

# Reflections

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# What am I?

- Consultant Anaesthetist – Worthing Hospital from November 1999
- Blood transfusion committee 2000
- Chair BTC since 2002
- Chair Western Sussex Hospitals NHS BTC 11 years
- Joint chair UHS BTS 1 – 2 years
- Chair, South East Coast Regional Transfusion Committee - approx 5 years
- Chair, South East Regional Transfusion Committee - approx 1 year

# Reflections

- Blood transfusion in elective surgery
- WBITs
  - Why oh why?
- Challenges
  - Staffing
  - Blood supply
- Amber alert

# Challenges over 20 years

- Staffing – Recruitment and retainment
- Blood stock shortages
  - Complex rotation and tracking
  - Platelets particularly challenging
- Finance
- Finding and securing Committee membership
- WBITs

WBIT

**GROUP & SCREEN REPORT** Hospitals N...  
Tel 01903 205111 Ext 5675


Summary	Forenames: <b>Elizabeth</b>
Hospital	DoB: <b>12/12/1978</b> Ward: <b>Zone C Emergency Floor</b>
Consultant	Diagnosis:
Patient's Blood Group:	Into satellite blood bank: Date Time Sign

Report

Blood Group: **Not Tested**  
Atypical Antibody Screen: **Not Tested**

Notes: **SAMPLE: INCORRECT PATIENT BLED & LABELLED WITH DIFFERENT PATIENT DETAILS**

Sample No.: <b>XM4867</b>	Sample date: <b>23/03/2015 22:45</b>	Report date: <b>24/03/2015 01:28</b>
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XM4867

# WBIT

- Audit – where? Who? Why?
- Education
- Redesign of blood form

# WBIT

I confirm that I have:-	Signature
Asked the patient to state first name, surname and date of birth	
Checked the patient details match the patient's wristband	
Checked the wristband details match those on the request form	
Labelled the tube before leaving patient's bedside	
Signed tube as person drawing sample	
I have bled only one patient and have not pre-labelled the tube	
I have not taken two cross match samples at the same time	

I take responsibility for sampling procedure accuracy Signed.....

Print Name.....GMC/NMC PIN.....

Date ...../...../..... Time .....:.....

ie Laboratory to discuss requirements

# WBIT

- Audit – where? Who? Why?
- Education
- Redesign of blood form
- Threatening letter
- Requested Electronic system
- Should we restrict who takes blood?



