliorating the cause if possible.

The criteria for prospective blood donor selection and deferral in India are provided by the Drugs and Cosmetic Act 1940 (and rules there under) supplemented by the Technical Manual (Directorate General of Health Services, MOH and FW, Govt. of India).

METHODS AND MATERIALS

The present study was undertaken to "Find incidence and major reasons of whole blood donor deferral in our center"

Data of whole blood donors presenting for donation in a blood center and outdoor camps over thirteen months, from January 2015 to January 2016, was analyzed retrospectively. National guidelines were used for selection and deferral criteria.

The donor selection was done by pre-donation screening tests like questionnaire followed by physical examination and hemoglobin estimation.

Deferral reasons were analyzed according to temporary and permanent deferral reasons and amongst male-female donors.

RESULTS

Table 1: Incidence of Deferrals among male and female donors

Prospective blood Donors (Donor Registration forms filled)	Males	Females	Total
Eligible after screening	15458(93.5%)	115 (70.9%)	15573 (93.2%)
Deferred after screening	1079 (6.5%)	47 (29.1%)	1126 (6.8%)

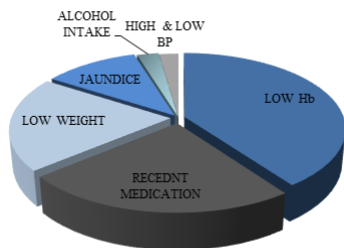
Total	16537	162	16699
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Table 2: Causes of Deferrals among donors

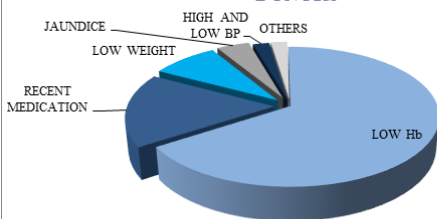
Deferral causes	Males	%	Females	%
Low Hb	392	36.3%	31	65.9%
Recent Medication	234	21.7%	8	17%
Low weight	198	18.3%	4	8.5%
Jaundice	109	10.1%	02	4.2%
Alcohol intake	25	2.31%	0	0%
High & Low blood pressure	22	2.03%	1	2.1%
Other Reasons*	99	9.17%	1	2.1%
Total	1079		47	

(*Other reasons includes recent donation, recent infections like tuberculosis, typhoid, dengue, malaria etc., recent history of tattoo, recent history of surgery and paid donors)

CAUSES OF DEFERRAL AMONG MALE DONORS



CAUSES OF DEFERRAL AMONG FEMALE DONORS



DISCUSSION

Blood donor's suitability criteria based on science, informed medical opinion and regulatory rules influence donor demographics leads to specific deferral pattern.³ These criteria are designed to protect both the blood donor and recipient from harm. The donor selection process results in deferral or rejection of potential blood donors who may not particularly like this feeling being rejected and thus avoid returning for future donations.^(2,3)

Total number of attempts for whole blood donations during the study period were 16699, where 1186 (7.1%) were from outdoor camps. Of the total donors who presented for blood donation, 162 (0.97%) were females. However majority of them were deferred so that they contributed only 0.73% of selected donors. Total no of deferrals was 1126 giving an overall incidence of 6.74%.

Most of the deferrals (57.54%) in present study were done on physical examination and Hb estimation. A majority (96.62%) of donors deferred were deferred temporarily. Only 3.37% of donors were deferred permanently. Like most of other studies done in the past,^(4,5,6) the most common reason (37.56%) for deferral in our study was low hemoglobin. The next common reasons for deferral in our donor population were h/o medication (21.5%), low weight(17.9%), jaundice(9.8%), alcohol intake(2.4%) and high &low blood pressure(2.1%) . More

female donors were deferred as compared to male donors (29.1% vs 6.5%). Although the most common reason for deferral in both the genders was a low Hb.

CONCLUSION

The first most common cause of the donor deferral was anemia (37.56%) which can be reduced by educating and motivating them to seek medical attention for anemia, thus improving the eligibility of prospective blood donors in the long run.

Incidences of donor deferral can be utilized to direct efficient recruitment and retention strategies. Prevalence of deferral causes and their prevention can promote effective blood donation practice.

Including Medications and hypertension, majority of the deferral reasons were for temporary deferrals. The donors in these categories can be retained by explaining the cause and period of deferral.

These motivated voluntary blood donors who are temporarily deferred can become regular donors when properly followed, thereby increasing the donor pool as we always need donors.

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