Implementation of a two sample policy for compatibility testing

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The Telegraph

Woman died after transfusion error

12:01AM BST 06 Oct 2001

A WOMAN died on an operating table after an anaesthetist pumped the wrong blood into her, the General Medical Council heard yesterday.

Dr John Prickett, 34, made a "basic and simple error" by not checking the patient's blood type. Mrs Hilary Pearce, 61, suffered a cardiac arrest five minutes after the mistake and could not be revived despite the desperate attempts.

She had been admitted to Addenbrooke's Hospital in Cambridge in November 1999 for an urgent operation on a burst blood vessel in her brain. Dr Prickett was handed the wrong blood by a hospital orderly and he checked the paperwork was correct.

But he failed to look at Mrs Pearce's identification band or patient notes before giving the transfusion of "A" positive blood. She was "O" positive. John Snell, for the GMC, said it was a fundamental mistake by Dr Prickett, who was on secondment from the Norfolk and Norwich Hospital.

Mr Snell said: "The error was so basic and so simple. Had he followed his

The Chief Medical Officer's
National Blood Transfusion Committee

SERIOUS HAZARDS OF TRANSFUSION SHOT

NHS
National Patient Safety Agency

Safer practice 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.

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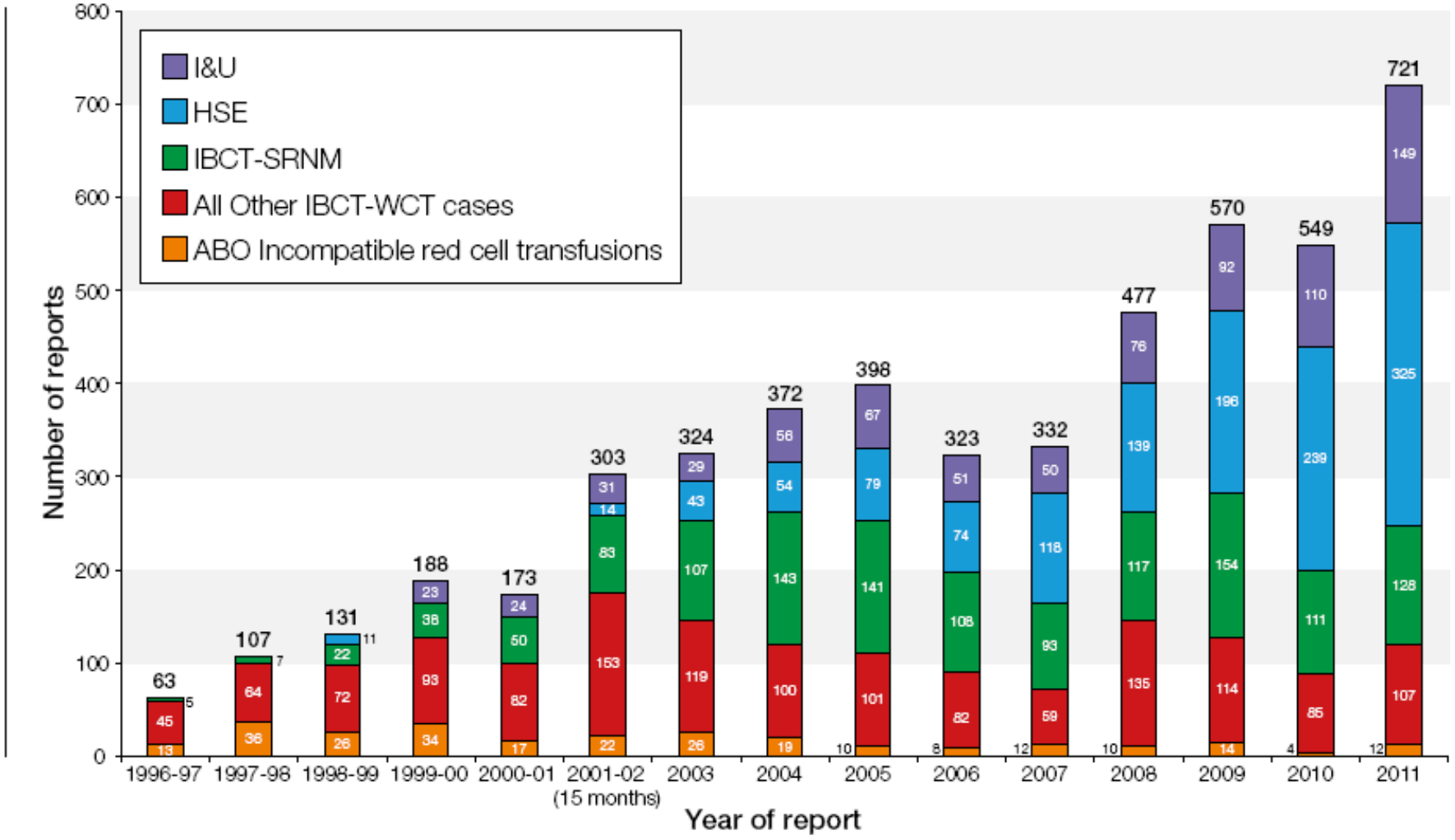
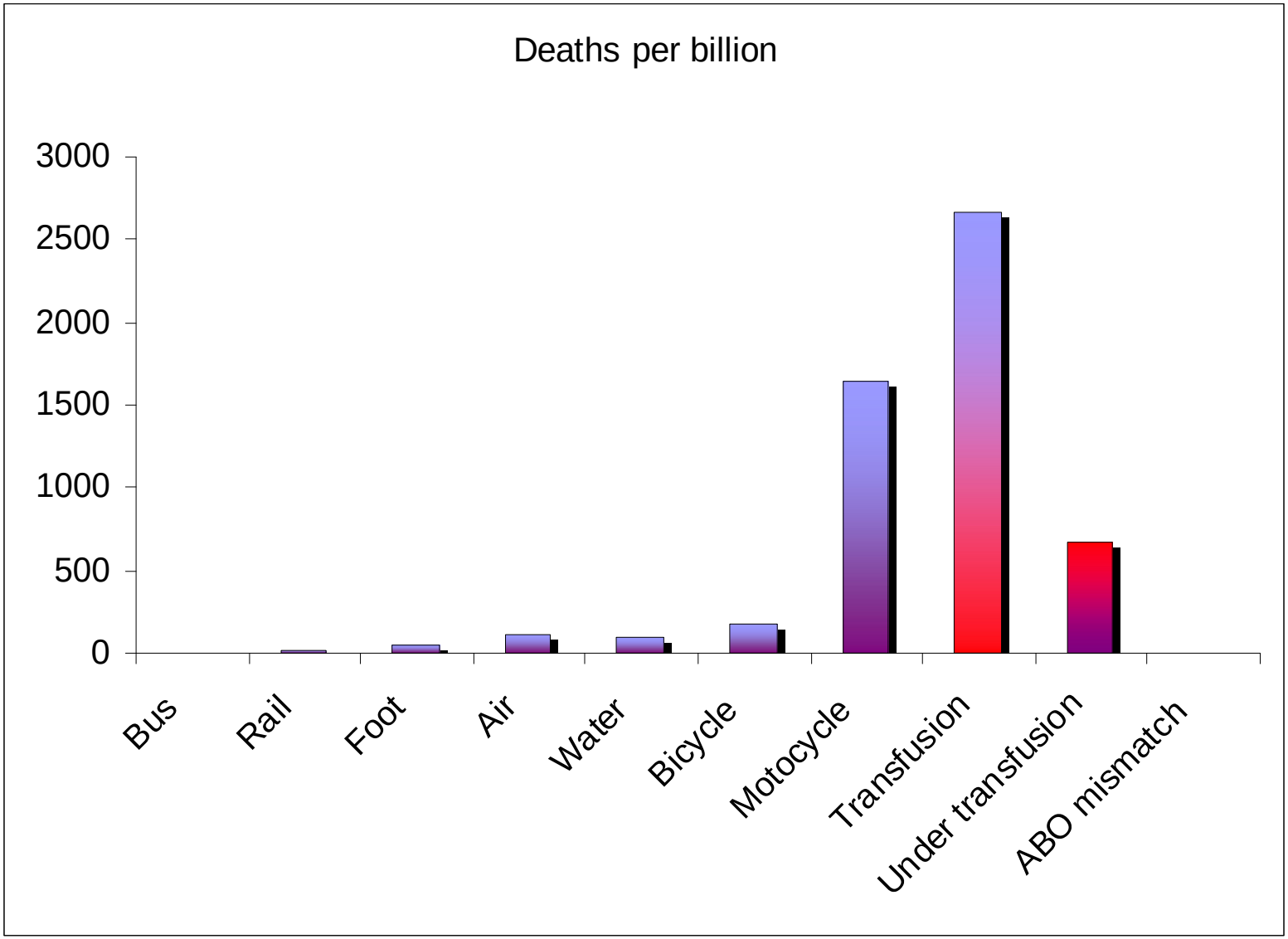
The 'never events' list for 2011/12

