

Early anaemia optimisation: capturing major elective surgical patients before pre-op assessment

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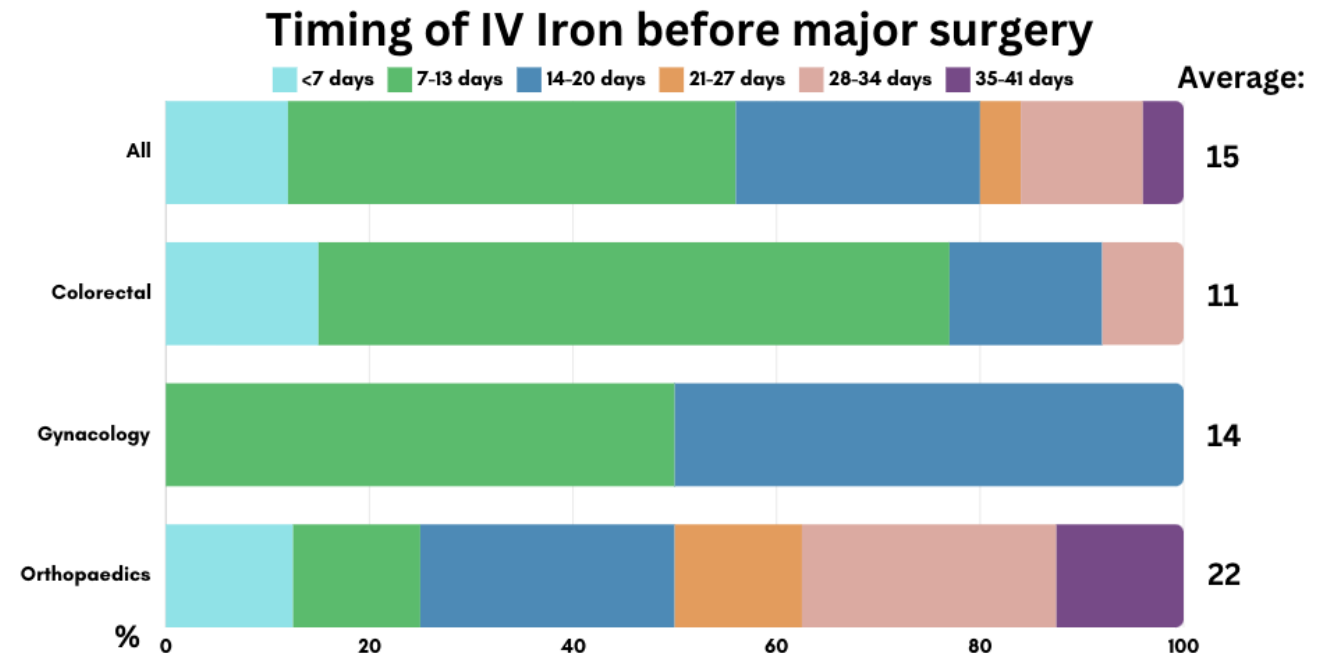
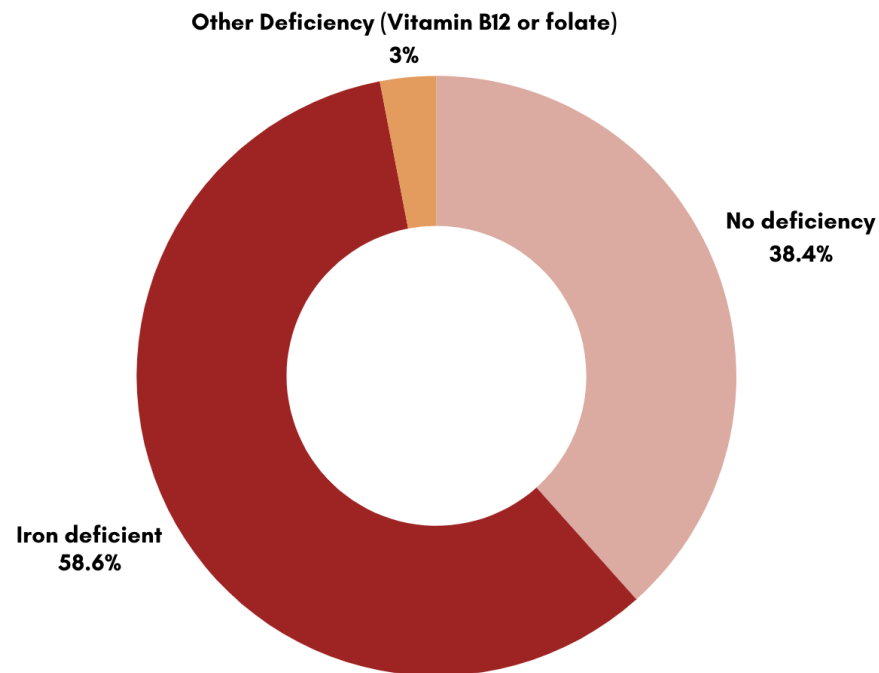
Pre-op anaemia optimisation at Ysbyty Gwynedd

