

Iron Infusions at Tamborine Mountain Medical Practice

Patient Selection

- Intolerance of oral therapy after modification of dose, timing and frequency;
- Non-adherence with oral therapy;
- Lack of efficacy of oral therapy (including iron refractory iron deficiency anaemia)
- Ongoing blood loss in excess of iron absorption;
- Intestinal malabsorption (note that in inflammatory bowel disease, oral iron may also aggravate intestinal inflammation);
- Severe iron deficiency needing rapid iron repletion to prevent physical decompensation (e.g. congestive cardiac failure) or to prevent need for cell transfusion e.g. a short-time to non-deferrable surgery associated with blood loss;

Patient Education

www.bloodsafelearning.org.au

Patient Consent

- Signed consent form

Dosage Calculation

Ganzoni formula: Total body iron deficit/cumulative iron dose (mg) = body weight* (kg) x (target Hb – actual Hb in g/L) x 0.24** + iron depot (mg)***

***Iron depot:

<35 kg body weight: iron depot = 15 mg/kg body weight

≥35 kg body weight: iron depot = 500 mg

Some patients will require 2 infusions (at least 1 week apart) to cumulatively replace the total body iron deficit (because there is a maximum dose per infusion that CANNOT be exceeded – 1000mg).

Dosage Calculation

Simplified Method:

To date only the product information (PI) of Ferinject[®] incorporates the Simplified Method.

However, expert practice and published localised drug guidelines now reflect this change.

The following table can be used for estimating the cumulative amount of iron required to replete body iron stores (for adult patients of body weight ≥ 35 kg).

Estimated cumulative iron dose

Hb g/L	Body weight 35 kg to <70 kg*	Body weight ≥ 70 kg*
<100 g/L	1,500 mg	2,000 mg
≥ 100 g/L	1,000 mg	
1,500 mg		

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

Protocol

Tamborine Mountain Medical Practice Protocol for Iron Infusion

- 1/ Confirm patient has read information sheet and signed consent form
- 2/ Record basic observations- temp, pulse, resp rate and BP- at baseline, 5 minutes, at the end of the infusion and 30 minutes post infusion.
- 3/ Check patient ID
- 4/ Ensure emergency equipment and adrenaline 1:1000 are accessible

Protocol

5/ Insert IV- avoid using the back of the hand or using a butterfly due to risk of permanent staining of the skin with any leakage. Flush IV with normal saline to check that cannula has not tissue. Ask patient to notify you immediately if there is any pain or swelling at the IV site. Inform the patient to notify staff if any symptoms of:

- Sudden Gastrointestinal distress and/or anxiety
- Chest tightness
- Shortness of breath
- Racing heart
- Nausea
- Pain at the cannula site

Turn off immediately if symptoms arise.

Protocol

- 6/ Check dose of iron with GP and maximal fluid (0.9% sodium chloride) dilution according to Ferinject product information.
- 7/ Check flow rate- to be administered over a minimum of 15 minutes. If patient develops nausea, slow down flow rate.
- 8/ When infusion is complete, use a 10ml bolus of normal saline to flush through
- 9/ Remove IV- apply firm pressure to prevent leakage of iron/staining of the skin. Ask the patient to continue applying pressure while waiting.
- 10/ Re check observations
- 11/ Patient to wait 30 minutes after infusion

Cost of Provision of Iron Infusion

Consumables –

Giving set	\$4.00
Cannula	\$2.94
Bung	\$1.54
Saline flush 10ml	0.66
Syringe 10ml x 2	0.40
Tegaderm dressing	0.42
Gloves x 2 sets	0.56
N/Saline 100 ml bag	\$4.12
Or	
N/Saline 250ml bag	\$5.04

Cost of Provision of Iron Infusion

Consumable Total

100ml bag \$14.64

250ml bag \$15.56

Nurse \$36.50/40.50 per hour rate – 45 mins \$27/30.37

Receptionist \$27.00 per hour - \$6.75 per 15 mins

Rent \$412 per day – 1 hour \$17.16

Power (heating and lights) \$31.00 per day- \$2.58 worked out over 12 hours as power not on at all times over 24 hrs

Other outgoings (insurance, maintenance, water etc) \$79.00 per day – 1 hr \$3.29

Total \$56.78 with part time nurse /60.15 with casual nurse

Cost of Provision of Iron Infusion

Overall Totals

100ml bag with part time nurse \$71.42

100ml bag with casual nurse \$74.79

250ml bag with part time nurse \$72.34

250ml bag with casual nurse \$75.71