Poole Hospital NHS
NHS Foundation Trust

Demand Management

Sharon Gale
Poole Hospital NHS Foundation Trust

Poole Hospital 'vital statistics'

- 518 Beds (2012)
- Major Incident Hospital
- High Risk Obstetrics, Gynae and Neonatal specialties, Dorset Cancer Centre
- No Cardiac, Arterial or Renal specialties
- Contracted to supply 5 community Hospitals and 1 private Hospital with blood components
- 30,000 G&S samples per year
- BSMS 'high user' for red cells.

What did we do?

- Ditched the Maximum Surgical Blood Ordering Schedule (MSBOS)
- Promoted the ‘two sample’ system for Electronic Issue (EI)
- Converted all routine surgical requests to Supply on Demand [exceptions – antibody patients and high-risk Obstetrics]

How did we do it?

Reviewed the Blood Policy (Nov 2010)

HTT met with each specialty HTC Rep/clinical lead:

- Reviewed their practice & transfusion needs
- Re-visited Hb triggers & introduced targets
- Audited, then discussed specialty usage & alternatives to transfusion.

- Set up a pre-op assessment working party
- Set up a Cell Salvage working party
- Implemented a Major Haemorrhage policy

Supply on Demand (SoD)

- HTT audited blood usage: mostly in recovery or ward/day ward
- For procedures more likely to require transfusion; ensure 2 G&S pre-op; then EI available
- HTC met with all clinical leads – agreed SoD to replace MSBOS
- Red cells issued on 'decision to transfuse'. None on 'stand by' except high risk or antibody patients
- EI status made available on EPR, to check prior to Theatre.
- Allows better stock rotation.

Blood Product Questionnaires: (Empowering lab staff)

- Questionnaires guide Lab staff on the recommendations of the Trust ***Blood & Blood Products policy***.
- Aim to ensure requests are appropriate.
- Targets and triggers are identified on the questionnaires and help Lab staff when challenging requests.
- Inappropriate requests are referred to a Cons Haematologist .

Red Cell Request Questionnaire

Poole Hospital NHS Trust
Red Cell Request questionnaire to provide justification for transfusion

Hospital No _____ Surname _____ Lab number:.....

Date of request _____ Time _____ Clinical staff (name) _____ Ward_____ Bleep_____

Latest Hb _____ No of units ____ Date/Time required _____

If 'low Hb' is higher than Policy "triggers", provide supportive comments to justify transfusing.

If Hb higher than Policy "triggers" and rationale for red cells unclear - refer to consultant Haem.

Select reason for request	Policy Hb "Triggers"	Y/N	Supportive comments
Patient bleeding	2-4 units depending on Hb		
Acute Upper GI Bleed	See table: QMS-DOC-83266v1.0		
Clinically unstable	Keep Hb >100 g/l		
Cardiac/cerebral disease	>Hb 80 g/l		
Oncology patient	Maintain > 110 g/l		
Chronic anaemia (? Cause)	Maintain > 80 g/l		
Critically ill –	Maintain > 80 g/l		
Pre-op – state op	Maintain > 100 g/l		
Post –op – state op	Transfuse < 80 g/l		

Full XM ☐ or EI ☐

Lab staff initial_____ Referred: Y/N Agreed/ Not agreed (tick) Lab ☐ FJ ☐ Cons name…….. ……

Evidence Suggests:	For acute controlled blood loss	Transfuse if >1500 ml
	For acute uncontrolled blood loss	Maintain Hb >100 g/l
Stable patients	Hb 70-80 g/l - issue 1 unit, re-asses	Hb 60-70 g/l - issue 2 units, re-asses

Assume 1 unit raises Hb by 10 g/l

Higher Hb triggers may be necessary for: elderly/cardiac/respiratory/very symptomatic patients, document above.

QMS-DOC-91380 v1.4 Effective 09/05/2012 Review May 2014

Cell Salvage

- Cell Salvage working group was set up; led by HTC chair (Cons Anaesthetist), Theatre Manager, plus HTT. Two Fresenius machines were already available in theatres.
- Business case was developed for a Cell Salvage Co-ordinator (ODP), job description written and AfC banded (as yet no funding)
- ODPs very keen, and receive training from Supplier. Cases are supported when possible.
- Cell Salvage is now used for high-risk Obstetrics and some Orthopaedic cases.

