

# ANNUAL SHOT REPORT 2016 SUMMARY

**TOTAL REPORTS**  
**3091**

**87% ERRORS**



**MHRA:**  
**98%**  
SAE reports due to  
**ERROR**

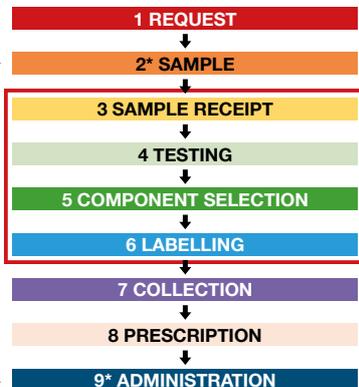
## Key SHOT Message

ABO-incompatible transfusions are the tip of the iceberg; they most commonly result from failure to identify the patient at the time of blood sampling (wrong blood in tube) or administration to the wrong patient.

Critical points where positive patient identification is essential



All samples must be labelled at the bedside from the wristband details. Unlabelled blood samples MUST NOT leave the SAMPLE CIRCLE. Unlabelled blood samples outside the circle should be disposed of.

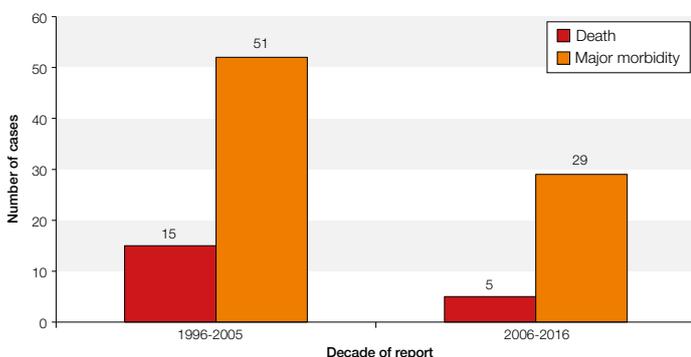


Critical points in the laboratory

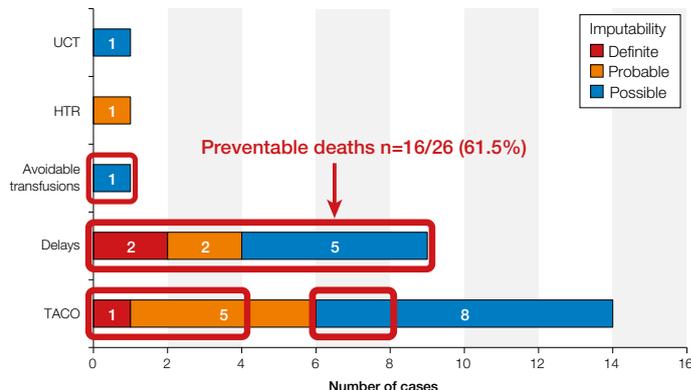


**Key recommendation 1 – Be like a pilot: use a bedside checklist as standard of care, this will prevent administration errors and is the final opportunity to detect errors made earlier**

