# Assessing the Compliance of Trust and National Blood Transfusion Guidelines on Medical Wards

Guy's and St Thomas' NHS
NHS Foundation Trust

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## Background:

The administration of blood components poses a significant clinical risk as documented in successive SHOT reports.

National and trust guidelines outline requirements of the blood transfusion procedure, including **informed consent, appropriate transfusion, documentation and good bedside practice**. These components of the correct process are highlighted in Trust mandatory transfusion training and on-line competency assessment

We evaluated transfusion practice in medical wards to assess compliance with and awareness of transfusion policies.[1]

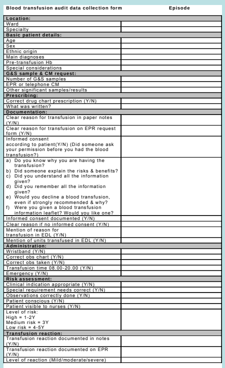
## Aims:

Assess adherence of trust & national blood transfusion guidelines in medical patients, especially with respect to:

1) **Appropriate use of blood product transfusion.**
2) **Clear documentation of reason for transfusion.**
3) **Informed consent gained and documented.**
4) **Accurate prescribing and safe bedside practice.**

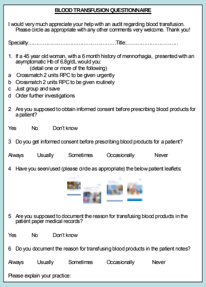
Increase and improve compliance & awareness of guideline adherence, especially with respect to the above four points.

### Data collection chart:



| Blood transfusion audit data collection form | Episode |
|---|---|
| **Location:** | |
| Ward | |
| Specialty | |
| **Basic patient details:** | |
| Age | |
| Sex | |
| Ethnic origin | |
| Main diagnoses | |
| Pre-transfusion Hb | |
| Special considerations | |
| **G&S sample & CM request:** | |
| Number of G&S samples | |
| EPR or telephone CM | |
| Other significant samples/results | |
| **Prescribing:** | |
| Correct drug chart prescription (Y/N) | |
| What was written? | |
| **Documentation:** | |
| Clear reason for transfusion in paper notes (Y/N) | |
| Clear reason for transfusion on EPR request form (Y/N) | |
| Informed consent according to patient(Y/N) (Did someone ask your permission before you had the blood transfusion?) | |
| a) Do you know why you are having the transfusion? b) Did someone explain the risks & benefits? c) Did you understand all the information given? d) Did you remember all the information given? e) Would you decline a blood transfusion, even if strongly recommended & why? f) Were you given a blood transfusion information leaflet? Would you like one? | |
| Informed consent documented (Y/N) | |
| Clear reason if no informed consent (Y/N) | |
| Mention of reason for transfusion in EDL (Y/N) | |
| Mention of units transfused in EDL (Y/N) | |
| **Administration:** | |
| Wristband (Y/N) | |
| Correct obs chart (Y/N) | |
| Correct obs taken (Y/N) | |
| Transfusion time 08.00-20.00 (Y/N) | |
| Emergency (Y/N) | |
| **Risk assessment:** | |
| Clinical indication appropriate (Y/N) | |
| Special requirement needs correct (Y/N) | |
| Observations correctly done (Y/N) | |
| Patient conscious (Y/N) | |
| Patient visible to nurses (Y/N) | |
| Level of risk: High = 1-2Y Medium risk = 3Y Low risk = 4-5Y | |
| **Transfusion reaction:** | |
| Transfusion reaction documented in notes (Y/N) | |
| Transfusion reaction documented on EPR (Y/N) | |
| Level of reaction (Mild/moderate/severe) | |

### Medical staff questionnaire:

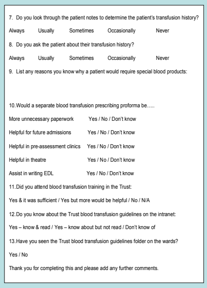


BLOOD TRANSFUSION QUESTIONNAIRE

I would very much appreciate your help with an audit regarding blood transfusion. Please circle as appropriate with any other comments very welcome. Thank you!

