Date:		
Practice:		UR:
Address:		Surname:
		Given Names:
		Birth Date: Sex:
The above nan	ned patient has been placed on waiting list for e	lective joint replacement surgery.
Place organ	sice the following for this nations.	
_	nise the following for this patient:	
Blood		
0	FBE & reticulocyte count	
0	Iron studies (including ferritin) & CRP	
0	Renal function (eGFR)	
0	Vitamin B12 and folate if risk factors for deficiency (e.g nutritional, malabsorption). Additional tests may be added on to existing specimens (eg B12/folate, TFTs, LFTs) in patients with unexplained anaemia or macrocytosis depending on the clinical context.	
and/	w-up of any results that need attention or spoor iron deficiency. Refer to the 'Preoperative has a completed overleaf (reprinted from Australia)	aemoglobin assessment and
•	nisation of other significant medical conditionajor surgery.	ns and lifestyle factors in preparation
	ard results (unless SA Pathology/IMVS) & correctitioner.	espondence to the Orthopaedic Nurse
This is to ensu	re patients are optimised well in advance of electitated.	ctive surgery and any required specialist

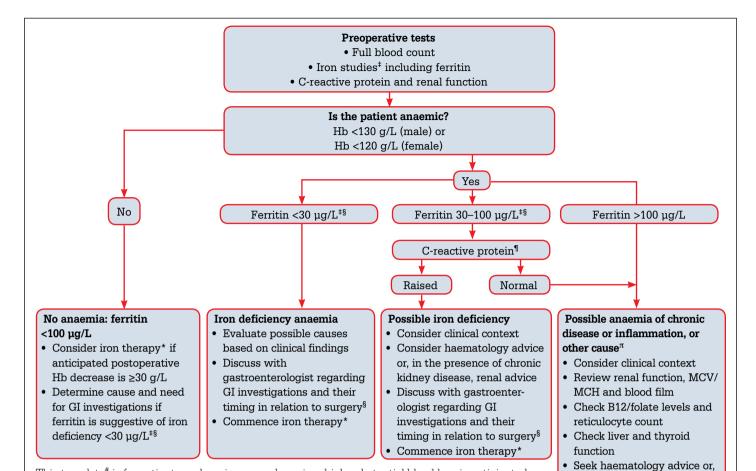
AFFIX PATIENT LABEL HERE

Kind Regards,



in the presence of chronic

kidney disease, renal advice



This template[#] is for patients undergoing procedures in which substantial blood loss is anticipated such as cardiac surgery, major orthopaedic, vascular and general surgery. Specific details, including reference ranges and therapies, may need adaptation for local needs, expertise or patient groups

Notes

- # Anaemia may be multifactorial, especially in the elderly or in those with chronic disease, renal impairment, nutritional deficiencies or malabsorption
- \ddagger In an anaemic adult, a ferritin level <15 $\mu g/L$ is diagnostic of iron deficiency, and levels between 15–30 $\mu g/L$ are highly suggestive. However, ferritin is elevated in inflammation, infection, liver disease and malignancy. This can result in misleadingly elevated ferritin levels in iron-deficient patients with coexisting systemic illness. In the elderly or in patients with inflammation, iron deficiency may still be present with ferritin values up to 60–100 $\mu g/L$
- § Patients without a clear physiological explanation for iron deficiency (especially men and postmenopausal women) should be evaluated by gastroscopy/ colonoscopy to exclude a source of gastrointestinal bleeding, particularly a malignant lesion. Determine possible causes based on history and examination, initiate iron therapy, screen for coeliac disease, and discuss timing of scopes with a gastroenterologist
- ¶ CRP may be normal in the presence of chronic disease and inflammation
- π Consider thalassaemia if MCH or MCV is low and not explained by iron deficiency, or if long-standing. Check B12/folate if macrocytic or if there are risk factors for deficiency (eg. decreased intake or absorption), or if anaemia is unexplained. Consider blood loss or haemolysis if reticulocyte count is increased. Seek haematology advice or, in presence of chronic kidney disease, nephrology advice

*Iron therapy

Oral iron in divided daily doses. Evaluate response after 1 month. Provide patient information material

IV iron if oral iron is contraindicated, not tolerated or effective; and consider if rapid iron repletion is clinically important (eg. <2 months to non-deferrable surgery)

Note: 1 µg/L of ferritin is equivalent to 8–10 mg of storage iron. It will take approximately 165 mg of storage iron to reconstitute 10 g/L of Hb in a 70 kg adult. If preoperative ferritin is <100 µg/L, blood loss resulting in a postoperative Hb drop of \geq 30 g/L would deplete iron stores

In patients not receiving preoperative iron therapy, if unanticipated blood loss is encountered, 150 mg IV iron per 10 g/L Hb drop may be given to compensate for bleeding related iron loss (1 mL blood contains \sim 0.5 mg elemental iron)

Figure 1. Preoperative haemoglobin assessment and optimisation template

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