Monitoring & analysing the effect of quality interventions to improve bedside transfusion practices.

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BACKGROUND

- Blood transfusion process includes a complex series of events from ordering the blood, blood transportation to the destined location, correct patient identification, rightly administering the blood, monitoring and documenting the transfusion and adverse events, if any.
- Adequate documentation is important for each step of transfusion and is considered as an essential part of transfusion practice. However,the documentation of bedside transfusion practice is often overlooked and inadequate in developing countries.

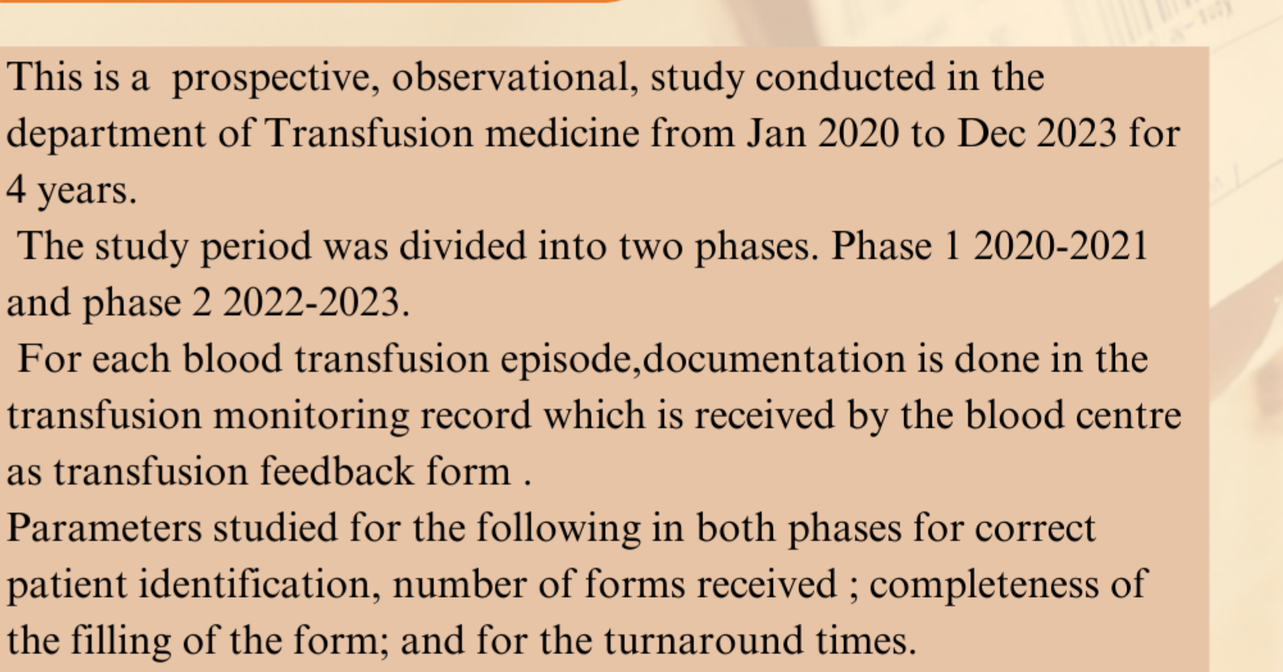
AIM

To analyze the process of recording transfusion monitoring at bedside and the effect of implementation of safety interventions by reviewing the feedback forms at our centre.

Methods

- This is a prospective, observational, study conducted in the department of Transfusion medicine from Jan 2020 to Dec 2023 for 4 years.
- The study period was divided into two phases. Phase 1 2020-2021 and phase 2 2022-2023.
- For each blood transfusion episode,documentation is done in the transfusion monitoring record which is received by the blood centre as transfusion feedback form .
- Parameters studied for the following in both phases for correct patient identification, number of forms received ; completeness of the filling of the form; and for the turnaround times.
- Data is captured and analyzed using spss.

Fig 1: Trend of Total monitoring form percentage received and delayed feedbacks.



RESULTS

- During the study period, for a total of 35571 transfusion episodes(1-4 components per episode) ; the mean transfusion feedbacks received showed statistically significant ($p<0.001$) improvement from 83.02% in phase 1 to 97% in phase 2 along with other parameters like delayed transfusions and extended transfusions.
- Trend of the feedback forms received has increased gradually over the study period as shown in Fig 1.

