

Intravenous Iron in CKD patients.

Aim and scope

- This document applies to patients with anaemia of chronic kidney disease (CKD) including those treated with erythropoietin stimulating agents (ESA)
- It does NOT apply to patients on haemodialysis or peritoneal dialysis (see relevant guidelines)
- The preferred IV iron formulation is ferric carboxymaltose (Ferinject) on the basis of its rapid infusion time and similar safety profile to older formulations.

Definitions for CKD related anaemia

Anaemia: Haemoglobin < 115g/L with symptoms

Iron deficiency: Ferritin < 300ug/L AND/OR TSat < 20%

Target iron studies (iron replete): Ferritin 300-800ug/L AND TSat 20-50%
Target Haemoglobin : 100-129g/dL

Indications for intravenous iron infusion:

- Iron deficiency anaemia
- Suboptimal response to ESA therapy and not iron overloaded

Contraindications to using IV Iron:

- Hb > 120 g/L
- Active infection
- Iron overload

NB: In the case of suspected or known allergies to one formulation of IV iron an alternate formulation may be considered depending on clinical circumstances

Intravenous iron infusion:

- To be given in Ambulatory Care Unit
- Use a peripheral cannula
 - do not use AV fistula/ graft arm
- An AV fistula/graft must not be used for iron infusions

Recommended dosage schedule:

- 500 mg to 1000 mg of iron administered IV in a single infusion

First choice IV iron option: Ferric carboxymaltose (Ferinject)

1. Ferric carboxymaltose may be given in doses up to 1000mg over 15 minutes.
2. No first dose modifications are required to the infusion protocol
 - Doses up to (and including) 500mg

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- Dilute dose in 100mL 0.9% normal saline and infuse over 15mins
- Doses up to 1000mg
 - Dilute dose in 250mL 0.9% normal saline and infuse over 15mins

Second choice IV iron option: Iron polymaltose (Ferrum H, Ferrosig)

Initial dose:

- Dilute dose in 500 mls 0.9% normal saline and infuse over 4 hours via an infusion control device at a rate of 15 mls/hr for the first 30 minutes
 - (set rate to 15 mls/hr and volume 7.5 mls)
- In the absence of a reaction, increase pump speed to 120 mls/hr

Subsequent (Fast Track) doses:

- Dilute dose in 500 mls 0.9% normal saline and give over 4 hours
 - when unsure whether this is the patient's first dose or the first dose was given more than 12 months ago please use the initial dose regime.

Suggested pathway for organising outpatient IV iron

MEDICAL OFFICER

1. To sign ACU (Ambulatory Care Unit) admission/referral form
2. If Ferrum H/Ferrosig is prescribed then 1st dose or maintenance dose (any dose after the 1st dose) must be documented
3. Medical Officer to write internal script (check availability in hospital pharmacy) or an external script for Ferinject.

NURSING/CLINIC/ADMIN STAFF

1. Call ACU and book appointment for patient – note the appointment time on the referral form
2. Fax referral form to ACU (from renal website 'Ambulatory Care Unit' tab)
3. Include the 'medication chart' with instructions written in and chart signed. This can also be downloaded from the renal unit website (as above)
4. Give original referral form, medication chart and script to patient including a letter with instructions (if you have not used the medication chart to write the instructions) and the contact details for ACU for the patient
5. All days available except Thursdays

PATIENT:

1. Patient can obtain medication from hospital pharmacy (if available) or an outside pharmacy. Cost: \$6.00 pensioner, \$36.90 non-pensioner
2. To contact ACU if they need to change or cancel their appointment
3. For **Ferinject** or any maintenance dose of Ferrum-H or Ferrosig (any dose after the 1st dose) patient can expect a shorter admission and will be in a **chair**
4. For 1st dose of Ferrum H or Ferrosig patients can expect a **4 hr admission** and will be in a **bed**

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