# 'i t' concept

- Dot the i
- Cross the t

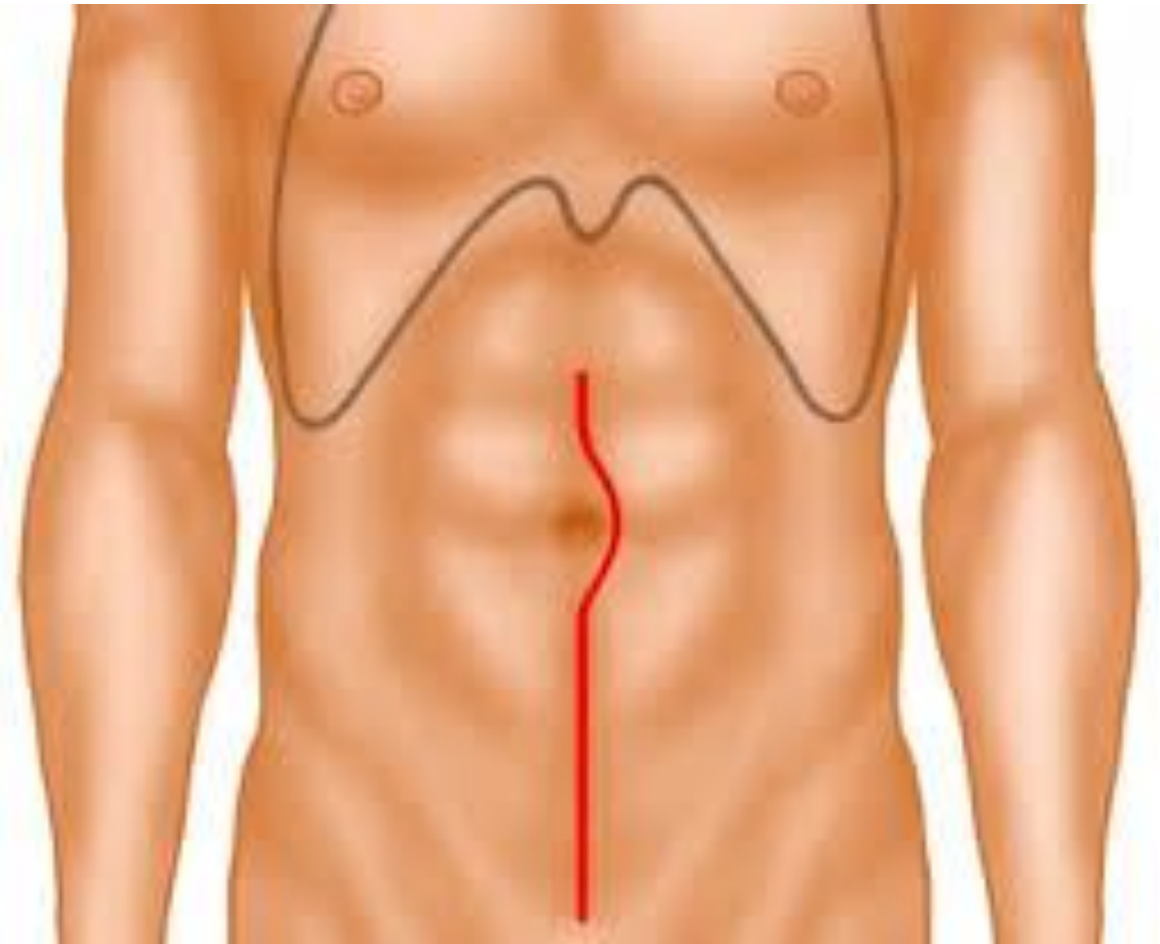
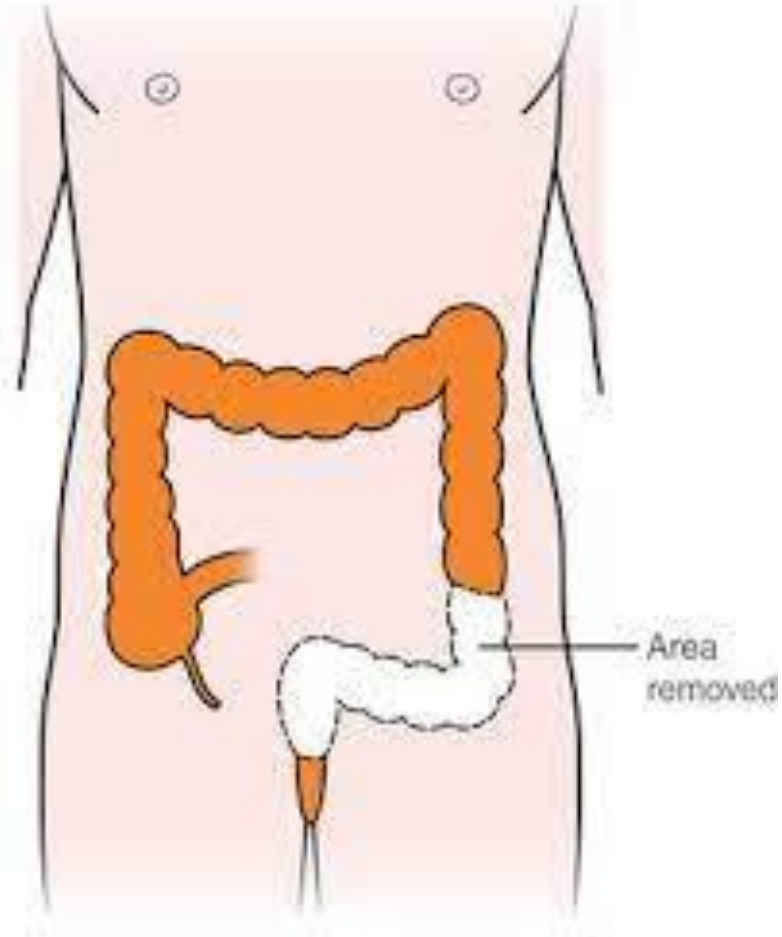
- Do €  e

