

Obstetric Intravenous Iron Infusion Prescription (Antenatal and Postnatal)

(derived from the CDHB Adult Intravenous Iron: Outpatient Protocol C260123)

Criteria for intravenous iron infusion using Ferric Carboxymaltose (Ferinject™)

ANTENATAL

- Iron deficiency anaemia, Hb < 100 g/L**, and ferritin < 20 micrograms/L (or ferritin < 50 micrograms/L if CRP > 5 mg/L) with other deficiencies excluded or corrected (vitamin B12 and folate)
AND one or more of the following:
 - Fetal compromise, eg. intrauterine growth restriction
 - Failure of a trial of oral iron therapy due to side effects, high iron requirements, or persistent anaemia after 6-8 weeks (< 10 g/L rise in Hb and ferritin remains low)
 - ≥ 36 weeks gestation
- Severe iron deficiency anaemia, Hb < 85 g/L** ferritin < 20micrograms/L (or ferritin < 50 micrograms/L if CRP > 5 mg/L) with other deficiencies excluded or corrected (vitamin B12 and folate) **in the second or third trimester.**

POSTNATAL

- Following postpartum haemorrhage and hemodynamically stable, Hb < 85 g/L +/- blood transfusion**

Warning

- Iron infusion can cause hypophosphatemia (low phosphate), and repeated infusions may lead to symptomatic bone disease.
- Check phosphate (PO₄) if:
 - the woman has had two or more iron infusions in the preceding 6 months
 - the woman is at risk of hypophosphatemia (BMI < 18, poor nutrition, chronic diarrhoea)
- Contact medical team for advice if PO₄ < 0.8 mmol/L

Contra-indications

- **First trimester of pregnancy**
- Hypersensitivity to ferric carboxymaltose
- Evidence of iron overload, eg. haemochromatosis or thalassaemia
- Disturbances in utilisation of iron, eg. Osler-Rendu-Weber syndrome
- Acute infection or ongoing bacteraemia
- Anaemia not attributed to iron deficiency, eg. other microcytic anaemia

Precautions (discuss with consultant before prescribing)

- **Avoid in pregnant women with pre-eclampsia. Delay until postpartum and condition stable.**
- Severe hepatic dysfunction
- Severe asthma/eczema/atopy
- Known hypersensitivity to any iron preparation

NHI	WARD
SURNAME	
FIRST NAME	
DOB	AGE
<i>(or affix patient label)</i>	

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Management of anaphylactic reaction

Severe reactions are RARE with modern low molecular weight iron preparations.

Presents within the first few minutes of infusion, with some or all of: respiratory difficulty, hypotension, tachycardia, rash, oedema, collapse, cardiorespiratory arrest. STOP infusion immediately and contact medical team. Activate clinical emergency (777) if severe.

Assess: airway (oedema, feeling of tightness, voice change), breathing, circulation.

Manage: with rapid administration of intramuscular adrenaline (0.5 mg) and intravenous fluids

(Refer to Adult Anaphylaxis Management card, located on the resuscitation trolley)

Infusion reaction

If a rash develops, or there are concerns about extravasation (pain and swelling at injection site), STOP infusion immediately, and contact medical team. To minimise risk of extravasation use a large vein and flush with 10-20 mLs 0.9% normal saline before the transfusion to ensure patency and then again after the infusion.

Adverse effects

- Headache is the most commonly reported adverse effect (3.3%).
- Other common adverse effects (1-3%) include dizziness, nausea, abdominal pain, constipation, diarrhoea, rash, injection site reactions, transient decrease in serum phosphate, transient increase in ALT and AST.
- Extravasation can cause permanent skin staining. Refer to Datasheet for more detailed information.

Observations

Record observations on the Maternity Vital Signs Chart (Ref.2406285):

- Before commencement: Baseline recordings (including total MEWS)
- 5 minutes after commencing infusion: Full set of recordings (including MEWS)
- Observe injection site closely throughout the infusion for signs of extravasation that may lead to skin staining.
- On completion: Full set of recording (including MEWS)
- Fetal monitoring – baseline CTG is recommended. Continuous fetal monitoring is not required unless there is a maternal complication such as hypotension or tachycardia.

The nurse/midwife must stay with the woman for the full 15 minutes of the transfusion to watch for staining or local stinging reaction.

The woman must remain in a staffed area for 30 minutes after completing the infusion.

Prescribing

- Ferric carboxymaltose may be prescribed by any registered medical practitioner.
- Do not prescribe oral iron post infusion as there is a risk of iron overload

Follow-up

- **Repeat haemoglobin and ferritin SIX WEEKS after iron infusion:** arrange repeat infusion if required (see criteria on page 1).

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Date: Indication:

Adverse drug reactions	<input type="checkbox"/> No <input type="checkbox"/> Yes
	If yes, details:
* If previous reaction to ferric carboxymaltose, request medical review before proceeding.	
Previous iron infusion	<input type="checkbox"/> No <input type="checkbox"/> Yes <i>if yes, Date:</i>
	Preparation name:
If the woman has received an iron infusion within the last 3 months, ensure indication remains valid and criteria for infusion on page 1 is met. Ensure a minimum six week period between doses.	

Baseline blood results	Date:		Weight (kg)
Hb g/dL		
Ferritin (if antenatal) micrograms/L		
CRP mg/L (if measured)		

Prescribing / Preparation Guide	
Woman weighing > 35 kg	Dose is 1000 mg
Woman weighing < 35 kg	Use following calculation: $(120 - \text{current Hb (g/L)}) \times (\text{weight} \times 0.25) + 500 \text{ mg} = \text{iron dose} \text{ mg}$ (to nearest 100 mg) For these women, the maximum dose that can be given at one time is 20 mg/kg. Chart the calculated dose OR 20 mg/kg, whichever is LOWEST.

Dilution plan of Ferinject™ according to dose required:

Iron Dose	Volume of Ferinject™	Sodium chloride 0.9%	Administration time
100 - 200 mg	2 – 4 mL	50 mL	3 minutes
> 200 – 500 mg	> 4 – 10 mL	100 mL	6 minutes
> 500 – 1000 mg	> 10 – 20 mL	100 mL	15 minutes

For women with very severe heart failure or fluid restriction, ferric carboxymaltose can be given undiluted as a slow intravenous push over 15 minutes.

- In Birthing Suite, Gynaecology Ward and Maternity Ward prescribe in MedChart and cross out prescription form below.
- In Maternity Assessment Unit, Outpatients and other non-MedChart area, prescribe below.

Prescription	Prescriber's sign off	Date	Time given	Nurse/MW check 1	Nurse/MW check 2
Iron: mg (as ferric carboxymaltose) Add to mL sodium chloride 0.9% (see dilution above)	_____ PRESCRIBER'S SIGNATURE _____ SURNAME (PRINT)				

- Important: do not prescribe oral iron post infusion due to the risk of iron overload.
- Patient has read and understood the Intravenous Iron Infusions patient information sheet (Ref.2400451) and the risks of extravasation.