

Audit of Overnight Red Cell Transfusions in the West Midlands Region

July 2016

West Midlands RTC Audit Group*

Background

It is recognised that transfusing outside of 'routine' hours is less safe and should be avoided unless clinically essential. This audit looked at how hospitals manage overnight transfusions. In particular numbers and appropriateness of transfusions administered overnight and whether any delays contributed to the timing of transfusion.

Results

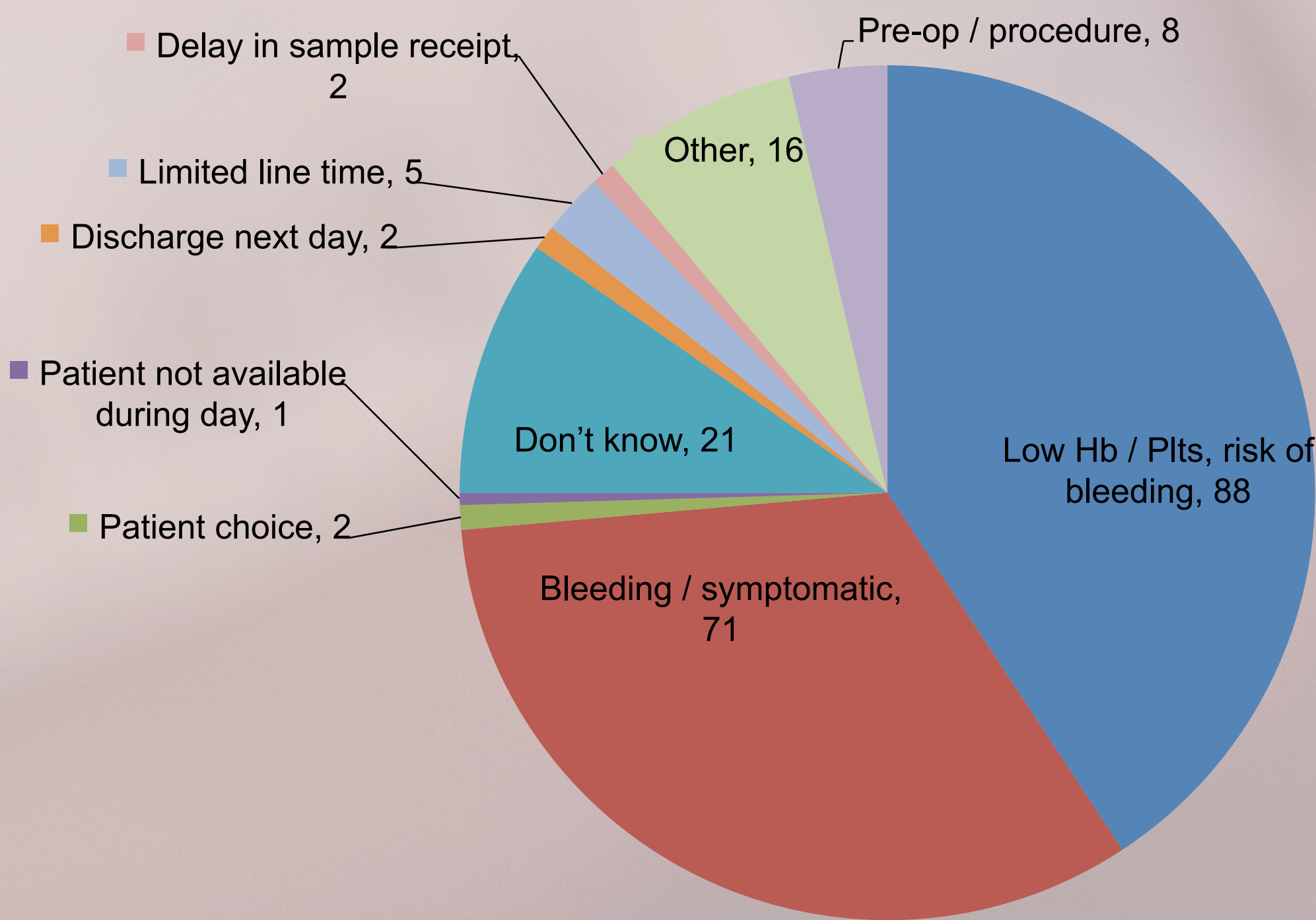
The organisational questionnaires showed that core hours which all hospitals class as out of hours were 11pm to 6am. 33% of hospitals have mechanisms for reviewing/monitoring out of hours transfusions.

In 57% of audited cases, the request for blood was made 4 hours or more after the Hb result was available. In 41% components were collected >4 hours after they were available. In 6% time from collection to completion was >4 hours.