- Taken to NBTC 2017

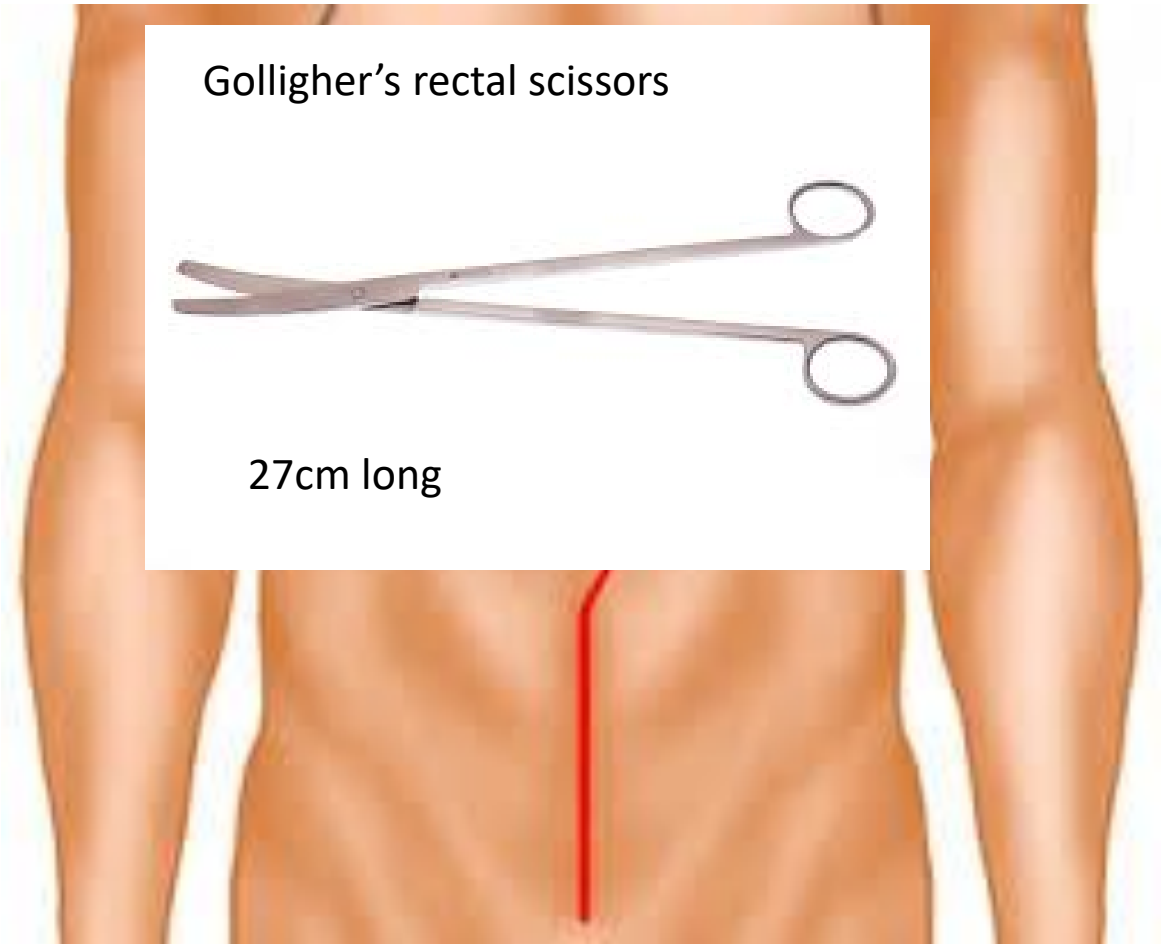


# Elective surgery

# Elective surgery - Anterior resection



# Elective surgery - Anterior resection



Golligher's rectal scissors



27cm long

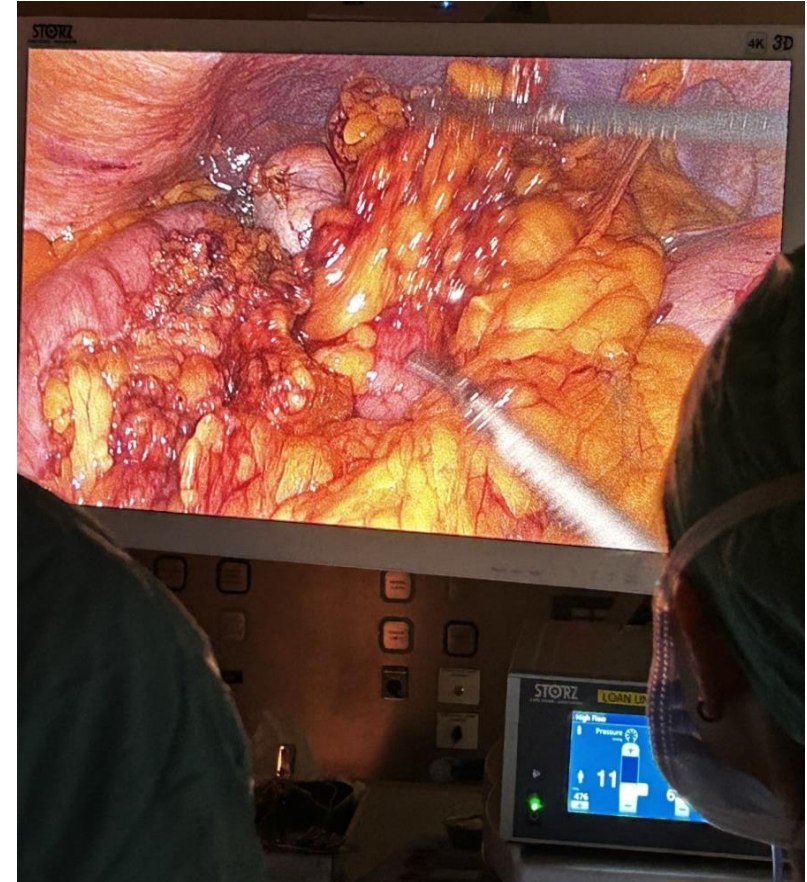
# Elective surgery - Anterior resection

Typical 1990s Anterior resection  
involved:

Surgeon complaining of a narrow  
pelvis

Blood up by 11am!

# Elective laparoscopic anterior resection



# Elective laparoscopic anterior resection



# Elective colorectal case

- Identification of iron deficiency