- Established service:
 - POAC nurses identify anaemic patients or majors with Hb <130g/L
 - Full anaemia screen requested
 - Refer to POAC pharmacist for review & treatment
- Average of 54 referrals per month (both majors & non-majors)
 - ~10% of patients attending POAC



Baseline Data

- September – November 2023: 257 patients underwent major surgery on site
- 99.6% had FBC in 3 months preceding surgery
- 94% of those with Hb <130g/L pre-op had an anaemia screen



- IV iron often administered less than 14 days before surgery.
- Unable to facilitate IV iron prior to surgery in 5% of patients

Timing of IV iron prior to surgery



Maximal response to IV iron seen after 4 weeks



50% of effect at 14 days



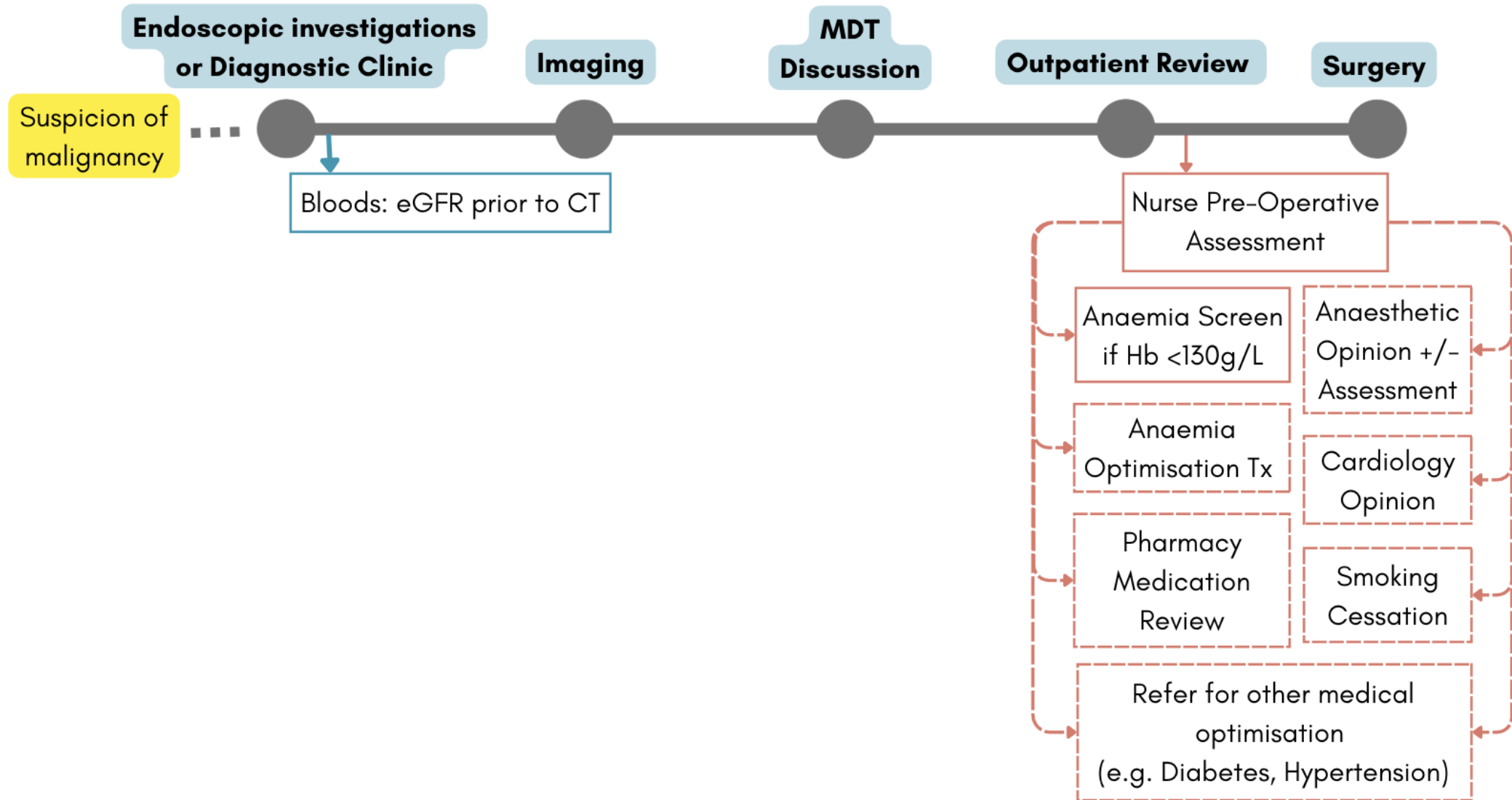
Aim to administer IV iron at least 14 days prior to major surgery



