



Original Research Article

Donor Notification & Counseling - Our Experience from a Tertiary Care Hospital in Central India

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Abstract

Background: *Transfusion services in addition to their prime responsibility of supplying safe blood to the patient, also have a responsibility toward donor safety by means of donor notification & post donation counseling. TTI reactive donor notification is essential for early clinical intervention to minimize their disease and the risk to the partners / close contacts.*

Materials & Methods: *The present observational study was carried out in blood bank of Tertiary Care Hospital in Central India over a period of 4 years involving total (8172) donors including 156 reactive donors. The reactive donors were informed by blood bank counselor about an abnormal test result with an advice to report to blood bank for one to one counseling and referral to the respective department for repeat testing and further management. The response rate of transfusion transmitted infection reactive donors after notification of their abnormal test results was evaluated.*

Results: *During the study period total donation of 8172 units both from voluntary and replacement donors were subjected to routine TTI screening by ELISA. Of these, (156) blood donors were found to be seroreactive. TTI reactive donors (156) for various markers were contacted, 134 (85.9%) telephonically and the remainder 22 (14.1%) who could not be contacted on phone were contacted by post maintaining confidentiality. Seroreactivity of 156 contacted donors was (HIV, HCV, HBSAg, syphilis – 17 : 47 : 91 : 1). Of the 134 contacted donors telephonically, response rate was 93.3 % as 125 donors reported. Of the 22 contacted donors by post, 10 donors responded i.e. response rate was 45.4%. Of the total donors (156), response rate was 86.53% & non response rate was 13.4%.*

Conclusion: *Our study shows that our response rate was increased due to mobile communication. Response rate was also increased due to increased knowledge of infectious diseases which results in self deferral of blood donors belonging to high risk group.*

Keywords: *Blood donor counseling, donor notification, transfusion – Transmitted infections, HIV, HCV, HBSAg.*

Introduction

Although blood transfusion plays an important role in the supportive care of medical and surgical patients, unsafe transfusion practices also put millions of people at risk of transfusion transmissible infection (TTI).⁽¹⁾ The WHO recommends that, atleast, all donated blood should be fully screened for Hepatitis B virus (HBV), Hepatitis C virus (HCV) & Human immuno deficiency virus (HIV) and syphilis.⁽²⁾ In India, disclosure of viral Transfusion Transmitted infection reactivity to the blood donor was not permitted until December 2004; at that time, the National Blood Transfusion council, Government of India, formulated strategy for the same.⁽³⁾ Blood banks are now required to obtain written consent at the time of donation from the donors as to whether they wish to be informed about a reactive test result. They are required to refer donors who tested HIV reactive to the designated voluntary counseling and testing centres for disclosure, counseling and referral. All donors reactive to hepatitis B or hepatitis C need to be referred to a gastroenterologist for further management.⁽⁴⁾

Transfusion Transmitted infection reactive donor notification is essential for early clinical intervention to minimize their disease and the risk to the partners/close contacts. Reactive donors are intimated telephonically and by post for one-to-one counseling and repeat sampling and to elicit any high risk behaviour. This study is carried out

to avail information about counseling success rate and referral care & to assess the attitude of reactive blood donors in response to post donation notification and counseling.

Materials & Methods

The present observational study was carried out in blood bank and tertiary care hospital in Central India over a period of 4 years involving total (8172) donors including 156 reactive donors.

Results

During the year 2014 to 2017 total donation of (8172) units both from voluntary and replacement donors were subjected to routine transfusion Transmitted Infection screening by ELISA. Of these 156 blood donors were found to be seroreactive. Among these 156 seroreactive cases, 17 cases were HIV positive, 91 cases were HBSAg positive, 47 cases were HCV positive, 1 case was VDRL positive.

As per age wise distribution, 45 were below 25 years of age, 92 were between 26 and 35 years of age and 19 were above 35 years. The age wise distribution of responded and non-responded donors is given in Figure 1. The gender wise distribution was as follows. There were 153 male and 3 female donors. One Hundred two (65%) were married and fifty four (35%) were unmarried. (Figure 2) Geographical distribution of the responded & non-responded reactive donors is given in Figure 3.

