



Pre-Operative Anaemia Service – An evaluation of the costs, benefits and flaws of the service

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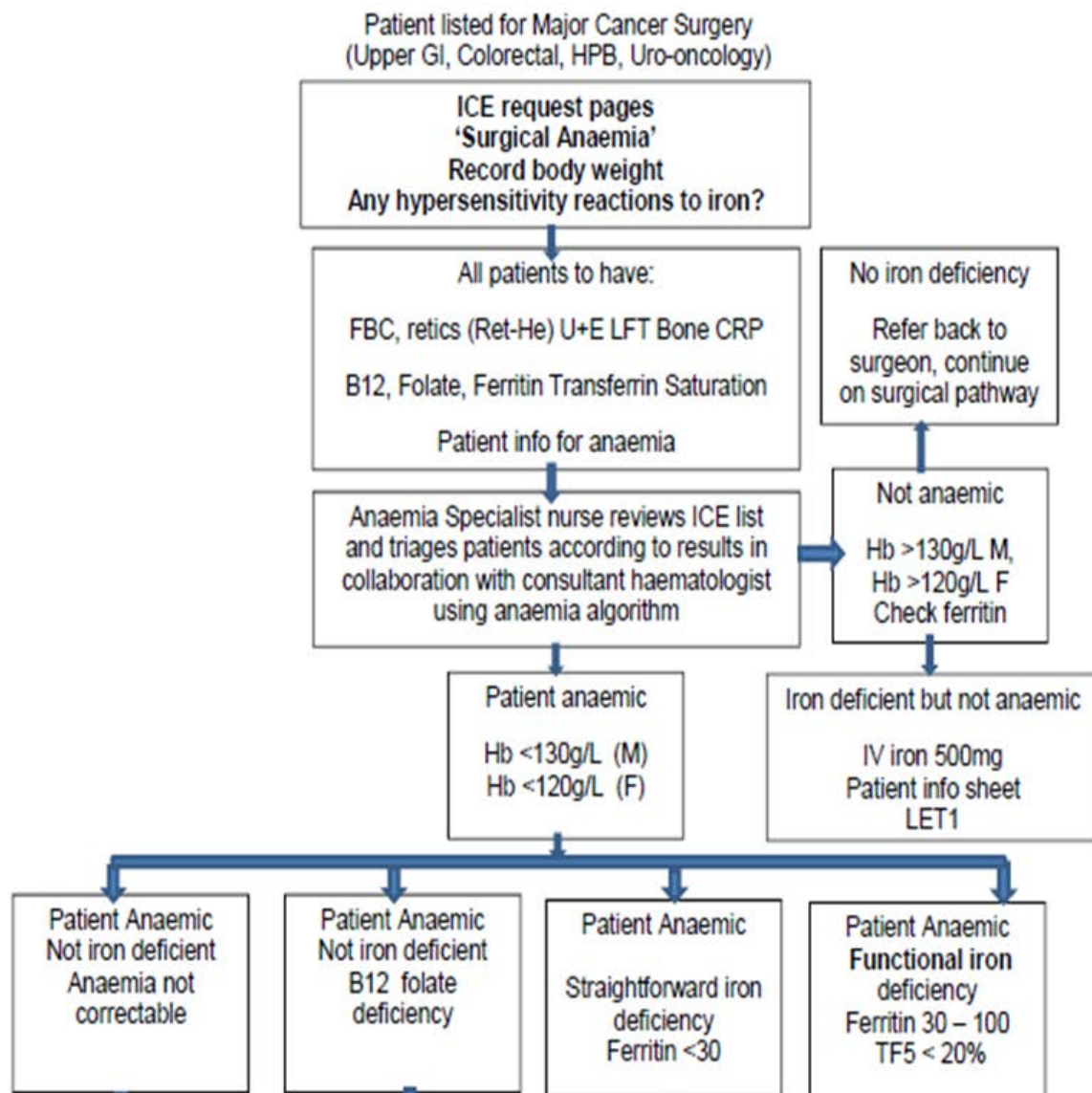
What is the service for?

