

South West Regional Transfusion Committee

Project: Electronic Appropriate Blood Use Data



A novel method of data analysis for utilization of red blood cell transfusion

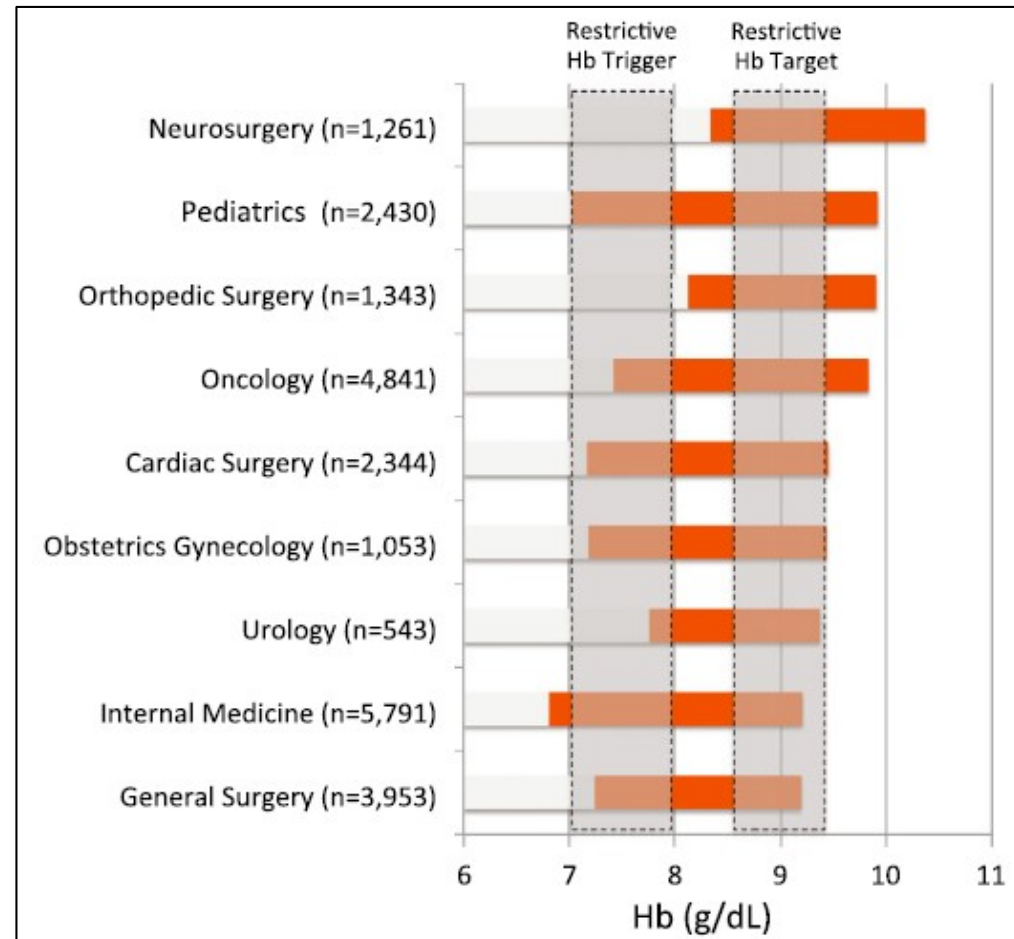
Steven M. Frank, Linda M.S. Resar, James A. Rothschild, Elizabeth A. Dackiw, Will J. Savage, and Paul M. Ness

Transfusion, Volume 53, Issue 12,
pages 3052–3059, December 2013
Article first published online: 28 APR 2013

