Free Lessons From Near Miss Transfusion Errors

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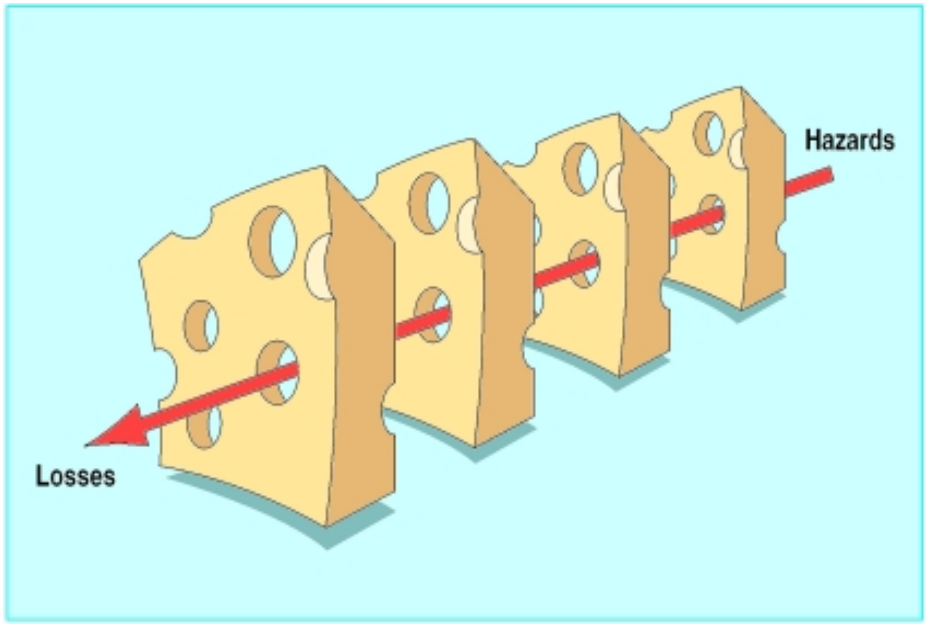
Free Lessons

- Near miss incidents, where errors are caught before harm is done, can be described as "free lessons" (James Reason, 2008[1])



- Reason's Swiss cheese model

  (James Reason, 2000[2])