- ERP Nurse

13-Jan-2024 22:02 00245036049	26-Jan-2024 10:45 00245074330	Test
		Test ▼
		▶ ◀
128	115	Haemoglobin
8.3	3.9	White Cell Count
156	192	Platelets
3.8	3.5	RBC
0.37	0.33	HCT
96	96	MCV
33.4	33.3	MCH
349	348	MCHC
14	13.7	RDW

51	ALP
5	CRP
64	Total Protein
28	Globulin
	13 Ferritin
	13 Transferrin Saturation
	3.1 Transferrin
	10 Iron
	77.8 TIBC
	67.8 UIBC



# Elective colorectal case

- Treatment of iron deficiency

The following orders will be added

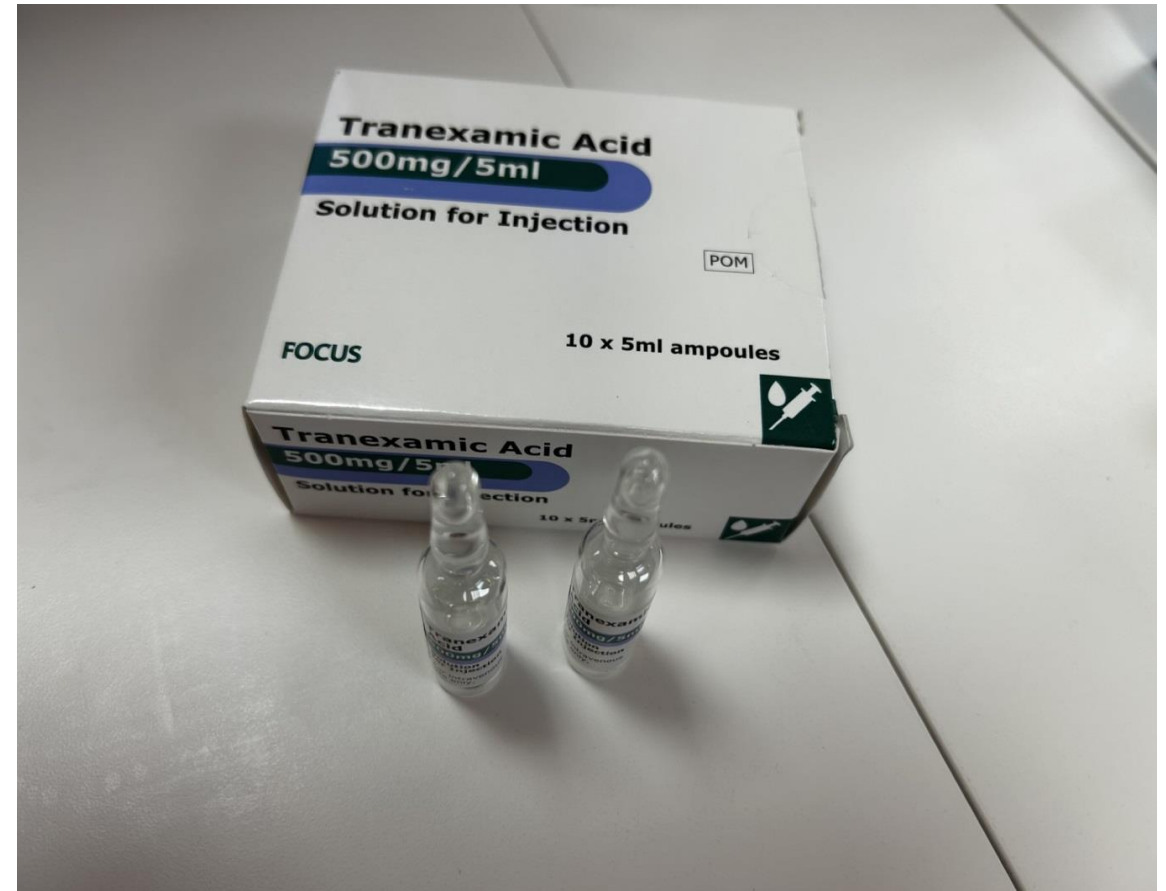
[View Opening](#) [Pharmacy Op](#)

