

DEFERRIOXAMINE

SYNONYMS	Desferrioxamine mesilate, deferoxamine
BRAND NAME	DEFERRIOXAMINE MESILATE DBL
DRUG CLASS	Iron chelator
AVAILABILITY	Vial contains 500 mg or 2 g of desferrioxamine mesilate ¹
pH	4.0–6.0 when reconstituted ¹
PREPARATION	Reconstitute the 500 mg vial with 5 mL of water for injections and the 2 g vial with 20 mL of water for injections to make an approximate concentration of 100 mg/mL. ¹ If a part-dose is required reconstitute the 500 mg vial with 4.6 mL of water for injections or the 2 g vial with 18.6 mL of water for injections to make a concentration of 100 mg/mL. Powder volume: 500 mg – 0.35 mL, 2 g – 1.4 mL. ^{1,2} For IM injection reconstitute the 500 mg vial with at least 1.5 mL of water for injections. Shake well. The solution is clear. ¹ Do not use sodium chloride to reconstitute the vial. ¹
STABILITY	Vial: store below 25 °C. Protect from light. ¹ Reconstituted solution: stable for 24 hours at 2 to 8 °C. ¹ Infusion solution: solutions of 5 mg/mL in sodium chloride 0.9% are stable for 24 hours at 4 °C or 25 °C. ³
ADMINISTRATION	
IM injection	Suitable, but less effective than subcutaneous infusion in chronic iron overload. ¹ IV infusion is preferred in acute iron poisoning. ⁴ Do not inject more than 1.5 g at any one site. ¹
SUBCUT infusion	Infuse the dose over 8 to 12 hours. In some patients the dose may be infused over 24 hours to further increase iron excretion. The reconstituted solution may be infused undiluted or diluted to a convenient volume with a compatible fluid if necessary. ¹
IV injection	Not recommended ¹
IV infusion	Dilute the dose to a concentration of 1–8 mg/mL with a compatible fluid and infuse at a rate of 15 mg/kg/hour. ^{1,4} Reduce the rate when there is clinical improvement. ¹
Other	May be added to dialysis fluid and given intraperitoneally. ¹
IV use for infants and children	Use the reconstituted solution (100 mg/mL) or dilute to a convenient volume with a compatible fluid and infuse at a rate of 15 mg/kg/hour or slower. ^{5,6}
COMPATIBILITY	
Fluids	Glucose 5% ¹ , Hartmann's ¹ , sodium chloride 0.9% ¹
Y-site	No information
INCOMPATIBILITY	
Fluids	No information
Drugs	Heparin sodium ¹
SPECIAL NOTES	Too rapid administration may cause flushing of the skin, hypotension and shock. ¹ Subcutaneous infusions may cause local irritation of the skin at the infusion site. This may be alleviated by adding hydrocortisone 1–2 mg to the desferrioxamine solution or diluting with water for injections. ¹ Hypersensitivity reactions including rash, oedema and anaphylaxis have been reported. ¹

REFERENCES

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3. Desferrioxamine mesylate. In: IV Index [internet]. Trissel's 2 clinical pharmacetics database (parenteral compatibility). Greenwood Village, CO: Truven Health Analytics. Accessed 05/05/2021.
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5. Paediatric Formulary Committee. BNF for children. Basingstoke, UK: Pharmaceutical Press; 2020-2021.
6. Phelps S, Hagemann TM, Lee KR, Thompson AJ. Pediatric injectable drugs. 11th ed. Bethesda, MD: Am Soc Health-System Pharmacists; 2018.