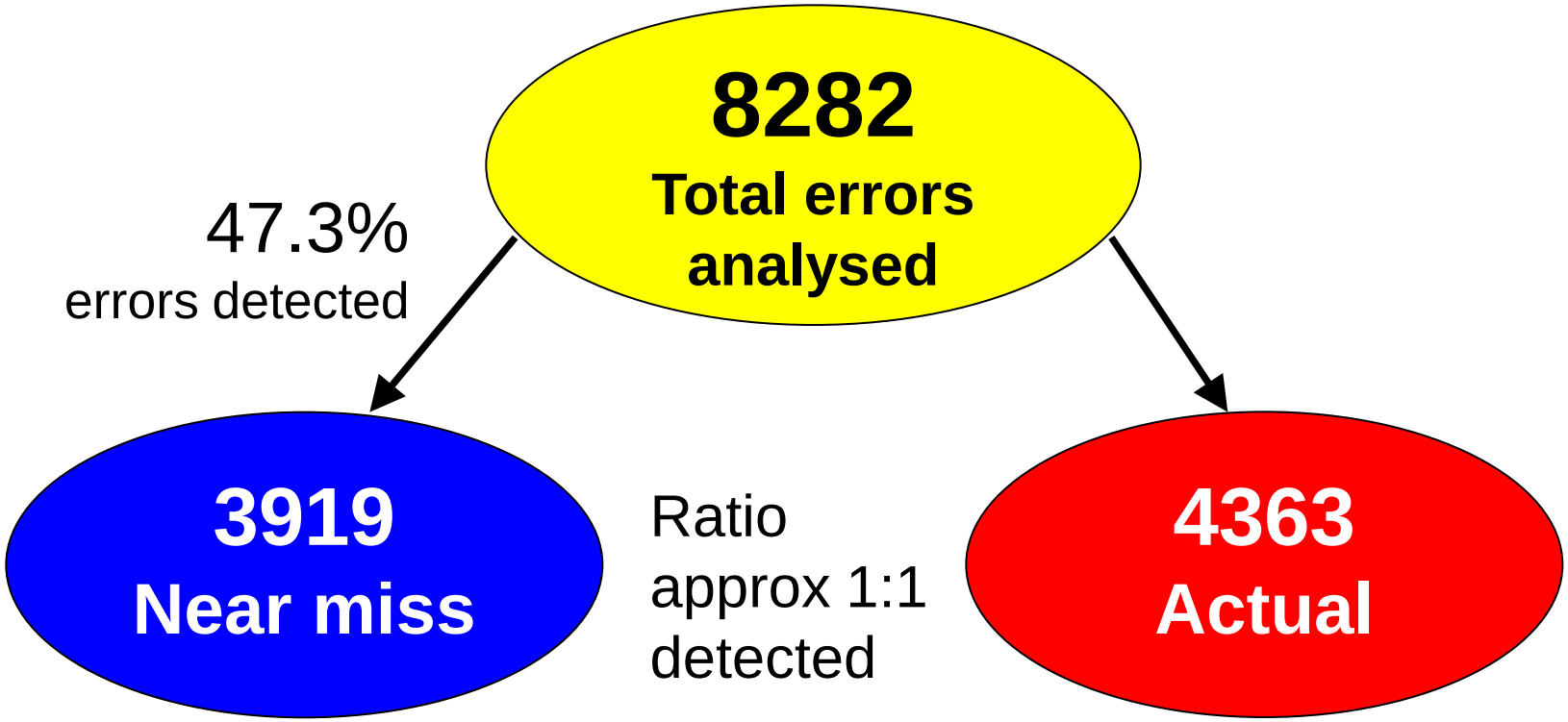
1. James Reason: **The Human Contribution**. Farnham, Surrey: Ashgate; 2008.
2. James Reason: **Human error: models and management** *BMJ* 2000;320:768–70

SHOT Near Misses

- UK's national haemovigilance scheme, Serious Hazards of Transfusion (SHOT)
- Data collected since 1999 on near miss errors
- Fully analysed since 2010 when electronic SHOT database began