**Good news:** reduction in ABO-incompatible transfusions over 20 years of SHOT



**Bad news:** 26 patients died where transfusion was implicated in 2016; 16 deaths could probably have been prevented

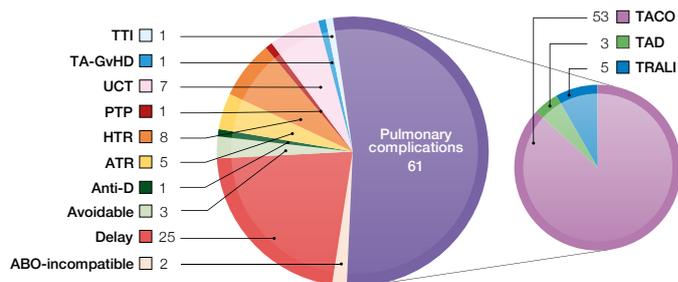


**Key recommendation 2 – use a TACO checklist**

TACO Checklist	Red cell transfusion for non-bleeding patients	If 'yes' to any of these questions
	Does the patient have a diagnosis of 'heart failure' congestive cardiac failure (CCF), severe aortic stenosis, or moderate to severe left ventricular dysfunction? Is the patient on a regular diuretic?	<ol style="list-style-type: none"> <li>Review the need for transfusion (do the benefits outweigh the risks)?</li> <li>Can the transfusion be safely deferred until the issue can be investigated, treated or resolved?</li> <li>Consider body weight dosing for red cells (especially if low body weight) Transfuse one unit (red cells) and review symptoms of anaemia Measure the fluid balance Consider giving a prophylactic diuretic Monitor the vital signs closely, including oxygen saturation</li> </ol>
	Is the patient known to have pulmonary oedema? Does the patient have respiratory symptoms of undiagnosed cause?	
	Is the fluid balance clinically significantly positive? Is the patient on concomitant fluids (or has been in the past 24 hours)? Is there any peripheral oedema? Does the patient have hyponatraemia? Does the patient have significant renal impairment?	

Due to the differences in adult and neonatal physiology, babies may have a different risk for TACO. Calculate the dose by weight and observe the notes above.

Pulmonary complications, particularly transfusion-associated circulatory overload (TACO), cause the most deaths and major morbidity. Delayed transfusions are an important cause of death, 25/115 (21.7%) 2010 to 2016



See full SHOT Report ([www.shotuk.org](http://www.shotuk.org)) for additional recommendations in the following chapters: Incorrect Blood Component Transfused, Information Technology Incidents, Adverse Events Related to Anti-D immunoglobulin, Immune Anti-D in Pregnancy, Acute Transfusion Reactions, Cell Salvage and Paediatric Summary.



[www.shotuk.org](http://www.shotuk.org)  
@shothv1

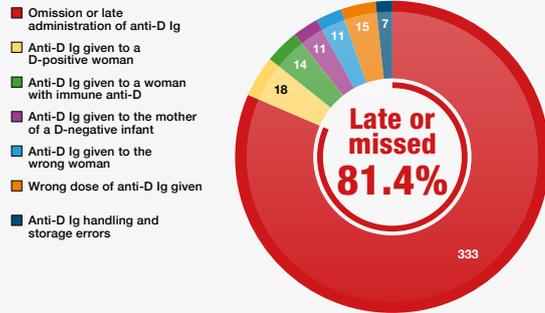
SERIOUS HAZARDS OF TRANSFUSION

**SHOT**

## Additional key SHOT messages

Many errors in transfusion, some with serious clinical consequences, relate to poor communication between teams, shifts and interfaces. The infrastructure needs improvement to facilitate exchange of results within and between hospitals. IT errors contributed to 1 in 5 SAE reported. IT is not infallible, it makes transfusion practice safer by helping to control and support the task, but **does not replace knowledge** about the task.

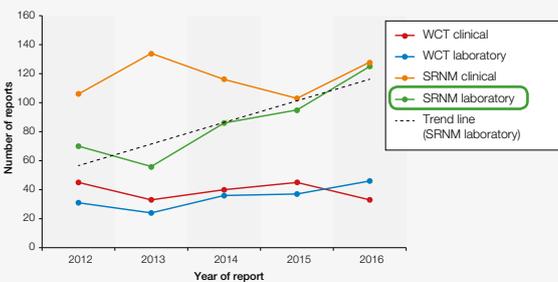
### Errors with anti-D immunoglobulin



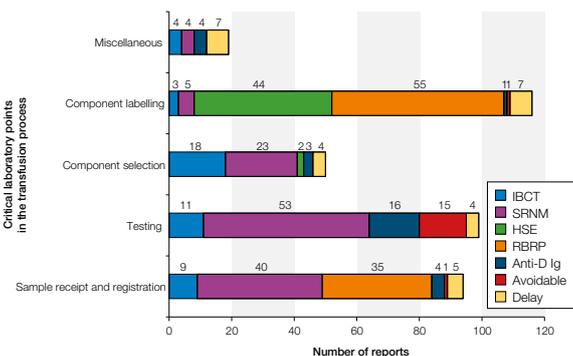
### Key SHOT messages for laboratory staff