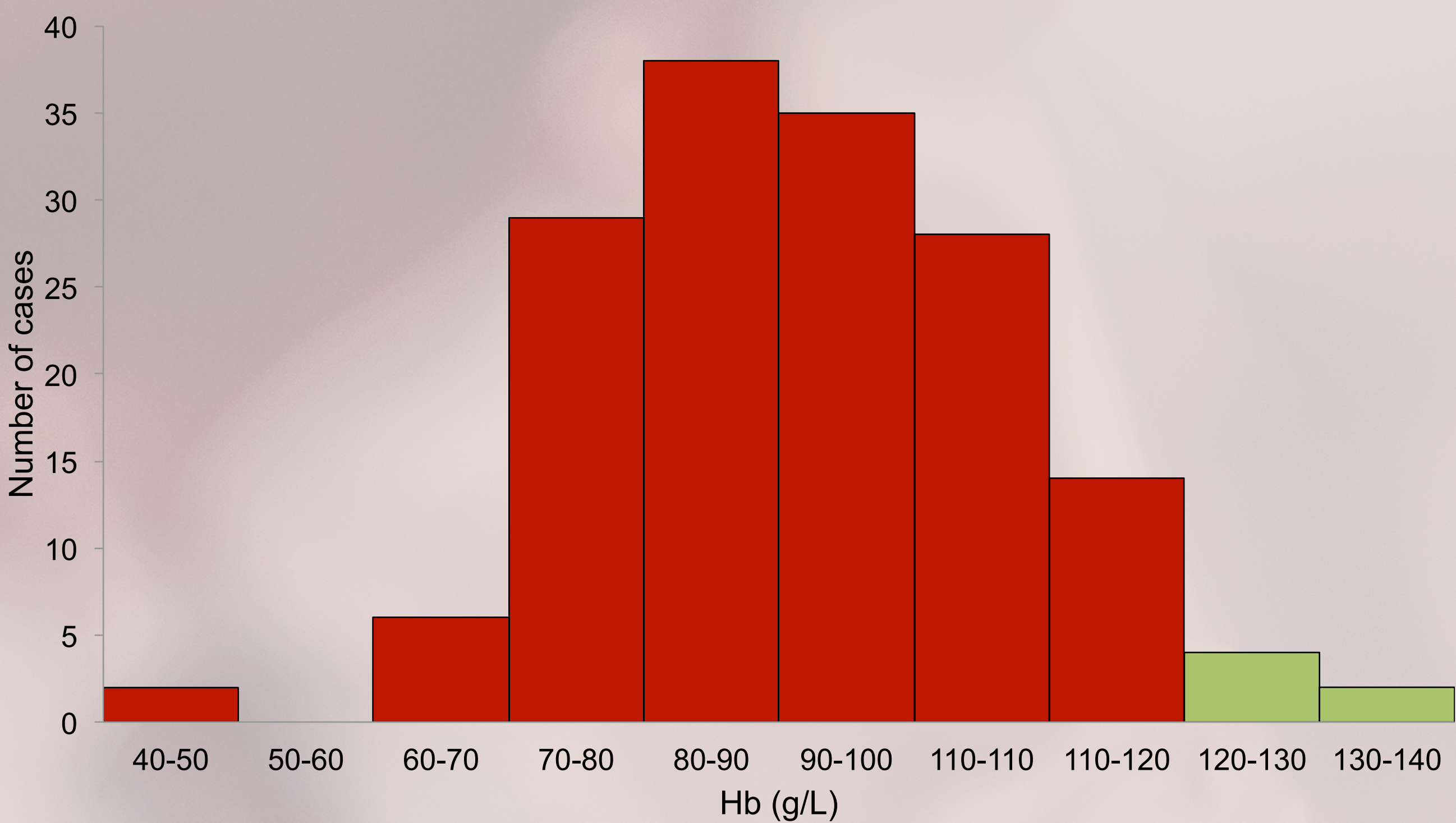
Indication for red cell transfusion was Hb <70g/l or bleeding in 66% of cases. Reasons given for overnight transfusion related to the patient being symptomatic, at risk of bleeding, or actively bleeding in 74% of cases.

Most had a post-transfusion Hb taken. In 4% of cases the post-transfusion Hb was >120g/L.