STAT	INTERMITTENT	NON STOCK		
<b>iron - ferric derisomaltose (prev. Monofer) - 1600 mg Infusion</b>			<i>Rate</i> 266 mL/hour	<i>Rate</i> 266 mL/hour
<i>Total Dose</i> 1600 mg		<i>Vol Rate</i> 266 mL/hour	<i>Frequency</i> null - 60 mins	
<i>Prescriber</i> Dr Howard Wakeling		<i>Rx on</i> 01-Feb-2024 15:19	<i>Route</i> Intravenous intermittent infusion	<i>GP Continue</i> No
<i>BNF</i> Parenteral iron		<i>Clinic</i> AMBERLEY OP WOR	<i>Duration</i> 1 doses	<i>Supply</i> 1 days

**This dose (STAT) has NOT been administered**

# Elective colorectal case

- Prevention of blood loss –  
Tranexamic acid



# Impact of PBM

## 2021

- 181 patients
- Total transfusion 6 (3.3%)
- In theatre 0
- 0 Pre-op
- 6 Post-op

## 2022

- 203 patients
- Total Transfusion 8 (3.9%)
- In theatre 1 (0.5%)
  - (splenic injury)
- 0 Pre-op
- 7 Post-op

## 2023

- 207 patients
- Total transfusion 7 (3.4%)
- In theatre 2 (1%)
  - Splenic injury
  - Bleeding vessel
- 2 Pre-op
- 3 post-op

# Total hip replacement

- Year 2000
- All patients received 2 units of blood.
- Some intra-operatively
- Some post-operatively
- Occasionally pre-operatively



## Blood usage at Southlands

	Oct - Dec 2008		Oct- Dec 2009	
<b>Total number of THR operations</b>	100		83	
<b>Total number intra-operative transfusions</b>	14		11	
<b>Total number post-operative transfusions</b>	21		20	
<b>Total number of patients whose issued blood was returned unused</b>	74 <sup>1</sup>		56 <sup>2</sup>	
<b>Total number of units used in all THR</b>	40		30	
<b>Frequency</b>	1 unit	4	1 unit	3
	2 units	29	2 units	23
	3 units	2	3 units	0
	4 units	4	4 units	3
	5 units	0	5 units	0
	6 units	0	6 units	1
	7 units	0	7 units	0
	8 units	1	8 units	0
<b>Mode</b>	2 units		2 units	

# Total Hip Replacement

- Now PBM
- Iron deficiency treated pre-op

# Total Hip Replacement

- Now PBM
- Iron deficiency treated pre-op
- **Less invasive surgical techniques**



