National Comparative Audit of Bedside Transfusion Practice
2005

Dr C Taylor November 2006
Bedside Practice 2005

- Background
- Headline results
- Worst clinical areas
- Variation in practice
- Factors affecting practice
Background

- Collaborative effort
- Repeat of 2003
- Funding from NBS
2005 Audit

• Largest bedside practice audit yet
  – 274 ‘sites’
  – 8054 episodes

• Standards
  – BCSH guidelines (1999)
Organisation

- 87% of HTCs met at least 3 times in last year
  - Only 39% had general medical representation
  - Only 11% had gastroenterology representation
- 80% have an HTT
- 75% have a transfusion practitioner
- 90% have a lead consultant
  - But 23% have no time allocated!
- Only 39% have trained at least half their nurses
Variation in organisation

Organisational (BBT2) Scores

Site

BBT2 Score

0

2

4

6

8

10

12

14

16

1

17

33

49

65

81

97

113

129

145

161

177

193

209

225

241

257
Bedside Transfusion Safety

• Safe transfusion is dependant upon:
  • Correct Patient ID
    – Wristband present and correct
    – ID on other documents correct
  • Observation of patient during transfusion
    – Observations documented
    – Timing of observations
Headline Results

• 8054 transfusion episodes in 269 sites
• 6% had no ID
• only 22% of wristbands fully compliant
• 91% contained name, dob, ID number
• 11% of prescription charts had missing information
• 15% had no monitoring during transfusion
  – Further 12% no observations within 1 hour of start
Readable wristband information

- Surname 99.5%
- First Name 99.4%
- Gender 24%
- Date of Birth 97%
- ID Number 95%
Missing ID information

- Where information was present on the wristband

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<tr>
<th></th>
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<th>DoB</th>
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Mismatches with wristband (where info present)

<table>
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<tr>
<th></th>
<th>Surname</th>
<th>First Name</th>
<th>Gender</th>
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</table>
Where was the worst practice?

• Lack of Identification
  – 10% of Out patients (5% of in patients)

• Largest numbers on:
  – Medical wards – 27% of total
  – Haematology – 26% of total
  – Oncology – 10% of total
  – Surgical wards – 10% of total

• Most vulnerable groups are at highest risk
  – Those unable to identify themselves
Patient Identification

Patients with No Identification

% of Episodes

Site
Patients with No ID

Worst clinical areas

% of episodes with no ID

Paediatrics | SCBU | Recovery | Oncology | ITU/CCU | Haematology | A&E
Patients with no Monitoring

Transfusion Episodes with no Recorded Observations during the Transfusion
Risk Stratification

• Scored each site according to:
  – BBT2 compliance
  – Measures of activity

• Risk assessed each episode
  – ID present and correct
  – ID matched other documents
  – Observations were done
  – Was patient visible and conscious
Risk Stratification

• Moderate Risk
  – No wristband/ID
  – Unit number missing from prescription sheet
  – Observations done at 15 minutes

• Severe Risk
  – Unconscious, in side room
  – No wristband/ID, no observations done
  – Gender and date of birth missing from prescription
Episode Risks

- Low risk 82%
- Moderate risk 15%
- High risk 3%
- Severe Risk 0.3% (23 episodes)

- 82 sites had >25% of episodes at moderate/high/severe risk
Distribution of risk

Transfusion Episodes in High or Severe Risk Category

% of transfusion episodes

Site
Risk by Age

% in High or Severe Group by Age

% at high or severe risk

Age (years)

<5 5-14 15-44 45-54 55-64 65-74 75-84 85+
Under 5 years Group

Identification in Under 5 years age group

% with no Identification

Year of birth

Why?

- “Baby too small”
- “removed for iv access”
- “wristband on cot/incubator”
- “wristband inside cot”
- “unit policy not to put name bands on babies in incubators”
It can be done!
Which one is Henry?
Did anything influence the risk profile

- Do any organisational factors affect bedside practice?
- Does progress with BBT2 mean better practice?
- Does having a TP in post help?
Organisational Scoring

Organisation against Severe Risk Episodes

% with severe risk episodes

Organisational Score

<10
11-12
13-15
Does Having Meetings Help?

Number of HTC meetings in last 12 months

% of sites with severe risk episodes

HTC meetings

0 1 2 3 4 More

0 2 4 6 8 10 12 14 16

More

Less
HTT in place?

Graph showing the percentage of sites with severe risk episodes for HTT established, with 'Yes' and 'No' categories.
Lots of HTT meetings?

![HTT Meetings Diagram]

- % of sites with severe risk episode
- No HTT
- HTT but no meetings
- 1-3
- 4-6
- 7-9
- 10-12
- More
Having a TP in post?
What about measures of activity?

- HTC attendance
- Staff training
  - Induction
  - Annual training
  - Barring untrained nurses
- Incident reporting
  - SHOT reports

- NO
- YES

- NO
- ?YES
Induction Training

% of nurses having undergone induction training

% of sites with severe risk episode

<25%  26-50%  51-75%  >75%
Annual Training

% of nurses having undergone annual training

% of sites with severe risk episode
Number of SHOT reports

Number of SHOT reports in 12 months

% of sites with severe risk episode:

0 1-2 3-5 6-9 10+

0 5 10 15 20 25
Cautions

- Only statistically significant association
  - Nurses annual training

- The presence of the appropriate ID and other documents does not mean that the bedside check was actually done.

- This audit only identified those cases in which it was possible for the bedside check to take place in accordance with the guidelines
Summary

• Patient identification remains a major issue
  – Implications beyond blood transfusion
  – The young are at the highest risk
• Transfusions took place when information was missing or wrong
• Data suggests better practice more likely where:
  – BBT2 progress is made
  – Nurses receive annual training
• Actual bedside checking should be audited
Thanks to

• Hospital data collectors

• Reports available at:
  – www.blood.co.uk/hospitals/safe_use/clinical_audit/index.asp