

# > APPENDIX 2: INTRAVENOUS IRON PREPARATIONS COMPARISON INFORMATION (AS PER PRODUCT INFORMATION)

	Ferric carboxymaltose	Iron sucrose	Iron polymaltose
Indication	Treatment of (laboratory diagnosed) iron deficiency when oral iron preparations are ineffective or cannot be used.	The treatment of (laboratory diagnosed) iron deficiency anaemia in patients undergoing chronic haemodialysis and who are receiving supplemental erythropoietin therapy.	Treatment of iron deficiency anaemia when oral therapy is contraindicated, enteric absorption of iron is defective or when patient non-compliance or persistent gastrointestinal intolerance makes oral therapy impractical.
Iron concentration (mg/mL)	50 mg/mL	20 mg/mL	50 mg/mL
Presentation	2 mL (100 mg ) or 10 mL (500 mg) vial	5 mL ampoules	2 mL ampoules
Maximum dose in a single administration for patients ≥35 kg	1000 mg (not more than 1000 mg per week) (max 20 mg iron/kg body weight*)	100 mg not more than 3 times per week Most patients will require a minimum cumulative dose of 1000mg	2500 mg
Frequency of administration	IV infusion: do not give more than 1000mg iron per week. Do not exceed calculated cumulative iron dose or 20 mg iron/kg body weight. IV bolus injection: max dose of 200mg no more than 3 times a week.	100mg no more than three times per week.	
Rate of administration	IV infusion: 100-200 mg      3 minutes >200-500 mg    6 minutes >500-1000 mg   15 minutes  IV bolus injection: 200-500 mg @ 100 mg/min >500 – 1000 mg over 15 mins	Intravenous infusion 100 mg over 15 minutes.  For haemodialysis patients may be given slow IV injection into the venous limb of the dialysis line at 1 mL (20 mg iron) per minute (ie. 5 minutes per ampoule)	The first 50 mL should be infused slowly at 20-40 mL/hour  If tolerated may be increased to 120 mL/hour  Note: see links below for rapid infusion information
Total dose single infusion	No (Unless total body iron deficit is <1000 mg)	No	Yes
Link to Product information	<a href="#">Ferinject®</a>	<a href="#">Venofer®</a>	<a href="#">Ferrosig®</a> and <a href="#">Ferrum H®</a> †

\*Use ideal body weight in overweight patients. If underweight, use actual body weight

†Whilst considered brand equivalent to Ferrosig®, Ferrum H® is not licensed for intravenous use in Australia – refer to Guiding Principles for the use of off-label medicines.1

See over for important considerations

## Important considerations

Always refer to local health service guidelines/protocols and product information for the specific iron preparation. Maximum doses per infusion, infusion rates and dilution are not interchangeable between the different IV iron preparations.

Emerging data and regional practice indicate that alternative dosing and infusion schedules may be practical and safe.<sup>1-3</sup>

There is also evolving evidence regarding the appropriateness of the three IV iron preparations in varying clinical circumstances. If in doubt, refer to local guidelines/protocols or consult with an expert haematologist.

Note: TEST DOSE NOT REQUIRED - The European Medicines Agency's (EMA) Committee for Medicinal Products for Human Use (CHMP)<sup>4</sup> has considered that the current practice of first giving the patient a small test dose is not a reliable way to predict how the patient will respond when the full dose is given. A test dose is therefore no longer recommended but instead caution is warranted with every dose of intravenous iron that is given, even if previous administrations have been well tolerated.<sup>4</sup>

Current IV iron Product Information (PI) can be found on the Therapeutic Goods Administration website: [www.ebs.tga.gov.au](http://www.ebs.tga.gov.au) - click on "Public TGA Information" in menu bar on left then click on Product Information and enter product name in search box.

## References:

1. Evstatiev R, Marteau P, Iqbal T, Khalif IL, Stein J, et al; FERGICor, a randomized controlled trial on ferric carboxymaltose for iron deficiency anemia in inflammatory bowel disease. *Gastroenterology* 2011;141:846-853.e2.
2. SA Maternal & Neonatal Clinical Network. Policy. Clinical Guideline. [South Australian Perinatal Practice Guidelines – iron infusion](http://www.sahealth.sa.gov.au). Available at: <http://www.sahealth.sa.gov.au>
3. Fremantle Hospital and Health Service, Department of Pharmacy. Specialised Drug Guidelines regarding intravenous iron use: Iron sucrose. Available at: <http://www.health.wa.gov.au/bloodmanagement>
4. European Medicines Agency (EMA). New recommendations to manage risk of allergic reactions with intravenous iron-containing medicines. 28 June 2013. Available at: [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/Press\\_release/2013/06/WC500144874.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Press_release/2013/06/WC500144874.pdf)
5. Council of Australian Therapeutic Advisory Groups (CATAG). Guiding Principles for the quality use of off-label medicines. November 2013. Available at: <http://www.catag.org.au/wp-content/uploads/2012/08/OKA9963-CATAG-Rethinking-Medicines-Decision-Making-final.pdf>