Document type:	Guidance
Author:	Department of Health
Published date:	24 February 2011
Gateway reference:	15532
Copyright holder:	Crown

"Never events" are very serious, largely preventable patient safety incidents that should not occur if the relevant preventative measures have been put in place.

IBCT summary SHOT 2011

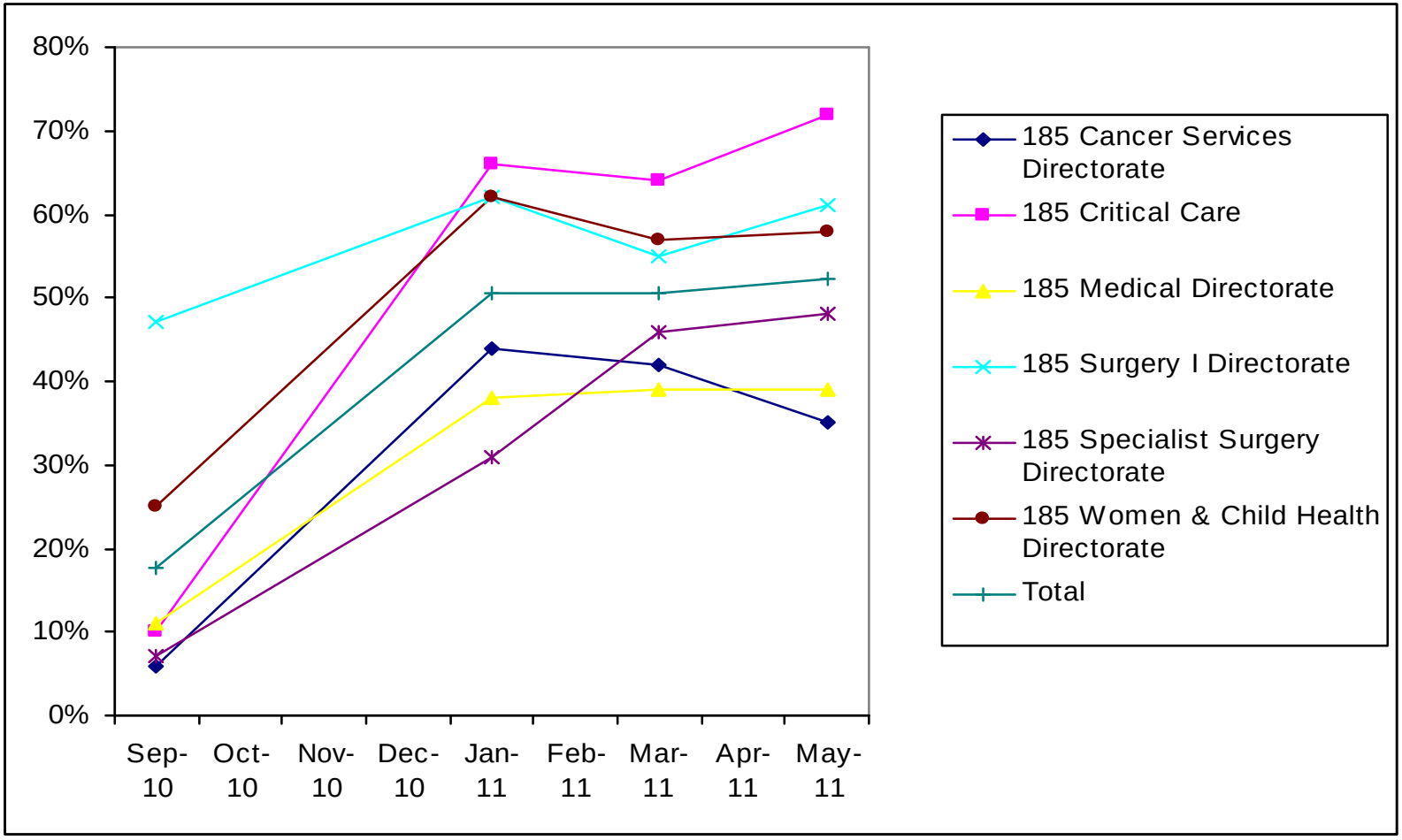



Deaths per billion
3000
2500
2000
1500
1000
500
0
Bus
Rail
Foot
Air
Water
Bicycle
Motocycle
Transfusion
Under transfusion
ABO mismatch

