

Document Control

Title Pre-Operative Anaemia guideline (Major colorectal surgery)			
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Directorate Planned Care		Department Anaesthetics	
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1.1	June 2019	Revision	Change of monofer infusion duration from 20 to 30 minutes to harmonise with another policy
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Consulted with the following stakeholders: (list all) <ul style="list-style-type: none"> • Hospital Transfusion Committee • Lead Consultant Haematologist (Dr Veale) • Pre-operative Assessment Lead Nurse • Pre-operative Assessment Consultant Anaesthetists • Colorectal Consultant Surgeons • Colorectal Specialist Nurses • Medicines Management Team • Clinical Pharmacy Manager/ Pharmacy lead for surgery • Seamoor Unit team • Drugs and Therapeutics Committee 			
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Policy categories for Trust's internal website (Bob)

Pre-op, Haematology, Anaesthetics, Pharmacy, Colorectal Surgery, Gastroenterology, Endoscopy

Tags for Trust's internal website (Bob)

Anaemia, Pre-op, Oral iron, Iron, Iron infusion, Haemoglobin, Transfusion, Iron deficiency, Functional iron deficiency, Colorectal surgery, Anaesthetics, Haematology, General surgery, Pharmacy, Gastroenterology

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1. Purpose

- 1.1. The purpose of this document is to define the process for management of patients who are found to have iron deficient anaemia prior to major colorectal surgery.
- 1.2. The guideline applies to pre-op assessment, colorectal nurse specialists, anaesthetics, general surgery, gastroenterology, haematology, pharmacy and endoscopy
- 1.3. Implementation of this guideline will ensure that:
 - Patients undergoing major colorectal surgery are not put at avoidable perioperative risk due to untreated pre-operative anaemia

2. Definitions

- | | | |
|------|-----------------|--|
| 2.1. | Hb | Haemoglobin level (g/L) |
| 2.2. | FBC | Full Blood Count |
| 2.3. | G&S | Group and Save |
| 2.4. | CRP | C-reactive protein |
| 2.5. | Anaemia | Male Hb < 130 g/L
Female Hb < 120 g/L |
| 2.6. | Iron deficiency | Ferritin < 30 ug/L |

3. Responsibilities

- 3.1. Implementation of this guideline will be the responsibility of the Colorectal Nurse Specialist team in liaison with the Colorectal Surgeons, the Lead Clinician and Lead Nurse for Pre-operative assessment, the Hospital Transfusion Committee and other key stakeholders detailed below.

Role of Endoscopist and Colorectal team

- 3.2. The Endoscopist and Colorectal team are responsible for:
 - Informing Colorectal Nurse Specialists of any new diagnosis of possible colorectal cancer

- Prescribing intravenous iron according to the Trust Standard Operating Procedure (dose as detailed in this guideline)

Role of Colorectal Nurse Specialist

3.3. The Colorectal Nurse Specialist is responsible for:

- Identification of iron deficiency anaemia in patients with a new diagnosis of possible colorectal cancer as detailed in this guideline. It is anticipated that this will occur at the time of endoscopy (if not before) in order to give enough time for treatment of anaemia (iron infusion) prior to major colorectal resection.
- Ensuring that patients with iron deficiency anaemia are offered treatment as detailed in this guideline
- Ensuring that clinicians prescribe intravenous iron as detailed in this guideline
- Ensuring that intravenous iron infusions are booked into a suitable clinical area on a clinically urgent basis as detailed in this guideline
- Ensuring that a patient's GP is informed when an intravenous iron infusion is arranged as detailed in this guideline (see standard letter in Appendix 6.2)

Role of Pre-op Assessment Nurse

3.4. The Pre-op Assessment Nurse is responsible for:

- Ensuring that anaemic patients pre-assessed for major colorectal surgery have been offered treatment as detailed in this guideline
- Ensuring that patients treated for pre-operative anaemia have their haemoglobin level re-assessed prior to surgery

