Review of donor testing algorithms: Ethical dilemmas

Arjun U, Rahul Chaurasia, Hem Chandra Pandey, Gopal Kumar Patidar, Poonam Coshic

Department of Transfusion medicine, AIIMS, New Delhi

49th Annual Conference of ISBTI
TRANSCON 2024
Educate, Excel, Elevate, Empower
21st - 23rd November, 2024
Ahmedabad

eP153

BACKGROUND & OBJECTIVES

Screening of Transfusion-transmitted diseases (TTIs) is an essential step to ensure safety of blood components.

Notification of reactive donors'
1. Aids in early diagnosis & management
2. Prevents reactive donors from future donations
3.Prevents further transmission

Improper notification of indeterminate and false reactives can lead to emotional and social distress amongst the donors.

Thus, it is imperative to review the TTI testing, prior to notification.

AIM

To evaluate the current donor testing algorithms of HIV, HBV and HCV screening by both serological (Chemiluminescence) and Nucleic acid amplification testing (NAT), prior to donor notification.

METHODS

Study type: Retrospective study

Study setting: Blood centre, Main hospital, AIIMS, New Delhi

Study population: Whole blood donors (30675)

Study period: January 2024 to June 2024 (6 months)

- Serological (Chemiluminescence, Abbott) and ID-NAT (Procleix Ultrio Elite, Grifols) tests were done for the samples collected.
- Repeat testing (duplicate in serology and triplicate in NAT) was done for discordant screening results, using fresh sample from the plasma units.
- Concordant serology and NAT reactive results or repeat reactive serology or NAT results were was used for notifying the donors.

RESULTS

- Out of 30675 donors, 1.16% donors had concordant reactive results by both Serology & NAT, whereas 1.44% donors had discordant results for which repeat testing was done as outlined in the figure 1.
- Repeat testing, was found to be reactive for 189 (42.76%) donors, whereas 253 (57.4%) were non-reactive for all markers.
- Notification of such repeat non-reactive donors was not done due to concerns for false positivity and its psychosocial impact.

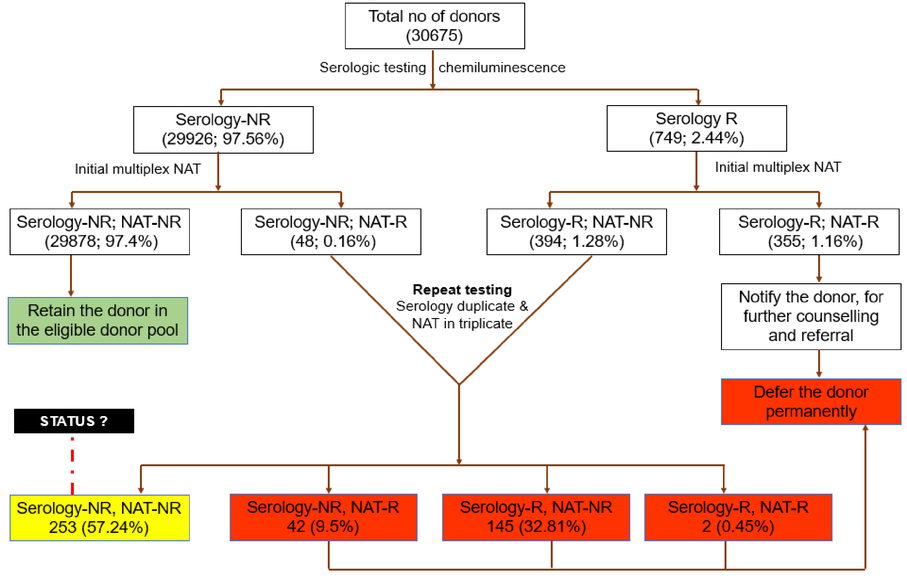

Figure 1 Flowchart showing algorithm for repeat testing, prior to donor notification

CONCLUSION

Reactive blood donors with concordant TTI results should be notified in appropriate and timely manner, whereas notifying donors with non-reactive repeat testing, further warrants confirmatory testing and their follow-up.

It also raises serious concerns, for false yet permanent deferral of such donor, which can lead to serious emotional and social distress among such blood donors and a hit on already limited donor p

Long term follow-up of such donors should be done for possible re-entry into eligible donor pool.