NHS
Blood and Transplant

SHOT case studies

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Caring Expert Quality

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Human Factors

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Incorrect storage

- RAADP requested for woman by community midwife.
- The anti-D was issued and collected by team
- However the midwife had written the date required incorrectly on the request form and the lady did not attend clinic
- The anti-D was not returned to the lab but kept in a draw in the midwifes' office

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- The woman was given the anti-D when she did attend clinic 3 weeks later
- The product manufacturer states the anti-D is only stable at RT for a maximum of 4 days

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Transcription error

- 81 year old male with MDS requiring two unit transfusion
- Patient had a history of anti-S
- During transfusion of the second unit the patient developed rigors, increase temp., hypotension and tachycardia
- On investigation second unit was found to be positive for the S antigen

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Root cause

- BMS selecting unit mistook HbS-negative for S-negative
- Unit was positive on crossmatch but BMS was unsure what order the units were listed on the worksheet so recorded the incompatibility against the wrong unit
- Failure to detect that the unit was not S-negative during the second check

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Incorrect Blood Component Transfused

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Neonatal transfusion

- Maternal sample taken at 16/40 found to have anti-D+C
- Mother was referred to fetomaternal specialist unit and monitored throughout pregnancy
- The baby was born at 36/40
- The baby was grouped a O positive and showed symptoms of hyperbilirubinaemia and treated with phototherapy and IVIg
- By day 3 the bilirubin had increased so an exchange transfusion ordered

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- The BMS issued 2 units of O positive blood compatible with the baby's group without checking the maternal antibody history and without crossmatching against the maternal sample
- Following transfusion the baby's bilirubin continued to rise so another two units requested

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- A clinician reviewing the case realised that the blood issued was incompatible with the maternal antibodies and ordered D negative units
- Following transfusion of the D negative units the baby's bilirubin reduced and the baby was finally discharged home 5 days later

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Root cause investigation

- Several BMS staff had been involved in issuing the incorrect units
- None of these BMS staff checked the maternal results
- All requests were made by phone and no follow up request form was received by the laboratory. The handover in the laboratory was not effective
- During the initial request there was one BMS dealing with haematology, coagulation and transfusion and an engineer on site.

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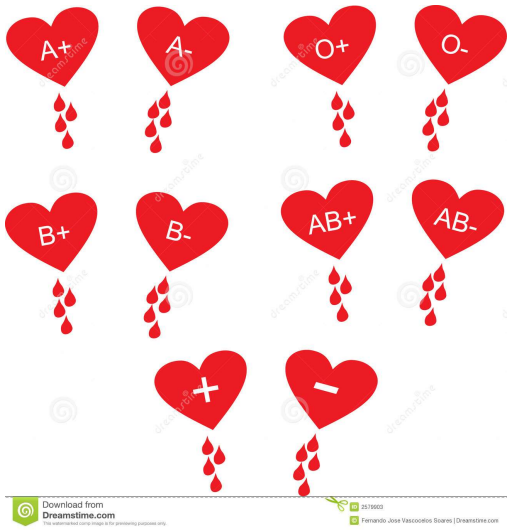
Incorrect blood group



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Grouping of transfused cells

- Sample sent from ED grouped as O Negative
- Group check sample taken 30 minutes later grouped as mixed field

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Root cause investigation

- The patient had been given two units of emergency O neg in the air ambulance immediately before arrival
- It is important to obtain a pre-transfusion sample prior to transfusion of emergency blood but where this cannot be done the sample should be taken from a location distance from the infusion site and the laboratory informed

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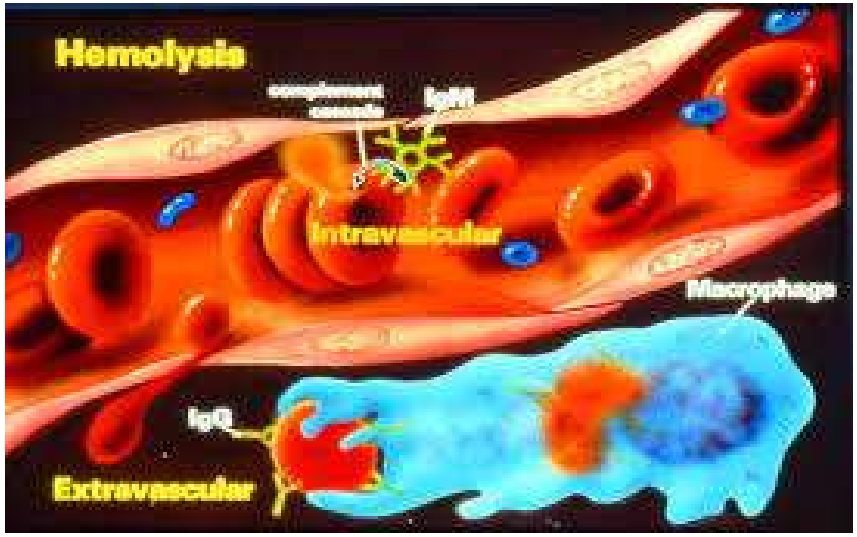
Haemolytic Transfusion Reactions



