Sir,

Paucity of healthy safe donors has always been a serious problem for blood banks all over the world. To quantify the losses due to deferred donors and to understand the rate, reasons and problems of donor population coming to private, tertiary care hospital, a record-based study was conducted encompassing three and half years (1 Jan 2007-30 June 2010). During this period, 22404 potential donors were screened, of which 19005 (82.12%) were successful donors. Demographic profile of donors is shown in Table 1. 3399 donors were found to be unfit giving an overall incidence of 17.88%. Of the total deferrals, 2705 (79.58%) were male donors and 694 were female donors (20.42%) [Table 2].

Deferral incidence of 17.88% was similar to other studies.[1-3] However, study by Rabeya et al.[4] showed low incidence (5.6%) and Charles et al.[5] showed deferral incidence of as high as 35.6%.
signifying that rate of deferral may not change whether donors are regular volunteers or replacement donors.

Reasons of deferrals are shown in Table 3. Low hemoglobin was the leading cause of total deferrals and in female donors (68.01% in female donors versus 14.82% in male donors), followed by history of medication, hypertension, and alcohol consumption (common in men) implying that deferral in female donors due to anemia is nearly 4.6 times higher than in male donors; a finding similar to other studies[1,3,4] emphasizing that a sizeable population, especially female donors in this part of world is anemic reflecting the impact of low socioeconomic status on health. Effects are needed to address the issue of anemia in prospective donors at all levels Health of blood donors can be improved by educating and motivating them to seek necessary guidance for anemia. Simultaneously, adolescents and youth should be targeted for eradication of anemia by different, yet coordinated initiatives. The most common cause of permanent deferral was hypertension (15.76%).

On comparing deferral rates in various quarters of the year between 2007 and 2009, deferral rate was lowest (16.98%) in 1st quarter with highest (32.55%) in the 3rd quarter signifying that community health was good in 1st quarter, whereas 3rd quarter; being the rainy season, health of community seems to be at its lowest level due to sizeable number of water–borne diseases leading to temporary deferrals; a finding not observed by any other worker in the past which needs to be further evaluated.

As anemia, history of medication, and alcohol are causes of temporary deferral (63.21%), deferred donors can be recruited back into the donor pool. Deferral due to history of alcohol consumption accounted to 15.0% of total deferrals; a finding not observed by any other worker in the past making the reason as 4th commonest cause.

To conclude, analysis of rejection patterns will help medical personnel to be more focused on donor screening so that donors deferred due to temporary reasons like anemia, history of medication, and alcohol consumption can be recruited in donor registry after managing temporary reasons. Thus, effective measures need to be initiated to address the issues like lost donors and retention, and registry of perspective donors.

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Table 1: Demographic profile of the donors

|                | No. of donations | Total donations % | No. of donations | Total donations % |
|----------------|------------------|-------------------|------------------|-------------------|
| Voluntary      | 322              | 1.69               | Male             | 18327            | 96.43             |
| Replacement    | 18683            | 98.31              | Female           | 678              | 3.57              |
| Total          | 19005            | 100                | Total            | 19005            | 100               |

Table 2: Gender wise deferrals

|                | Male | %    | Female | %    |
|----------------|------|------|--------|------|
| Donation       | 18327| 87.14| 678    | 49.42|
| Deferral       | 2705 | 12.86| 694    | 50.58|
| Total/screened| 21032| 100   | 1372   | 100  |

Table 3: Reasons of deferrals

| Reason                        | No. of cases | %    |
|-------------------------------|--------------|------|
| Total deferrals               | 3399         |      |
| Low Haemoglobin               | 873          | 25.68|
| History of drug intake        | 638          | 18.77|
| Hypertension                  | 536          | 15.77|
| *H/O alcohol                  | 510          | 15.0 |
| *H/O jaundice                 | 104          | 3.06 |
| Vaccination                   | 51           | 1.50 |
| Low body weight               | 41           | 1.21 |
| *H/O periods                  | 42           | 1.24 |
| Major surgery                 | 44           | 1.29 |
| Asthma                        | 34           | 1.0  |
| Endocrine disorder            | 34           | 1.0  |
| Tuberculosis                  | 14           | 0.41 |
| Others**                      | 478          | 14.07|

*H/O: History of Hb: Hemoglobin, **Others includes previous blood donation, transfusion history, fasting, vein not prominent etc.,

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