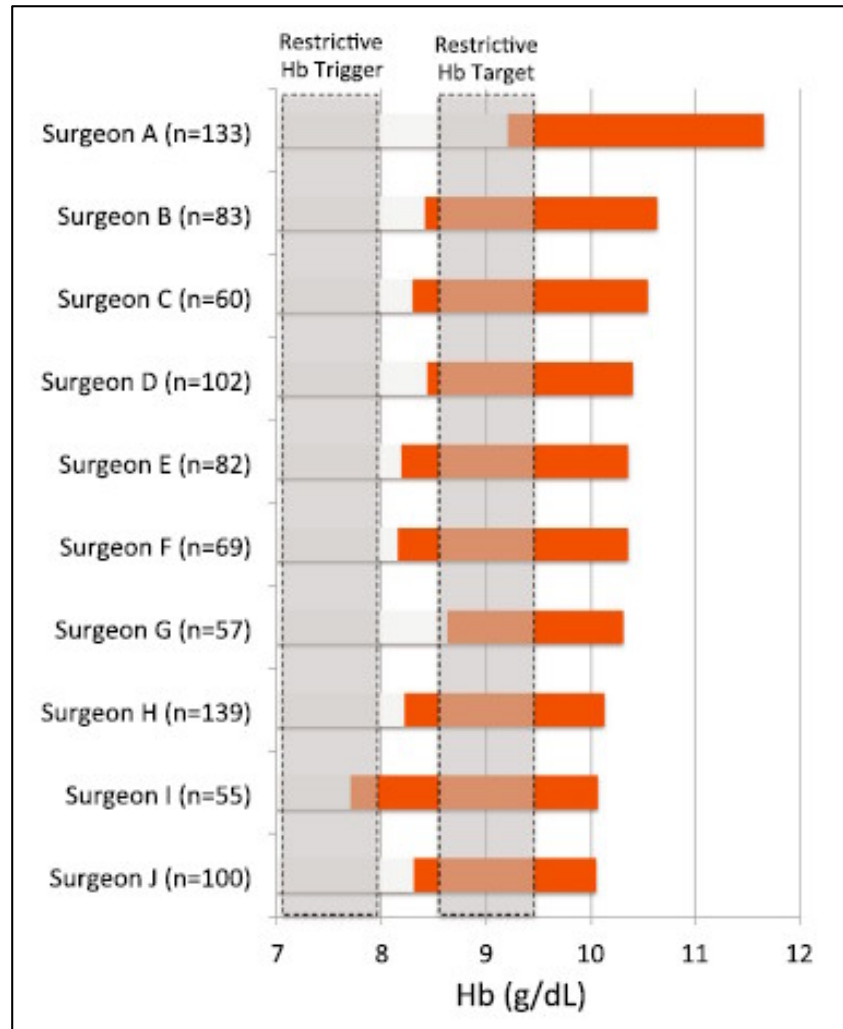
- RBC use in 23,500 patients transfused over 44 months
- Lowest and last measured Hb during hospital stay used:
 - lowest for pre-transfusion Hb - ‘trigger’ Hb
 - last Hb prior to discharge - ‘target’ Hb

Frank et al. (2013)

- Horizontal bars:
 - left edge = mean lowest Hb (trigger)
 - right edge = mean last Hb (target)
- Vertical shaded columns: ranges for Hb trigger & target (taken from recommended evidence based guidelines)



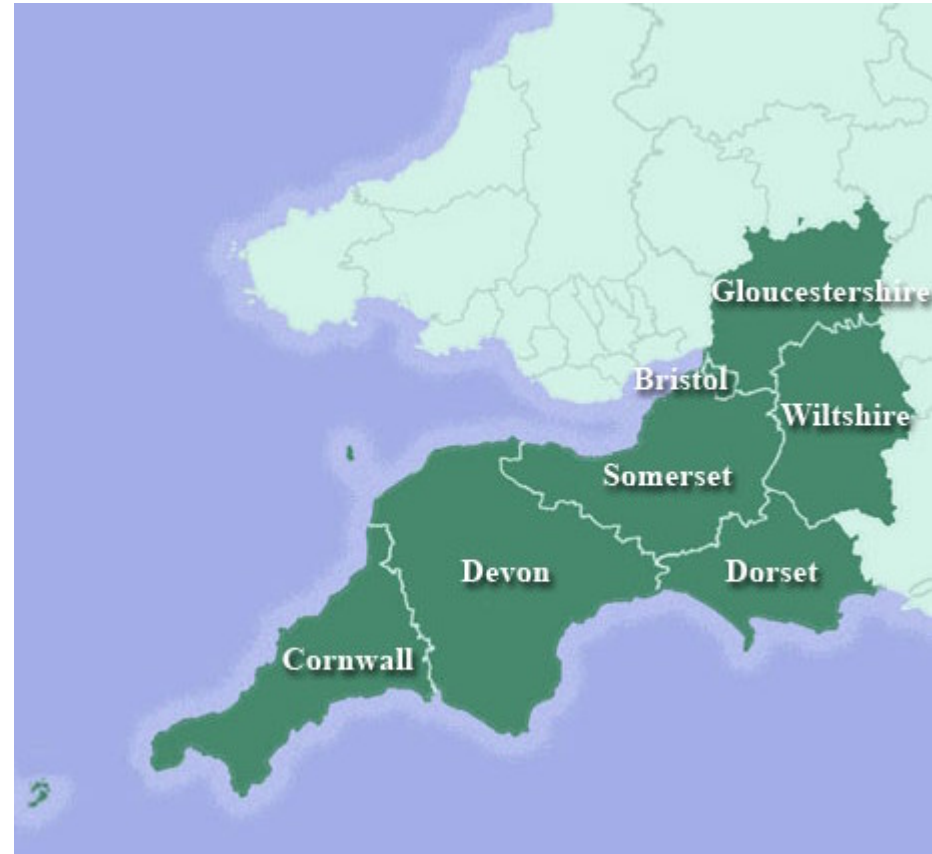
Frank et al. (2013)



- Conclusion – can effectively educate clinical staff on their transfusion practices and improve blood use.

