


# Staff responsible for wrong blood in tube incidents



Staff responsible for taking sample	Number of cases	Percentage of cases
Doctor	176	37.5%
Nurse	88	18.8%
Midwife	16	16.7%
Healthcare assistant	25	5.3%
Phlebotomist	32	6.8%
Medical student	1	0.2%
Unknown/not stated	69	14.7%
<b>Total</b>	<b>469</b>	<b>100%</b>

# Many errors made by individuals who were competency assessed

	Number	Competency assessed	Not competency assessed	Not known or blank
<b>Errors with Anti-D Ig</b>				
Pre-administration sample	18	3	2	13
Laboratory procedures	53	40	5	8
Collection of anti-D Ig	20	11	4	5
<b>Laboratory errors where the special requirements were not met</b>	57	47	7	3
<b>Incorrect blood component transfused</b>				
Sample collection	8	2	1	5
Laboratory errors	68	52	9	7
Collection	11	9	2	
<b>TOTAL n=235</b>	<b>235</b> <b>(100%)</b>	<b>164</b> <b>(69.8%)</b>	<b>30</b> <b>(12.8%)</b>	<b>41</b> <b>(17.4%)</b>

# **Where are we now?**

## **‘Back to Basics’**

**Mistakes are about half  
of all reports to SHOT**

- ✓ Identify the right patient and label the sample correctly
- ✓ Perform correct laboratory procedures including issue of correct component
- ✓ Identify and transfuse to the correct patient

# **Transfusion safety in hospitals: where are we now?**

- Safety of hospital transfusion still an issue
- Poor education and training
- National, regional and local audits consistently show inappropriate use of 15-20% red cells and 20-30% platelets/plasma
- Low uptake of methods to avoid use of blood
- Evidence base getting stronger but more research needed
- Poor IT for blood safety and for providing data on blood usage

See NBTC Annual Reports

<http://www.transfusionguidelines.org.uk/Index.aspx?Publication=NTC&Section=27&pageid=1075>

## **“Our vision” in Oxford**

To develop and implement process change in hospital transfusion supported by IT to:-

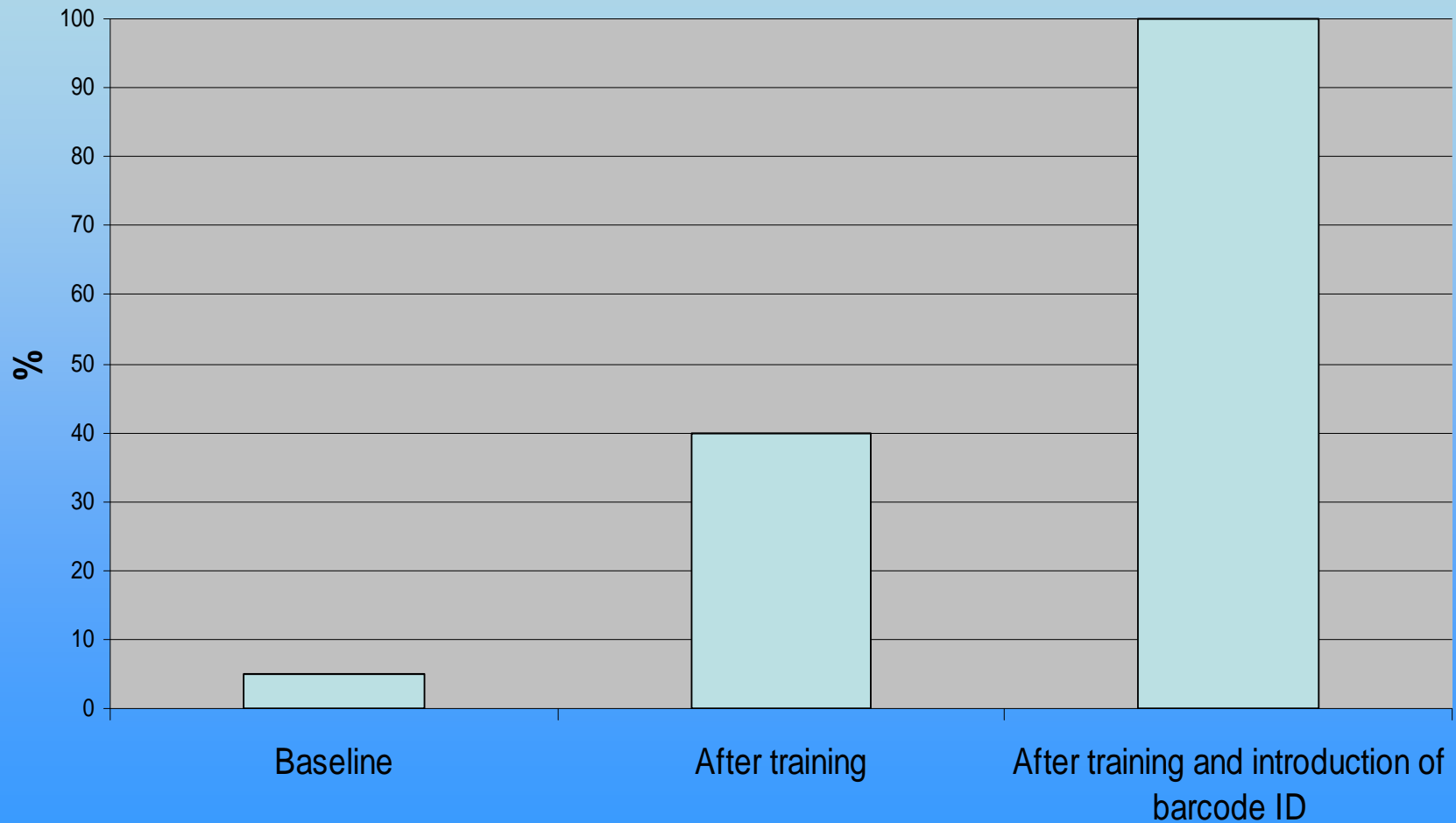
- Enhance patient safety
- Reduce the administrative burden for clinical staff
- Optimise our use of resources (reduce blood use and blood wastage)
- Achieve compliance with tightening statutory and governance requirements
- Ensure the rapid availability of blood for urgent transfusions