Specialty………………………………Title:……………………

1. If a 45 year old woman, with a 6 month history of mennorhagia, presented with an asymptomatic Hb of 6.8g/dL would you: (detail one or more of the following)
   a Crossmatch 2 units RPC to be given urgently
   b Crossmatch 2 units RPC to be given routinely
   c Just group and save
   d Order further investigations
2 Are you supposed to obtain informed consent before prescribing blood products for a patient?
   Yes No Don't know
3 Do you get informed consent before prescribing blood products for a patient?
   Always Usually Sometimes Occasionally Never
4 Have you seen/used (please circle as appropriate) the below patient leaflets:
5 Are you supposed to document the reason for transfusing blood products in the patient paper medical records?
   Yes No Don't know
6 Do you document the reason for transfusing blood products in the patient notes?
   Always Usually Sometimes Occasionally Never
   Please explain your practice:



7. Do you look through the patient notes to determine the patient's transfusion history?
   Always Usually Sometimes Occasionally Never
8. Do you ask the patient about their transfusion history?
   Always Usually Sometimes Occasionally Never
9. List any reasons you know why a patient would require special blood products:
10. Would a separate blood transfusion prescribing proforma be…..
   More unnecessary paperwork Yes / No / Don't know
   Helpful for future admissions Yes / No / Don't know
   Helpful in pre-assessment clinics Yes / No / Don't know
   Helpful in theatre Yes / No / Don't know
   Assist in writing EDL Yes / No / Don't know
11. Did you attend blood transfusion training in the Trust:
   Yes & it was sufficient / Yes but more would be helpful / No / N/A
12. Do you know about the Trust blood transfusion guidelines on the intranet:
   Yes – know & read / Yes – know about but not read / Don't know of
13. Have you seen the Trust blood transfusion guidelines folder on the wards?
   Yes / No

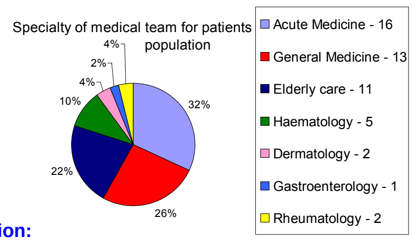
Thank you for completing this and please add any further comments.

## Methods:

- ✓ Concurrent data collection for 6 week period (n = 50)
- ✓ **Sample population:** Non high-dependency medical patients receiving a blood component transfusion in St.Thomas' hospital.
- ✓ **Data collection:** patient details collected from blood transfusion lab.
- ✓ Data was collected using:
  - → Data collection sheet.
  - → Patient medical records & electronic patient records (EPR).
  - → Bed side observations & drug chart.
  - → Patient interview
  - → Medical staff questionnaire

## Results 1:

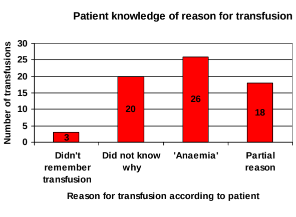
Patients were widely distributed across the medical specialties:



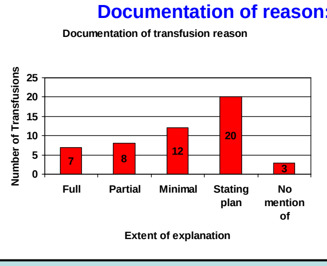

### Inappropriate transfusion:

- x 6/50 (12%) Hb >8g/dL - 5/6 having poor documentation of symptoms.
- x 4/50 (8%) had documentation of stable obs. & no identification of bleeding.
- x 4/50 (8%) had known chronic anaemia with no documentation of symptoms.
- x 5/50 (10%) were on warfarin & transfused prior to reversal of anticoagulation.
- x 2/50 (4%) had documented CRF with no other treatment given for anaemia.

### Reason for transfusion:




### Documentation of reason:




## Results 2:

### Informed consent:

| According to the patient: | Yes | No |
|---|---|---|
| Informed consent gained | 20 (46.5%) | 26 (63.5%) |
| Risks, benefits & alternatives discussed | 7 (15.2%) | 39 (84.8%) |
| Patient understood all information given | 24 (52.2%) | 22 (47.8%) |
| National Blood Service leaflet given | 1 (2.2%) | 45 (97.8%) |

2/3rds of medical staff considered that they always obtain informed consent.

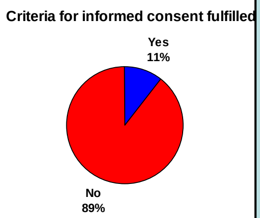
Documentation of informed consent occurred in 3 episodes (6%), all by haematology SpRs.

(4 not available to answer)

Using the criteria:

- → *Do you know why you are having the transfusion?*
- → *Did someone explain the risks & benefits?*
- → *Did you understand all the information given?*
- → *Did you remember all the information given?*

Full informed consent was gained in 5/46 (11%) patients.



