Paeds: Ferinject

<table>
<tr><td>Presentation:</td><td>Ferric carboxymaltose (Ferinject) 100mg in 2ml, 500mg in 10ml, 1000mg in 20ml</td></tr>
<tr><td>Indication:</td><td>Iron deficiency anaemia when oral supplementation is unsuccessful or not tolerated.
Treatment can be considered where:

<table>
<tr><th>Age</th><th>Haemoglobin (g/L)</th><th rowspan="3">Where oral supplementation is unsuccessful or not tolerated</th></tr>
<tr><td>< 2 years</td><td><100</td></tr>
<tr><td>≥ 2 years</td><td><110</td></tr>
</table>

Unlicensed for children under 14 years and not recommended if child <7kg</td></tr>
<tr><td>Dose:</td><td>15mg/kg* (rounded down to the nearest 25mg for measurability)

*Maximum dose for patients <35kg is 500mg

A maximum dose of 1000mg can be given per week, therefore if a dose of >1000mg is required, the remainder of the dose must be given at least 7 days after the initial 1000mg dose.

e.g. 80 kg adolescent (80kg x 15mg = 1200mg)
Day 1: 1000mg infusion
Day 8: 200mg infusion</td></tr>
<tr><td>Route of administration:</td><td>Intravenous</td></tr>
<tr><td>Instructions for preparation and administration:</td><td>Doses will be made and supplied by Pharmacy, unless a full vial dose has been prescribed.

If administering a full vial, dilute as below and give via Baxter pump:
<table>
<tr><th>Dose:</th><th>Diluent:</th><th>Volume:</th><th>Administration time:</th></tr>
<tr><td>100mg</td><td rowspan="3">Sodium Chloride 0.9%</td><td>50mL</td><td rowspan="3">Infuse all doses over 15 minutes</td></tr>
<tr><td>500mg</td><td>100mL</td></tr>
<tr><td>1000mg</td><td>250mL</td></tr>
</table>

If <100mg dose is prescribed, the dose will be manufactured by pharmacy in a syringe, which can be infused using the SMART pump under the emergency drug setting.</td></tr>
<tr><td><u>Prescribing</u></td><td>Intravenous iron MUST be prescribed by brand as the dosing differs between brands. It is therefore essential to prescribe the medication name 'ferric carboxymaltose' and put the brand name (Ferinject) in brackets.

Prescribe on Lorenzo or on the daycase infusion/prescription chart.</td></tr>
<tr><td>Known compatibility issues</td><td>Only compatible in Sodium chloride 0.9%</td></tr>
<tr><td>SMART pump directions</td><td>Use emergency drug setting</td></tr>
<tr><td>Additional Comments:</td><td>

Anaphylactic reactions possible (<u>even if previously tolerated</u>)
Only administer if staff trained to manage anaphylaxis are present and resuscitation facilities are immediately available
Observe patient for signs of hypersensitivity (e.g. nausea, back pain, abdominal pain, breathlessness, hypotension) for 30 minutes after each administration
1ml undiluted Ferinject contains 5.5mg (0.24mmol) of sodium. Caution in sodium restricted patients
Contraindicated if evidence of iron overload or if previous serious hypersensitivity to other parenteral iron products
The risk of hypersensitivity is increased in patients with known allergies, immune or inflammatory conditions, or those with a history of severe asthma, eczema, or other atopic allergy; in these patients, intravenous iron should only be used if the benefits outweigh the risks.
Serum ferritin and transferrin saturations to be reviewed no sooner than 4 weeks after IV iron course to allow adequate time for erythropoiesis and iron utilisation

</td></tr>
</table>

References:

Nottingham Paediatric guideline – Ferinject in IBD patients accessed 24.4.2020
BNFc online accessed 24.4.2020
SPC for Ferinject on medicines.org.uk accessed 24.4.2020
GG&C Paedaitric Guidelines, available on www.clinicalguidelines.scot.nhs.uk/ggc-paediatric-guidelines/ggc-guidelines/kidney-diseases/anaemia-in-children-with-chronic-kidney-disease accessed 28.4.2020
Medusa, accessed medusa.wales.nhs.uk/IVGuideDisplay.asp?Drugno=2564 accessed 28.4.2020
Özdemir, Nihal. "Iron deficiency anemia from diagnosis to treatment in children." *Turk pediatri arsivi* vol. 50,1 11-9. 1 Mar. 2015, doi:10.5152/tpa.2015.2337 accessed 29.4.2020

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