# End-to-end electronic transfusion

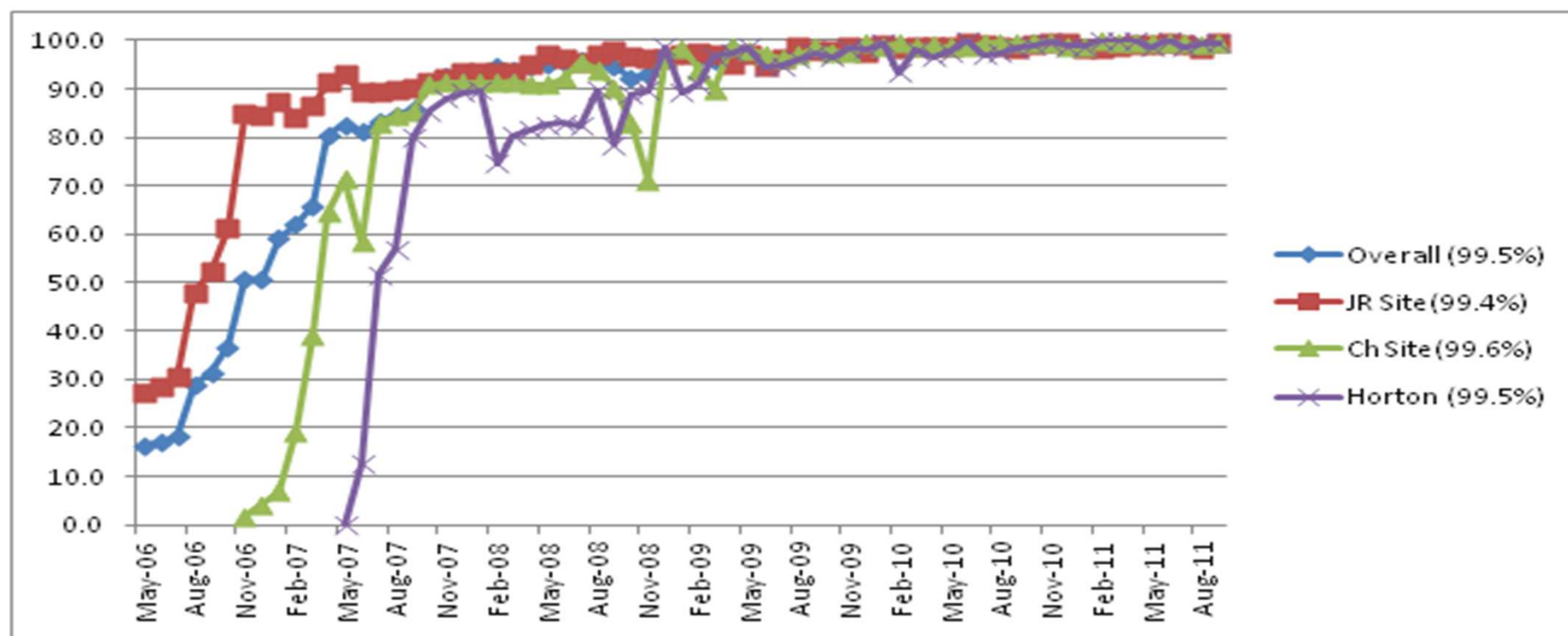
Bar-coded patient ID on the wristband is used to label the sample and blood bag  
Davies et al. *Transfusion* 2006; 46: 352-364