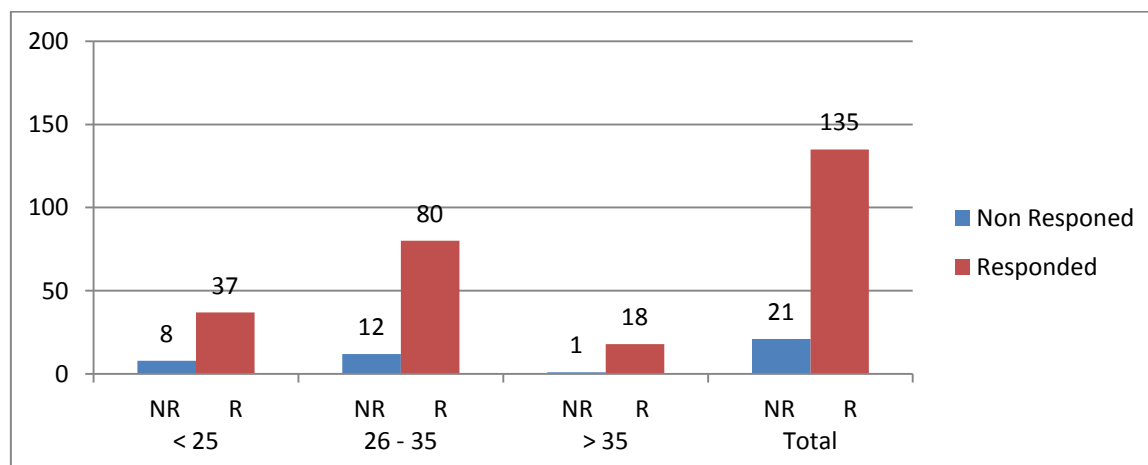


Figure – 1 Age distribution of responded and non-responded TTI reactive donors

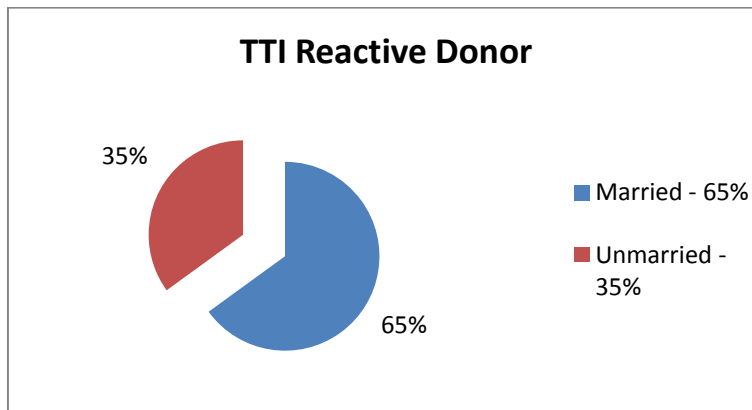


Figure – 2 Pie chart showing the marital status of the TTI reactive donors

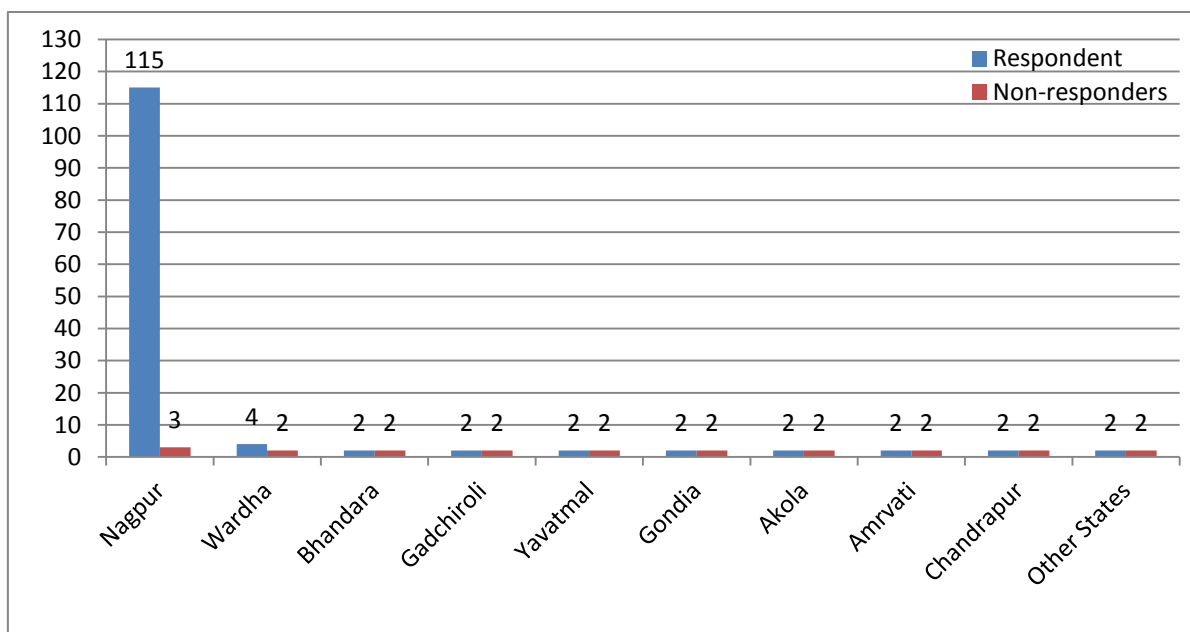


Figure 3 Geographical distribution of responders & non responders Transfusion Transmitted Infection reactive donors

The TTI reactive donors (156) for various markers were contacted (Figure 4). 134 (85.9%) telephonically & remainder 22 (14.1%) who could

not be contacted on phone were contacted by post maintaining confidentiality.

