

Progress with transfusion safety in hospitals: a continuing journey

Mike Murphy Professor of Blood Transfusion Medicine, University of Oxford Consultant Haematologist, NHS Blood & Transplant/Oxford University Hospitals

Oxford Radcliffe Hospitals



NHS National Institute for Health Research

Hospital blood transfusion

- High activity (2.2 million units of red cells to 500,000 patients/year in the UK; 25,000 units of red cells/year in Oxford)
- High cost (£300+ million/year for the cost of blood in England; £4.5 million/year in Oxford; unknown costs for the transfusion process)
- High risk (159 deaths due to transfusion in the last 15 years in the UK; 27 deaths and 120 cases of major morbidity due to 'wrong' transfusions)



Implementation of the EU Blood Safety Directive

Background and Guidance on reporting Serious Adverse Events & Serious Adverse Reactions





DH Department of Health

Health Service Circular

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Better Blood Transfusion

Safe and Appropriate Use of Blood For action by Strategic Health Authorities (England) - Chief Executive Strategic Health Authorities (England) - Directors of Public Health NHS Trusts - Chief Executives Primary Care Trusts - Chief Executives and Main Contacts NHS Blood & Transplant - Chief Executive For information to: Chief Medical Officers Wales/Scotland/Northern Ireland Nursing Statutory Bodies - Chief Executives Professional Associations and Royal Colleges Strategic Health Authority Directors of Public Health Strategic Health Authority Directors of Performance Management Strategic Health Authority Nurse Directors Postgraduate Medical Deans

Monitor Foundation Trusts

MANY DRIVERS FOR IMPROVING **HOSPITAL TRANSFUSION**



NHS Evidence

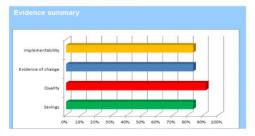
Electronic blood transfusion:

Improving safety and efficiency of transfusion systems Provided by: Oxford Radcliffe Hospitals

Publication type: Quality and productivity example

QIPP Evidence provides users with practical case studies that address the quality and productivity challenge in health and social care. All examples submitted are evaluated by NICE. This evaluation is based on the degree to which the initiative meets the QIPP criteria of savings, quality, evidence and implementability; each criterion is given a score which are then combined to give an overall score. The overall score is used to identify the best examples, which are then shown on NHS Evidence as 'recommended'.

Our assessment of the degree to which this particular case study meets the criteria is represented in the evidence summary graphic below



Safer p	ractice notice 14	
	Right patient, right blood	
	Blood transfusions involve a complex sequence of activities and, to ensure the right patient receives the right blood, there must be strict checking procedures in place at each stage.	
(\mathbf{N})	An initiative has been launched that offers a range of long and short term strategies to ensure blood transfusions are carried out safely. The National Patient Safety Agency (MFSA), the Chief Medical Officery National Blood Transfusion Committee (NBTC) and Sarious Hazards of Transfusion (SHOT) have collideorate to develop and exvisus Hease strategies. ¹	
Nation	Administering the wrong blood type (ABD incompatibility) is the most serious outcome of error during transfusions. Most of these incluents are due to the failure of the final identity checks camed out between the patient (at the patient's side) and the blood to be transfused.	
Notice 9 November 2006	SHOT data have shown that between 1996 and 2004, five patients died as a direct neutral to being given ABO incompatible blood. ABO incompatibility contributed to the deaths of a further nine patients and caused major mobility in 54 patients. ²	

mmediate action

Pet- NPS A/2006/14

Action

Update

Action for the NHS and the independent sector

for

By May 2007, all NHS and independent sector organisations responsible for administering blood transfusions in England and Wales should have: Agreed to and started to implement an action plan for competency-based training and assessment for all staff involved in blood transfusions. training and assessment for all staff two/bwd in blood translutions. 2 Ensured that the compatibility form (or equivalent) and patient notes are not used as part of the final check at the patient's side. They should comply with that's blood translusion poky which significant that the final identity check must be done next to the patient by matching the blood pack with the patient's writhband (or identify band/photo) identification caft).

