Iron Polymaltose Infusions in Adults (MAG)

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<tr>
<th>Document Type</th>
<th>Medication Administration Guideline (Adult IV)</th>
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<tr>
<td>Function</td>
<td>Clinical Practice, Patient Care</td>
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<tr>
<td>Directorates</td>
<td>ADHB Clinical</td>
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<td>Departments affected</td>
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<td>Patients affected (if applicable)</td>
<td>All adult patients requiring an iron infusion</td>
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<td>Staff members affected</td>
<td>All ADHB clinicians</td>
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<tr>
<td>Key words</td>
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<tr>
<td>Author – role only</td>
<td>Chief Pharmacist</td>
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1. Indications

- Iron deficiency requiring supplementation
- Oral iron intolerance or requirement for rapid increase in iron stores
- Treatment or prevention of anaemia from excessive blood loss

2. Dose and administration

NB: This guideline includes 3 different ways of administering iron infusions:

- Slow (traditional) administration
- Rapid administration
- Fluid Restricted/Renal administration

For slow administration calculate total replacement dose of iron using either this equation method or the table provided.

Equation method: Iron dose (mg) = Body weight (kg) x (Target Hb – Actual Hb in g/L) x 0.24 + Iron depot

Target Hb = 150 g/L for patient over 34 kg

Iron depot = 500 mg for patients over 34 kg

NB: A dose lower than the total replacement dose can be used at the discretion of the prescribing clinician.

Note that each 2 ml vial of Ferrum H® contains 100 mg of iron (equivalent to 318 mg of iron polymaltose).

Note that there is more than one form of parenteral iron. The prescriber must always identify which form of iron they require – the dose itself should always be expressed as mg of elemental iron. Always check with the prescriber if there is any confusion.
a. Slow administration

This table uses a target Hb of 150g/L

<table>
<thead>
<tr>
<th>Body weight (kg)</th>
<th>Hb 60 g/L</th>
<th>Hb 75 g/L</th>
<th>Hb 90 g/L</th>
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<td>35 kg</td>
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<td>90 kg and over</td>
<td>2450 mg</td>
<td>2150 mg</td>
<td>1800 mg</td>
<td>1450 mg</td>
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Note that each 2 ml vial of Ferrum H® contains 100 mg of iron (equivalent to 318 mg of iron polymaltose)

Please note this table provides the dose in **milligrams** of iron. Caution as other references may give the dose in ml or number of ampoules.

- Add required dose to **500 ml** sodium chloride 0.9%
- Infuse test dose at 40 ml/hour for 15 minutes.
- If tolerated, increase infusion rate to 120 ml/hour for remainder of infusion.
b. Rapid administration

This table uses a target Hb of 150g/L

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Note that each 2 ml vial of Ferrum H® contains 100 mg of iron (equivalent to 318 mg of iron polymaltose)

Please note this table provides the dose in milligrams of iron. Caution as other references may give the dose in ml or number of ampoules.

The dose has been capped at 1500 mg for the rapid administration protocol.

- Add required dose to **250 ml** sodium chloride 0.9%
- Infuse test dose at 40 ml/hour for 15 minutes.
- If tolerated, increase infusion rate to 250 ml/hour for remainder of infusion.

**c. Fluid restricted or renal disease administration**

Add 1000 mg (1 g) of iron to **250 ml** sodium chloride 0.9%
Infuse test dose at 20 ml/hour for 30 minutes
If tolerated, increase infusion rate to 80 ml/hour for remainder of infusion.

See Associated ADHB documents section for separate guideline for the administration of intravenous iron in chronic kidney disease (CKD) and dialysis patients.
3. Observation and documentation

- Anaphylactoid reactions have been reported with parenteral iron but are uncommon with iron polymaltose. These primarily occur in the first few minutes of an infusion, and present as respiratory difficulty, hypotension and tachycardia. If they occur, stop the infusion and contact the prescriber.
- Monitor patients every 5 minutes for the first 15 minutes, then every 15 minutes for the first hour of the infusion, and then every 30 minutes thereafter.
- Monitor blood pressure, respiration and heart rate.

4. Special considerations

- Rapid administration of iron and infusion volumes <500 ml are outside of manufacturer recommendations and therefore unlicensed in NZ. This recommendation has been developed from a single clinical trial and anecdotal reports of efficacy and safety. Clinicians should clearly specify which administration protocol they intend to use when prescribing iron polymaltose at ADHB.
- If infusion related adverse reactions occur during the rapid infusion, reduce rate to 60 ml/hour. If symptoms persist, stop infusion and consult prescriber. If symptoms resolve, the infusion rate may be increased slowly.
- Ensure that the underlying cause of anaemia is established. Iron polymaltose is not useful for the sole treatment of macrocytic or haemolytic anaemia.
- Administration of iron during the first trimester of pregnancy must be determined by a consultant.

5. Presentation

Amber ampoules containing 100mg iron (equivalent to 318 mg iron polymaltose) per 2ml (solution, Ferrum H®)

6. Storage

Store unopened ampoules at room temperature. Protect from light.

Diluted solutions for infusion should be prepared as soon as practical before administration. Solutions for infusion must be used within 12 hours.
7. Supporting evidence


8. Associated ADHB documents

- Iron Infusions in Children
- Iron Infusion in Adult Chronic Kidney Disease (CKD) & Dialysis Patients
- Iron Infusion in Pregnancy
- Medications - Administration
- Patient Information Leaflet: IV Iron Infusion

9. Disclaimer

No guideline can cover all variations required for specific circumstances. It is the responsibility of the health care practitioners using this ADHB guideline to adapt it for safe use within their own institution, recognise the need for specialist help, and call for it without delay, when an individual patient falls outside of the boundaries of this guideline.

10. Corrections and amendments

The next scheduled review of this document is as per the document classification table (page 1). However, if the reader notices any errors or believes that the document should be reviewed *before* the scheduled date, they should contact the owner or the [Clinical Policy Advisor](mailto:) without delay.