South West region

- 17 NHS trusts
- 5 have WinPath or LabCentre LIMS
- CliniSys approached at BBTS annual conference (Oct. 2013)
- Meeting with CliniSys rep.s (Jan. 2014)



South West 'project'

- PathManager required
- Patient number (hospital/NHS) as common identifier
- Pre-transfusion Hb – nearest chronological
- Transfusion 'episodes' rather than units
- Post transfusion Hb – nearest chronological
- Patients who have either a pre or a post Hb included

Supplementary Support Sheet



RedCell Utilisation			
Publication Date:	07 Nov 2014	Version:	2.1, 2.1 SP1, 2.1 SP2 2.2, 2.2 SP1, 2.2 SP2 2.3
Products Affected	PathManager PathManager Motion		
Disciplines Affected	Blood Transfusion		

CliniSys has created hard coded version of the RBC Utilisation reports (WinPath and LabCentre) to allow existing PathManager customers (versions 2.1 onwards) to run these reports.

PathManager Motion v2.2

Welcome: pe

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Redcell Utilisation

Edit Query | Edit Report | Run Query

Add Query | SQL

Data | Properties

- PathManager
 - Laboratory
 - Requests
 - QC
 - Donor Stock
 - Batch Stock
 - Patient Index
 - Interface Stats
 - System Dates

Result Objects

Specialty Code | Specialty Desc | Transfusion Episode (Count) | Best Gest Age | Number Of Screenings

Query Filters

Episode Date Range

Department Type Code Equal to T

Request ID (With Hosp ID) In list Request ID (With Hosp ID)

Where And

Department Type Code Equal to T

Product Type Code Equal to REDCELL

*Status Used

Episode Date Range

Products

RBC Utilisation

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Selection Criteria:

For Date Episode Date Range 05/11/2014 to 05/11/2014

Haemoglobin Test ALL

For ALL Products

Patient matching on NHS Number

For ALL Status

Pre Transfusion Haemoglobin Result = Red

Post Transfusion Haemoglobin Result = Black

				Restrictive hb Trigger		Restrictive hb Target				
<6	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5

Selection Criteria:

For Date Episode Date Range 01/01/2015 to 31/01/2015

Haemoglobin Test HGB Haemoglobin

For ALL Products

Patient matching on NHS Number

For ALL Status

Pre Transfusion Haemoglobin Result = Red

Post Transfusion Haemoglobin Result = Black

				Restrictive		Restrictive							
				hb Trigger		hb Target							
	1			77									
0 Unknown	3					86		96					
100 General Surgery	16							97.2		101.6			
101 Urology	5							97.3	97.8				
104 Colorectal Surg	6								96.3	100			
110 Trauma & Ortho	33					91.2	91.3						
120 ENT	2					84	90						
160 Plastic Surgery	3				81	82.7							
180 Accident & Eme	44					88	89.1						
190 Anaesthetics	2	56.5						92					
300 General Medicine	31				82.5			90.9					
301 Gastroenterology	7				80.1				97.8				
302 Endocrinology	2		66		77								
303 Clinical Haematology	71				80.5		85.1						
311 Clinical Genetics	1									102		110	
320 Cardiology	3					86	87.3						
340 Thoracic Medicine	13			70.2			85.2						
370 Medical Oncology	6					89.3			99.5				
420 Paediatrics	2		64						97				

Specimen Num	Surname	Forename	Episode Date & Time
0015T000762	X	X	10/01/2015 22:20

0 Unknown

Specimen Num	Surname	Forename	Episode Date & Time
0015T000205	X	X	05/01/2015 09:03
0015T000964	X	X	13/01/2015 16:52
0015T001711	X	X	22/01/2015 16:43

100 General Surgery

Specimen Num	Surname	Forename	Episode Date & Time
0015T000062	X	X	01/01/2015 16:29
0015T000129	X	X	02/01/2015 15:45
0015T000248	X	X	05/01/2015 09:39
0015T000336	X	X	05/01/2015 20:43
0015T000348	X	X	06/01/2015 10:06
0015T000348	X	X	06/01/2015 19:53
0015T000485	X	X	07/01/2015 11:50
0015T000613	X	X	08/01/2015 16:04
0015T000638	X	X	08/01/2015 20:29
0015T000638	X	X	09/01/2015 17:36
0015T000664	X	X	09/01/2015 11:53
0015T000806	X	X	12/01/2015 09:57
0015T001011	X	X	14/01/2015 11:19
0015T001018	X	X	14/01/2015 12:57
0015T001865	X	X	25/01/2015 03:08

101 Urology

Specimen Num	Surname	Forename	Episode Date & Time
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