- Developed as an adjunct to the work done by ERAS and PBM schemes
- Identifies patients prior to major surgery in the following areas -
 - Colorectal
 - Gynaecology
 - Upper GI
 - Hepatobiliary



Fig 1

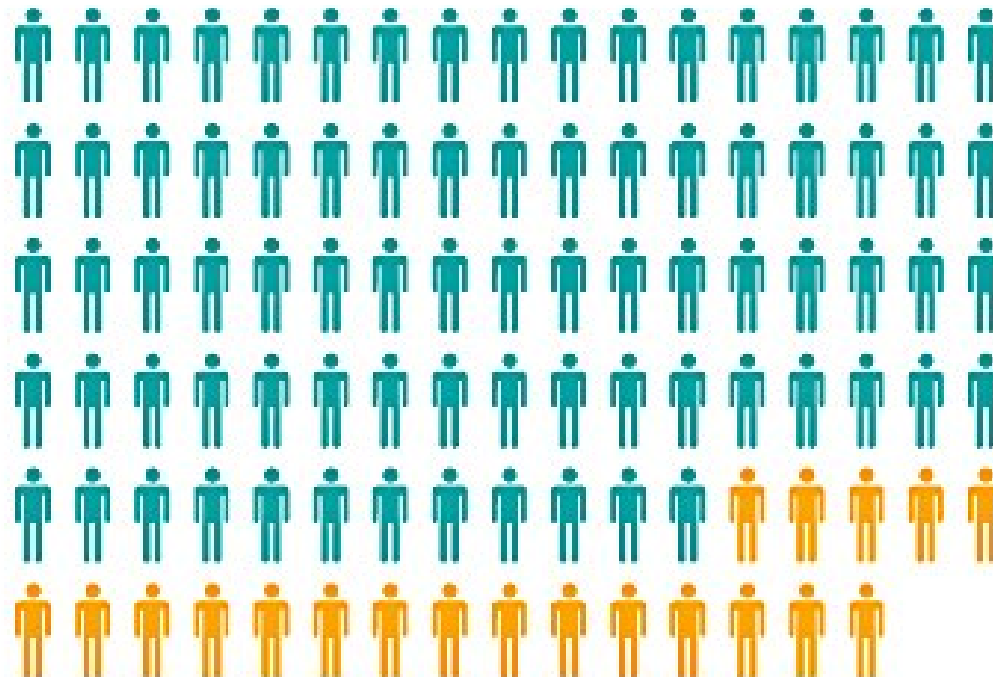
Pre-operative Anaemia Pathway in General Surgery



Algorithm

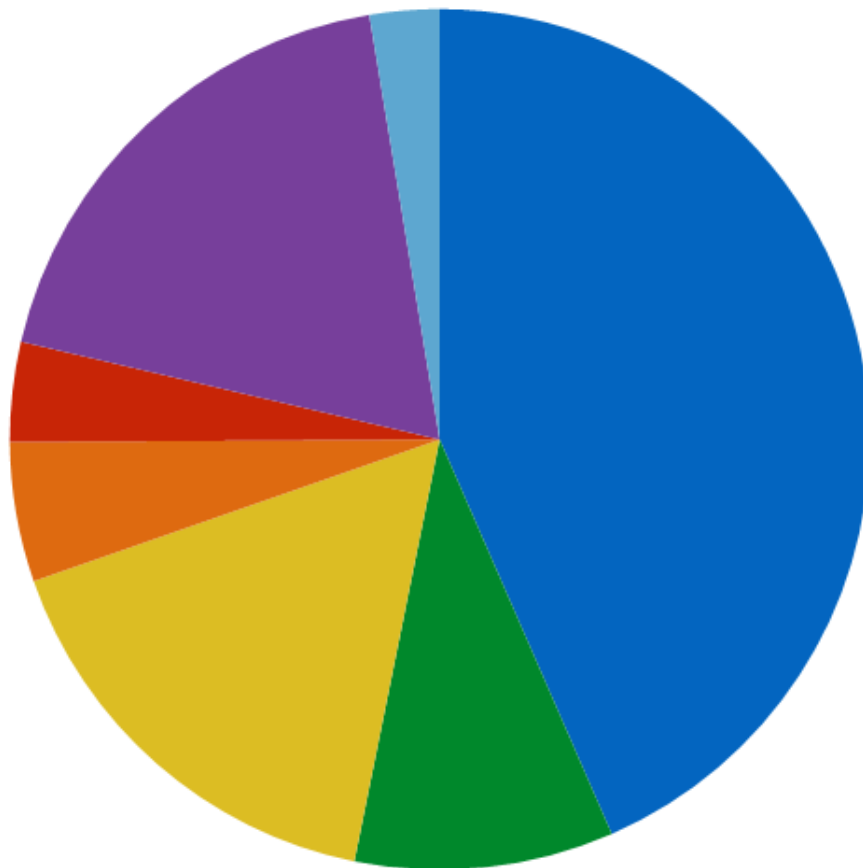
- The algorithm decides who is eligible for treatment based mainly on their Ferritin level -
 - <30 - Iron Deficient
 - 30-100 - Functional Iron Deficiency
- Treat with IV Iron, the dose of which is based on the patient's weight