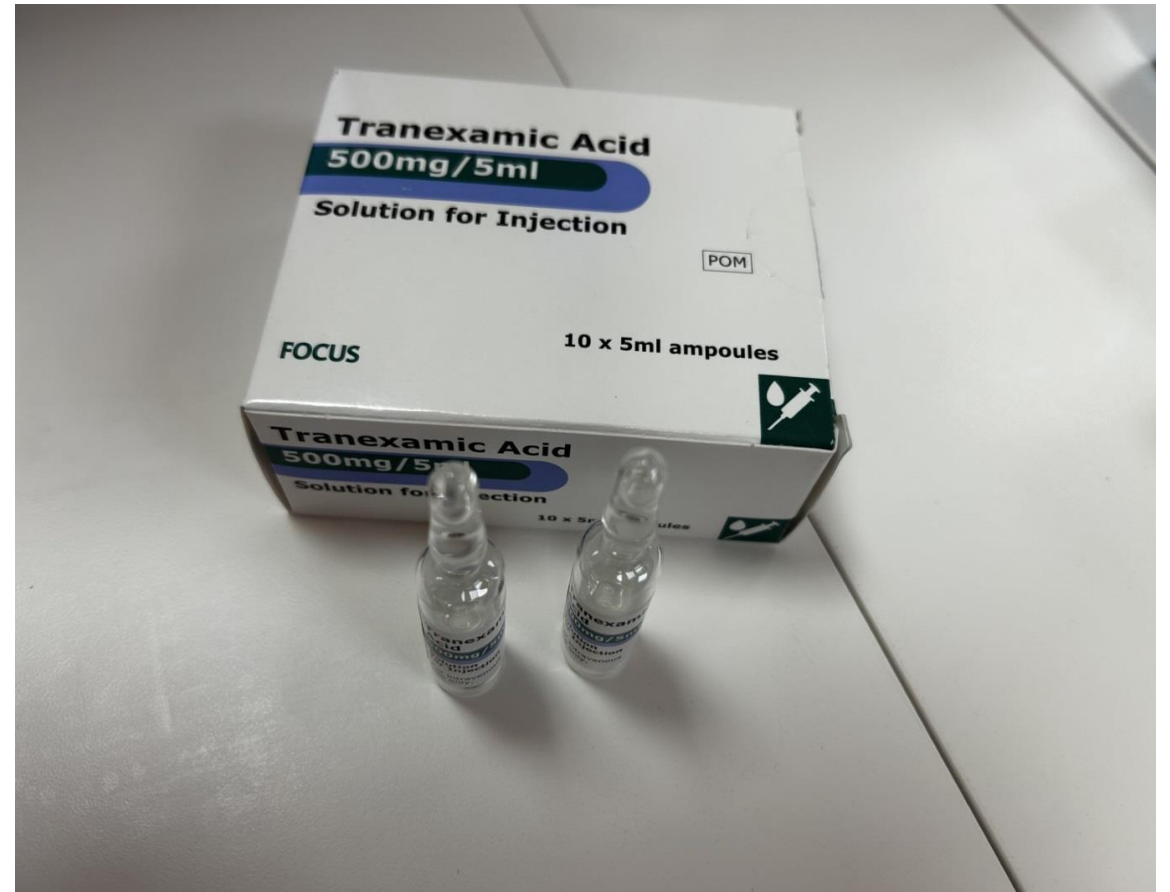
# Total Hip Replacement





# Total Hip Replacement

- Now PBM
- Iron deficiency treated pre-op
- Less invasive surgical techniques
- Cell salvage
- TXA



# Emergency Surgery



# Elective surgery and Amber alert

- Thorough review or elective surgery:-

<b>Category 1</b> (highest transfusion priority)	<b>Category 2</b> (transfused in amber but not red phase)	<b>Category 3</b> (Will not be transfused in amber phase)
Resuscitation of life-threatening/ on-going blood loss including trauma		
Surgical Support Emergency surgery* including cardiac & vascular surgery** & organ transplant. Cancer surgery with the intention of cure.	Surgery/Obstetrics Cancer surgery (palliative). Symptomatic but not life-threatening post-op or post-partum anaemia. Urgent*** (not emergency) surgery.	Elective Surgery likely to require donor blood support
<b>Non-Surgical Anaemia</b> Life-threatening anaemia including in-utero support & HDU/SCBU. Stem cell transplantation or chemotherapy **** Severe bone marrow failure. Transfusion-dependent anaemias including thalassaemia & myelodysplasia. Sickle cell disease (SCD) patients on regular transfusion programmes for prevention of complications of SCD. Organ transplant	<b>Non-Surgical Anaemia</b> Symptomatic but not life-threatening anaemia.	

\* Emergency patient likely to die within 24 hours without surgery.

\*\* With the exception of poor risk aortic aneurysm patients who rarely survive but who may require large volumes of blood.

\*\*\* Urgent -patient likely to have major morbidity if surgery not carried out.

\*\*\*\* Planned stem cell transplant or chemotherapy should be deferred if possible.

# Elective surgery and Amber alert

- Thorough review or elective surgery:-

**Category 2**  
(transfused in amber but not red phase)

**Surgery/Obstetrics Cancer surgery (palliative).**  
Symptomatic but not life-threatening post-op or post-partum anaemia.  
Urgent\*\*\* (not emergency) surgery.

**Non-Surgical Anaemia**  
Symptomatic but not life-threatening anaemia.

# Elective surgery and Amber alert - DGH

- Thorough review or elective surgery:-
- No change in normal surgical practice required
- Only operation needing consideration would be complex hip revision surgery

Category 1 (highest transfusion priority)	Category 2 (transfused in amber but not red phase)	Category 3 (Will not be transfused in amber phase)
Resuscitation of life-threatening/ on-going blood loss including trauma		
Surgical Support Emergency surgery* including cardiac & vascular surgery** & organ transplant. Cancer surgery with the intention of cure.	Surgery/Obstetrics Cancer surgery (palliative). Symptomatic but not life-threatening post-op or post-partum anaemia. Urgent*** (not emergency) surgery.	Elective Surgery likely to require donor blood support
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- \*\* With the exception of poor risk aortic aneurysm patients who rarely survive but who may require large volumes of blood.
- \*\*\* Urgent -patient likely to have major morbidity if surgery not carried out.
- \*\*\*\* Planned stem cell transplant or chemotherapy should be deferred if possible.