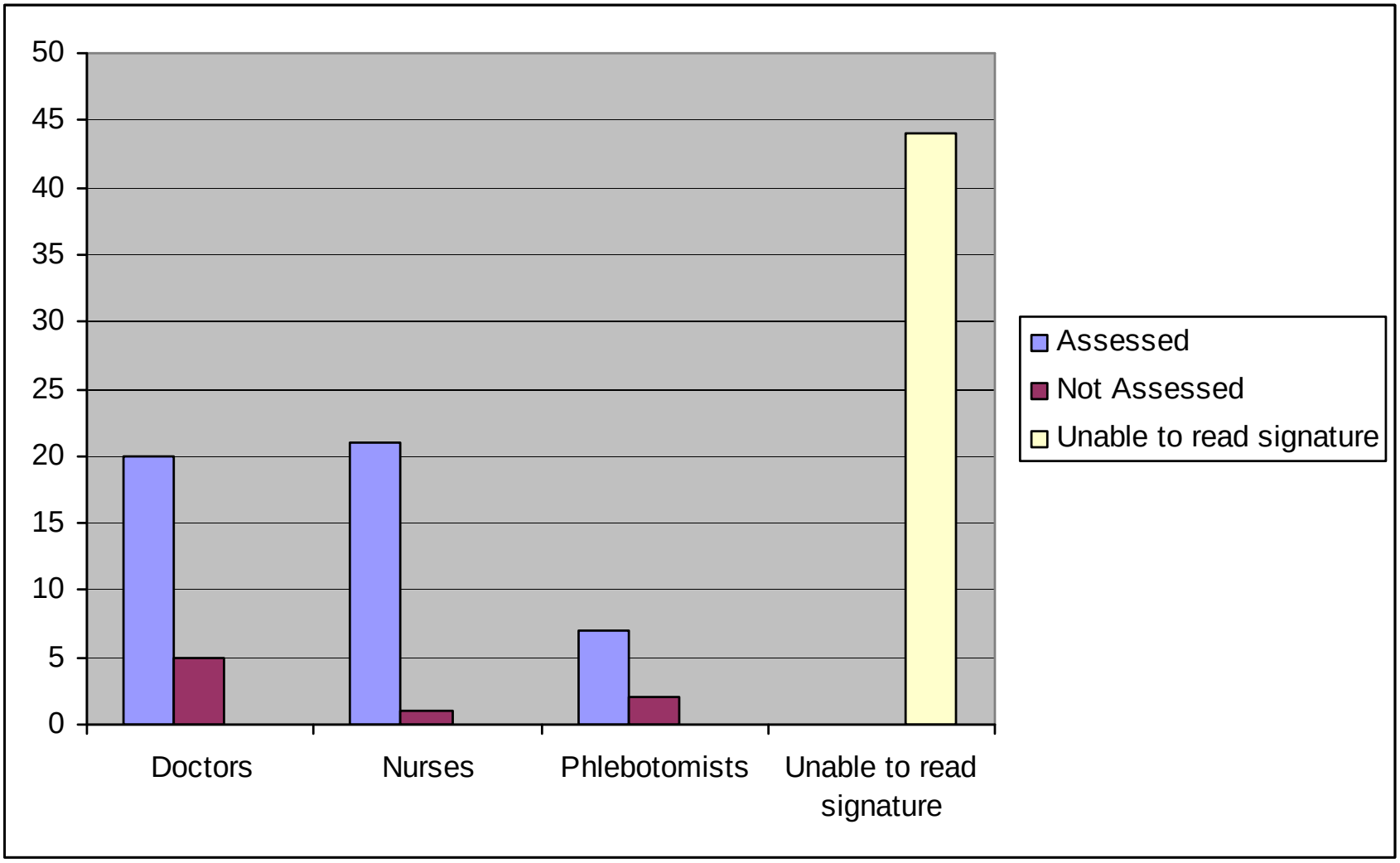
Strategies for reduction in ABO mismatch risk at Exeter

- Implementation of NPSA guidance…
  - Website
  - Involvement at Trust Board level
  - Training video

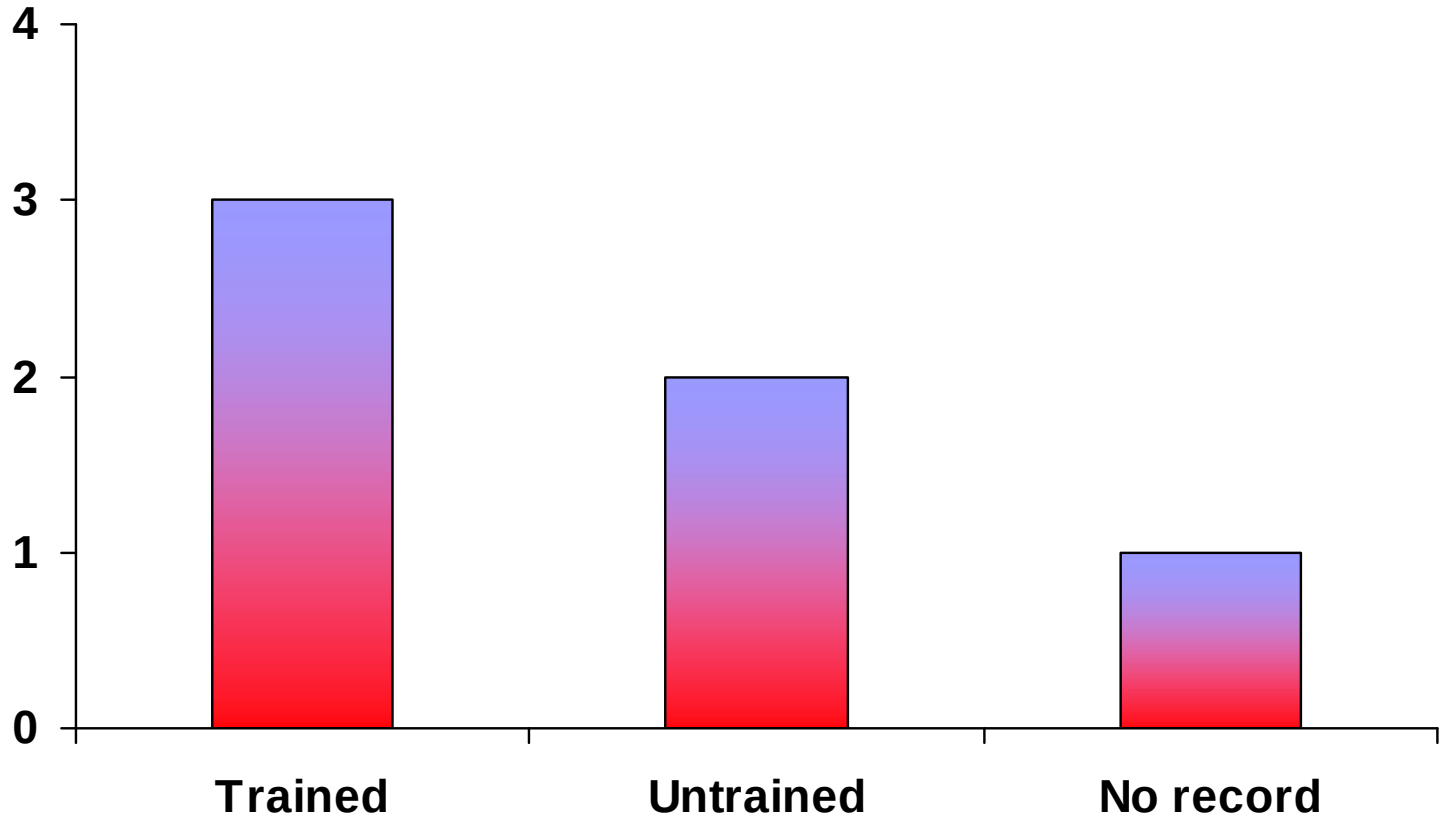
NPSA competency training numbers over time



