

Guidance for Managing Digoxin Overdose with Digifab[®] (digoxin immune Fab)



Author: Nick Butler Approved by: Drug & Therapeutics Committee October 2015 (updated May 2020) Review date: May 2023





Estimate the dose of Digifab® required for full neutralisation as follows:

Dose for full neutralisation (in vials) = Amount of digoxin ingested (mg) x 1.6 (rounded up to the nearest vial)

or

[serum digoxin concentration (μ g/L) x weight (kg)] / 100 (rounded up to the nearest vial)

Path A

Administer <u>half</u> the calculated dose initially. Monitor the patient for 6-12 hours if there is a full response.

Give the remainder of the calculated dose if no response within 2 hours.

<u>Note:</u> In acute poisoning the serum digoxin concentration does not reflect the total body load and complete neutralisation is not needed in digoxin-naïve patients

Path B

Only administer the full dose of Digifab® if the dose of digoxin ingested is known.

Otherwise:

Administer **<u>half</u>** the dose calculated using the serum digoxin concentration.

Monitor the patient for 6-12 hours if there is a full response.

Give the remainder of the calculated dose if no response within 2 hours.

Path C

Administer half the calculated dose initially. Monitor the patient for 6-12 hours.

The remainder of the calculated dose can be given if there is a recurrence of toxicity

Note: In chronic poisoning the dose of antibody required for full neutralisation depends on the total body load of cardiac glycoside, but as these patients are receiving digoxin therapeutically, total neutralisation is not required.

Administration of Digifab®

Each vial should be reconstituted with 4mL of Water for Injection and gently mixed

The resulting solution should be administered by infusion over 30 minutes. The solution may be diluted to a convenient volume for administration with sodium chloride 0.9%

Patients should have continuous ECG monitoring for at least 24 hours after administration of Digifab

Temperature, blood pressure and serum potassium should also be regularly monitored

Improvements in the signs and symptoms of digoxin toxicity usually occurs within 30 minutes of administration

Digifab is a protein and it can cause anaphylaxis. Patients should be monitored and treated according to the Trust protocol for anaphylaxis

Digifab interferes with serum digoxin monitoring so there is no clinical benefit in measuring it after giving Digifab

Marked renal impairment will delay the elimination of the digoxin/antibody complex and free digoxin may be released some days after giving Digifab

Path D (For adults and children weighing less than 20kg only)

If serum digoxin concentration is known Use calculation above

If serum digoxin concentration is <u>not</u> known then one vial of Digifab will usually be sufficient for full neutralisation

Digifab is stocked in GRH Pharmacy

To access out-of-hours, contact the on-call Pharmacist via switchboard