Pre-operative anaemia whether mild or severe, is an independent risk factor for postoperative morbidity and mortality

Is the patient anaemic?
(Male Hb < 130g/L, Female < 120g/L)

Yes - Perform iron studies

Evidence of iron deficiency?
(Ferritin < 30 ug/L and/or TSATS < 20%)*

No - TSAT > 20% should not be treated with iron

Will proposed surgery treat the cause of iron deficiency?

Yes

Is there heavy ongoing blood loss?

Yes - Advise early surgery to reduce transfusion requirement

No

If date of surgery is close, can it be postponed for 4-6 weeks?**

Yes

Can patient take oral iron supplements?***

Yes - Commence treatment with oral iron

Check Hb, ferritin and TSAT after 2 weeks to monitor response

Adequate improvement in Hb and ferritin levels 2-4 weeks after starting oral iron?

Yes - Continue oral iron until surgery

No

Consider treatment with intravenous iron ***

Check Hb, ferritin and TSAT after 2 weeks to monitor response

Contraindications to intravenous iron include
1. Known hypersensitivity
2. Characteristics of iron overload
3. Pregnancy in 1st trimester
4. Porphyria cutanea tarda (caution)

Is there another known cause for iron deficiency?

No

Is there another known cause for iron deficiency?

Yes

Commence treatment with oral iron

If possible, postpone surgery until anaemia has been investigated and treated.

(Refer to British Society of Gastroenterology Guidelines for Management of Iron Deficiency Anaemia)

* Ferritin may be elevated in acute inflammation (e.g. 30-100 ug/L) and can mask iron deficiency
In these cases a TSAT < 20% and a low serum iron identifies iron deficiency

** As per Chief Medical Officer Guidance HSS-MD-22-2012 “Management of the Anaemic Adult Patient Prior to Scheduled Major Surgery”

*** Intravenous iron is indicated for patients with malabsorption, inflammatory bowel disease, non-compliance with oral iron and intolerance of its side effects
N.B. intravenous iron is a Red-listed drug www.ipnsm.hscni.net

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