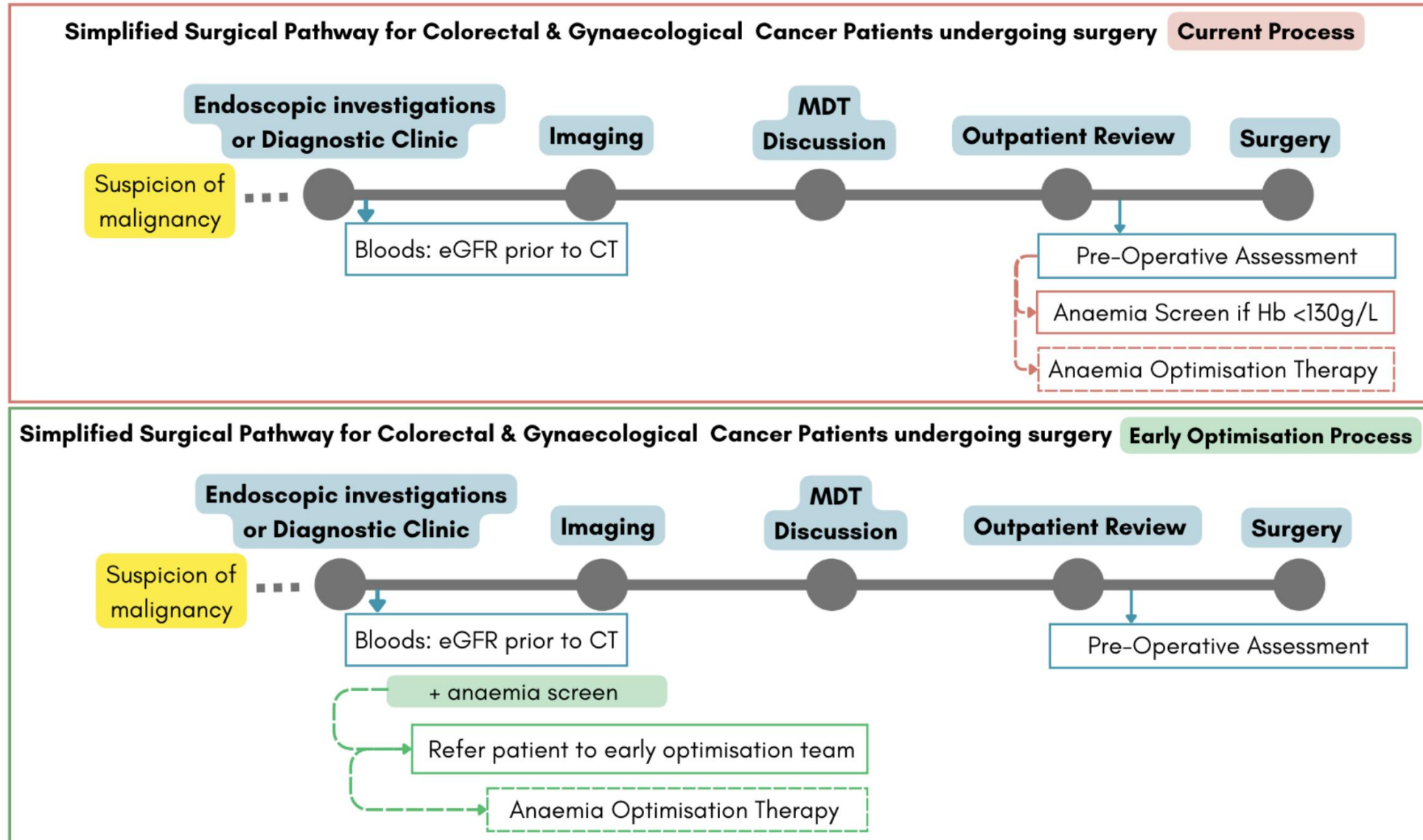
Focus on colorectal & gynae cohorts

Simplified surgical pathway for colorectal & gynaecological cancer patients undergoing surgery

Current Process



Early Optimisation



The intervention: other resources

Anaemia early optimisation

Please use this form to refer patients who may be considered for major surgery (e.g. colorectal resection, hysterectomy) and who have a haemoglobin less than 130g/L (or no recent bloods with potential anaemia).

Hi, [redacted] When you submit this form, the owner will see your name and email address.

* Required

1. Patient Hospital Number *

Enter your answer

2. Patient Initials

Enter your answer

3. Surgical Specialty *

☐ Colorectal

☐ Gynaecology

☐ Other

4. Optional - additional comments

Enter your answer

☐ Send me an email receipt of my responses

Submit

Pre-Operative Assessment Clinic (POAC) West

Anaemia & perioperative Blood Transfusions are both independent risk factors for increased mortality & morbidity after major surgery

Major Surgery? Target Haemoglobin >130g/L

- Cardiac: Cardiac valve, CABG
- General Surgery: Colorectal Resection (e.g. Hartmann's, Right Hemicolectomy, Colectomy, any stoma formation or reversal)
- Gynaecology: Hysterectomy
- Orthopaedics: Hip/Knee/Shoulder replacement
- Upper GI: Gastrectomy, Oesophagectomy
- Urology: Cystectomy, Nephrectomy, Prostatectomy
- Vascular: aneurysm repair, limb amputation

Request Pre-Operative Anaemia Screen

Blood request set on WCP select: 'POAC Anaemia - West'
Haematology: FBC (Purple Top)
Biochem: Ferritin, Transferrin Saturation, CRP, eGFR & Electrolytes, Urea, LFT, Vitamin B12, Folate, TFT (Yellow Top)

