

Annual SHOT Report 2015 – Supplementary information

Chapter 14: Haemolytic Transfusion Reaction (HTR)

Additional information not included in the main 2015 report

Antibodies not usually associated with haemolytic transfusion reactions

There were 5 cases (relating to 4 patients) where anti-Lu^a, -Bg^a and Sd^a were implicated, although 3 were of low imputability.

Anti-Lu^a was possibly implicated in 2 patients. One was in a sickle cell patient and is described in the section on sickle cell patients. The other involves 2 separate reports of the same patient passing red urine during transfusions 2 days apart. On both occasions the patient also had a fall in Hb and a rise in bilirubin. Anti-Lu^a was retrospectively detected in the pre-transfusion sample but the units were compatible by indirect antiglobulin test (IAT). Anti-Lu^a is not usually associated with haemolytic transfusion reactions.

Anti-Bg^a was possibly implicated in 1 case, where the unit was found to be weakly incompatible on retrospective crossmatch, although the direct antiglobulin test (DAT) was negative. A second case was more serious, as the patient, who was awaiting a kidney transplant, suffered rigors, back pain, hypertension, tachardia, and had difficulty breathing during a transfusion. She required oxygen support, and urgent transfer to another hospital with a renal bed. Retrospective testing revealed anti-Bg^a and Bg^b in the pre-transfusion plasma, and the implicated unit was strongly incompatible. The patient stated afterwards that she had had previous transfusion reactions at another hospital; she would not have been eligible for electronic issue had the laboratory been aware of this.

Anti-Sd^a was identified retrospectively in one case, where the patient had rigors and vomiting during the transfusion, and the donation was found to be strongly Sd^a positive ('super-Sid' or Sd(a++)) and strongly incompatible with the patient's plasma. Haemolysis was confirmed by rise in bilirubin and lactate dehydrogenase (LDH) and a fall in Hb. Sd^a is present in approximately 91% of the population but the antigen expression varies considerably, with Sd(a++) rare in Europeans. There have only been couple of Sd^a related haemolytic transfusion reactions reported in the literature.