NHS
Blood and Transplant

2013 Audit of the use of Anti-D in Maternity

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National Comparative Audit of Blood Transfusion

Why are we auditing?

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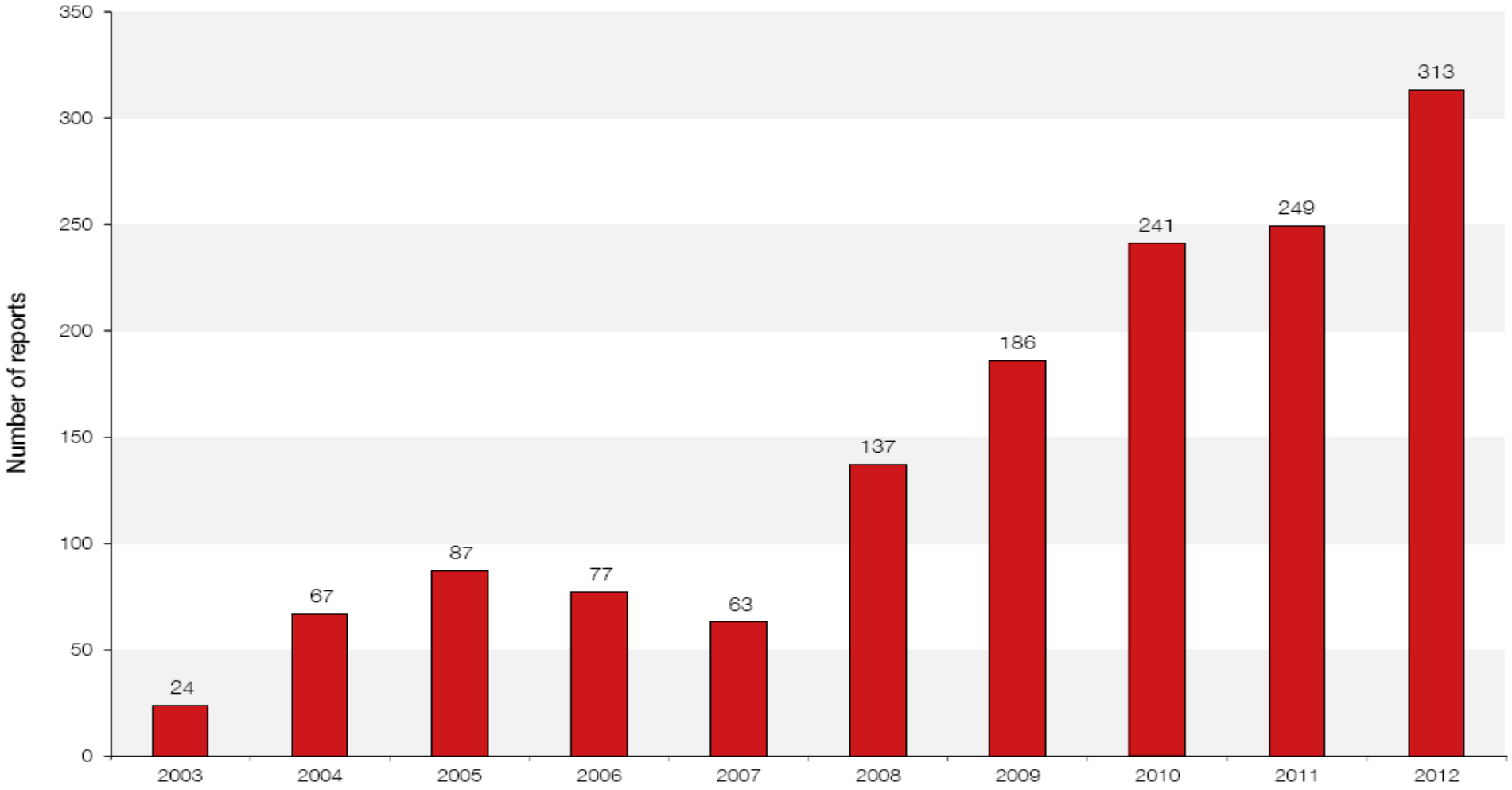
- Post-delivery Anti-D Ig injections introduced in 1969 to prevent haemolytic disease of the newborn RhD negative women
- The programme has been a huge success.
  - Fetal/neonatal deaths fell from **46 / 100,000** births pre-1969 to **1.6 / 100,000** births by 1990
- Routine Antenatal Anti-D Prophylaxis (RAADP) was recommended by NICE in 2002
- RhD alloimmunisation continued to occur

