


# 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:-

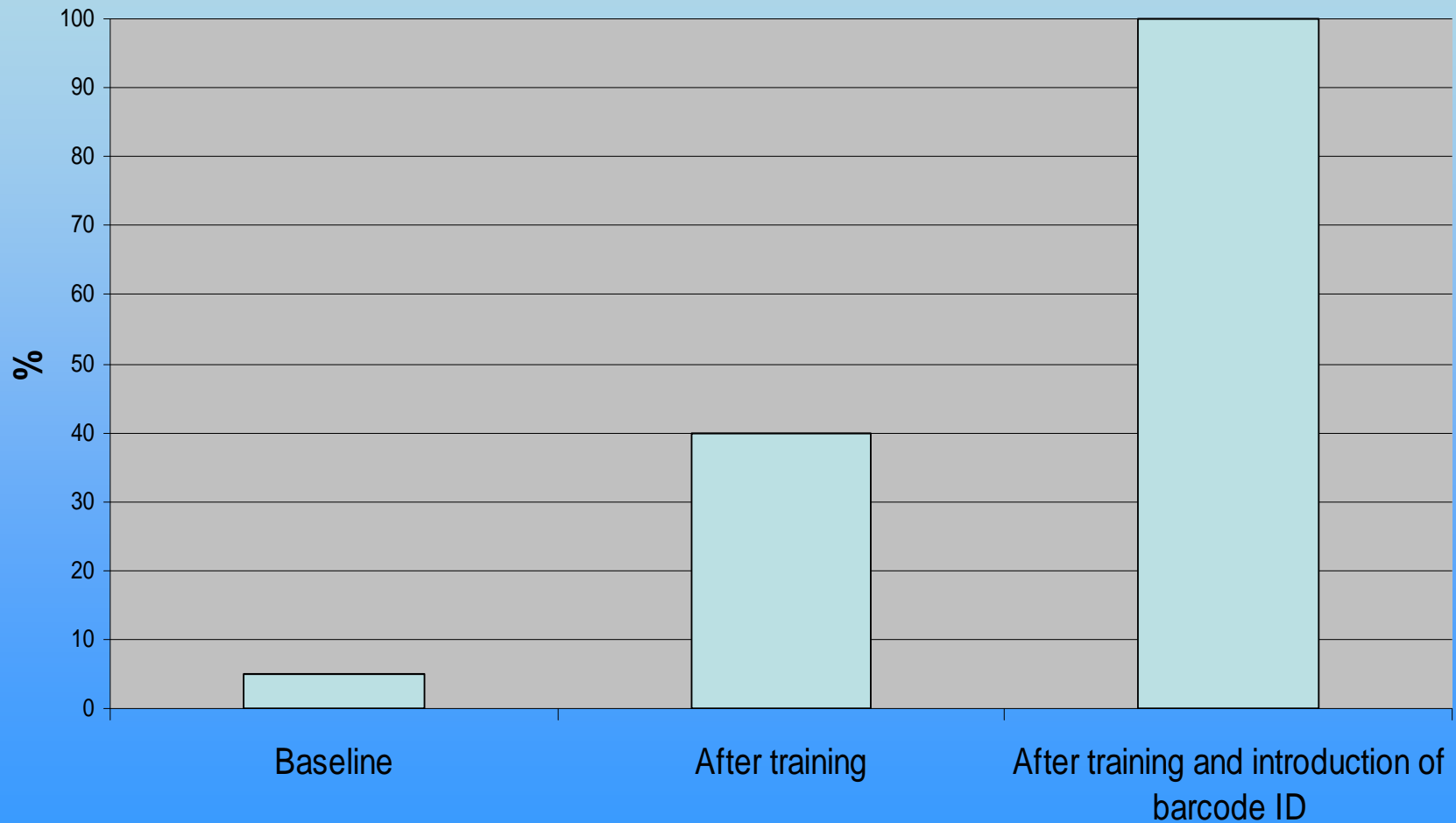
- Enhance patient safety
- Reduce the administrative burden for clinical staff
- Optimise our use of resources (reduce blood use and blood wastage)
- Achieve compliance with tightening statutory and governance requirements
- Ensure the rapid availability of blood for urgent transfusions