The service so far...



■ Referrals (80.42%) ■ Treated (19.58%)

Anaemia Status



- Not Anaemic
- Iron Deficient
- Iron Deficiency Anaemia
- B12/Folate Deficiency
- Mixed Deficiency
- Anaemia not treatable
- Bloods not taken

Aims

- Has the service met its own original aims?
 - Reduction in transfusion rates
- Is it being efficiently run in terms of cost?
- Are there areas for improvement of the service?



Methods



NHS Supply Chain



BloodTrack® Enquiry



PATIENTS



BLOOD



COSTING

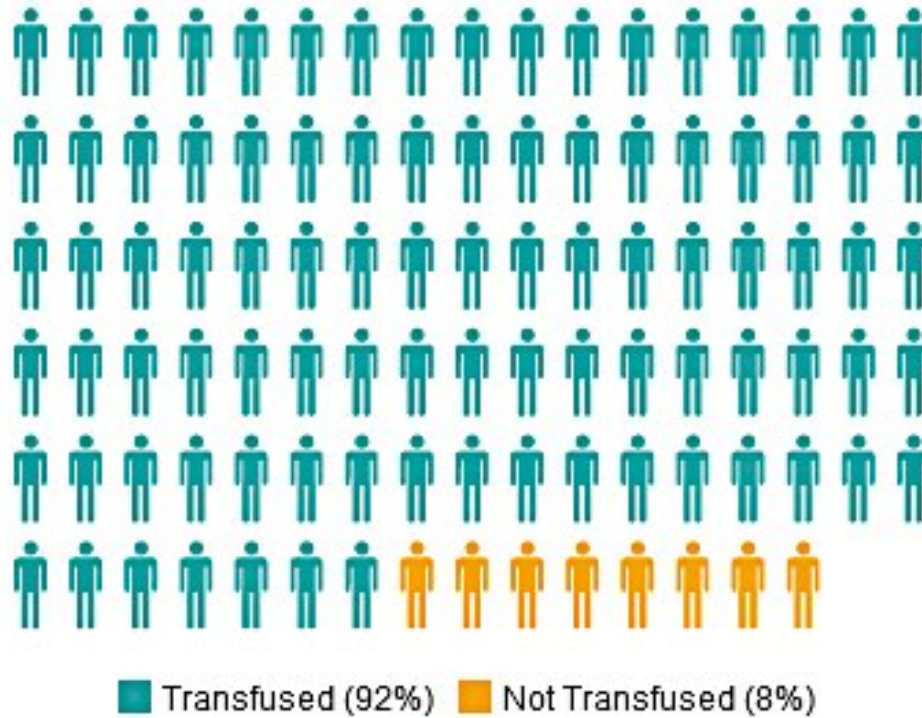


Hello
my name is

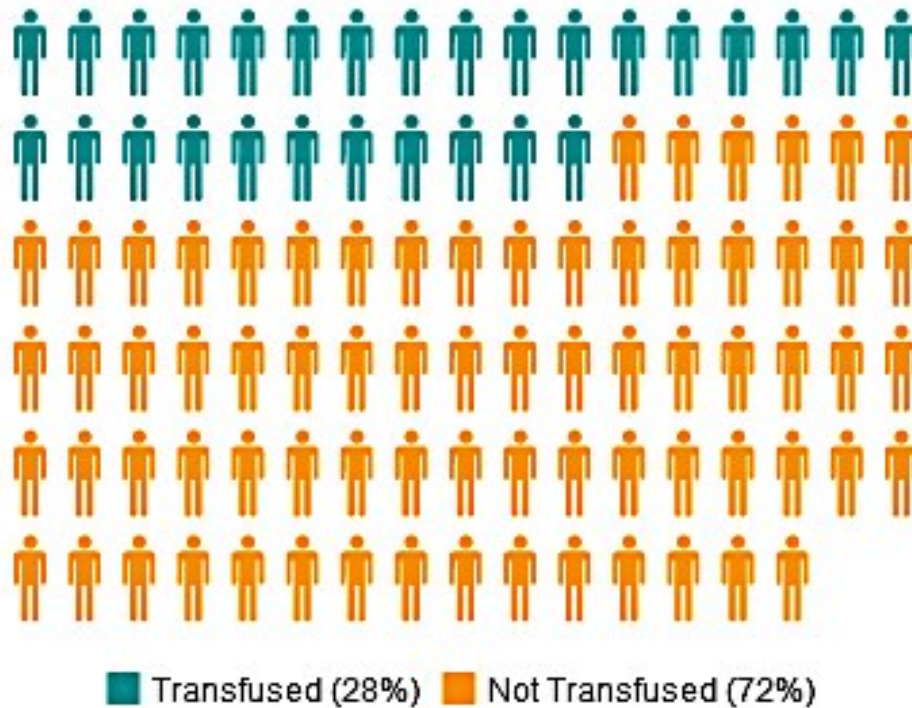
Patient X



2015 Transfusion Rate

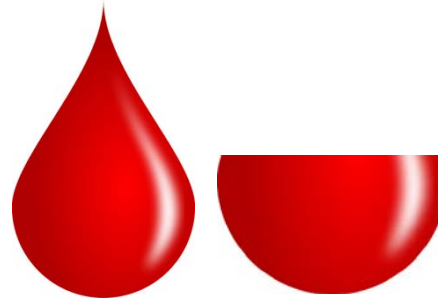


2017 Transfusion Rate