# Compliance with pre-transfusion bedside checking on an haematology ward (Transfusion 2003;43:1200-1209)



# Use of the electronic process for the pre-transfusion bedside check





# **Benefits 2006-11**

**(125,000+ units red cells transfused)**  
**(Murphy et al. *Transfusion* 2012;52:2502-2512)**

- **No ABO incompatible red cell transfusions**
- **No serious wrong blood events**
- **‘Wrong blood in tube’ reduced to 1 in 26,690 samples (*national benchmark 1 in 3,000 samples*)**
- **Compliance with blood traceability, competency assessment etc**
- **Less blood wastage**
- **Lower blood usage**

# Benefits 2006-11

(125,000+ units red cells transfused)  
(Murphy et al. *Transfusion* 2012;52:100-105)

- No ABO incompatible red cell transfusions
- No serious wrong blood group transfusions
- 'Wrong blood in tube' errors reduced by over 50%  
to 1 in 26,690 samples *national benchmark*  
*1 in 3,000 samples*
- Compliance with blood traceability,  
competence assessment etc
- Less wastage
- Lower red cell usage

<http://www.evidence.nhs.uk/qipp>

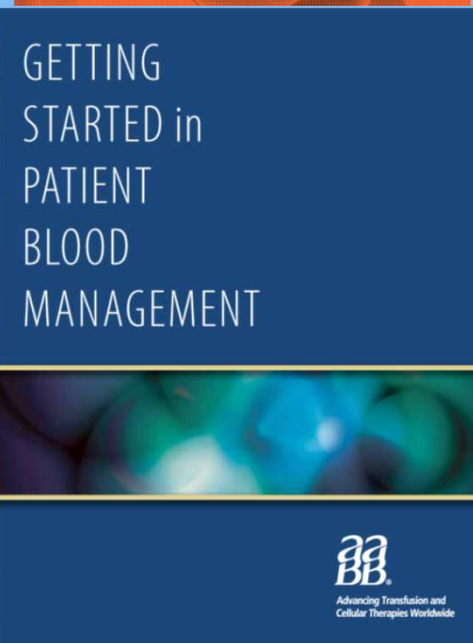
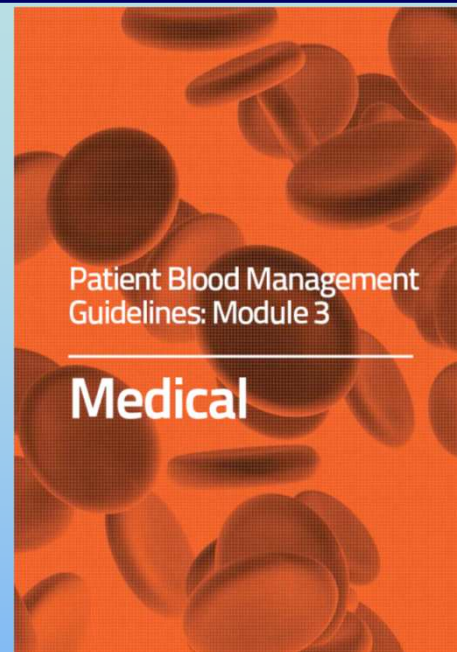
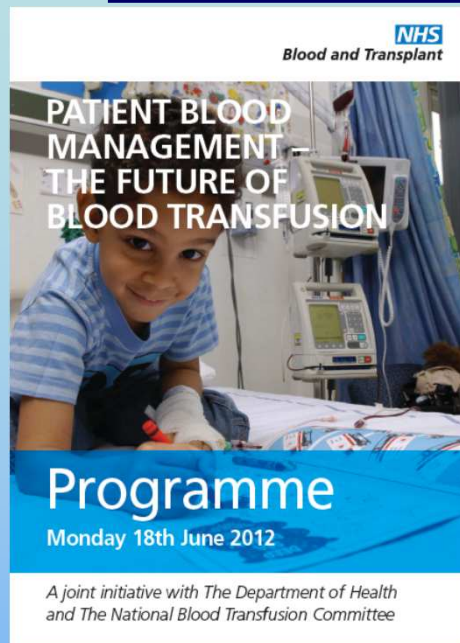
# National implementation of electronic transfusion systems in England

	<u>2007*</u>	<u>2010</u>
Blood tracking	23/98 (24%)	55/116 (47%)
Bedside checking	12/98 (12%)	18/115 (16%)

Data from surveys of hospitals in England by the National Blood Transfusion Committee

\* Murphy MF & Little T. *Transfusion Medicine* 2008; **18**: 204-206.

# Patient Blood Management (PBM)



**An evidence-based, multidisciplinary approach to optimising the care of patients who might need a blood transfusion**

**PBM includes:-**

- Minimising blood sample volume
- Appropriate transfusion triggers
- Managing pre-op anaemia
- Intra- and post-op management e.g. cell salvage, assessing and managing abnormal haemostasis

Getting Started in Blood  
Management

James P. Aubuchon, MD  
Kathleen Pura, MD  
Sandra Savona, MD  
Ira A. Shulman, MD  
Jonathan M. Waters, MD

**BB.**  
Bethesda, Maryland

Copyright © 2011 by AABB. All rights reserved.