Systematically examined their local blood transfusion procedures, u formal itsk assessment processes, and appraised the feasibility and

 bar codes or other electronic identification and tracking systems for patients, samples and blood products (a clinical transfusion management system); b photo identification cards for patients who undergo regular blood transfusions c a labelling system of matching samples and blood for transfusion to the

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Rapid Response Report

NPSA/2010/RRR017

From reporting to learning

21 October 2010

The transfusion of blood and blood components in an emergency

Issue

The urgent provision of blood for life threatening haemorrhages requires a rapid, focused approach as excessive blood loss can jeopardise the survival of patients. Early recognition of major blood loss and immediate effective interventions are vital to avoid hypovolaemic shock and its consequences. One such action is the rapid provision of blood and blood components, for which effective communication between all personnel involved in the provision and transportation of blood is key

Evidence of harm

During the period October 2008 to September 2010, the National Patient Safety Agency (NPSA) received reports of 1 deaths and 83 incidents in which a patient was harmed as a result of delays in the provision of blood in an acute situation

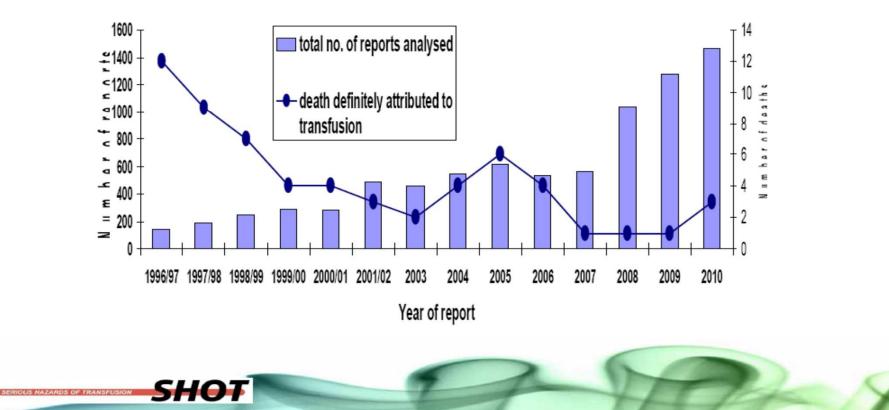
Reducing the risk of harm

This Rapid Response Report (RRR) is intended to focus the attention of hospitals on the systems in place and the hur factors that impact on the efficient provision of blood in emergencies. Other guidance available that should be conside alongside this RRR includes guidance issued by the British Committee for Standards in Haematology (2008); the recommendations of the Confidential Enquiries into Maternal and Child Health (CEMACH) (2007) for a protocol for the management of massive obstetric haemorrhage; and the Royal College of Obstetricians and Gynaecologists guidance Blood transfusion in obstetrics (2008).

For IMMEDIATE ACTION by the NHS and independent (acute) sector. Actions should be led by an executive director nominated by the Chief Executive, working with the Chair of the Hospital Transfusion Committee Deadline for ACTION COMPLETE is 26 April 2011.

NHS National Patient Safety Agence

Deaths definitely attributed to transfusion 1996/97 - 2010



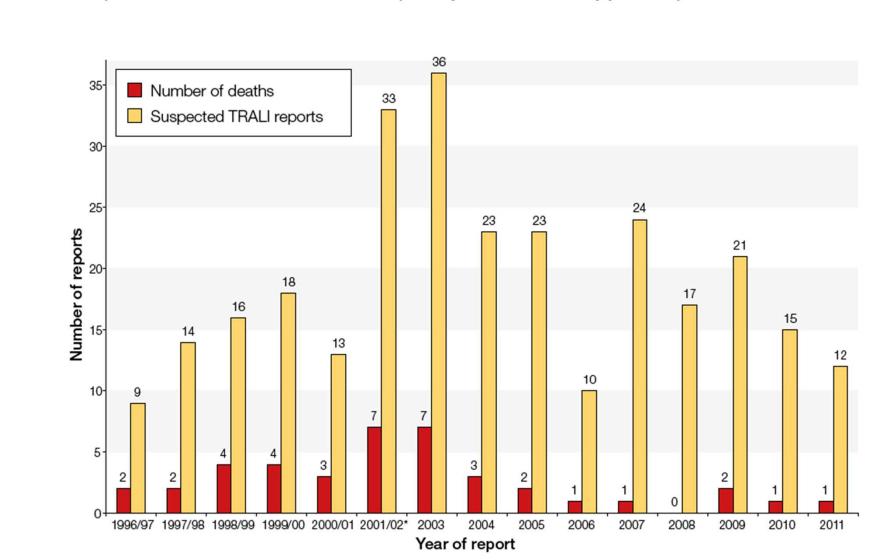
Risks of mortality and major morbidity per 1,000,000 blood components issued in 2011