Analysis of errors 2010-2013

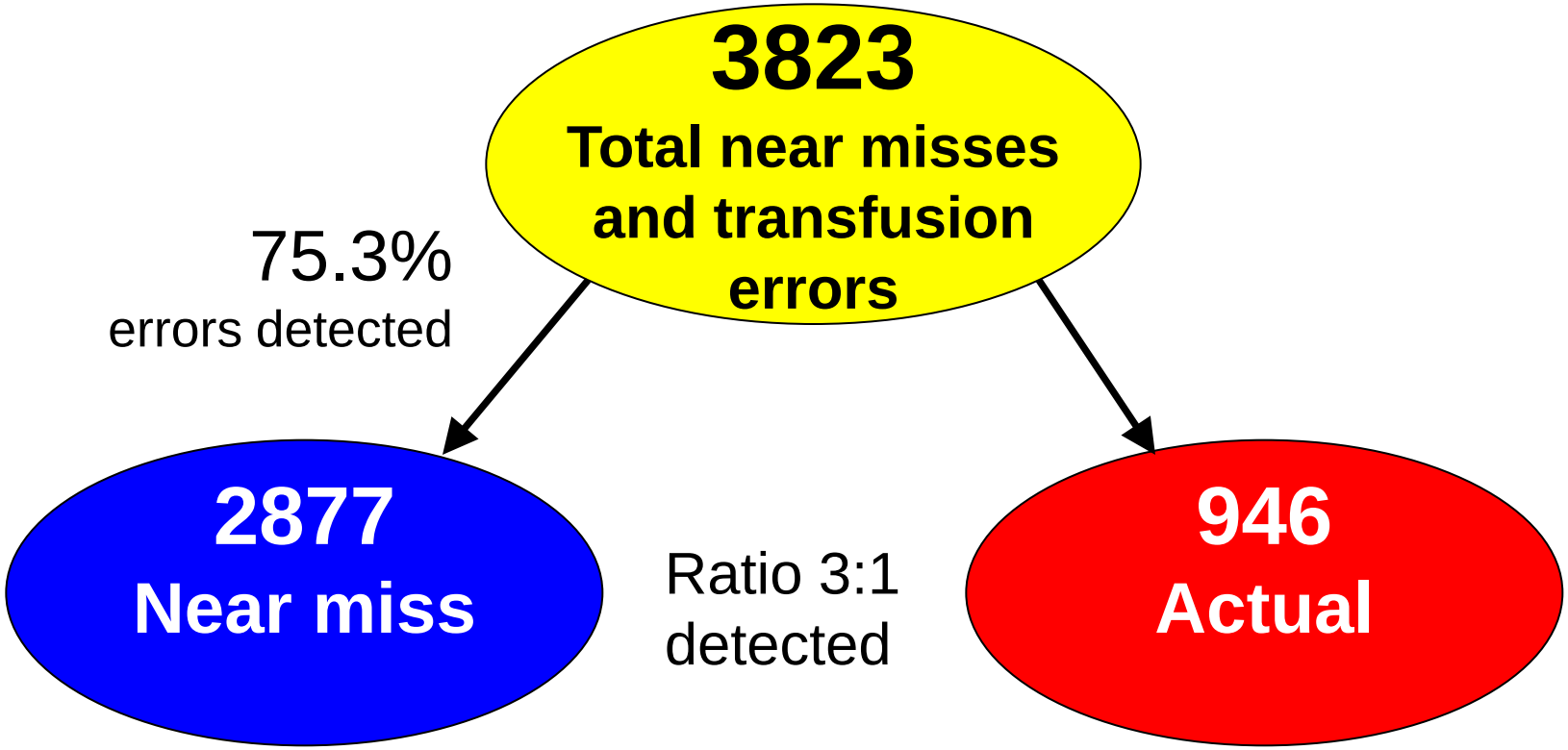
- Near miss reports analysed from 2010-2013 (4 years) and compared to actual error incidents in the same period