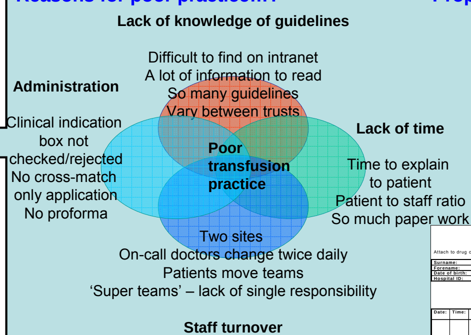

### Bedside practice:

- x 25/50 (50%) prescriptions were correctly written as red cells.
- x 5 of the patients (10%) were not readily visible to nursing staff.
- x The trust transfusion chart was always used but 22% were photocopies.
- x 12/50 (24%) cases the post transfusion observations were not documented.

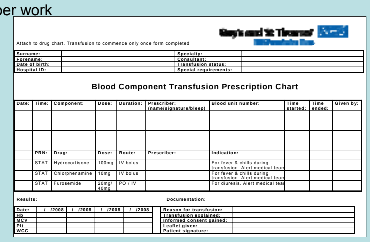
## Conclusions:

- ✓ This audit demonstrated that staff are aware of guidelines and that they do undergo transfusion training.
- ✓ However staff do not fully adhere to guidance regarding transfusion practice in medical patients.
- ✓ Results suggest novel approaches are required to encourage knowledge translation into practice.
- ✓ Standards for compliance with guidelines should be 100% to allow the best patient care.
- ✓ Documentation of transfusion observations has improved following the introduction of the transfusion observation chart.

### Reasons for poor practice…?



### Proposal of blood prescribing charts:



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Attach to drug chart. Transfusion to commence only once form completed

| | | | |
|---|---|---|---|
| Surname: | | Specialty: | |
| Forename: | | Consultant: | |
| Date of birth: | | Transfusion status: | |
| Hospital ID: | | Special requirements: | |

Blood Component Transfusion Prescription Chart

| Date: | Time: | Component: | Dose: | Duration: | Prescriber: (name/signature/bleep) | Blood unit number: | Time started: | Time ended: | Given by: |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | PRN: | Drug: | Dose: | Route: | Prescriber: | Indication: | | | |
| | STAT | Hydrocortisone | 100mg | IV bolus | | For fever & chills during transfusion. Alert medical team | | | |
| | STAT | Chlorphenamine | 10mg | IV bolus | | For fever & chills during transfusion. Alert medical team | | | |
| | STAT | Furosemide | 20mg/ 40mg | PO / IV | | For diuresis. Alert medical team | | | |

Results:

| Date: | / /2008 | / /2008 | / /2008 | / /2008 |
|---|---|---|---|---|
| Hb | | | | |
| MCV | | | | |
| Plt | | | | |
| WCC | | | | |

Documentation:

| | |
|---|---|
| Reason for transfusion: | |
| Transfusion explained: | |
| Informed consent gained: | |
| Leaflet given: | |
| Patient signature: | |

## Recommendations:

- ✓ Improve & explore varied training for new and existing trust doctors.
- ✓ Make blood transfusion leaflets more widely available and incorporate distribution into transfusion process → These are now sent to wards periodically.
- ✓ Proposal: a user friendly blood transfusion proforma chart.
- ✓ Proposal: sticker (A6 size) with the above information on to go in paper notes.

**References:**

[1] Handbook of transfusion medicine DBL McClelland United Kingdom Blood Services 4th Edition First published 2007 ISBN-10 0 11 322677 2
[2] British Committee for Standards in Haematology Blood Transfusion Task Force in collaboration with the Royal College of Nursing and the Royal College of Surgeons of England (BCSH) (1999) The administration of blood and blood components and the management of transfused patients. Transfusion Medicine, 9, pp 227-238
[3] Blood Transfusion Services of the United Kingdom (2001) Handbook of Transfusion medicine 3rd edition. London.
[4] Serious Hazards of Transfusion Steering Group (SHOT) (2007) SHOT Annual Report 2007. Manchester: SHOT. http://www.shotuk.org/Summary%202007.pdf
[5] Blood Transfusion Policy. Guy's & St. Thomas' NHS trust. Intranet clinical guidance. Issued Nov 2005. Author: V Fulkes