NPSA status of staff completing transfusion forms



Training status of staff involved in WBIT events



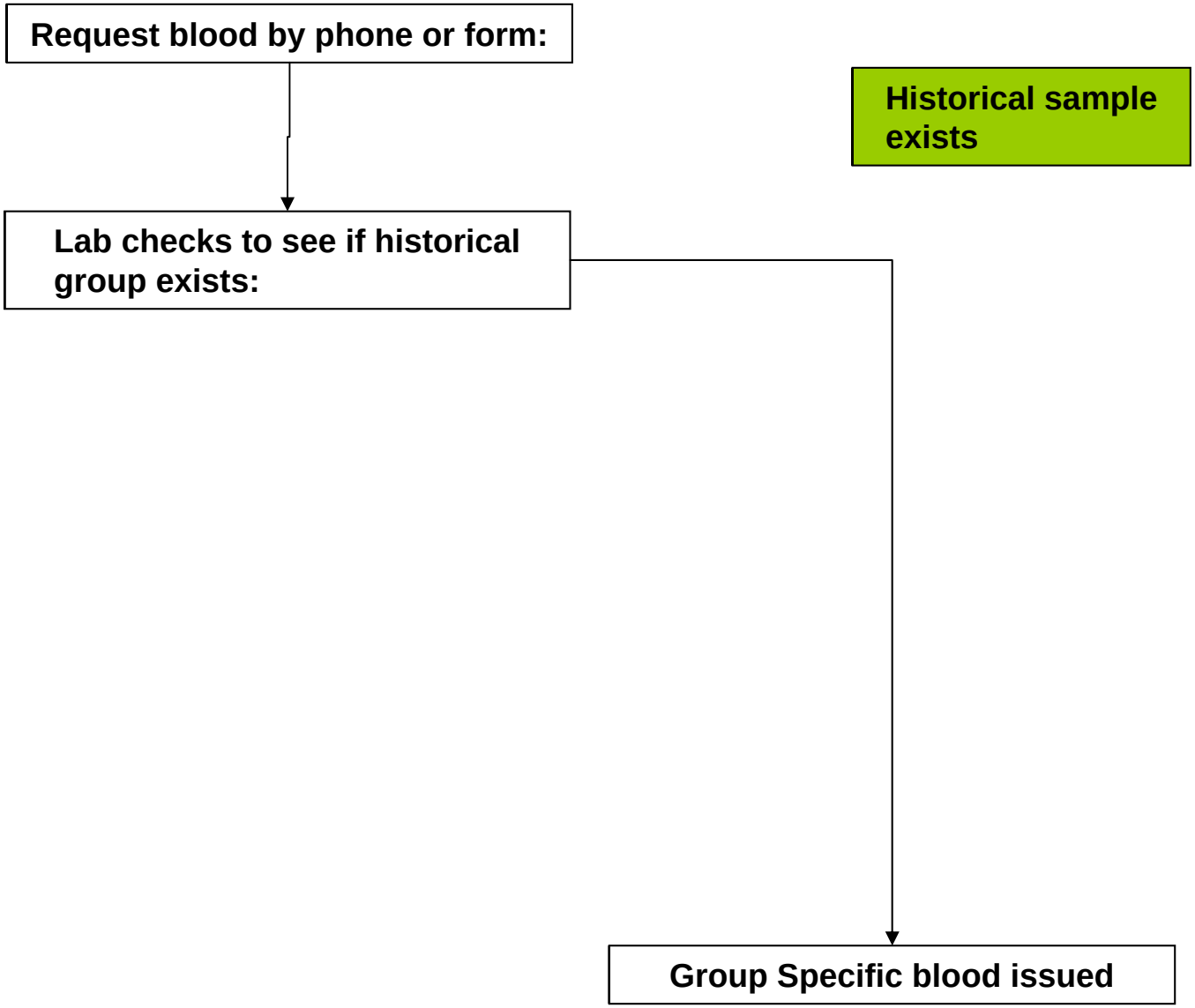
Wrong Blood in Tube Events Summary

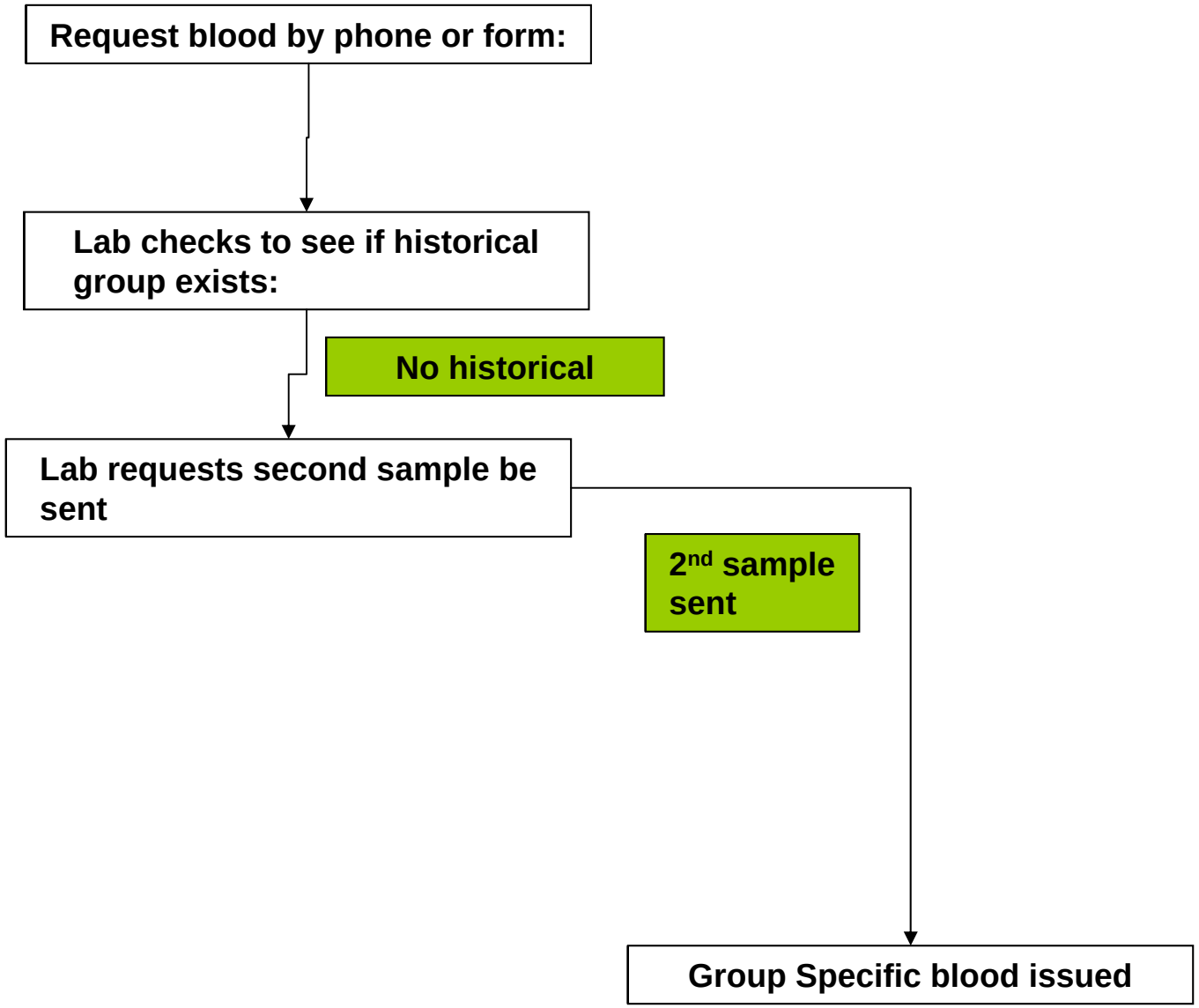
- WBIT rate comparable to published rate[1]
- Training uptake not 100%
- Policing of staff impossible
  - Many untrained staff involved
- Community samples – ‘black hole’
- WBIT as likely to come from trained as untrained staff