More near misses → fewer actual incidents of patient harm

- Giving a patient the wrong blood is the most dangerous transfusion error

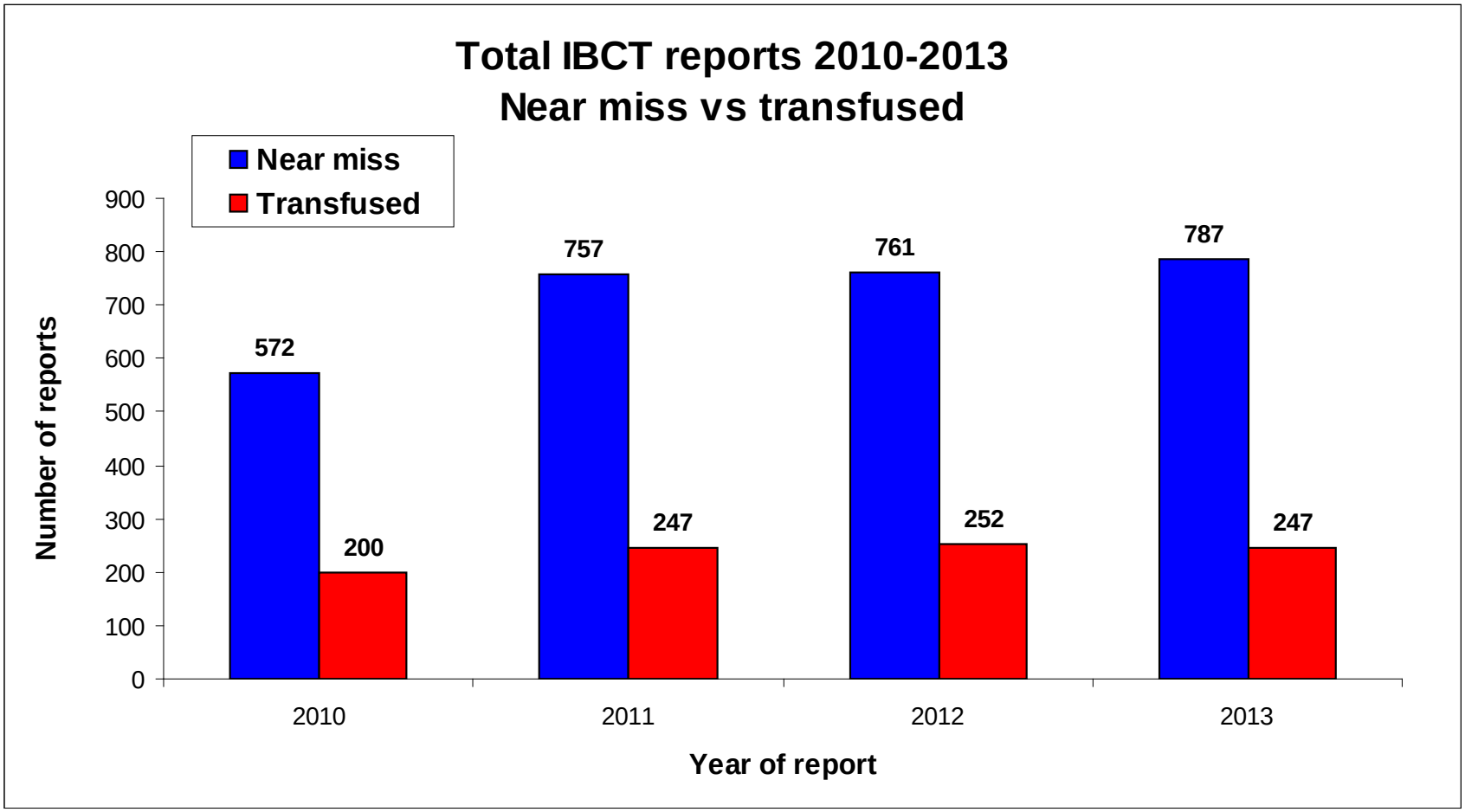
Near miss vs actual incorrect transfusions (2010-13)



N.B. Figures presented here have been corrected, so are different from those in the published abstract

Near miss vs actual incorrect component transfused

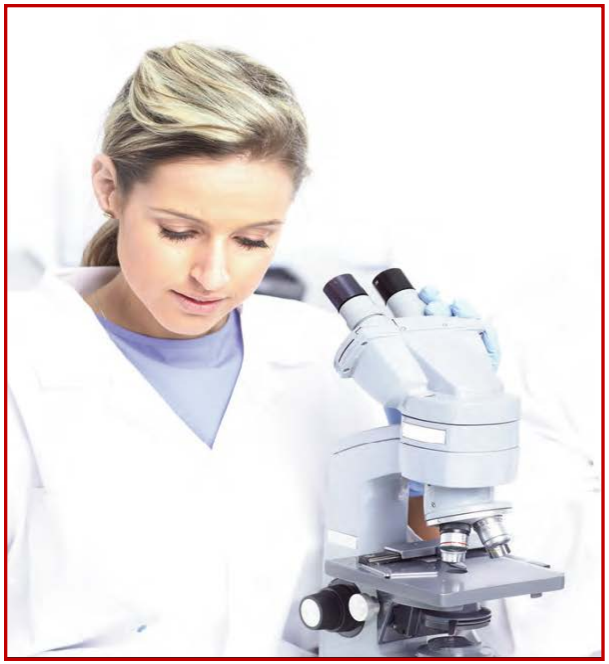
(4 years data, 2010-13)