# Where does it all go then?

Area/Speciality	Percentage
AE	18.40%
Cardiac	0.70%
Medical	23.80%
Maternity	2.50%
HaemOnc	38.40%
Paeds	0.90%
Surgical	9.90%
ChiSuite	0.80%
Goring Hall	0.20%
HDU/ITU	2.80%
Hospice	0.30%
Gastro	1.40%

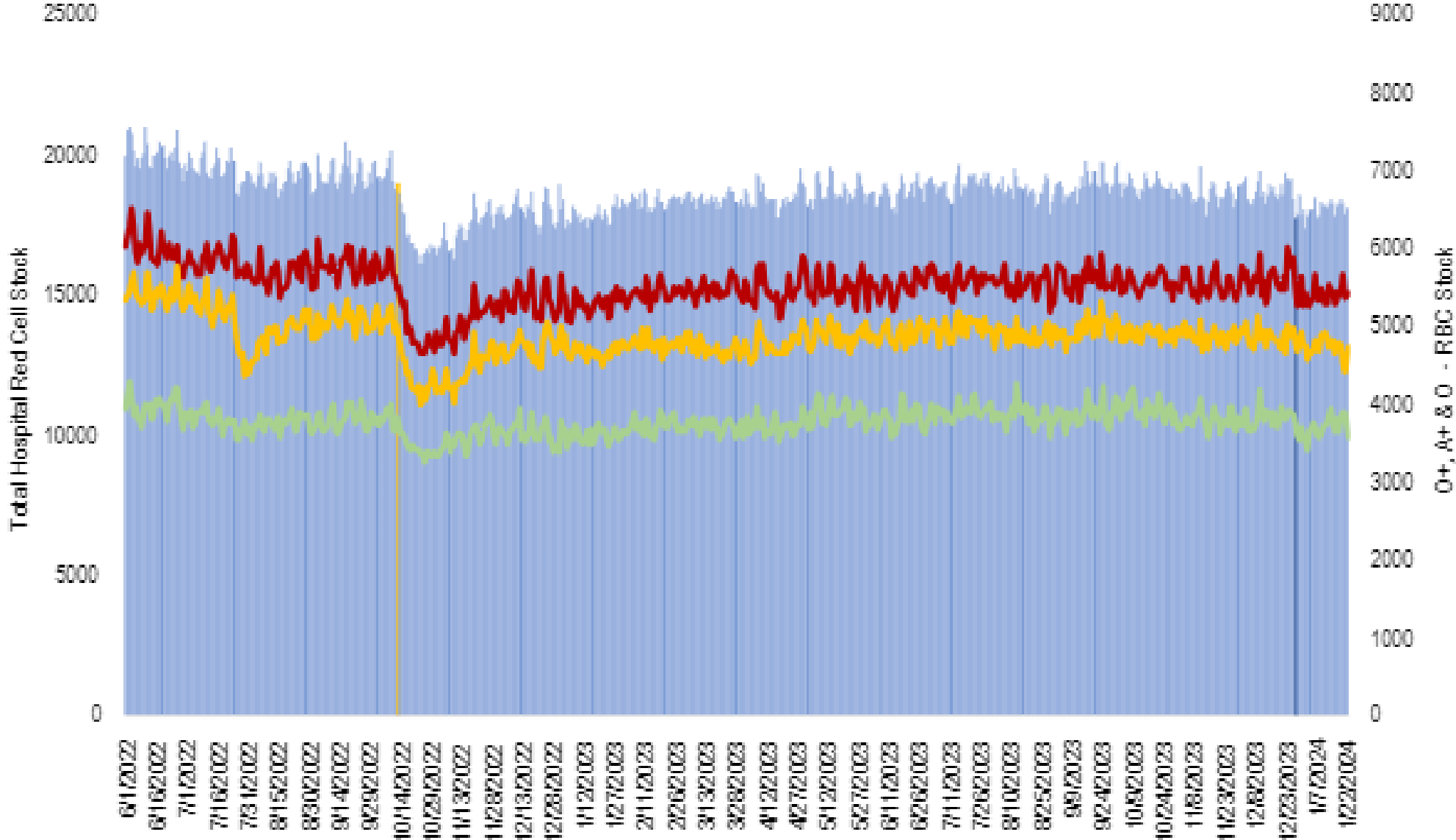
- Western Sussex 2023

# What did we do?

Stock reduction...