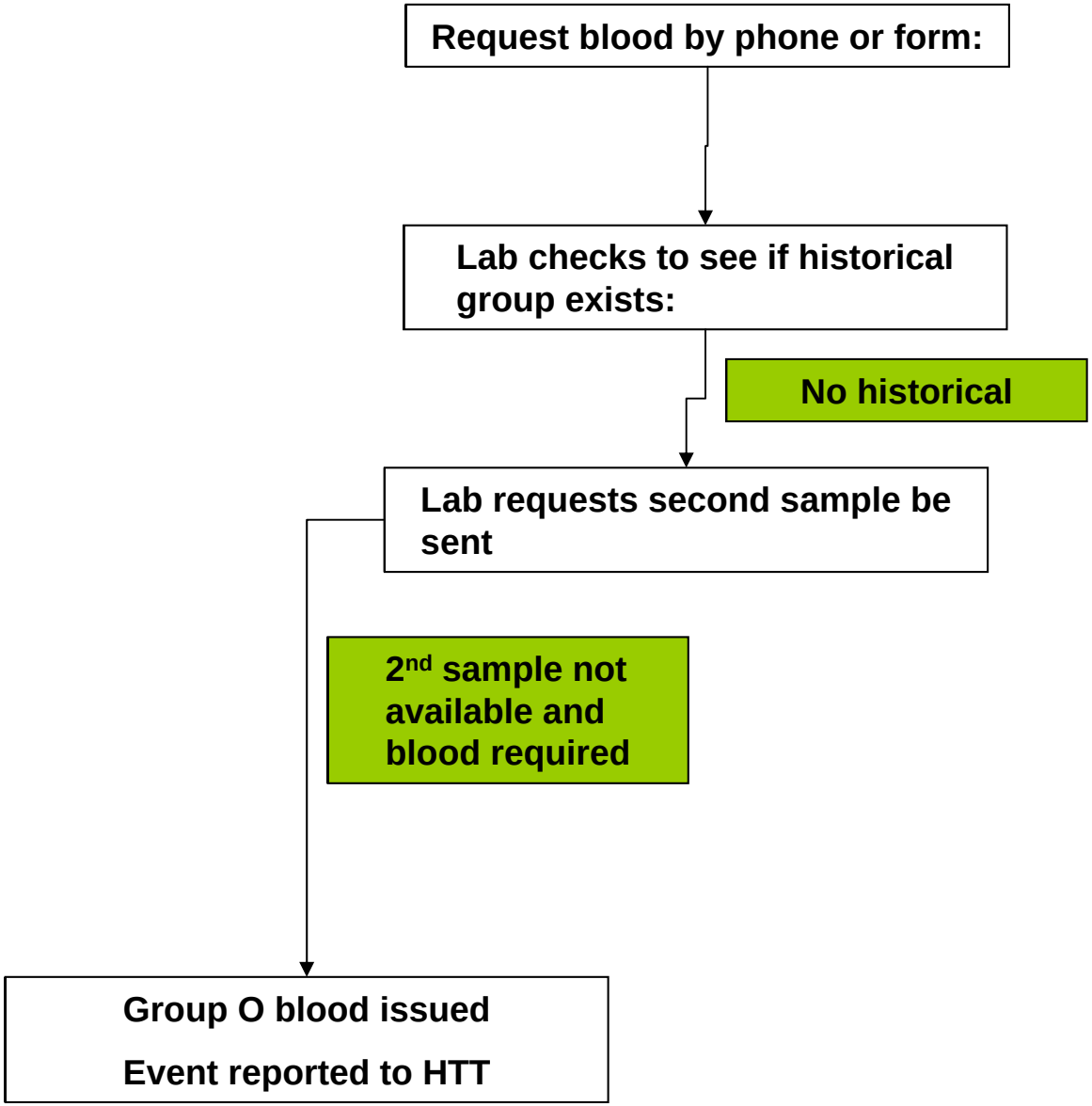
[1]*Murphy et al Transfusion Medicine 2004 14 113-121*

Implementation of a two-specimen requirement for verification of ABO/Rh for blood transfusion