Wrong blood in tube vigilance → fewer incorrect transfusions

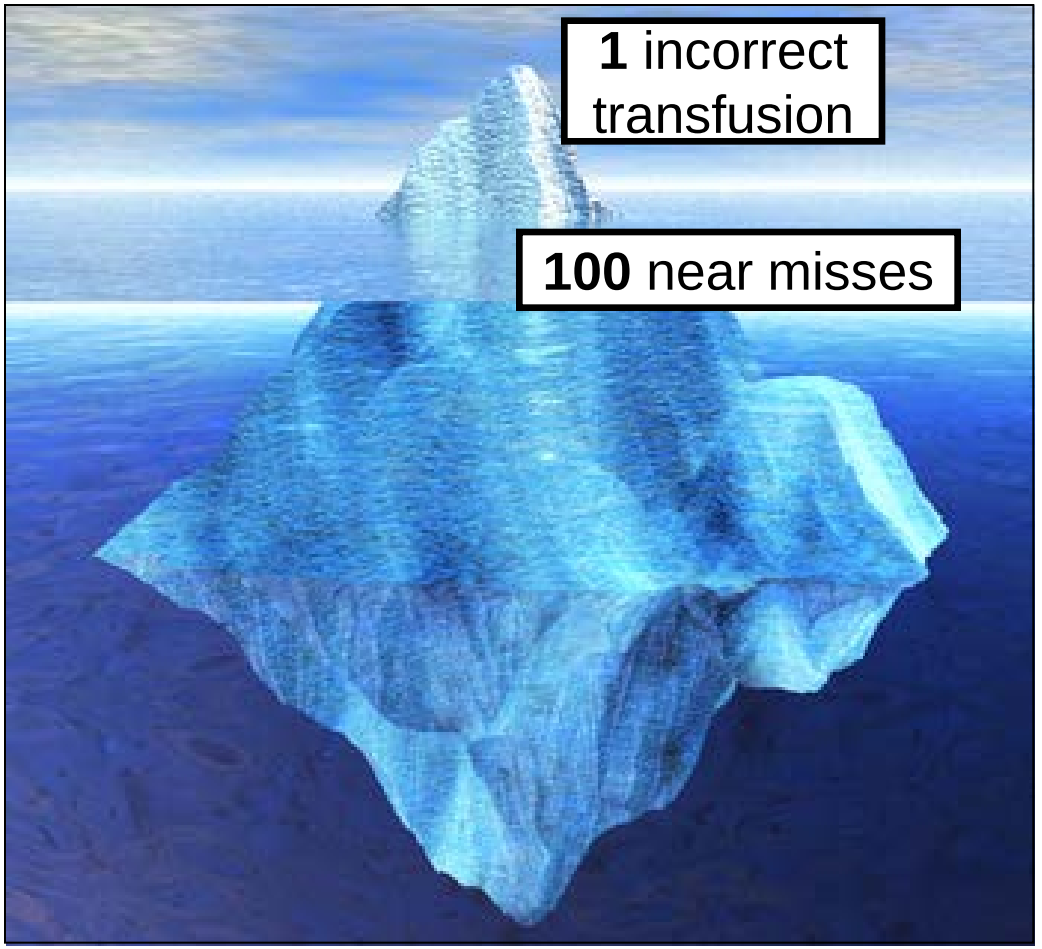
- Many near misses with potential to lead to the transfusion of an incorrect blood component are ‘wrong blood in tube’ incidents

- Often detected by staff vigilance, particularly in transfusion laboratories



Wrong blood in tube vigilance → NO incorrect transfusions in 2013

- Previously about 100 near misses for every one incorrect transfusion due to wrong blood in tube
- But in 2013 there were **NO** incorrect transfusions resulting from 643 wrong blood in tube incidents



Learning points

- Quality management systems, particularly in transfusion laboratories, detect errors that could lead to incorrect blood component transfusions

- Quality systems in parts of the transfusion process could be improved to detect more errors before they lead to patient harm