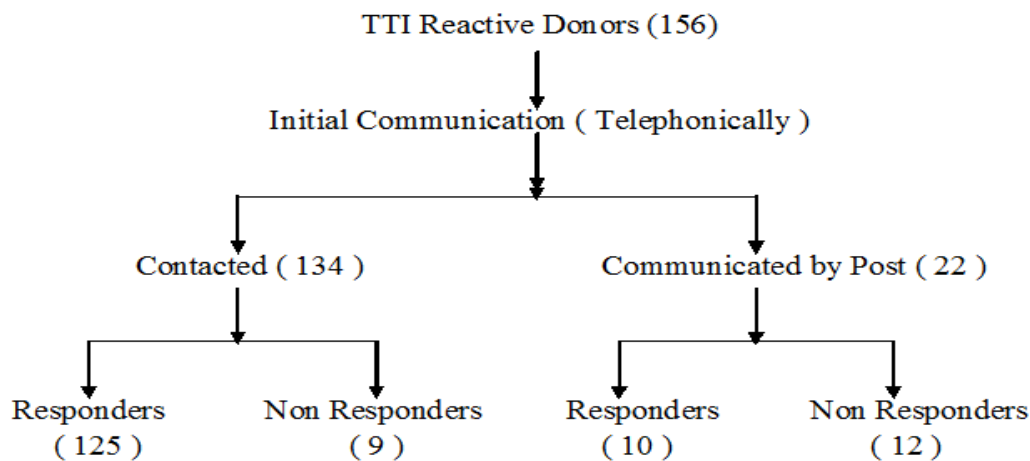


Figure – 4 Flow Chart of study results

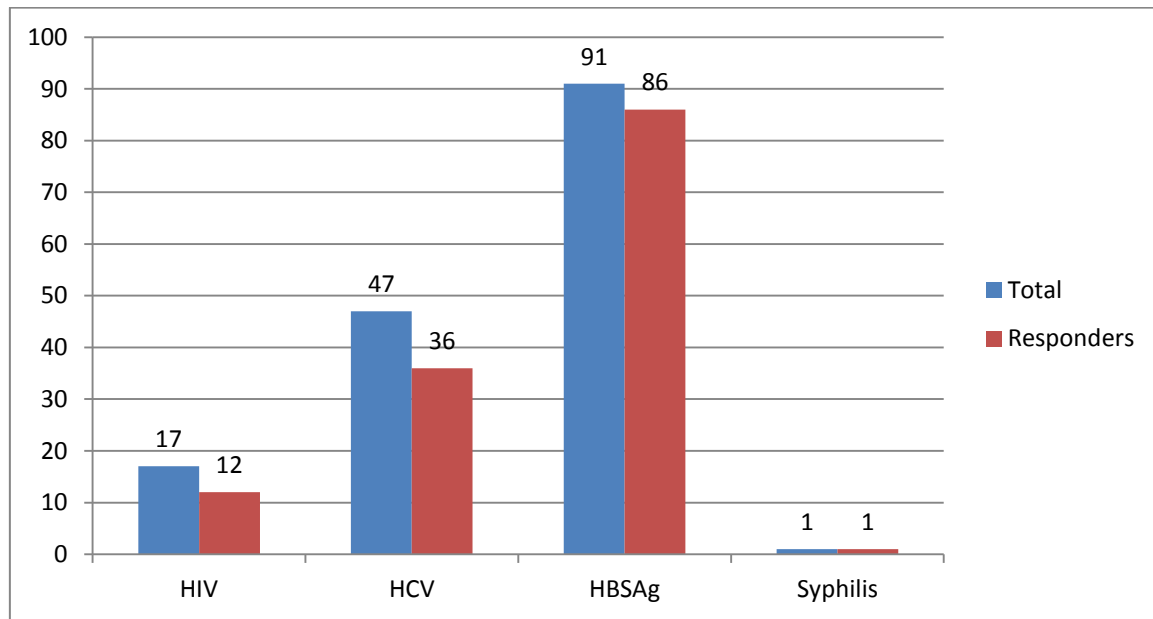


Figure – 5 Response rate according to TTI marker Positivity

Seroreactivity of 135 contacted donors was HIV: HCV : HBSAg : Syphilis – 12 : 36 : 86 : 1. Of the 134 contacted donors by telephone the response

rate was 93.3% as only 125 donors reported (110 on the first, 10 on the second and 5 on the third call) for one-to-one counseling (Figure 6)

