

HOW TO PREVENT ERRORS IN THE TRANSFUSION LABORATORY

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How to Prevent Errors in the Transfusion Laboratory

- Elements of good transfusion laboratory practice.
- Where in the process do errors occur?
- Who is making the errors?
- Why are the errors occurring - which elements of good transfusion practice are failing?

Elements of Transfusion Laboratory Practice

WHO?

- Staff
 - Numbers
 - Training

WHAT?

- Guidelines
- Standard Operating Procedures

Elements of Transfusion Laboratory Practice

HOW?

- Robust Reagents/Methods
- Equipment/Automation
- Information Technology (IT)

Elements of Transfusion Laboratory Practice

MONITORING

- National External Quality Assessment Scheme (NEQAS)
- Audit
- Error Logging
 - Local
 - SHOT
- Error Analysis

Where do Errors Occur? (1)

	No. of errors
Transcription error	3
Failure to consult/heed historical record	23
Grouping error	30
Missed antibody(ies): Screen error	5
Missed antibody(ies): ID error	2
Missed incompatibility	2
Selection/issue of inappropriate component	24
Labelling error	8
Failure to irradiate	9
Crossmatch error	2

Where do Errors Occur? (2)

	No. of errors
Crossmatch wrong sample	5
Failure to follow protocol	11
Incorrect serological reasoning	3
Clerical error	7
Technical error	7
Failure to clear satellite refrigerator	5
Failure to detect error by Blood Centre	1
Other	10
<u>Total</u>	<u>157</u>

Grouping Errors

- 16 D groups, 14 ABO groups
- 17/30 rapid methods
- 12/17 out of hours
- 14/17 emergencies
- 16/17 detected through routine methods

Grouping Errors – WHY?

- **Error analysis**
- Selection of reagents and methods
- Staff training/experience

Failure to Consult/Heed Historical Record - WHY?

BCSH Guideline for pre-transfusion
compatibility procedures in Blood
Transfusion Laboratories states that one of the
elements in pre-transfusion testing is:

A computer or manual check of records.

Failure to Consult/Heed Historical Record - WHY?

- **Error analysis**
- Should guideline be more prescriptive?
- Interpretation of guideline into local SOP?
- Inadequate IT system?
- Inadequate staff training?
- Staff shortages?
 - Are errors not being addressed?
 - Responsibility passed to another staff group?

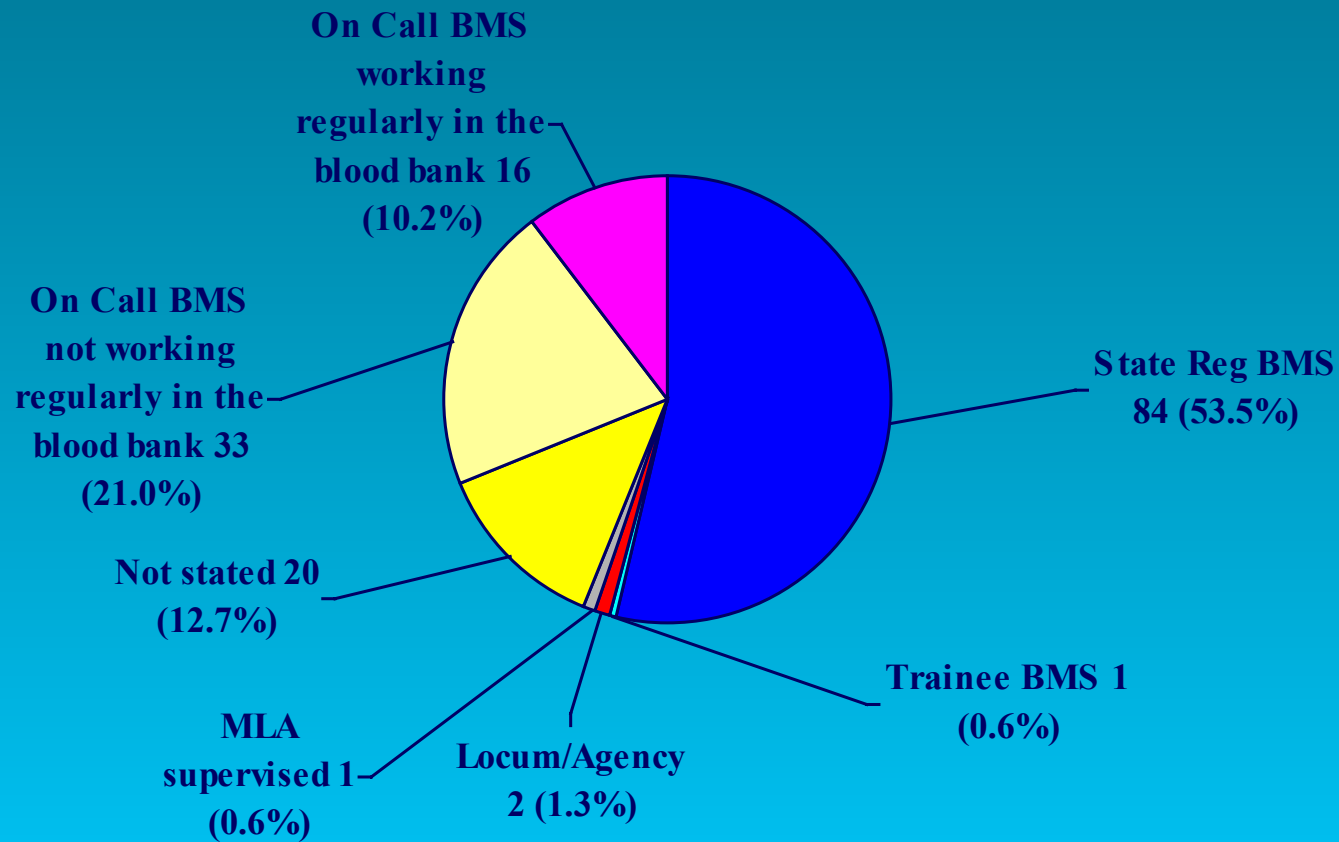
Selection/Issue of Inappropriate Component - WHY?

- SOPs
 - no perfect SOP
 - must cover all components
 - clear and unambiguous
- Staff Training
 - practise makes perfect
- IT
 - inadequate

Failure to Follow Protocol - WHY?

- SOP
- **Staff Training**
 - Initial training
 - Ongoing training
 - theoretical knowledge
 - competency based training
 - frequency of re-training
 - time to read/digest/question SOPs

When are Errors Made and Who Makes Them?



Conclusion

- **Information Technology**
- **Error Analysis**
- **Staffing**
 - **Sufficient Numbers/Appropriate Grades**
 - **Required Education/Training/Competencies**
 - **‘In hours’ and ‘Out of hours’**