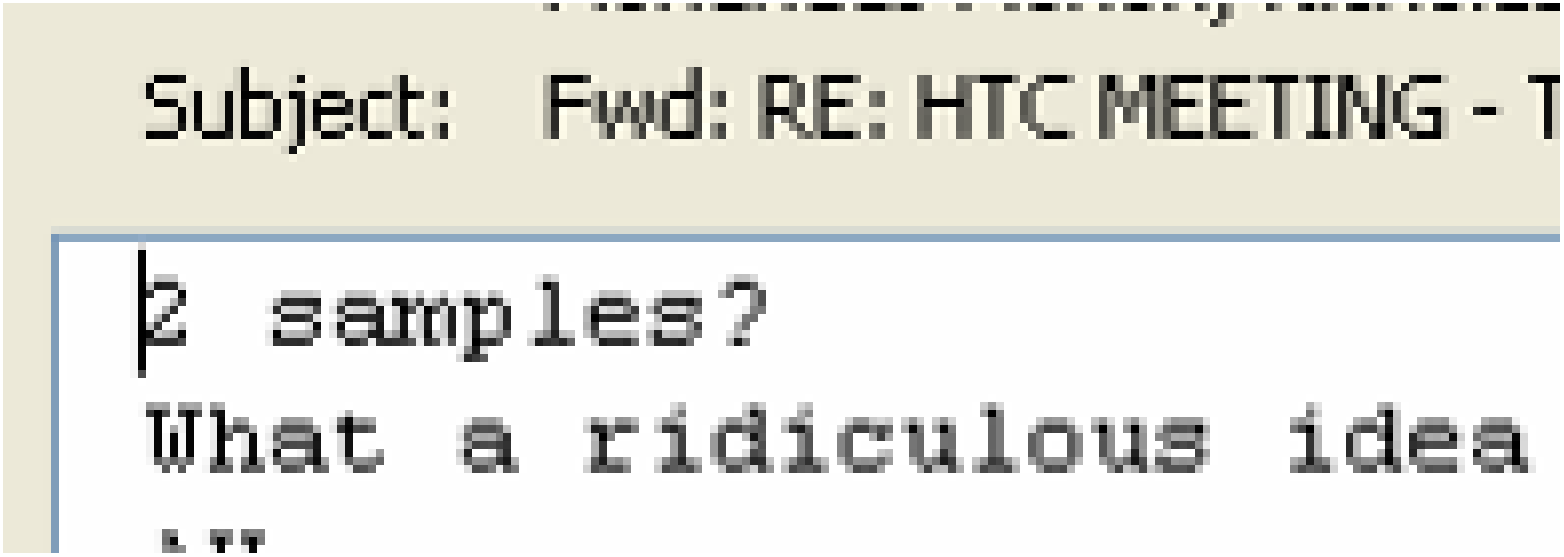
Lawrence T. Goodnough, Maurene Viele, Magali J. Fontaine, Christine Jurado, Nancy Stone, Peter Quach, Lee Chua, Mei-Ling Chin, Robert Scott, Irina Tokareva, Kevin Tabb, and Paul J. Sharek


Request blood by phone or form:
Historical sample exists
Lab checks to see if historical group exists:
Group Specific blood issued

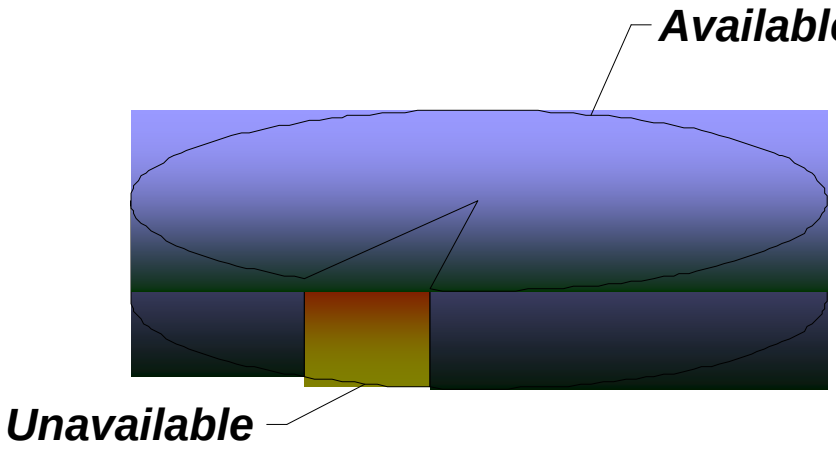

Request blood by phone or form:
Lab checks to see if historical group exists:
No historical
Lab requests second sample be sent
2nd sample sent
Group Specific blood issued


Request blood by phone or form:
Lab checks to see if historical group exists:
No historical
Lab requests second sample be sent
2nd sample not available and blood required
Group O blood issued
Event reported to HTT