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Shared care

- Patient received eight unit transfusion at hospital A in preparation for surgery at hospital B with red cells matched for RH and K type only
- She was admitted to hospital B 6 days later with fever, jaundice, black urine and falling Hb

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Shared care

- Hospital B had a historical record of anti-E+S+Fya+Fyb+Fy3
- It was confirmed that several of the units transfused were positive for one or more of these antigens
- Post transfusion testing identified anti-Fya and anti-Fy3 in the eluate and plasma

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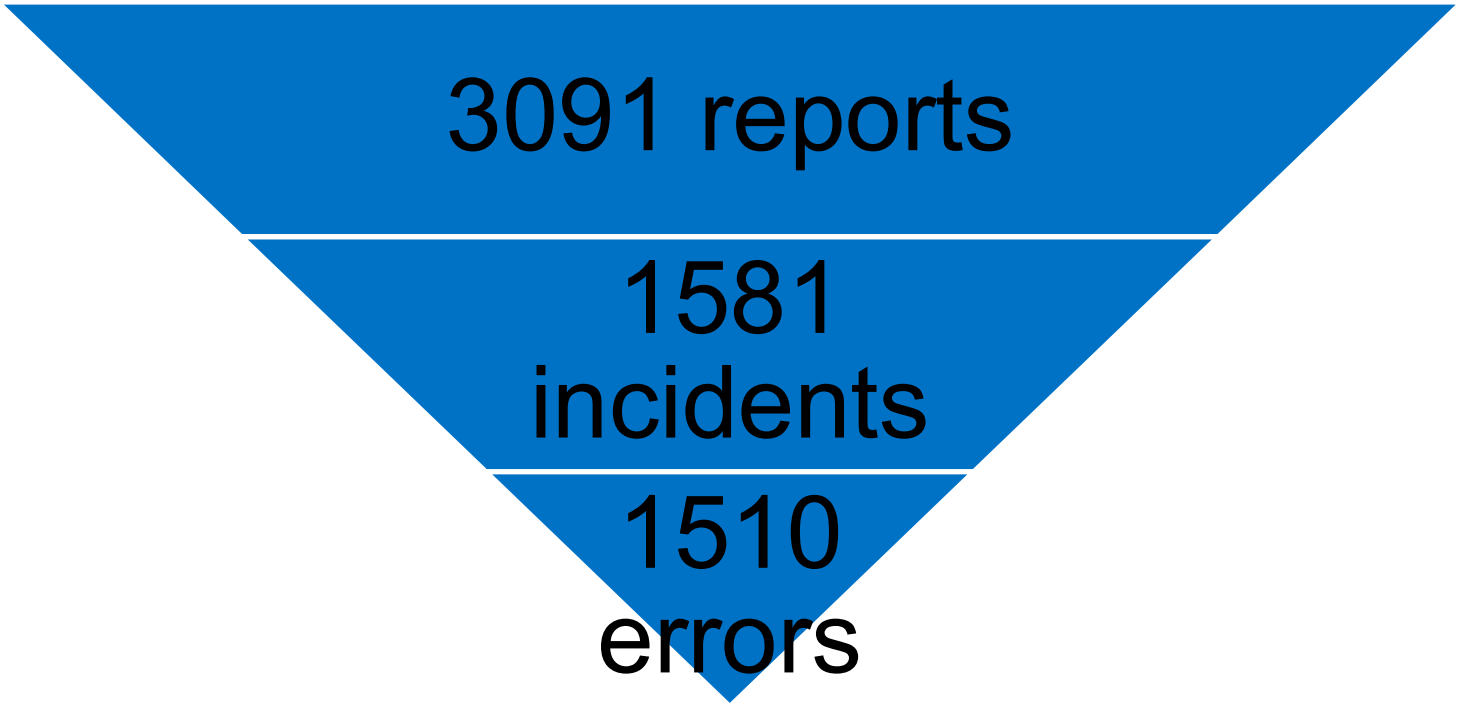

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https://www.shotuk.org/shot-reports/