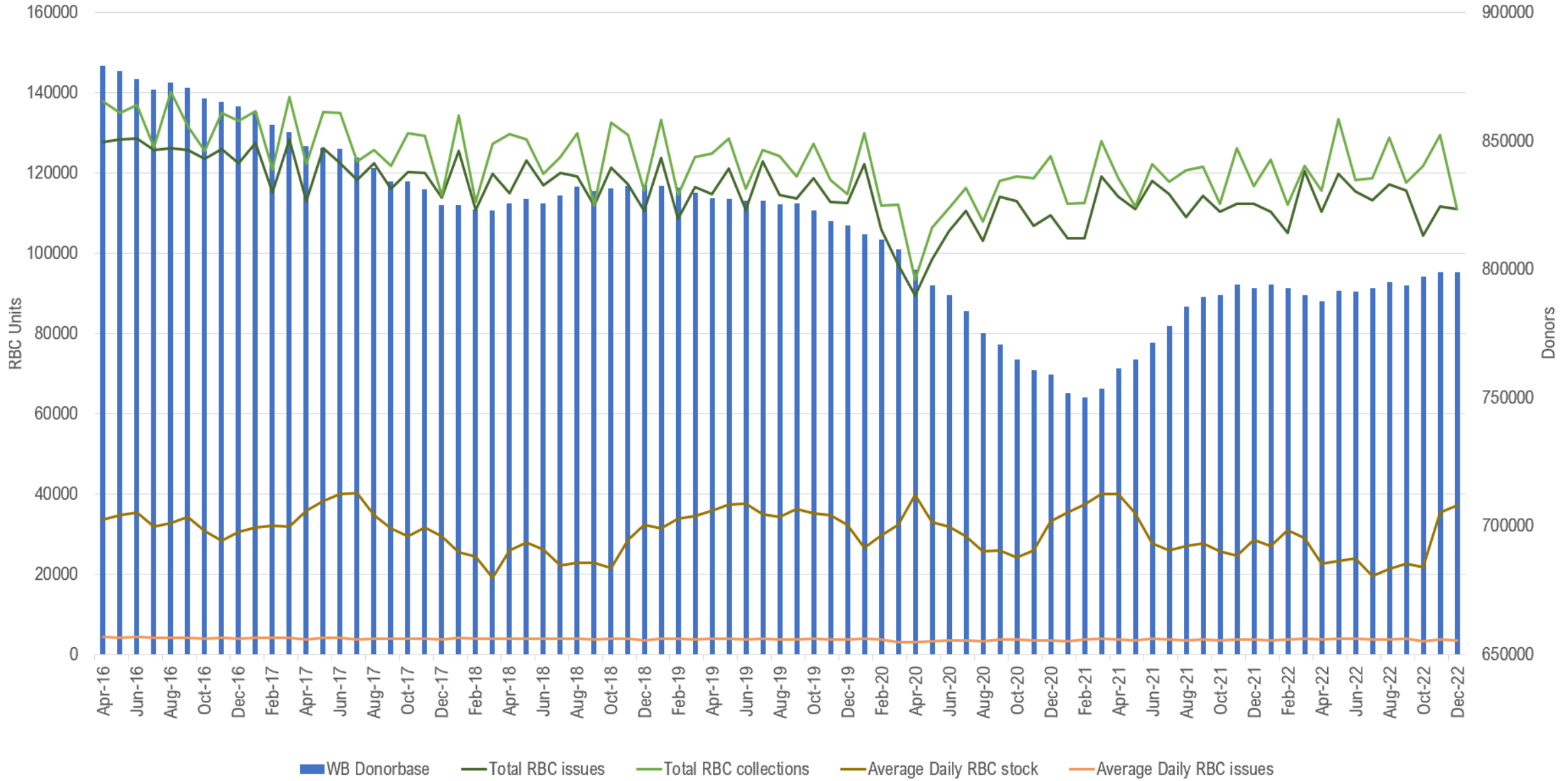
WGH	2024	2023	2021	Reduction
OPOS	34	38	45	24%
APOS	24	28	30	14%
ONEG	12		14	14%

# Daily Hospital Red Cell Stock





Donors, RBC Stock, RBC Collection and RBC Issues



# Summary

- Great advances
  - Surgical techniques
  - PBM
  - QS138
- Real challenges
  - Staffing
  - Blood supply