Pre-Op Anaemia Screening

- Optimising Hb pre-op avoids unnecessary transfusion.
- HTT worked with pre-op assessment team.
- Implemented an algorithm within LIS (Telepath) for pre-op FBC results to automatically generate a ferritin request (to identify Fe def anaemia).
- Non-urgent patients are either referred back to GP or treated with Iron therapy as appropriate, prior to their surgery.

Major Haemorrhage Policy

- Major Haemorrhage policy implemented. The on site Co-ordinator notifies 'Alert' to switchboard and immediate calls to Transfusion Lab & porters
- Major Haemorrhage products:

  4 Red Cells or 4 Red Cells +3 FFP
- All cases are reviewed for appropriate use of alert and components- followed up by HTT.

Specialty usage figures

- Produced per specialty, per quarter:
  transfused, returned & wasted, PLUS COST!
- Since Jan 2012 these figures are sent to HTC Reps and clinical leads for discussion and review of practice.
- Feedback/discussion on these figures is included in HTC meetings.

Laboratory savings

- Ad-Hoc deliveries: NHSBT agreed to 'routine' Sat/Sun deliveries. All Ad-Hoc requests monitored closely to avoid unnecessary transport costs.
- Referrals to RCI : kept to a minimum. Some staff have attended training at Filton.
- Daily check of stock levels and short dated units to prevent wastage.

Additional Ideas

- Participation in National Comparative Audits with feedback to ALL appropriate parties: (nursing/medical/risk/laboratory)

- Attendance by TP at clinical governance/ multi-discipline meetings /training days to raise awareness of transfusion issues and network.

Training and Education

- All staff involved in the 'transfusion process' should receive training:
  - Trust based (mandatory) transfusion training
  - Medical 'Book mark' and Lab information 'flyer' for junior Drs
  - Directorate based updates
  - e-Learning packages
  - Local based training for Community Hospitals

Hospital Staff awareness

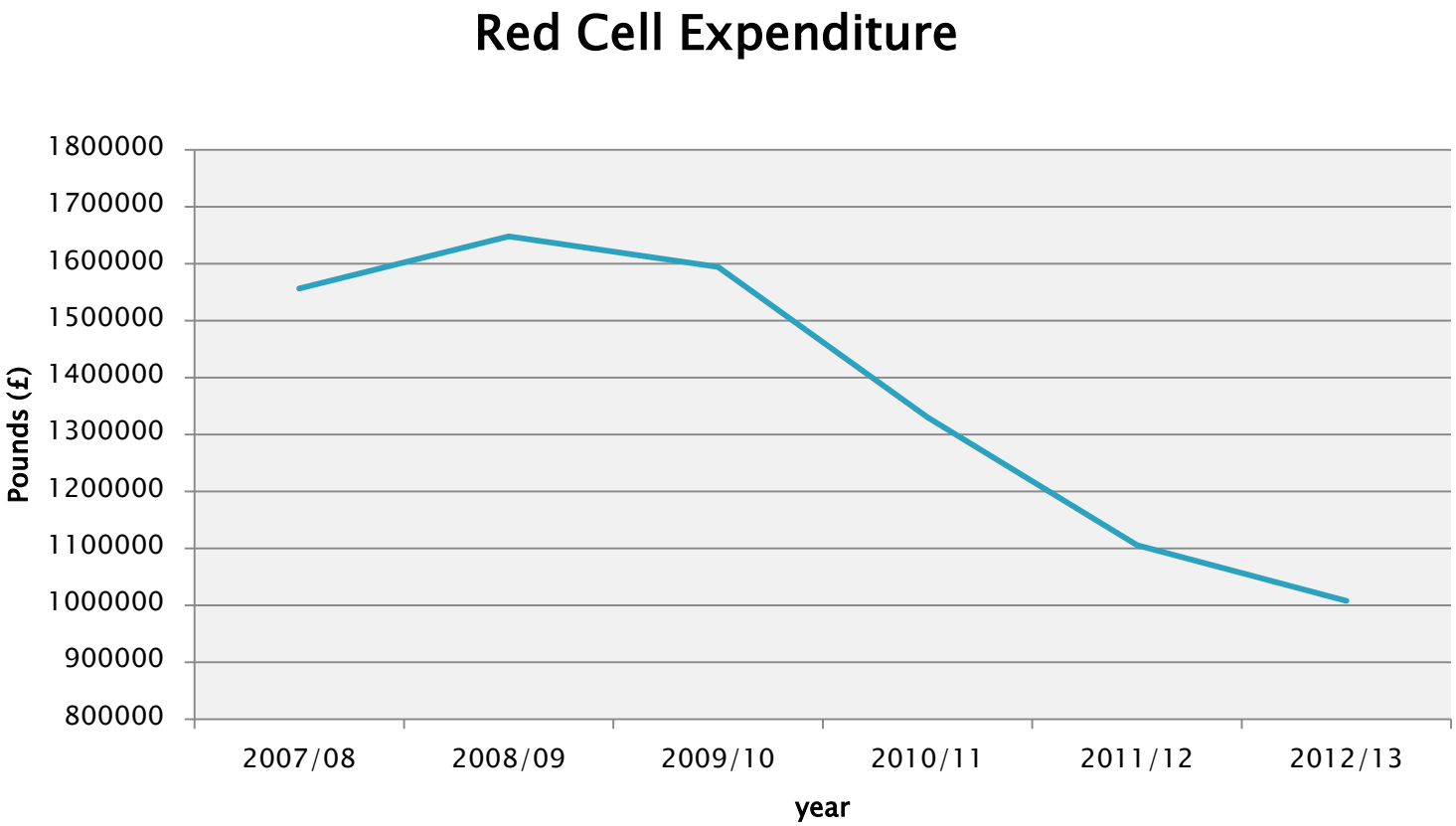
Additional information available on the Hospital intranet:

- Dates for Transfusion & TrakLOGIK training sessions with TP
- Blood & Blood Products Policy
- Junior Doctors Handbook
- Pathology tests webpage

What did we achieve?

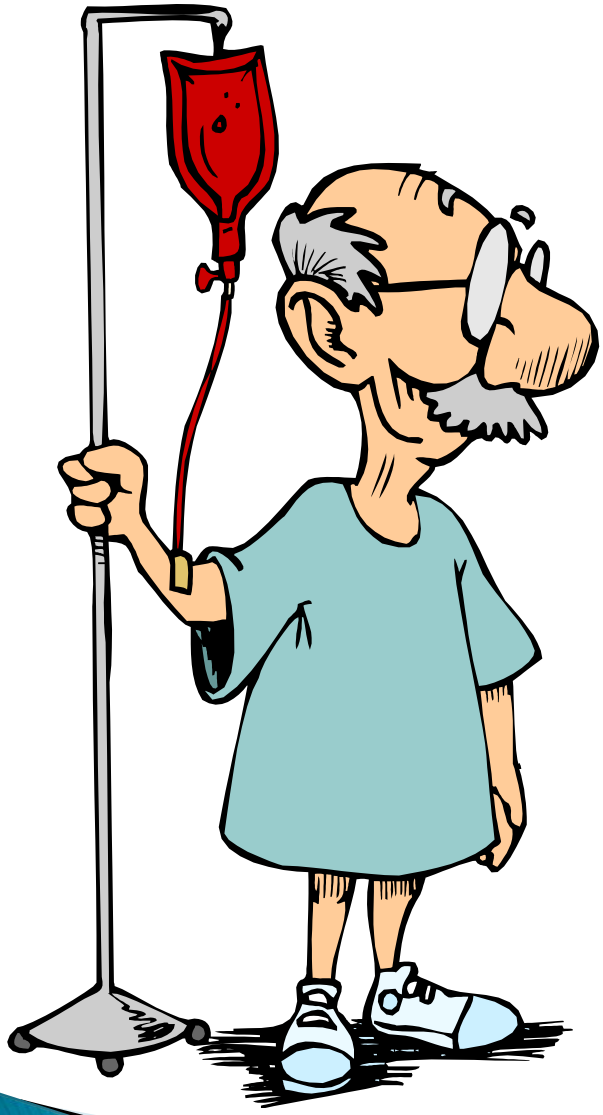
- Improved appropriate use.
- Better stock rotation.
- Reduced stock holding levels.
- Downsized to BSMS ‘moderate’ red cell user.
- Saved money on NHSBT blood budget.

How did we do?


Red Cell Expenditure
1800000
1700000
1600000
1500000
1400000
1300000
1200000
1100000
1000000
900000
800000
Pounds (£)
2007/08
2008/09
2009/10
2010/11
2011/12
2012/13
year

Future plans

- To continue raising awareness of alternatives to transfusion.
- To support the need for availability of Cell Salvage for elective surgery
- To purchase a TEG – should improve appropriate use of coagulation factors & plasma products. (Business case presented but turned down)
- Review the potential for ‘Service Line Reporting’ leading to cross charging!



Any Questions?