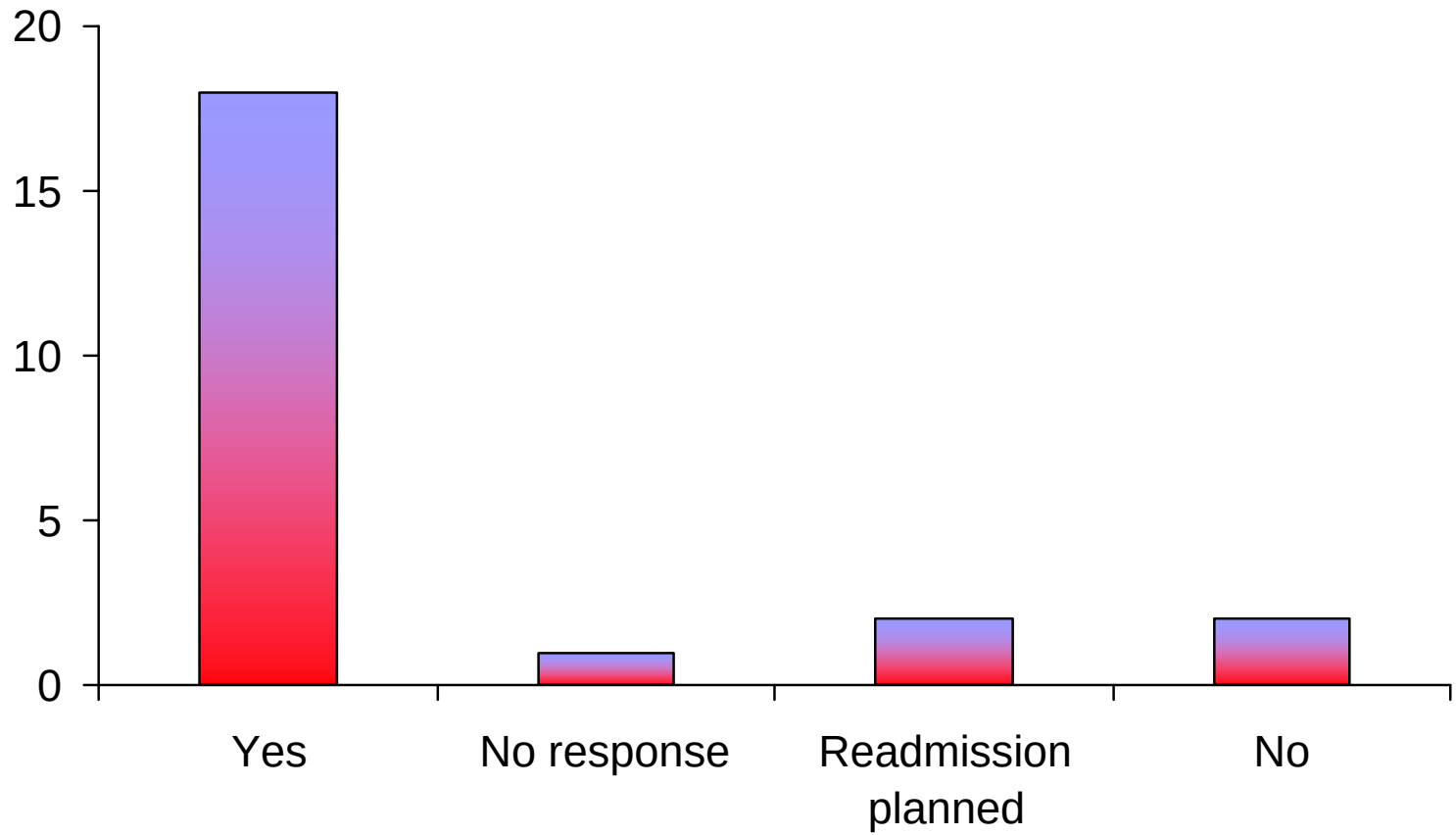
Barriers to implementation



Availability of historical groups



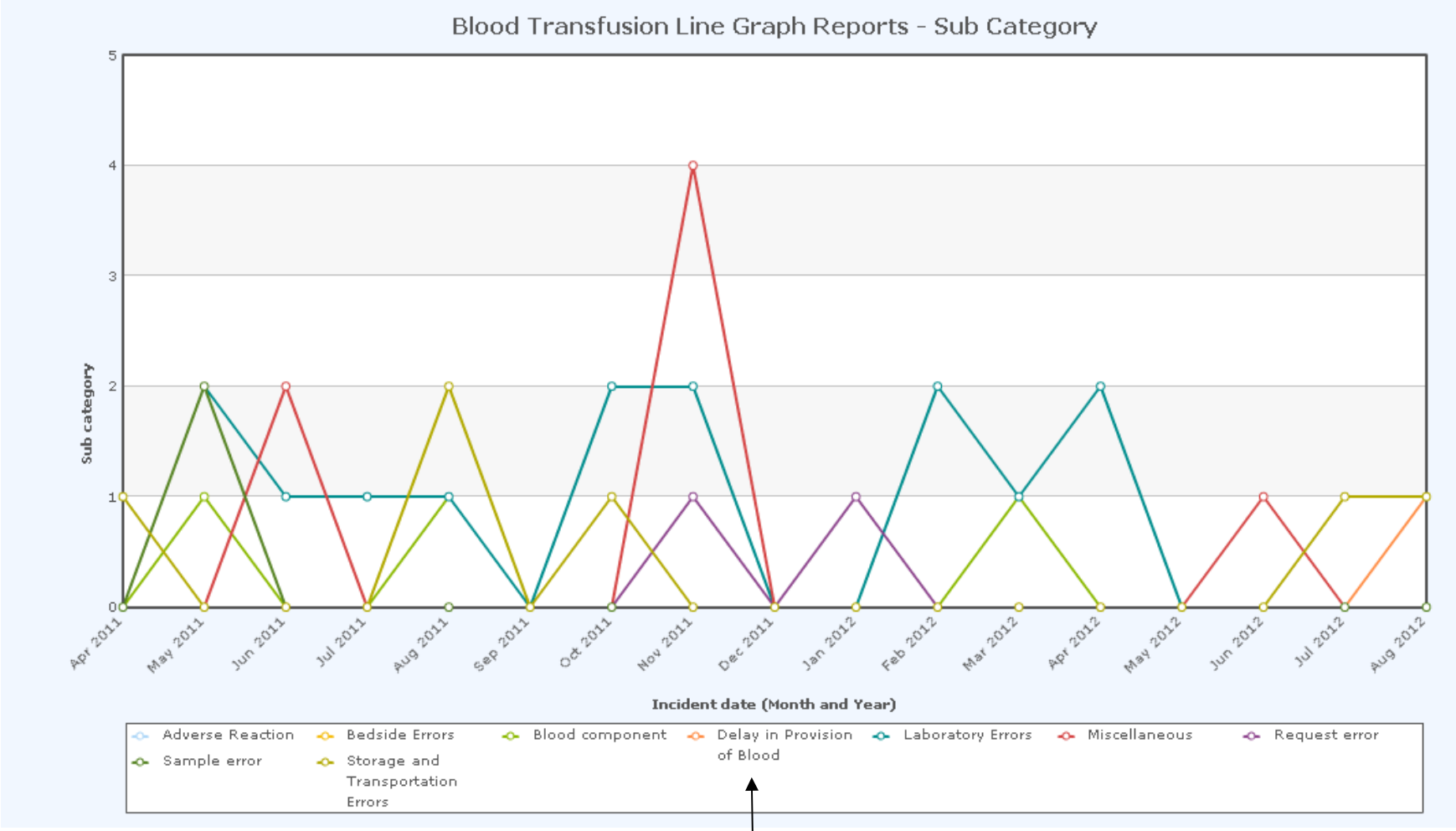
Availability of second sample on request



