

# FIT FOR SURGERY

## FIT FOR LIFE

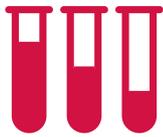


### PATIENT BLOOD MANAGEMENT

Patient Blood Management improves patient outcomes by improving the patient's medical and surgical management in ways that boost and conserve the patient's own blood.

One of the key areas where general practitioners can contribute to patient blood management is in the preparation of patients who are about to undergo elective surgery where blood loss is anticipated.

Ensuring iron stores are replete prior to surgery optimises the red cell mass and may prevent the need for a blood transfusion if the patient experiences blood loss during surgery.



### ANAEMIA AND ELECTIVE SURGERY

Anaemia and iron deficiency has been identified as a significant issue in patients who are undergoing elective surgery.

Studies have estimated anaemia to be present preoperatively in around one in five patients.

Patients with preoperative anaemia have other risks associated with surgery. One study found a five fold increase in 90 day mortality, another found increasing 30 day mortality associated with decreasing haematocrit.

Iron deficiency in the absence of anaemia is also a risk as it may impact an individuals ability to respond to blood loss.

If anaemia is identified it is important that the underlying cause is determined – this algorithm deals with decisions regarding therapy for anaemia and iron deficiency only.



### ANAEMIA NEEDS TO BE CONSIDERED IN ALL PATIENTS UNDERGOING ELECTIVE SURGERY WHERE BLOOD LOSS IS ANTICIPATED.

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## INFLAMMATORY INFLUENCE

Pre-operative (elective) patient blood management decision aid

Is there evidence of anaemia?

**Females**

Hb < 120 g/L

**Males**

Hb < 130 g/L



Establish replete iron stores  
before surgical date



**Ferritin is < 100 mcg/L**

**Iron deficiency anaemia**

Commence IV iron therapy.

Investigate possible causes.

Consider referral.

Reassess Hb after iron stores replete.

**Ferritin <300 mcg/L  
and iron Saturation  
is more than 20-30%**

No treatment necessary.

**Ferritin <300 mcg/L  
and iron Saturation  
is under 20-30%**

**Iron deficiency anaemia**

Commence IV iron therapy.

Investigate possible causes.

Consider referral.

Reassess Hb after iron stores replete.

**Establish replete iron stores and then reassess. May require referral investigation. If anaemia continues after iron therapy erythropoietic stimulating agents might be considered especially in the presence of renal insufficiency or failure.**

**Note: The underlying cause of iron deficiency and anaemia should be investigated in conjunction with treatment.**