- Understaffing and poor knowledge and skills featured in many reports in 2016: 10.0% (103/1027) of SAE reported to the MHRA result from errors made when the workload was considered to be too high or staffing too low. This was also reflected in SHOT reports
- Appropriate use and management of LIMS are essential for patient safety
- Gap analyses should be performed against national transfusion guidelines and SOP amended to correct deficiencies and to identify any necessary alterations to laboratory procedures

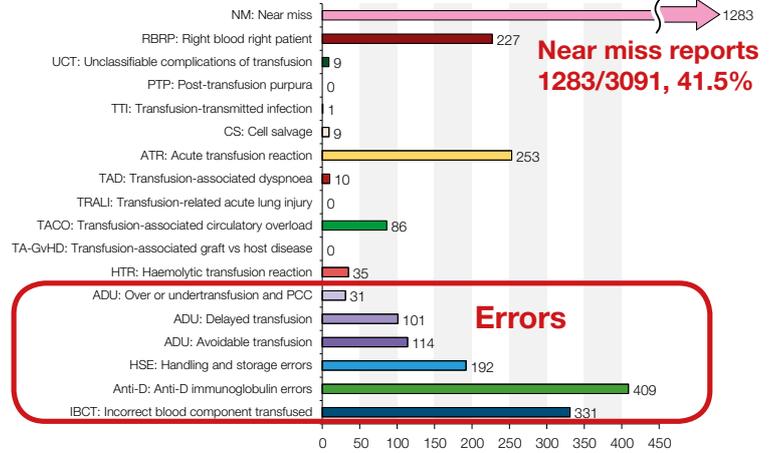
### Increasing missed specific requirements by laboratories



### 2016 SHOT laboratory error data (n=378) showing outcome



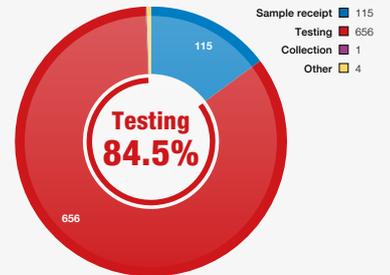
### Overview of 2016 Reports



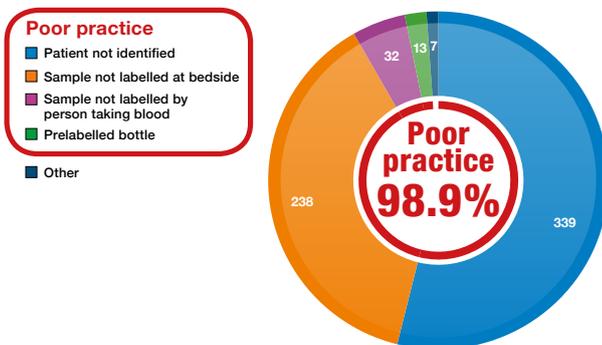
### Near miss IBCT-WCT cases n=881



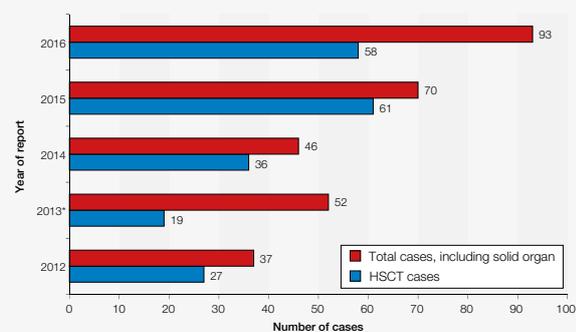
### Wrong blood in tube incidents are detected at testing



### Most near miss incidents are clinical errors



### Increasing numbers of errors with transplants



23 ABO and D transplant errors in 2016;  
19 in haemopoietic stem cell transplants  
4 in solid organ transplants

#### CONTACT DETAILS

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