Trend in Anti-D Ig SHOT reports



SHOT Anti-D Ig reports in 2012

(n = 313)

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- **63** cases where anti-D Ig was inappropriately administered
- **204** cases where anti-D Ig was delayed or omitted, putting patient at risk of sensitisation to the D antigen
- **20** cases where the wrong dose of anti-D Ig was administered
- **26** handling and storage errors

What are we auditing?

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The management of RhD negative women who present for antenatal care, to see if they are managed in accordance with guidelines

Guidelines from BCSH, RCOG and NICE

National Comparative Audit

NHS Blood and Transplant

Audited a cohort of women who booked during September 2012 with expected delivery around March 2013

- Were they RhD negative ?
- Did they receive Routine Antenatal Anti-D Prophylaxis (RAADP) (dose / timing) ?
- Did they receive anti-D for Potentially Sensitising Events (PSE) (dose / timing)?
- Did they deliver a RhD positive baby ?
- Did they receive post-natal anti-D (dose / timing)?
- Did they receive further anti-D if indicated by FMH test (Kleihauer) ?

National Comparative Audit

NHS Blood and Transplant

- Project tools piloted with maternity units and laboratories
- Co-operation between laboratory and midwives
- Most difficult part was identifying the cohort of women (problem resolved during pilot)
- Looking at selected case notes to identify if anti-D was given for PSEs, RAADP and post-delivery
- If anti-D Ig not given
  - **WHY not?**
  - **SHOT report encouraged**

Audit Timeline

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• 4 February 2013	Audit recruitment starts
• 29 March	Pilot ends
• 15 April	Audit documents to participating sites
• May	One month case capture phase
• June –October	Data collection starts with case note audit and organisational audit
• 7th November	Data analysis starts
• Early 2014	Report and slideshow to hospitals

What data have we collected?

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- 6,000 clinical cases
- 124 Organisational questionnaires

Please note: This slideshow concentrates on the headline clinical findings, but all data are estimates and have yet to be confirmed

Antenatal 6,000 women in cohort

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- 50 had immune Anti-D
- 5,950 eligible for Anti-D

RAADP

- 3,850 (65%) eligible women had their single or first dose at the right time
- 166/407 (41%) women on a 2 dose regime had their second dose on time
- 10% of organisations use two dose regime

Post-natal Anti-D

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- 5361 delivered a baby and of these 3308 (62%) were RhD positive or RhD unknown, so should be considered for post-natal Anti-D
- Audit records show that 3174 (96%) were given post-natal Anti-D
- 120 women did not receive post-natal Anti-D

Potentially Sensitising Events

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We defined these as events during pregnancy as well as TOPs, miscarriages, IUDs, ERPCs, etc. since these have the potential to sensitise, since baby's blood group would be unknown

- The audit recorded 1343 PSEs, with 42 women having 3 or more PSEs
- We are analysing data to see if Anti-D was given on time

Comment

- Some hospitals found it difficult to identify the women who booked for delivery
- The transient nature of maternity care and the variety of data sources means that in many cases we cannot successfully demonstrate that Anti-D is administered within the guidelines
- Some casenotes were incomplete or missing, suggesting that future models of auditing should adopt a prospective method

Clinical issues raised

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The audit identified numerous reports of clinical guidance not being followed due to a variety of reasons such as:

- Incorrect labeling/requesting of samples
- DNA's
- "Midwife error"
- Poor record keeping

Evident that improvements in RAADP process needed

UK National Screening Committee currently reviewing policy as to whether this should be a systematic screening programme

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