

# Magnesium Sulphate Infusion

**This presentation  
shows the steps  
involved in the  
preparation of an  
Magnesium Sulphate Infusion**

# Magnesium Sulphate Infusion

**RIGHT drug**

**RIGHT patient**

**RIGHT dose**

**RIGHT time**

**RIGHT route**

**RIGHT documentation**

**RIGHT to refuse**

Perform 7R' of drug administration

# Magnesium Sulphate Infusion



Confirm presentation of magnesium sulphate. (1g in 2ml).

# Magnesium Sulphate Infusion



Assemble equipment required to prepare a Magnesium Sulphate Infusion  
100 ml NS, 20 gtt's giving set, Sharps container, Label, 2 x 1g ampoule of magnesium sulphate, 5 ml syringe, 2 blunt fill filter needles, Alcohol wipe.

# Magnesium Sulphate Infusion

$$\text{Volume required (ml)} = \frac{\text{Dose required (mg)}}{\text{Dose in Ampoule (mg)}} \times \text{Volume in Ampoule (ml)}$$

$$= \frac{1.5 \text{ g}}{1 \text{ g}} \times 2 \text{ ml}$$

$$= 3 \text{ ml (2 ampoules required)}$$

Calculate volume required for adult dosage of 1.5 g.

# Magnesium Sulphate Infusion



Connect a blunt fill filter needle to a 5ml syringe.

# Magnesium Sulphate Infusion



Open the ampoule, using alcohol pad to protect your fingers

# Magnesium Sulphate Infusion



Dispose of broken top into sharps bin.

# Magnesium Sulphate Infusion



Withdraw all medication from ampoule  
using 5ml syringe and blunt fill filter needle.

# Magnesium Sulphate Infusion



Dispose of empty ampoule in a sharps bin.

# Magnesium Sulphate Infusion



Using the same blunt fill filter needle to draw up the medication from the second ampoule.

# Magnesium Sulphate Infusion



Remove blunt fill filter needle from the 5ml syringe and dispose of it in a sharps bin. Replace with a new blunt fill filter needle. (This will ensure that no glass shards are transferred to the infusion bag.)

# Magnesium Sulphate Infusion



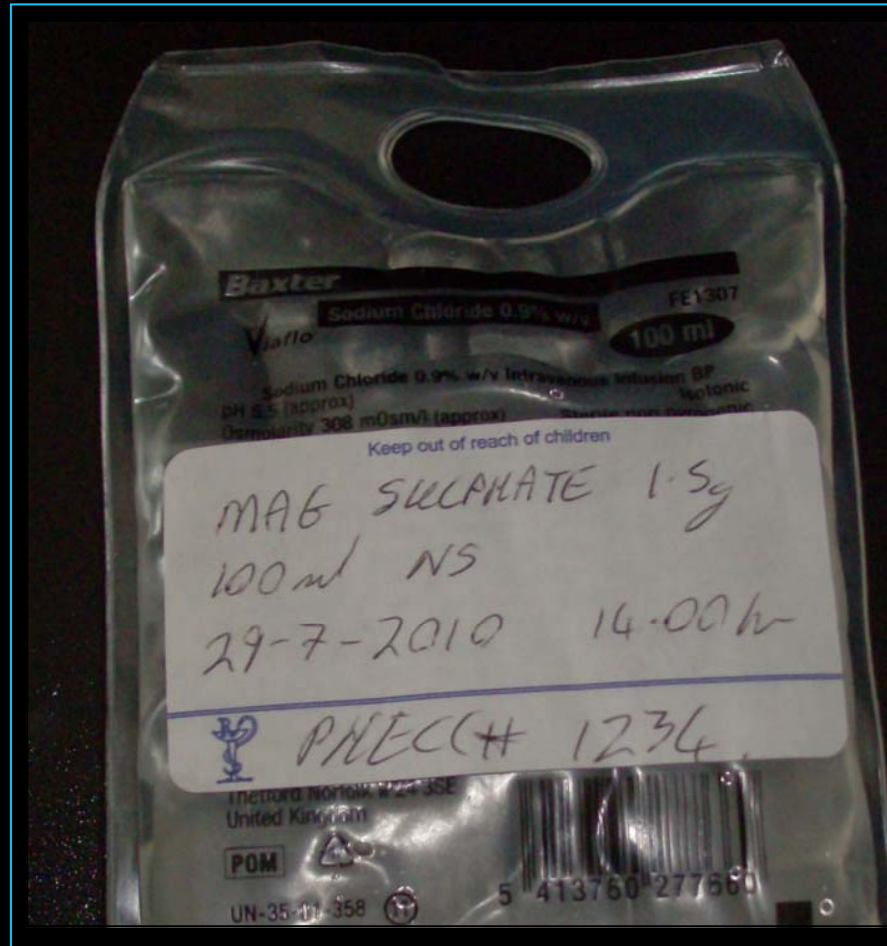
Discard excess medication from 5 ml syringe. Insert blunt fill filter needle into the injection port of the 100ml normal saline infusion bag and inject the required volume.

