

2019 Annual SHOT Report – Supplementary information

Chapter 18: Haemolytic Transfusion Reactions (HTR)

Additional case studies not included in the main 2019 Annual SHOT Report:

Two cases reported involved antibodies not generally considered to be clinically significant, however no alternative cause for the reactions could be identified.

Case 18.6: Acute haemolytic transfusion reaction (AHTR) reported with a direct antiglobulin test (DAT)-positive unit

A cancer patient transfused two units for anaemia became unwell during the transfusion of the second unit, exhibiting symptoms of a HTR. The transfusion was stopped, and the unit was sent to the transfusion laboratory for investigation. The pre- and post-transfusion samples both gave a negative antibody screen and negative DAT. A DAT performed on the unit found that it was positive for C3d. There have been no previous reports of adverse events in patients due to the transfusion of a DAT-positive component, however no alternative cause of the reaction could be found.

Case 18.7: Delayed haemolytic transfusion reaction (DHTR) in a patient with anti-HI

A patient with sickle cell anaemia and a negative antibody screen was treated by exchange transfusion. Eleven days later they were readmitted with a suspected delayed transfusion reaction. The patient had a rising bilirubin and falling haemoglobin (Hb) and the post-transfusion sample was found to be DAT positive, with a non-specific pan-reactive autoantibody detected. Further samples sent to the Blood Service were found to contain anti-HI.

Anti-HI is not considered to be clinically significant however 3 previous reports of DHTR due to anti-HI in sickle cell patients have been reported (Ibanez et al. 2016).

Reference

Ibanez C, Habibi A, Mekontso-Dessap A, et al. (2016) Anti-HI can cause a severe delayed haemolytic transfusion reaction with hyperhaemolysis in sickle cell disease patient. *Transfusion* 2016;**56**:1828-1833.