

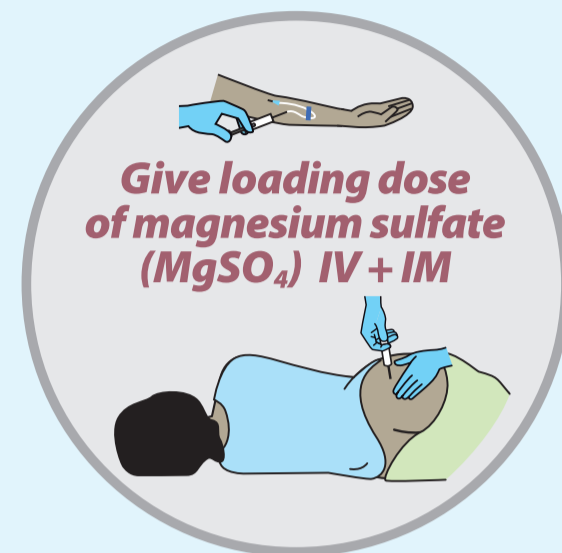
MgSO₄ Dosing and Monitoring Checklist

PREPARATION OF 4g 20% SOLUTION OF MAGNESIUM SULFATE (MgSO₄)

- Wash hands thoroughly with soap and water or use alcohol hand rub and air dry.
- Using a 20-mL syringe, draw 12 mL of sterile water for injection. If 50% MgSO₄ is available, add 8 mL of MgSO₄ 50% solution* to 12 mL of water for injection to make 20 mL of 20% solution (4 g per 20 mL). If the concentration is different, correctly mix 4 gm of MgSO₄. * vial containing (1 g/2 mL)

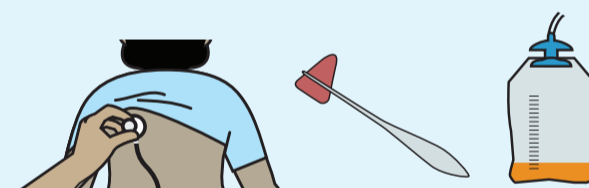
ADMINISTRATION OF LOADING DOSE OF MgSO₄

- Establish an IV line using normal saline or Ringer's lactate solution.
- Using a 20 mL syringe, draw 4 g of MgSO₄ 50% (8 mL)
- Add 12 mL sterile water or saline to the same syringe to make a 20% solution
- Give this 4g MgSO₄ 20% solution IV over 5 – 20 minutes.
- Using two 20 mL syringes, draw 5 g of MgSO₄ 50% (10 mL) in EACH syringe.
- Add 1mL of 2% lignocaine to EACH of the two syringes.
- Inject 1st syringe by deep IM injection into one buttock (5g MgSO₄)
- Inject 2nd syringe by deep IM injection into the other buttock (5g MgSO₄)
- If convulsions recur** after 5 minutes, give 2 g of MgSO₄ 20% by IV over 5 minutes.
- To Decontaminate: Flush needle and syringe with 0.5% chlorine solution three times; then place in a puncture-proof container.
- Remove gloves and discard them in a leakproof container or plastic bag.
- Wash hands thoroughly with soap and water.



MONITORING FOR SIGNS OF TOXICITY

- Count respiration rate for 1 minute every hour. The rate should be ≥ 16 .
- Patella reflexes should be present. Check every hour:
 - Place one hand under woman's knee and lift leg off bed.
 - Tap patellar tendon just below kneecap with a reflex hammer.
- Insert an indwelling urinary catheter and measure urinary output hourly. Output should be ≥ 30 ml/hour



ADMINISTRATION OF MAINTENANCE DOSE OF MgSO₄

- Before repeating administration of MgSO₄, check that:
 - Respiratory rate is at least 16 per minute.
 - Patellar reflexes are present.
 - Urinary output is at least 30 mL per hour over 4 hours.
- Give 5 grams of MgSO₄ 50% solution, together with 1 mL of 2% lignocaine in the same syringe, by deep IM injection into alternate buttocks (every 4 hours).
- WITHHOLD or DELAY drug if:
 - Respiratory rate falls below 16 per minute.
 - Patellar reflexes are absent.
 - Urinary output has fallen below 30 mL per hour over the preceding 4 hours.
- In case of respiratory arrest:
 - **Shout for help!**
 - Assist ventilation with mask and bag.
 - Give calcium gluconate 1 g (10 mL of 10% solution) IV slowly.