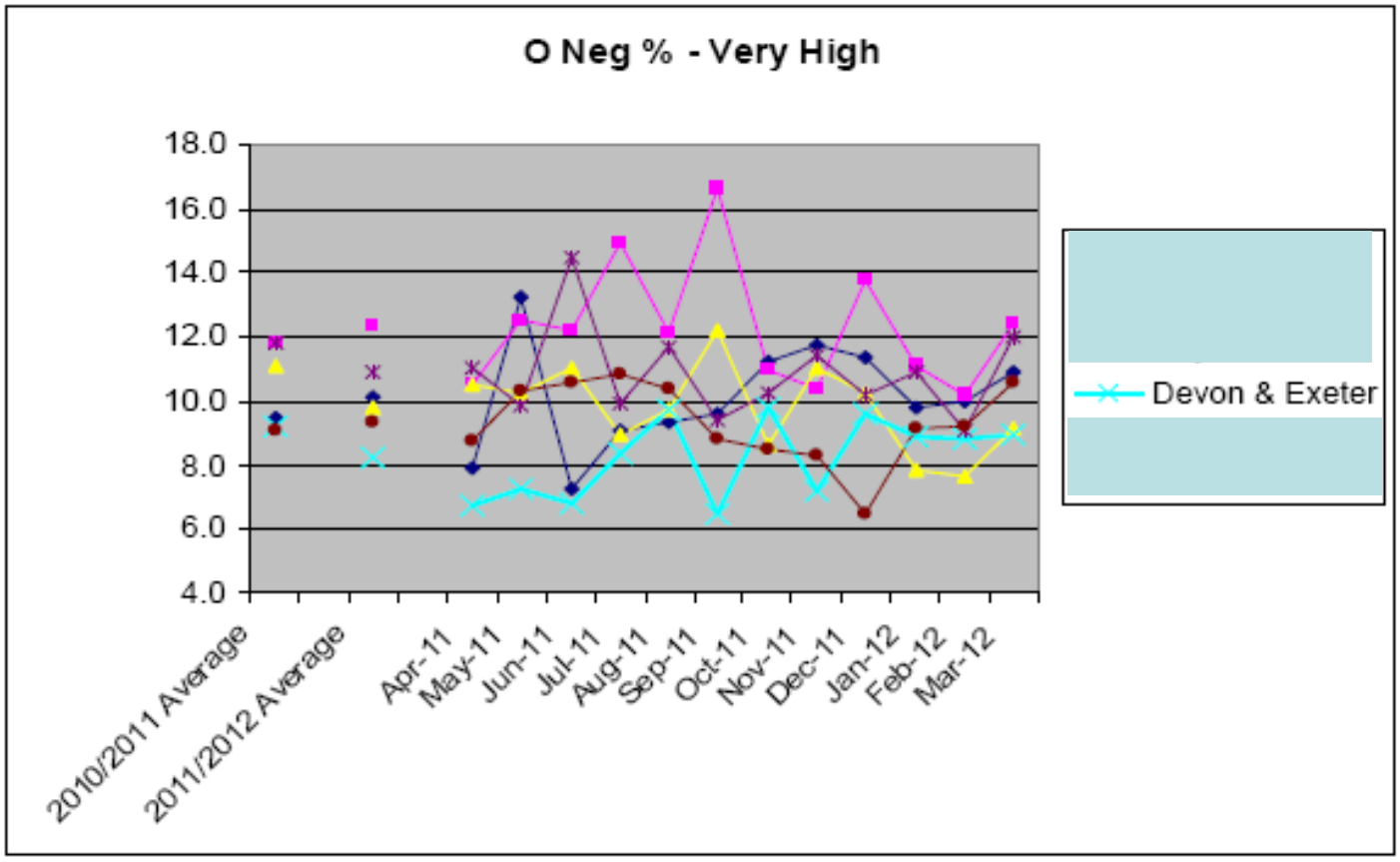
Emergencies

- Engagement of staff involved in emergency care
- Group O always available
- Need for separate samples
- Highlighting of need to incident report issues
- If no 2nd sample after 10 units, use original
- Pragmatic response if antibodies on first sample

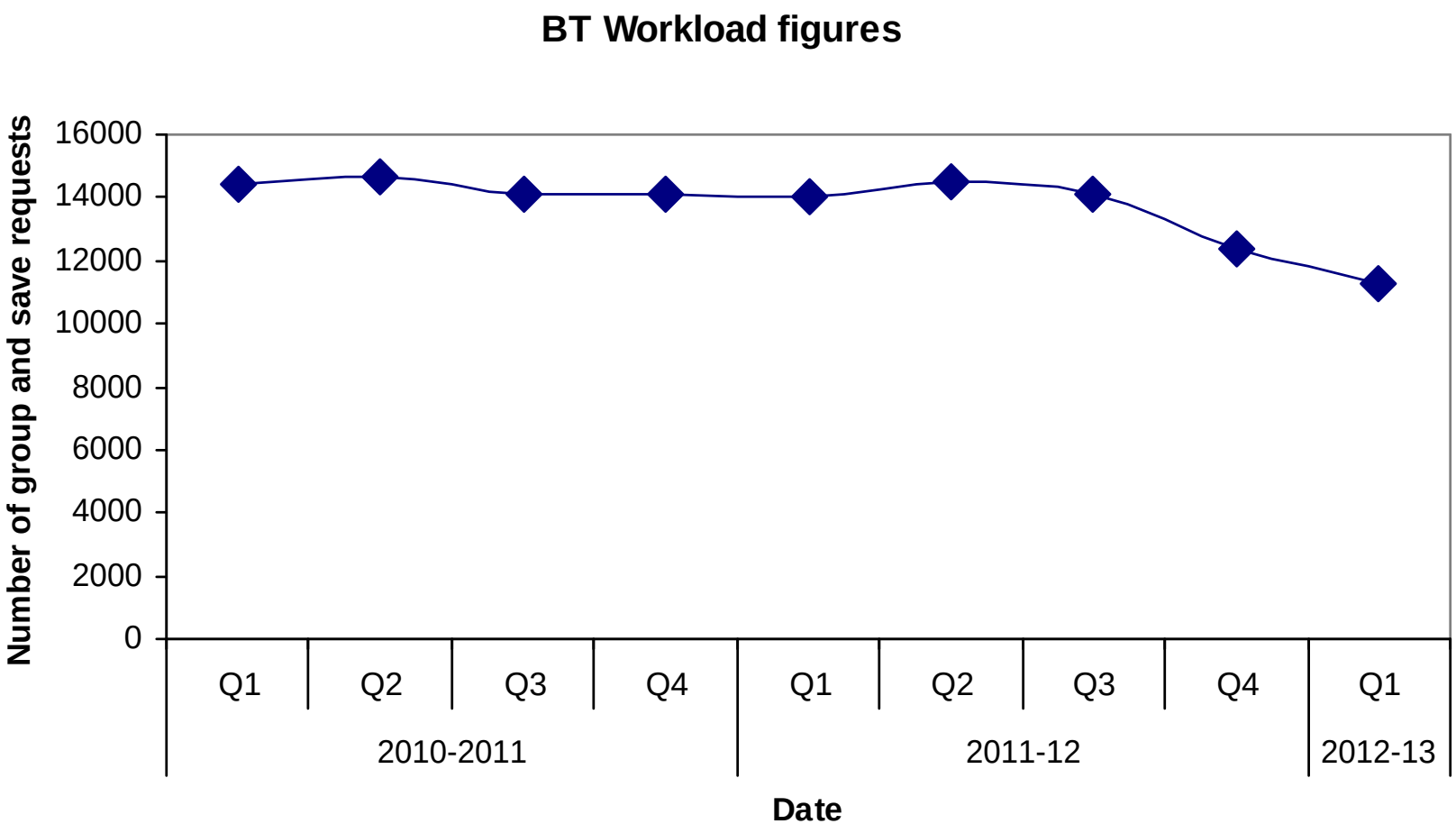
Incident reports



O neg increase



Effect on workload



Cheating

- Update training and policies
- Incident report any sample that appears to have been ‘split’
- Published solution involves barcoded sample tubes

Summary

- Blood is safe (8 deaths in 3 million)
- No deaths in SHOT 2011 from ABO mismatch
- 12 non-fatal ABO mismatched transfusions
- ABO mismatch is a ‘Never Event’
- Training does not entirely prevent patient mis-identification
- Dual sampling is a cheap and effective solution

What needs to happen next?

- Clinician discussion
- Re-write SOPs
  - Key areas
    - Pre-op
    - ED
    - MAU
    - O&G
    - Laboratory
- Clear incident reporting route
- Lab and administering must be looked at seperately

Will there be a dramatic increase in the number of patients being bled?

No. We have historical samples recorded for 96% of patients; roughly one additional sample per day will be required at RDEFT.

Will there be delay in a patient receiving blood in an emergency?

No. The patient will receive O negative blood until their blood group is confirmed.

Will medical and nursing staff be able to ‘cheat’ the system by taking two samples at once?

No; samples signed and labelled by two different medical professionals will be required.

Will this affect neonates in whom additional blood tests can have negative consequences?

No – neonates receive O negative blood anyway, so they are unaffected.

Which stakeholders have been approached?

Informal discussions have taken place with paediatrics, Devon PCT, the National Blood Service and ED.

What other solutions are there?

- There is probably no substitute for dual samples for cross-match. Various other options however include;
  - ‘zero tolerance’ for samples which are from non-assessed staff
    - Significant impact on service delivery and lab staff time
  - Ordercomms for ordering transfusion samples
    - Not currently an option
    - Doesn’t cover the community
  - 3rd party IT solution eg PBARS
    - Significant financial barrier
    - Second IT system for blood sampling cumbersome