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# Root Cause Analysis – ABO Error

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# What happened

**2 units of group A blood were issued to a group O patient. 1 unit was fully transfused before the error was noticed.**

**Patient was heavily immunosuppressed and the resulting reaction was not life threatening and resulted in a single overnight stay in hospital.**

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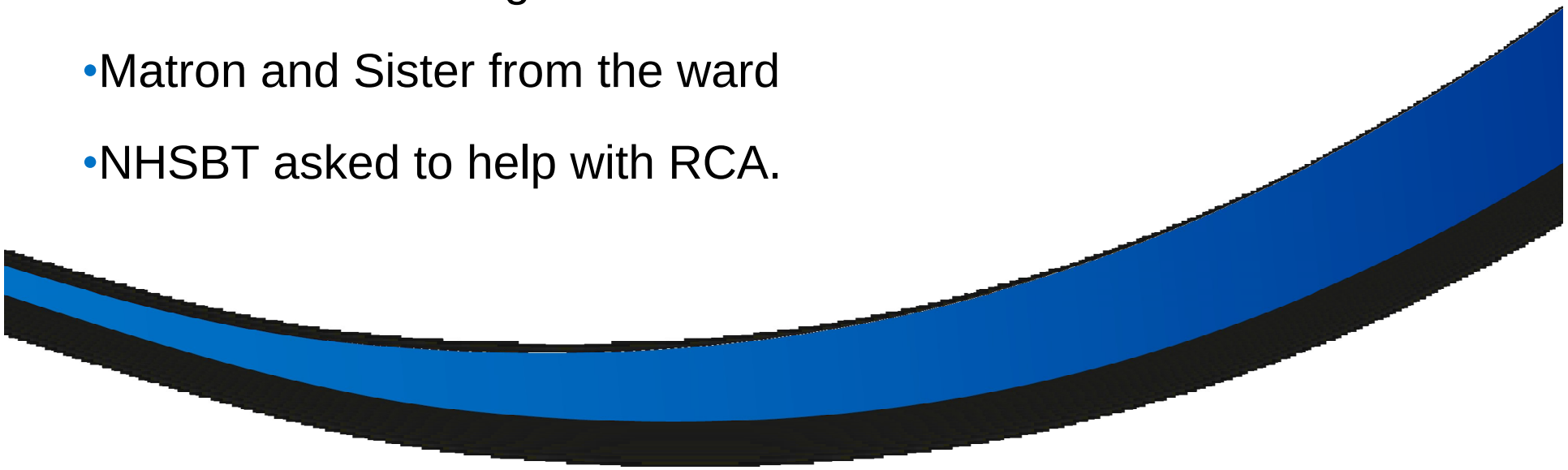
# Root Cause Analysis Team

- Laboratory Manager
- SPOT
- Consultant Anaesthetist
- Consult Haematologist
- Matron and Sister from the ward
- NHSBT asked to help with RCA.



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# Root Cause Methodology

- Overview of circumstances by laboratory manager
- Facilitation using, why/why to determine root cause and how/how to determine solutions.


Summary

- Sufficent engagement from all parties.
- RCA does not have a predefined end point, it takes as long as it takes.
- Review as you go along, everyone must agree each phase of the process.
- Confirm at the end that everyone agrees with the findings and the corrective/preventive actions.

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# Why it happened.

- Member of staff selected wrong units from laboratory fridge. Difficult/impossible to determine why.
- LIMS did alert the operator of the mis-match but this message was less obvious as it was presented along with other alerts that could be over-ridden.
- There was no second person check in the laboratory – a deviation from their procedures.
- The staff on the ward noticed that the units were not compatible but assumed the laboratory ‘would know what they were doing’ and went ahead with the transufsion.
- Root cause a mix of training issues and a poorly formatted LIMS system.

why why

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# Solutions

- Ensure the LIMS is clear and unambiguous. Alerts/errors should not be presented together. Individual alerts should be displayed separately and clearly.
- Update LIMS to provide greater control of the issue of any units found to be not compatible.
- Ensure laboratory procedures are adhered to.
- Retrain ward staff
- Update the training for all clinical staff. To make it clear that patient and blood packs should be compatible and to query with the laboratory if they are not.
- Improve the efficacy of the second person check on the ward, ensure this is fully independent.
- Investigate the use/possiblity of electronic bedside checks.

how how

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# Learning Points

- Review the layout of the main blood bank.
- Ensure LIMS alerts are clear and unambiguous.
- Ensure people are aware of their responsibilities, if they think something is not correct then they must say so and to make sure that they are sufficiently empowered to do so.
- No matter how secure your system/method is, if there are human beings involved then the probability of something going wrong is always present.