

## Correspondence:

### Analysis of reasons for blood donor deferral at the blood bank of a tertiary care referral teaching hospital in Andhra Pradesh – a pilot study

Blood Transfusion is a vital, life saving procedure in the present day medical and surgical practice which requires an adequate supply of safe blood from healthy donors.<sup>1</sup> This requires proper donor selection and screening of the blood bags for transfusion transmissible infectious diseases post donation. The individuals who are disqualified from donating blood are known as deferred donors. A large numbers of donors are being deferred from donating blood either temporarily or permanently and this deferral is a painful as well as sad experience to both donors and blood banks. Knowledge of rate and causes for donor deferral can guide the recruitment strategy for blood donation. Hence this prospective, cross-sectional pilot study has been undertaken to analyze the reasons for donor deferral at our blood bank attached to a tertiary care referral teaching hospital in Andhra Pradesh, South India, for a period of one month i.e., 1<sup>st</sup> June 2017 to 30<sup>th</sup> June 2017. Donors who came forward to donate their blood at our blood bank as well as at outdoor blood donation camps attended by our blood bank have been included in the study after obtaining written informed consent from the study subjects.

During the period, a total of 1196 individuals came forward to donate their blood. Out of them 1040 donors were qualified to donate their blood as per the standards laid down by Drugs and Cosmetics Act 1940, and Rules, 1945<sup>2</sup> and the rest 156 (13.0%) were deferred. All the donors were screened properly to ensure the

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blood drawn is safe for transfusion. Out of total donations of 1040; 95% (n=984) were voluntary and the rest 5% (n=56) were replacement donors. Out of a total number of donors deferred (n=156), 88% (n=138) were males and 12% (n=18) were females. The rate of deferral was significantly higher in females (n=18; 47.4%), when compared to males (n=138; 11.9%). Anaemia (hemoglobin < 12.5 g/dL) is the predominant cause of donor deferral (n=69; 44.2%) followed by upper respiratory tract infection (n = 13; 8.33%). Prevalence of anaemia was significantly more in both males and females. Other causes and their relative percentages have been depicted in Table 1.

The rate and reasons of deferral differs from region to region and center to center. A voluntary donor is one who donates without any rewards or compulsion whereas a replacement donor is one who donates blood upon request of specific patient or patient's family which intended to be used specifically for the treatment of that a patient. Potential blood donors may not be able to donate for several reasons. There are large number of healthy individuals are not suitable to donate blood they are labeled as "deferred" donors. A donor who has been deferred can be due to temporary or permanent reasons. A temporarily deferred donors is deferred for a specific time period, but most often these prospective donors are then less likely to return in future for donation thinking they have been deferred for

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**Table 1: Reasons for donor deferral (n = 156)**

Cause	No.	%
Anaemia	69	44.2
Upper respiratory tract infection	13	8.3
Ear piercing	03	1.8
Open wound	06	3.8
Veins not prominent	04	2.8
Rabies vaccination	02	1.3
Asthma	03	1.8
Underage	01	0.7
Viral fever	01	0.7
Medication	01	0.7
Platelet count not sufficient for plateletpheresis	01	0.7
Fever	01	0.7
Diarrhoea	01	0.7
Polycythemia	12	7.6
Alcohol intake	03	1.8
Under weight	01	0.7
Hypertension	03	1.8
Skin Allergy	04	2.8
Typhoid	04	2.8
History of Jaundice	06	3.8
Tattoo	08	5.1
Not turned up	06	3.8
H/o Epilepsy	01	0.7
H/o Dengue	01	0.7
H/o Injections	01	0.7

life time. Therefore individual deferred must given proper counseling and education regarding the reason for their deferral and advice them how to rectify the issue before the next visit. To protect blood donors and recipients, stringent donor screening criteria are necessary.<sup>3</sup> Screening also helps prevent transfusion transmitted diseases to the recipient and at the same time ensures blood collection does not harm both the donor as well as the recipient.

This study helps to analyze the donor deferral rates, various causes of deferrals and to take proper referral and follow up measures to decrease the temporary deferral rate by which we could increase the pool of voluntary donors without compromising on the quality of the blood and safety to the recipient. The donor deferral rate obtained in this prospective study

is 13.0%. Females constituted only 3.2% (n=38) of the total number of people who came forward for blood donation. This could be because of a prevalent false belief that being a female hampers her ability to donate blood. The major cause of deferral among males and females was anaemia. Anaemic individuals should be referred for further workup and treatment. Temporarily deferred individuals must be inform about the reason as well as the period of deferral. They must be encourage and given counseling to help them overcome the problem before the next visit, thus we could reduce huge percent of temporary deferral. Educating the people in the community a week prior to the scheduled camp regarding some of common causes of deferrals like unnecessary usage of medication, abstaining from smoking and alcohol prior to visit, age limit, menstruation, breast feeding in women etc.,

may help pre- screen themselves and avoid unnecessary deferrals.<sup>4</sup>

To conclude, it is important to determine the rate and reasons for blood donor deferral for the safety of blood and blood component transfusion and to guide the recruitment efforts to prevent loss of precious blood at the local, national and international levels.

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