Ferric carboxymaltose

for treating iron deficiency anaemia

Technology Guidance from the MOH Drug Advisory Committee

Guidance recommendations

The Ministry of Health's Drug Advisory Committee has recommended:

- ✓ Ferric carboxymaltose 500 mg/10 mL solution for injection/infusion for treating iron deficiency anaemia when oral iron preparations are ineffective or cannot be used.

Subsidy status

Ferric carboxymaltose 500 mg/10 mL solution for injection/infusion is recommended for inclusion on the MOH Standard Drug List (SDL) for the abovementioned indication.

SDL subsidy **does not** apply to ferric carboxymaltose 100 mg/2 mL injection.

Updated: 2 January 2024

Factors considered to inform the recommendations for subsidy

Technology evaluation

1.1 In April 2019, the MOH Drug Advisory Committee ("the Committee") considered the evidence presented for the technology evaluation of ferric carboxymaltose for iron deficiency anaemia. The Agency for Care Effectiveness conducted the evaluation in consultation with clinical experts from public healthcare institutions. Published clinical and economic evidence for ferric carboxymaltose was considered in line with its approved indication.

1.2 The evidence was used to inform the Committee's deliberations around four core decision-making criteria:

- Clinical need of patients and nature of the condition;
- Clinical effectiveness and safety of the technology;
- Cost-effectiveness (value for money) – the incremental benefit and cost of the technology compared to existing alternatives; and
- Estimated annual technology cost and the number of patients likely to benefit from the technology.

1.3 Additional factors, including social and value judgments, may also inform the Committee's subsidy considerations.

1.4 In October 2023, the Committee considered a revised proposal for ferric carboxymaltose for retention on the SDL.

Clinical need

2.1 The Committee noted that in local practice, oral iron is usually administered as first-line treatment. Parental (IV) iron preparations are reserved for situations when oral iron is ineffective or cannot be used. However, they may be preferred first-line for specific patient subgroups, such as patients with inflammatory bowel disease, chronic heart failure, or patients who require rapid iron replenishment or anaemia correction.

2.2 In April 2019, the Committee heard that iron sucrose was the only parenteral iron listed on SDL, however, it is administered over multiple infusions and is less convenient for patients and more resource intensive for healthcare professionals than ferric carboxymaltose which is usually given as a single dose.

2.3 The Committee acknowledged comments from local clinicians that listing ferric carboxymaltose on SDL rather than MAF was preferable as it would allow subsidy coverage across all healthcare settings including inpatient and day surgery

settings where it is commonly used. The Committee agreed with the clinicians and considered that the risk of inappropriate use outside of the approved indication was low.

Clinical effectiveness and safety

3.1 The Committee acknowledged that results from four head-to-head trials showed that ferric carboxymaltose was non-inferior to iron sucrose in increasing haemoglobin levels when treating iron deficiency anaemia.

3.2 Both drugs also had a comparable safety profile and were generally well tolerated. While there was an increased risk of hypophosphataemia associated with ferric carboxymaltose reported in the studies, the Committee noted that it was usually transient and not associated with any serious adverse events.

Cost effectiveness

4.1 In April 2019, the Committee noted that local cost effectiveness studies on the use of ferric carboxymaltose for iron deficiency anaemia were not available. The Committee heard that the manufacturer of ferric carboxymaltose offered a price reduction as part of their value-based pricing proposal.

4.2 Results of ACE's cost-minimisation analysis which compared drug and administration costs for ferric carboxymaltose and iron sucrose (using an equi-effective dose ratio of 1:1) showed that ferric carboxymaltose led to cost savings for each 1000 mg course of iron treatment compared with iron sucrose.

4.3 The Committee acknowledged that these savings were expected to be realised for most patients requiring parenteral iron, except those with chronic kidney disease receiving haemodialysis. Reduced resource utilisation and less frequent iron administration are not as relevant for these patients as they already attend the healthcare facility several times a week for haemodialysis and can receive iron sucrose during these sessions; therefore, iron sucrose is currently the cheaper treatment option for them.

4.4 Following an improved price proposal from the manufacturer in 2023, the Committee agreed that the revised cost of ferric carboxymaltose was reasonable and remained as an acceptable use of healthcare resources.

Estimated annual technology cost

5.1 In April 2019, the Committee estimated that the annual cost impact would be between SG$1 million to less than SG$3 million in the first year of listing ferric carboxymaltose on the SDL.

Recommendation

6.1 In April 2019, based on available evidence, the Committee recommended ferric carboxymaltose 500 mg/10 mL solution for injection/infusion be listed on the SDL for treating iron deficiency anaemia in view of the estimated cost savings compared to iron sucrose and the low risk of inappropriate use.

6.2 In October 2023, the Committee recommended ferric carboxymaltose 500 mg/10 mL solution for injection/infusion be retained on the SDL based on an improved price proposal.

VERSION HISTORY

Guidance on ferric carboxymaltose for treating iron deficiency anaemia

This Version History is provided to track any updates or changes to the guidance following the first publication date. It is not part of the guidance.

1. **Publication of guidance**

   Date of Publication 2 Sep 2019

2. **Guidance updated to reflect retention of ferric carboxymaltose on SDL**

   Date of Publication 2 Jan 2024

About the Agency

The Agency for Care Effectiveness (ACE) is the national health technology assessment agency in Singapore residing within the Ministry of Health. It conducts evaluations to inform the subsidy of treatments, and produces guidance on the appropriate use of treatments for public hospitals and institutions in Singapore. When using the guidance, the responsibility for making decisions appropriate to the circumstances of the individual patient remains with the healthcare professional.

Find out more about ACE at www.ace-hta.gov.sg/about