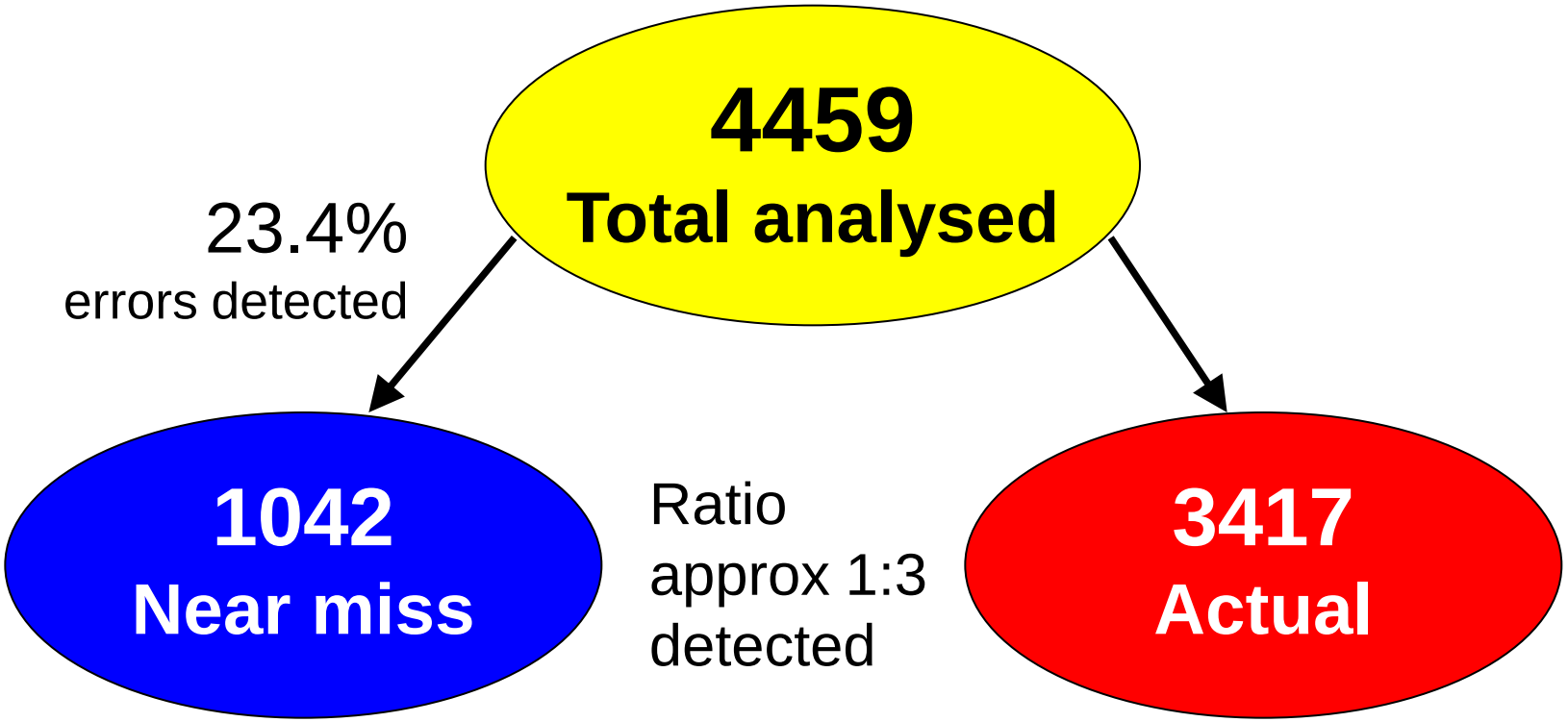
Fewer near misses → more unsafe transfusions