Discussion

1. Safety interventions we took to improve the delayed transfusions at bedside at various stages were (Fig2. below)
- a)maintaining a Blood Bank Refrigerator in Operation theatre for major surgeries like liver transplant under blood centre supervision inorder to maintain cold chain and also to avoid delayed transfusions in emergencies
- b)Having a dedicated runner for blood centre blood issues, after which we found betterment in blood issues.
- c) Active discussions in the Hospital Transfusion committee meets which involved the nursing care team and the clinical team which showed a little improvement.
- d)Use of iTrans intelligent smart boxes which has features like correct patient identification, remote lock, remote GPS tracking, real time temperature monitoring and cold chain maintenance, early returns thereby avoiding delays in transfusion.
- e)regular retrainings of bedside staff regarding transfusion practices by the blood centre medical officers.
- f)Regular audits by the quality team to ensure the safe practices.

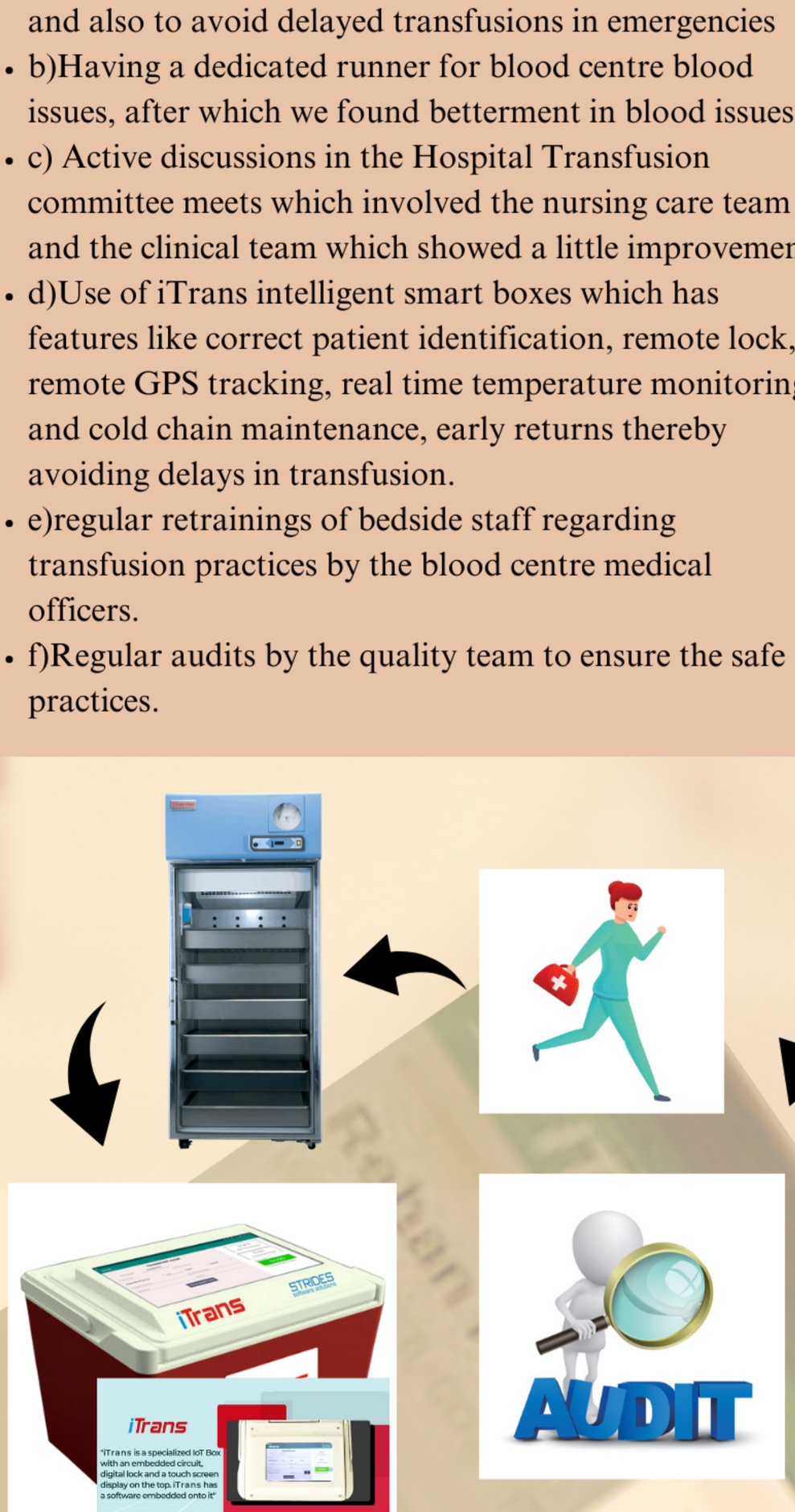


Fig 2: Safety interventions

Conclusion

Quality and safety interventions helped us to reduce the turnaround times; better technology for traceability; timely transfusions, better staff compliance in bedside transfusion care, thereby better patient monitoring and care.

References

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