Role of the Pre-op Assessment Anaesthetist

3.5. The Pre-op Assessment Anaesthetist is responsible for:

- Providing specialist advice and support in the management of pre-operative anaemia

Role of Haematology Consultant

3.6. The Haematology Consultant is responsible for:

- Provide specialist advice and support in the management of pre-operative anaemia

4. Pre-operative anaemia management

4.1. See flowchart in Appendix 6.1

5. Monitoring Compliance with and the Effectiveness of the Guideline

Standards/ Key Performance Indicators

5.1. Key performance indicators include:

- Haemoglobin levels at time of endoscopy
- Final haemoglobin levels 48 hours prior to major colorectal surgery
- Transfusion rates in major colorectal surgery
- Post-operative haemoglobin levels following major colorectal surgery

Process for Implementation and Monitoring Compliance and Effectiveness

- 5.2. The flowchart in Appendix 6.1 will be utilised by the Colorectal Nurse Specialist, endoscopist, colorectal team and pre-op assessment nurse to initiate appropriate patient management.
- 5.3. The standard letter in Appendix 6.2 will be used to ensure prompt and accurate communication with primary care.
- 5.4. The process will be monitored internally within the Pre-op Assessment team and, more broadly, as a component part of the Patient Blood Management initiative via the Hospital Transfusion Committee

6. References

- British Committee for Standards in Haematology Guidelines on the Identification and Management of Pre-Operative Anaemia. *British Journal of Haematology*, 2015, **171**, 322-331
- International consensus statement on the peri-operative management of anaemia and iron deficiency. *Anaesthesia*, 2017, **72**, 233-247

7. Associated Documentation

- Monofer Infusion for iron deficiency in adults Standard Operating Procedure

8. Appendix A - Flowchart for the management of pre-operative anaemia (see next page)

Management of Anaemia Prior to Elective Major Colorectal Surgery

Colorectal Nurse Specialist informed of new diagnosis of possible colorectal cancer

Iron deficiency anaemia identified
- Male with Hb <130g/L (ferritin < 30µg/L)
- Female with Hb <120g/L (ferritin < 30µg/L)

Iron infusion prescribed by clinician
Monofer 1000mg IV (20mg/kg if weight <50kg)

Urgent iron infusion booked
AND
GP updated by way of standard letter

Patient attends for iron infusion

Repeat FBC and G&S after two weeks
(minimum 48 hours prior to surgery)

Review FBC and consider transfusion if Hb < 100g/L
(discuss with Consultant Surgeon)

9. Appendix B Standard letter for communication with primary care (see next page)



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Dear Doctor,

Re.

Patient Label Here

The above patient has been identified as being anaemic during their preparation for major colorectal surgery.

- An urgent iron infusion has been arranged due to evidence of iron deficiency (Ferritin $<30\mu\text{g/L}$)

We have attached a copy of our colorectal pre-operative anaemia pathway by way of further explanation.

Kind regards,

Colorectal Nurse Specialist
North Devon District Hospital

Chief Executive: Dr Alison Diamond

Chair: Roger French

10. Appendix C - Iron Isomaltoside Infusion Patient Specific Direction

Patient Label Here or:

Patient Name:

Date of Birth:

NHS Number:

Patients 50kg and over

Administer 1000mg of Iron isomaltoside in 250ml of Sodium Chloride 0.9% over 20 minutes.

Prescriber Signature: _____

Registration Number: _____

Date: ____/____/____

Patients under 50kg - Maximum dose 20mg/Kg

Patient weight: ____ Kg

Dose to be administered =

Patient weight x 20

____ Kg x 20 = ____ mg

Administer ____ mg of Iron isomaltoside in 250ml of Sodium Chloride 0.9% over 20 minutes.

Prescriber Signature: _____

Registration Number: _____

Date: ____/____/____

Administered By: _____

Registration Number: _____

Date: _____