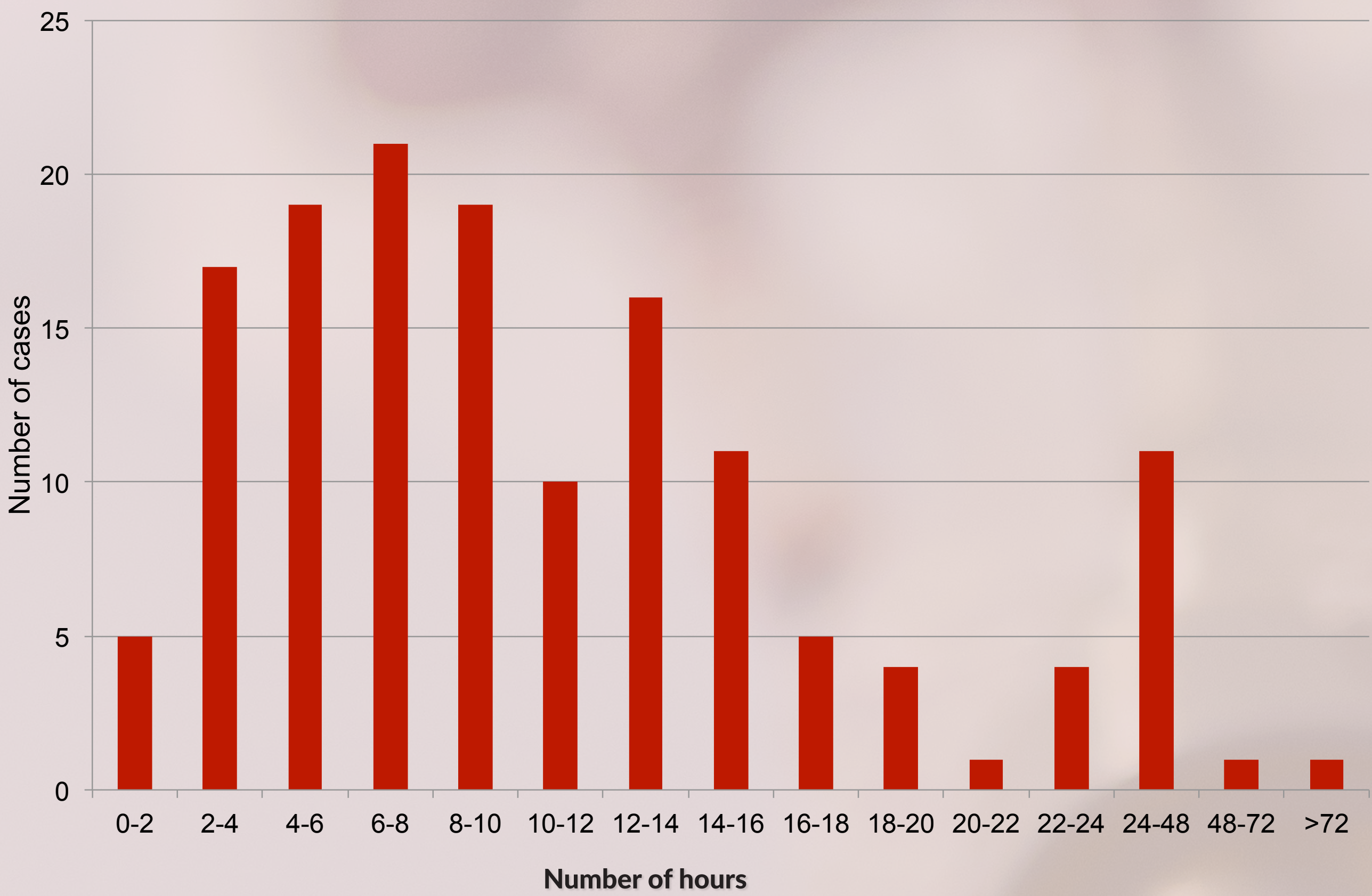
Reason given by the auditor for overnight transfusion n= 216



Post Transfusion Hb Levels (n = 158)



Time in hours from last Hb result to unit transfused



Conclusions

Most transfusions out of hours appeared to be appropriate, and also appropriate to be given out of hours. There were quite considerable delays in the process, particularly in the clinical area. This suggests that a significant number could potentially have been given during normal working hours.

It is recommended that mechanisms are put in place to limit out of hours transfusions to only those clinically appropriate. Out of hours transfusions should be reviewed and monitored. Guidelines outlining appropriate requests for laboratory staff to process overnight should be developed. Trusts should explore the reasons for delays in the transfusion process.

References

Bolton-Maggs, P. et al. on behalf of the Serious Hazards of Transfusion (SHOT) Steering Group (2015) The 2014 Annual SHOT Report. Available at: <http://www.shotuk.org/shot-reports/>

Stainsby, D et al. on behalf of the Serious Hazards of Transfusion (SHOT) Steering Group. The 2005 Annual SHOT Report. Available at: <http://www.shotuk.org/shot-reports/>

British Committee for Standards in Haematology (2009) Guidelines on the Administration of Blood Components. Available at: <http://www.b-s-h.org.uk/guidelines/guidelines/administration-of-blood-components/>

Grant-Casey, J. et al. on behalf of the National Comparative Audit of Blood Transfusion Steering Group. National Comparative Audit of Overnight Red Blood Cell Transfusion 2008. Available at: <http://hospital.blood.co.uk/audits/national-comparative-audit/national-comparative-audit-reports/>

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