Treat Deficiencies

Refer to Pre-Op Anaemia Team if treatment advice needed or to refer patient for anaemia optimisation:

OR:

Complete the online anaemia optimisation referral form

FOR FURTHER INFO CONTACT:

Pre-op Anaemia Coordinator Nurse
 Lead POAC Pharmacist
 Lead POAC Anaesthetist
 Lead POAC Nurse

Pre op anaemia screen:

Biochemistry: Tsat, Ferritin, b12, folate, TFT, Urea and Electrolytes, eGFR, LFT (yellow top)

Haematology: FBC (purple top)

POAC EDUCATION & UPDATE SESSION

Anaesthetic Seminar Room

| | |
|------------------|--|
| 12pm - 12.45pm | Perioperative Management of Iron Deficiency Anaemia |
| 12.45pm - 1.30pm | Anaemia Service Evaluation, Pre-Op Anaemia Co-Ordinator & Early Optimisation |
| 1.30pm - 2pm | Break |
| 2pm - 2.30pm | Lessons Learned from Incidents, Service Development & Improvement |
| 2.30pm - 3.30pm | ECG Education - Heart Blocks |
| 3.30pm - 4.30pm | Feedback & Open Discussion |

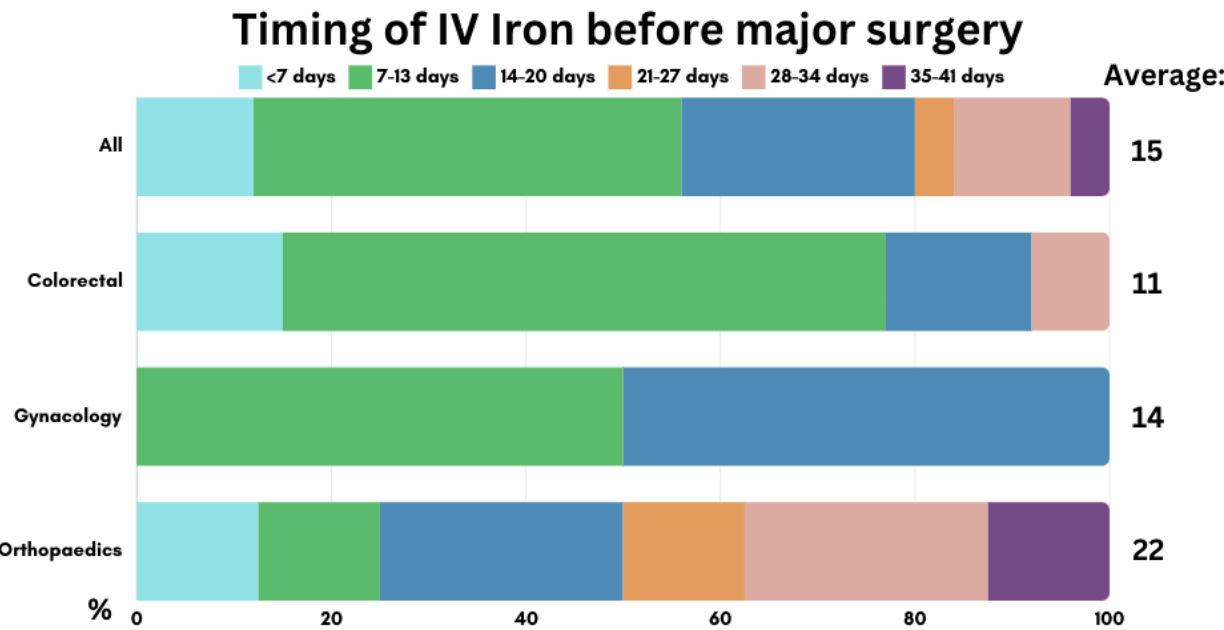
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Results

