Audit of Wrong Blood in Tube (WBIT) in the West Midlands Region

Word Count: 902

Introduction

A ‘Wrong Blood in Tube’ (WBIT) event could result in ABO-incompatible transfusion with potentially catastrophic consequences and major morbidity and mortality. An unintentional transfusion of ABO-incompatible blood components is classed as a NHS England Never Event (2015). Discussions at West Midland Regional Transfusion Committee meetings indicated a concern that WBIT events appeared to be increasing at regional hospitals, and it was requested that a regional audit was performed to investigate this further.

13 organisations completed an online organisational questionnaire, and a total of 126 known WBIT cases were submitted from 14 organisations for the cases audit.

Methods

A consensus approach was adopted to conduct the audit which was agreed by the West Midlands Regional Transfusion Committee (WM RTC). An online (SnapSurveys©) was constructed with paper options available for those who continue to use paper documentation.

Appropriate governance arrangements were implemented and approval to participate in the audit/survey obtained. Caldicott Guardians in each participating site were also informed and asked to approve (or not) their organisations participation in the audit/survey.

An organisational survey was also carried out to ascertain local policy and procedure with regard to blood sample taking.

Data was analysed proportionately (%). Comments were examined for key themes then quantified where appropriate.

Key findings

Organisational questionnaire:

- There was no regional reduction in WBITs between 2013 and 2014 as a proportion of the total number of samples processed (0.0150% 2013, 0.0149% 2014, table 1)
- No organisation had introduced electronic patient identification for phlebotomy services
- 31% (4 organisations) had not introduced the BCSH (2012) “2 sample rule” although three of these were planning to do so
- There is variation in classification of WBIT events on Trust Risk Registers

Case audit:

- Doctors were involved in over 40% of WBIT incidents
- Most WBIT events occur during normal working hours
- Nearly a third of staff involved had not received up-to-date transfusion training/competency assessment
• 40% of WBIT events occurred in the ward environment with a further 20% in emergency settings
• 27% of WBIT events were associated with obstetrics
• Over 80% of WBITs were detected by the laboratory
• WBITs were identified within 4 hours of the event in 70% of cases. 22% were identified in less than 30 minutes
• No patient received a blood component as a result of the WBIT
• Most errors were related to patient identification and labelling issues
• Just over half the cases were the subject of a Root Cause Analysis (RCA) investigation
• Staff responsible for the WBIT were generally re-trained and re-assessed following the incident

Table 1 – Summary of WBIT events in 2013 and 2014

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<td>Totals</td>
<td>366168</td>
<td>21024 (5.7%)</td>
<td>55</td>
<td>389310</td>
<td>21637 (5.5%)</td>
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Recommendations

• All WBITs should be classed by hospitals as a ‘Near Miss Never Event’.
• Hospitals should follow the guidance of the British Committee for Standards in Haematology (2012) Guidelines for Pre-transfusion Compatibility Procedures in Blood Transfusion Laboratories, which recommend that unless secure electronic patient identification systems are in place, a second sample should be requested for confirmation of the ABO group of a first time patient prior to transfusion, where this does not impede the delivery of urgent red cells or other components.
• There should be a hospital policy for the identification and communication of identified WBIT events across pathology.
• All identified WBITs must continue to be reported to SHOT.
• WBIT incidents should be investigated proportional to the event (as advised by the Hospital Transfusion Team) using appropriate ‘root cause analysis’ techniques. Staff using these techniques should be trained in their use. Subsequent actions should relate to the identified root causes. Re-training and re-assessment are not always adequate actions following a WBIT error.
• The West Midlands RTC should adopt the London TP Group’s ‘Top 10 tips for improving sample collection and labelling practice’.
A full copy of the audit report can be obtained from:
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Acknowledgements

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West Midlands Regional Transfusion Audit Team
Hospital Transfusion Practitioners