Total mortality2.7Total major morbidity39.6

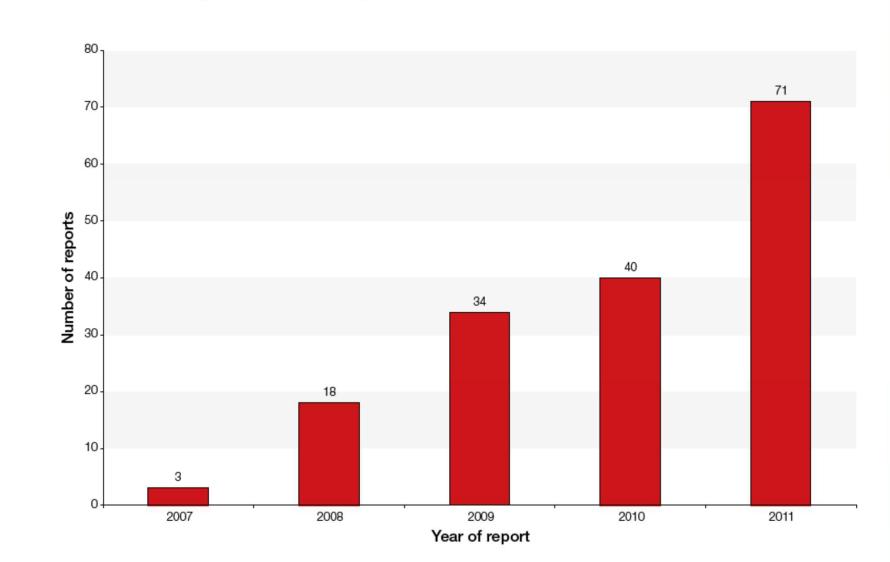
Approximately 3,000,000 blood components issued annually by UK blood services

Major Morbidity and Mortality per 1,000,000 components issued in 2011

	Mortality	Major morbidity
Total	2.7	39.6
All errors	0.7	5.4
Acute transfusion reacns.	0.7	17.9
Haemolytic trans. reacns.	0.0	3.7
TRALI	0.3	2.7
TACO	0.7	8.1
Trans-assoc. dyspnoea	0.0	1.0
Post-trans. purpura	0.0	0.3
Paediatric cases	0.3	5.1

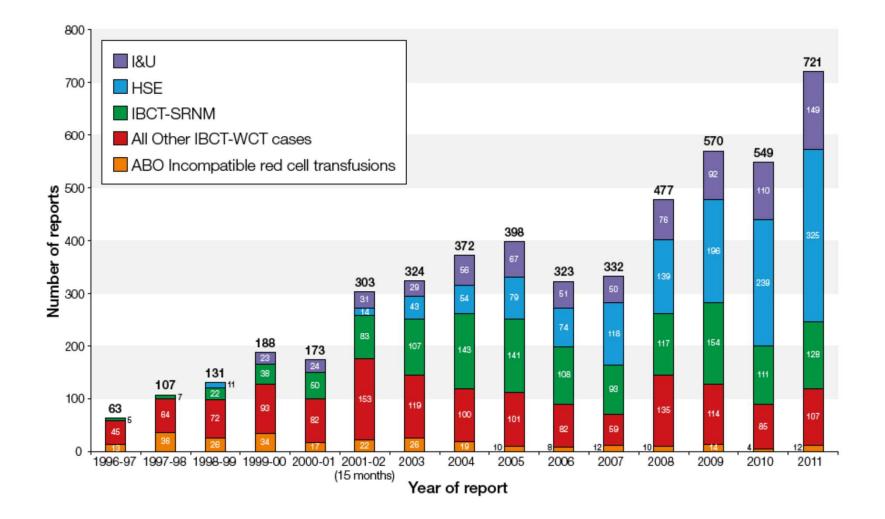


Number of suspected TRALI cases and deaths at least possibly related to TRALI by year of report



Number of cases of TACO reported to SHOT each year

Incorrect blood components transfused (IBCT) either due to wrong component (WCT) or where special requirements were not met (SRNM), handling and storage errors (HSE), showing the number that resulted in ABO-incompatible transfusions



Participation in SHOT

1996/97	2010	2011
94/424 organisations 22%	208 organisations 95%	225 organisations 98.4%
141 reports	1464 reports	1815 reports
	863 near	1080 near
	misses	misses

Near Miss – sample errors & WBIT

- Near miss reports are about 30% of the total reports
- Sample errors are about 50% of the near misses
- Wrong blood in tube (WBIT) are >90% of the sample errors

	2010	2011
Total SHOT reports analysed	2464	3038
Near misses	863	1080
Sample errors	409	508
Wrong blood in tube (WBIT)	386	469

How do wrong sample errors occur?

Practices leading to WBIT	Number of cases	Percentage of cases
Patient not identified correctly	174	37.1%
Sample not labelled at bedside	174	37.1%
Sample not labelled by person taking blood	23	4.9%
Pre-labelled sample tube used	10	2.1%
Other/Unknown	88	18.8%
Total	469	100.0%