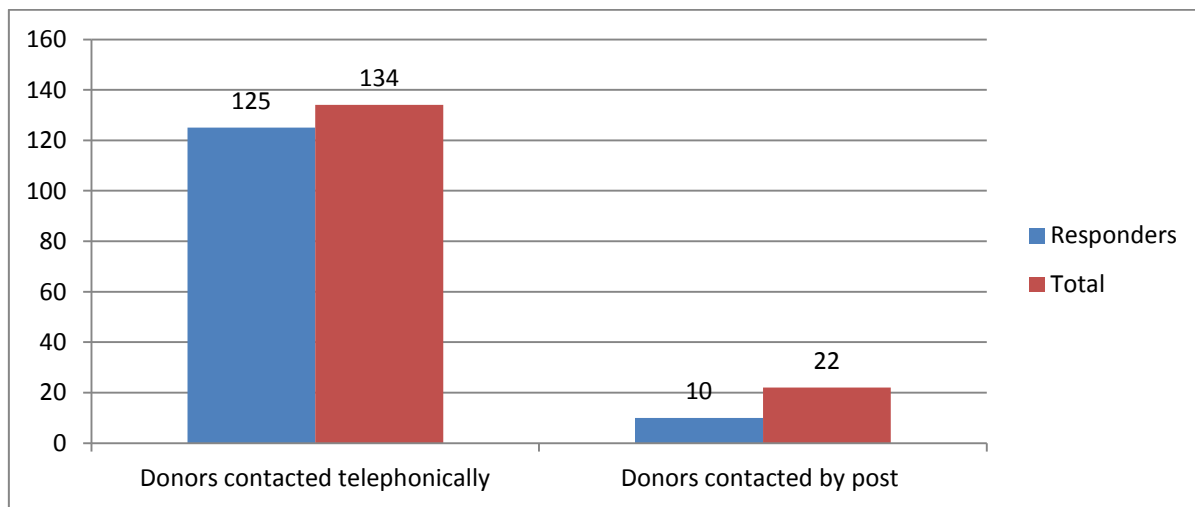


Figure – 6

Among the remaining 21 non responders, 5 were HIV positive, 11 were HCV positive and 5 were HBSAg positive. 10 donors responded by postal communication.

HIV reactive responders were referred to ICTC for counseling and confirmatory testing while HBV and HCV reactives were referred to a gastroenterologist for further management.

Table 1 Summary of referral of contacted TTI reactive donors to the concerned specialty for management

| TTI reactive donors | HIV | HCV | HBSAg | Syphilis |
|--|-----|-----|-------|----------|
| 1) Total contacted | 17 | 47 | 91 | 1 |
| 2) Responders | 12 | 36 | 86 | 1 |
| 3) Attended the concerned specialty clinic | 12 | 33 | 84 | 1 |

120 donors among the 135 (88.88%) donors have a positive history of high risk behavior that was not expressed earlier by them during pre-donation counseling and are now on regular treatment for their infection.

The remaining 21 (13.4%%) donors were non-responders which is less number. Seroreactivity among these 21 reactive donors was (HIV, HCV, HBSAg, Syphilis – 5 : 11 : 5 : 0)

Discussion

The results of this study show high response rate to blood bank calls to donors with reactive screening tests. These results suggest high health care knowledge and awareness regarding screening tests.

Study carried out at centre (yousuf et al 2007)⁽⁵⁾ showed the prevalence of hepatitis B seropositivity was less in regular blood donors compared to first time donors. This implies the need for proper pre-donation counseling of the latter group.

Tynell et al 2007⁽⁶⁾ also reported a response rate of 88% in contacted donors as compared to 86.5% in our study. This high rate reflects the importance of this issue for donors & their concern for helping others. Other studies have also shown higher response rates of blood donors compared to ours (Nilsson Sojka & Sojka 2003)⁽⁷⁾

Lower response rates were also reported (21 to 67%) in some studies Moyer et al 1992⁽⁸⁾, Sanchez et al 2001⁽⁹⁾, Kleinman et al 2004.⁽¹⁰⁾ In view of the low response rate among relative blood donors, it is important to consider the policy of pre-donation donor screening.

Potential test seekers should be notified of the consequences of providing wrong information at the time of registration. Currently we are relying on good will of blood donors to disclose their information but this has been shown to not be a very effective in one study (Lau et al 2002).⁽¹¹⁾

Of the 156 contacted donors response rate was 86.5% as only 135 donors reported from one to one counseling. A large majority of notified donors (96.3%) in our study contacted their health

care when given clear instructions to do so. These results are encouraging because they indicate that a major element of notification is acted upon when it is worded clearly. Seroreactivity of 156 contacted donors was HIV : HCV : HBSAg : Syphilis – 17 : 47 : 91 : 1. Among the remaining 21 non responders, 5 was HIV, 11 were HCV, 5 were HBSAg. The very high response rate of contacted donors ensured their concern for knowing their test result status.

Conclusion

In summary response rate was increased due to mobile communication and increased knowledge regarding the transmission of infectious diseases. This results in self deferral in blood donors belonging to a high risk group. Loss to follow up of reactive blood donors can be minimized by proper pre-donation counseling. Public health authorities should make it mandatory, that every blood donor with a reactive test should contact a health worker of blood bank for further investigation. One counselor in blood bank should be appointed to each relative case, this will result in better compliance and protect the confidentiality of donors.

We recommend further studies regarding the donors understanding of the screening process and factors contributing to donors responses to calls from blood bank.

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