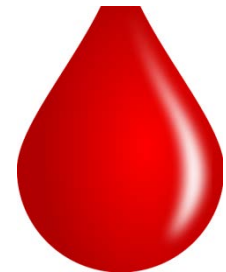


Units per surgery

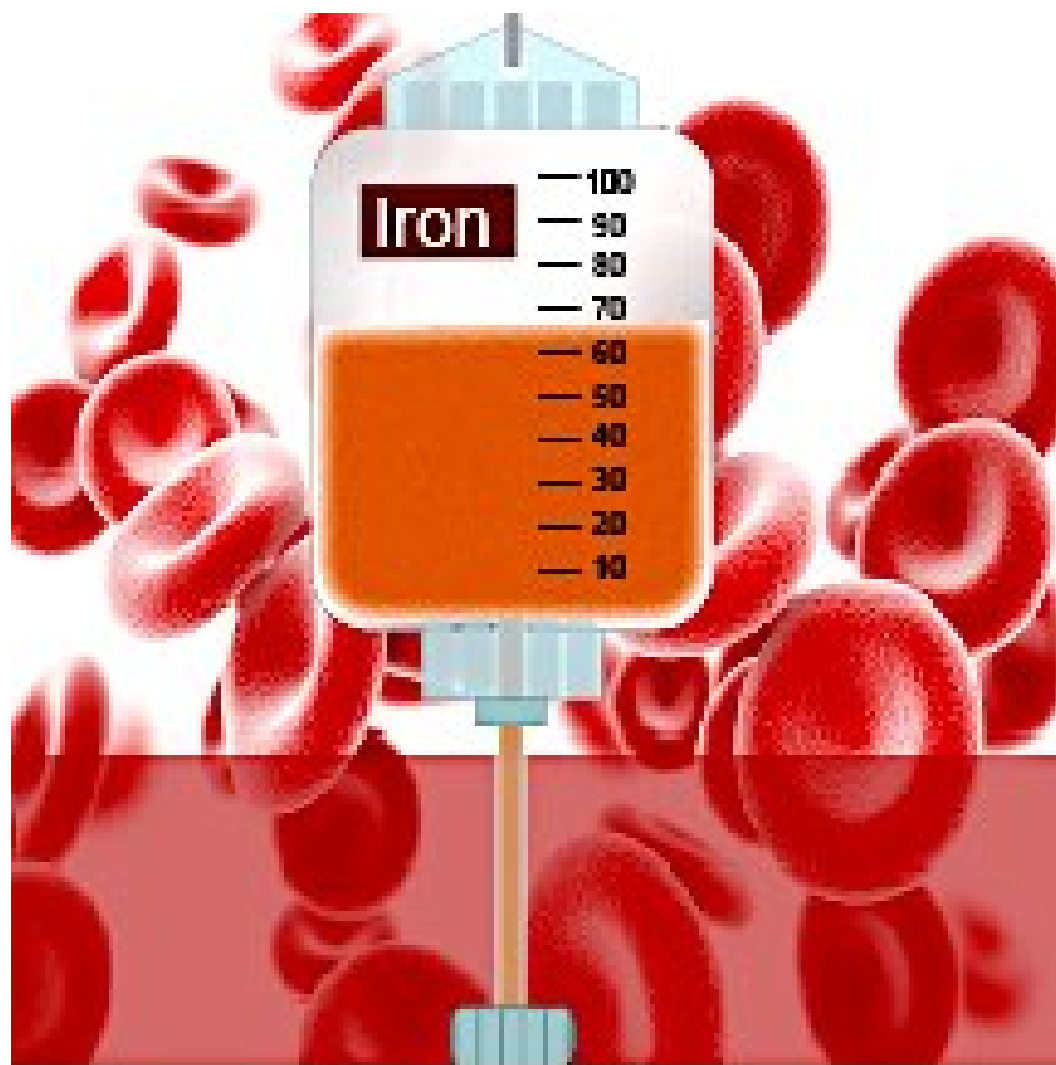
- In 2015, every patient on average had 1.4 units of blood.



- Post service implementation, every patient on average received 0.9 units of blood.







Costing Analysis

Costs	Total	Income	Total
Staff Time for Triage	£2,929	Tariff Generated	£20,695
Staff Time for 1 dose	£2,990	Blood components saved	£14,960
Equipment	£443.95		
Testing	£8,285.01		
IV Iron	£9,140.30		
Total	£23,788.26	Total	£35,655.00
		Income Generated	£11,866.74

Response from clinicians





Gynaecology Outcomes

	<u>Entire patient group</u>	<u>Treated Group</u>
Hb at listing (g/L)	124 (89-154)	120
Lowest post-operative Hb (g/L)	98 (51-141)	98
Hb at discharge (g/L)	105 (80-141)	105

HPB Outcomes

	<u>Entire patient group</u>	<u>Treated Group</u>
Hb at listing (g/L)	125 (81-171)	113
Lowest post-operative Hb (g/L)	92 (64-142)	88
Hb at discharge (g/L)	104 (73-147)	104

- The 17 treated patients also had an average rise in their Hb level of 4g/L between listing and day of surgery.

The service needs...

- Investment
 - Staff
 - Money
 - Resources

In order to..

- Expand to include all patients, not just those on major surgery pathways
- Capture patients as early in the pathway as possible, to allow more time to treat

Doing this will..

- Mean the service can change the lives of even more patients
- Save even more blood components