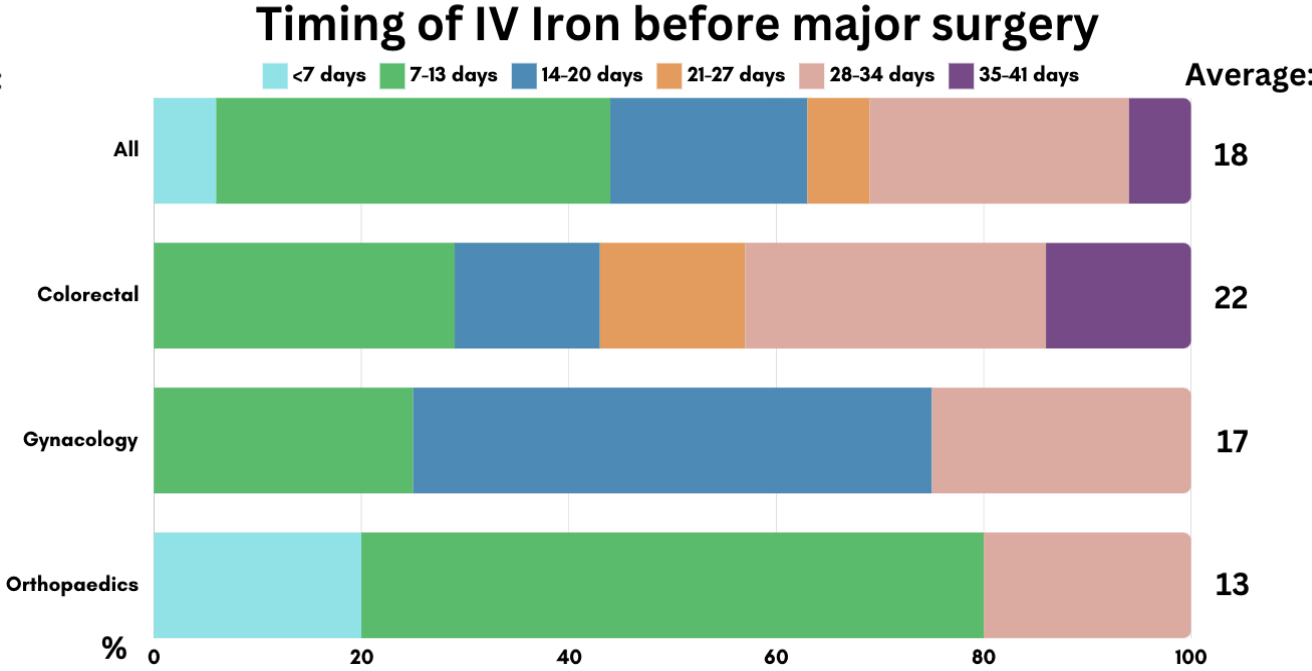
| Baseline (September - November 2023) | | Post-intervention (March - May 2024) |
|---------------------------------------|--|--------------------------------------|
| 257 | Number of Patients | 218 |
| 99.6% | Full Blood Count checked within 3 months | 99.5% |
| 94% (95% colorectal, 80% gynaecology) | Full anaemia screen if Hb <130g/L | 96% (100% colorectal & gynaecology) |

- Unable to facilitate IV iron prior to surgery: 0% of patients (5%)

Baseline



Post-Intervention



Challenges



Recruitment



Ward escalated for acute medical inpatients, limiting capacity on site to facilitate IV Iron appointments pre-operatively



Justifying financial cost of IV iron



Contacting patients prior to surgical referral



Full anaemia screens not always requested early & the referral process

Conclusions & Future Work

Feasible to improve pathways to enable early identification of anaemia with the appropriate resource

Short nature of cancer pathways should not be a limiting factor from maximising the time available to optimise patients prior to surgery

Plan to pilot with HCA practitioner role, formalise the early optimisation process and re-audit to measure sustained improvement

Screening for other modifiable risk factors & early screening for other specialties (HSQ)



Questions



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