# Magnesium Sulphate Infusion



Dispose of needle and syringe into sharps bin.

# Magnesium Sulphate Infusion



Invert bag 3 to 4 times.  
Label Infusion with - Drug name and dosage,  
volume of normal saline, date and time, PHECC pin #.

# Magnesium Sulphate Infusion



Check drip set (20 gtts/ml), close roller clamp,  
1/2 fill drip chamber, flush line without wasting medication.

# Magnesium Sulphate Infusion

$$\begin{aligned}\text{Drip rate} &= \frac{\text{Volume}}{\text{Time}} \times \text{drip set} \\ &= \frac{100 \text{ ml}}{20 \text{ mins}} \times \frac{20 \text{ gtts}}{1 \text{ ml}} \\ &= 100 \text{ gtts / minute} \\ &= 10 \text{ gtts / 6 seconds}\end{aligned}$$

Calculate drip rate for Magnesium Sulphate Infusion

# Magnesium Sulphate Infusion



Connect and administer magnesium sulphate infusion, set drip rate.



# Magnesium Sulphate Infusion

MEDICAL TREATMENT INFORMATION			
TIME (24H)		MEDICATION TREATMENT	
12	30	Mag Sulphate infusion @ 10 gtts / 6 seconds	
DOSE	ROUTE	CODE (SELECT)	PN
1.5 g	IV	MG	1234

Record hydrocortisone infusion administration on PCR. Monitor the patient.

# Magnesium Sulphate Infusion

1. Assemble required equipment.
2. Perform 7R's of drug administration.
3. Confirm presentation of magnesium sulphate. (1g in 2ml).
4. Calculate volume required for dosage of 1.5g = 3ml.
5. Connect a blunt fill filter needle to a 5ml syringe.
6. Open the ampoule, using alcohol pad to protect your fingers, dispose of broken top into sharps bin. Withdraw all medication from ampoule using 5ml syringe and blunt fill filter needle. Dispose of empty ampoule into sharps bin.
7. Remove blunt fill filter needle from the 5ml syringe and dispose of it in a sharps bin. Replace with a new blunt fill filter needle.  
(This will ensure that no glass shards are transferred to the infusion bag.)
8. Discard excess medication from 5 ml syringe.
9. Insert blunt fill filter needle into the injection port of the 100ml normal saline infusion bag and inject the required volume. Dispose of needle and syringe into sharps bin. Invert bag 3 to 4 times.
10. Label Infusion with - Drug name and dosage, volume of normal saline, date and time, PHECC pin #.
11. Check drip set (20 gtts/ml), close roller clamp, 1/2 fill drip chamber, flush line without wasting medication.
12. Calculate drip rate = 10gtts / 6 seconds.
13. Connect and administer magnesium sulphate infusion, set drip rate.
14. Record magnesium sulphate infusion administration on PCR.
13. Monitor the patient.