# End-to-end electronic transfusion

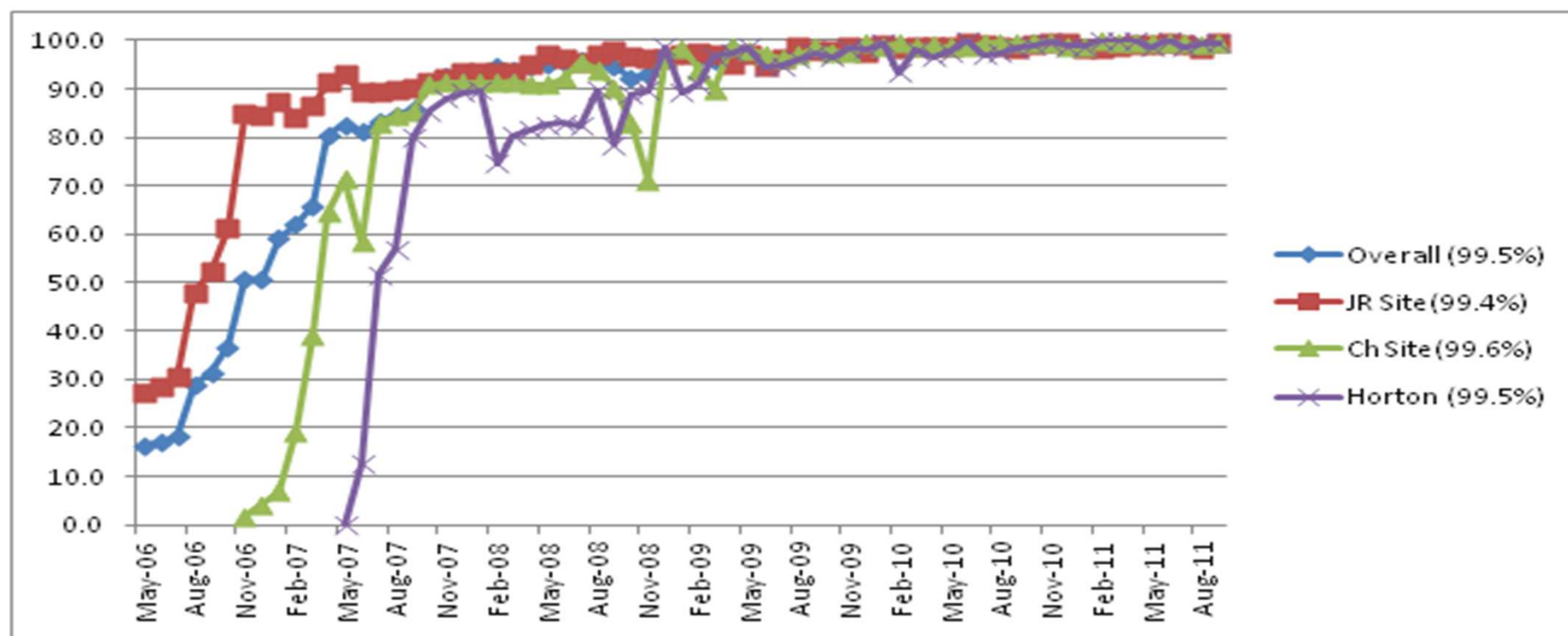
Bar-coded patient ID on the wristband is used to label the sample and blood bag  
Davies et al. *Transfusion* 2006; 46: 352-364



# 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;52:101-106)

- 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>

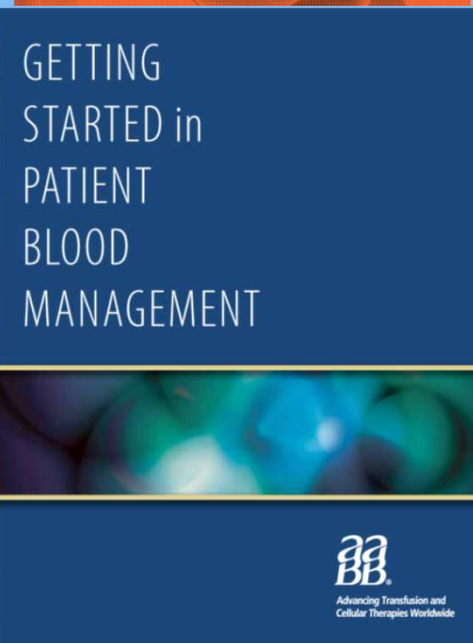
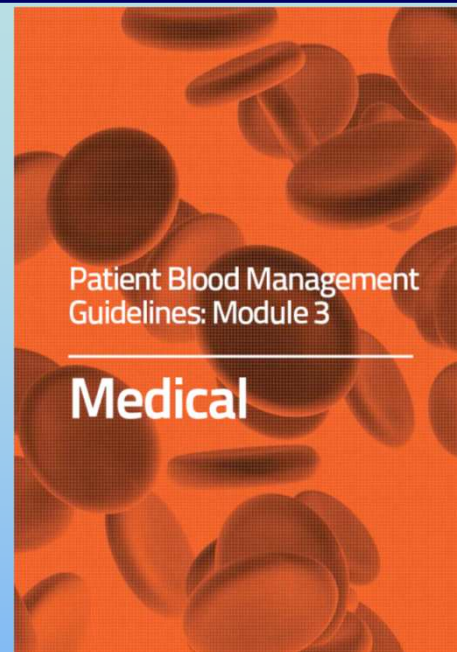
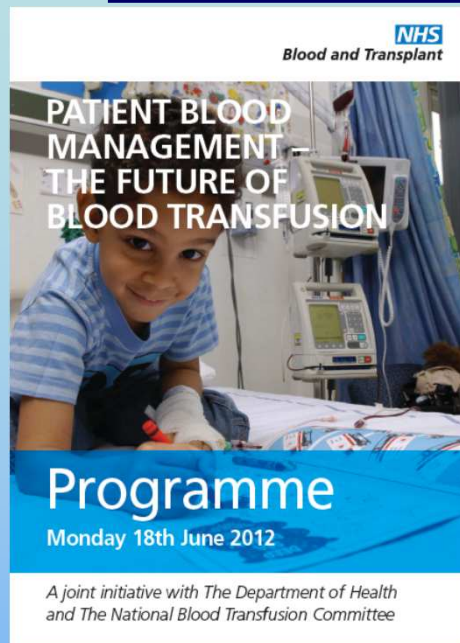
# National implementation of electronic transfusion systems in England

	<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

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