Guideline for prescribing & administration of Ferinject® (Ferric Carboxymaltose)

Aim
To guide the prescribing of Ferinject® in the management of iron deficiency anaemia

Definitions
Ferinject® contains Ferric carboxymaltose (FCM) 50mg iron / ml solution. Intravenous Iron Ferinject® solution for infusion contains iron in a stable ferric state as a complex with a carbohydrate polymer designed to release utilisable iron to the iron transport and storage proteins in the body (transferrin and ferritin respectively).

Indication
Administration of Ferinject® is appropriate where patient has evidence of iron deficiency, evidenced by either Ferritin <13ng/l, MCHR<27.6pg (where ferritin>13ng/l)
or evidence of iron-responsive anaemia, and:

1. Patient is intolerant of oral iron
2. Oral iron is deemed to be not appropriate in respect to time taken to respond to iron therapy
3. The patient is an outpatient. Cosmofer is the appropriate parenteral iron for in-patients.

Contra-indications:

- Ferinject should not be used during the first trimester of pregnancy.
- Known hypersensitivity to Ferinject or any of its excipients.
- Known serious hypersensitivity to other parenteral iron products
- Anaemia not attributed to iron deficiency e.g. other microcytic anaemia
- Evidence of iron overload or disturbances in the utilisation of iron

Warnings and precautions:

- Parentally administered iron preparations can cause hypersensitivity reactions. Ferinject should only be administered when staff trained to evaluate and manage anaphylactic reactions are immediately available, in an environment where full resuscitation facilities can be assured
- Care must be taken to prevent extravasation. In case of extravasation or paravenous leakage, the administration of Ferinject must be stopped immediately.
- Caution should be used when administering intravenous iron to Patients with a history of asthma, eczema or other atopic allergy or acute/ chronic infection (increased risk of hypersensitivity reactions).
- Ferinject should not be administered concomitantly with oral preparations of iron as the absorption of iron will be reduced. Oral iron should not be started for at least 5 days after the last injection of Ferinject®.

Undesirable effects:
The most commonly reported ADR is nausea (occurring in 3.1% of patients), followed by headache, dizziness, and hypertension. Anaphylactoid reactions are the most serious ADR but occur rarely.

Dose Calculation

- The dose of Ferinject® is calculated based on patient's body weight and haemoglobin deficit.
- The following table (Table 1) should be used to determine the cumulative iron dose:

Table 1: Determination of the cumulative iron dose

Hb (g/dL)	Patients with body weight 35 kg to <70 kg	Patients with body weight ≥70 kg
<10	1,500 mg	2,000 mg
≥10	1,000 mg	1,500 mg

- A single dose of Ferinject® should not exceed 1000mg.
- Do not administer 1000mg more than once a week. If the total dose is greater than 1000mg then it should be divided and given over 2 weeks.
- A cumulative iron dose of 500 mg should not be exceeded for patients with a body weight <35 kg.
- For overweight patients, use ideal body weight when determining the iron requirement.

Administration

For IV administration only. Do not administer by SC or IM injection. Vial sizes are 100mg and 500mg

DOSE	ADMINISTER OVER	INSTRUCTION FOR DILUTION AND SUITABLE DILUENT
For doses of 100-200mg: IV bolus	Suggestion: 2 minutes	Either give undiluted or dilute with a small volume sodium chloride 0.9% eg.10ml (No more than 50ml sodium chloride 0.9%).
For doses of 201-500mg: Either slow IV bolus or (I) IV infusion via pump	5 minutes	For slow IV bolus, either give undiluted or dilute with a small volume sodium chloride 0.9% eg.10ml. For IV infusion, dilute with no more than 100ml sodium chloride 0.9%
For doses of 501-1000mg: (I) IV infusion via pump	15 minutes	Either give undiluted or dilute with sodium chloride 0.9% (No more than 250ml).

- Inspect vials visually for sediment and damage before use. Use only those that are sediment-free.
- Dilutions less than 2mg/ml are unstable.
- Do not mix with any other infusion or drug solutions, including glucose.
- Flush with sodium chloride 0.9%
- Each 50mg in 1ml of Ferinject® contains 0.24mmol sodium.

Monitoring

- The patient should be monitored closely for signs of hypersensitivity during administration and for 30 minutes after every dose of Ferinject® given.
- If hypersensitivity reactions or signs of intolerance occur during administration, the treatment must be stopped immediately. Facilities for cardio respiratory resuscitation and equipment for handling acute anaphylactic/anaphylactoid reactions should be available, including an injectable 1:1000 adrenaline solution. Additional treatment with antihistamines and/or corticosteroids should be given as appropriate.
- Post injection observations: Pulse and blood pressure
- ▼ This product is being intensively monitored by the CHM and MHRA. Please report **all** suspected reactions (including non-serious ones) using a Yellow Card

References

- Beaumont Hospital, Department of Nephrology and Renal Nursing- Guideline for administering Ferinject
- Ferinject Summary of Product Characteristics
- NICE Guideline Anaemia Management in People with Chronic Kidney
- Disease June 2015 update

Trust Guidelines

University Hospitals Plymouth NHS Trust

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Accountabilities	
Author	Dr Wayne Thomas
Reviewed by (Group)	Service Line Clinical Governance Meeting
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Links to other documents

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