- A majority of other incidents are not being detected before patient harm

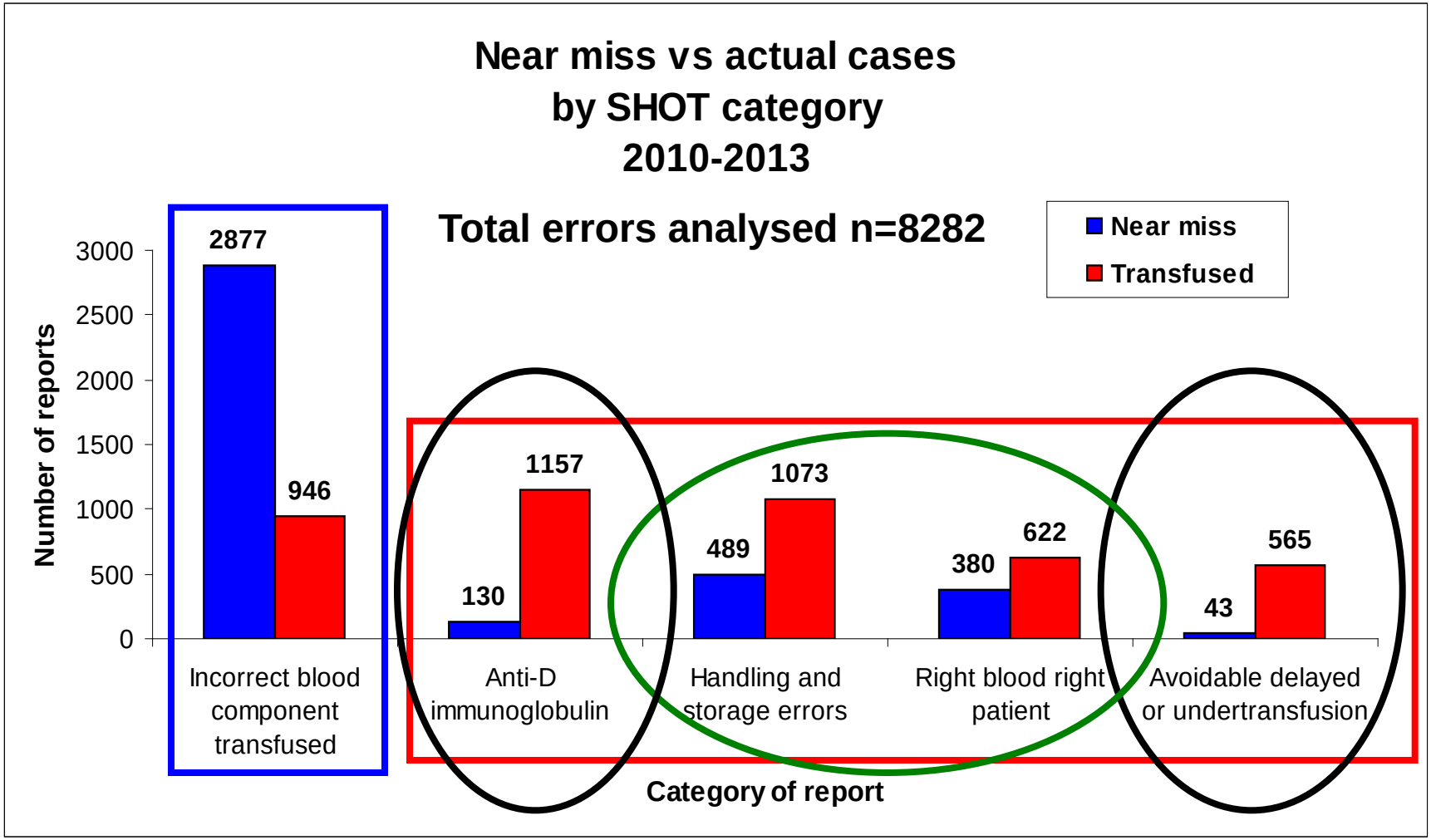
Error	Near Miss	Actual
Anti-D immunoglobulin (anti-D)	130	1157
Handling and storage errors (HSE)	489	1073
Right blood right patient (RBRP)	380	622
Avoidable, delayed or undertransfusion (ADU)	43	565
Totals	1042	3417

Analysis of near misses in categories other than incorrect transfusions (2010-2013)

- Other error categories are not detected so effectively



Detection of incorrect transfusions and other error categories



Learning point

- Near misses are “free lessons” that flag up risk of harm to patients, so increased reporting of these may highlight where quality improvements could be made

SHOT Recommendations

- Report **all** near misses as well as actual incidents, so lessons can be learnt

- Management of transfusion should be a specific Care Quality Commission (CQC) standard

Acknowledgements

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  - Steering Group

SHOT Symposium 2015

The next Annual SHOT Report (2014 data) will be launched in June 2015.

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Included in ISBT/BBTS Congress

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