

50 mg in 50 ml



**Midazolam**

**1 mg/ml**

Solution for  
Injection / Infusion

50 mg in 50 ml

Each 50 ml vial contains  
50 mg of midazolam

For intravenous  
and rectal use

hameln

**Midazolam**

# What is it?

- Midazolam is benzodiazepine
- It works on receptors in the brain called GABA receptors.
- In the ICU we use a 50ml vial 1mg/1ml normally via an infusion pump.
- We normally use as single bolus for intubation or can run as infusion when propofol is getting to high rate or is contraindicated.
- It can also be run in SC syringe drivers at the end of life

# Why do we use it?

- Midazolam is a good additional agent to propofol and alfentanil, or when longer term sedation is required.
- It has little effect on the cardiovascular system and minimal respiratory depression
- It is an anticonvulsant
- While is the shortest acting benzodiazepine family, it is longer acting than propofol so must be bolused initially.
- Any rate changes with midazolam will be seen upto 20 hours later (4-5x half life)

# What are the problems with it?

- It has no analgesics properties
- When patients are recovering the residual effects of the drug may contribute to delirium.
- It has the potential to accumulate in critically ill patients .
- It is lipid soluble so will accumulate in fat
- Midazolam is metabolised in the liver to an active metabolite which very potent and needs to be cleared by kidneys. If liver not working, parent drug accumulates, if kidneys not working then metabolite accumulates.

# How do we give it?

- We tend to give it via a central line or peripheral cannula as an infusion, giving multiple boluses initially and then running the infusion between 0ml to 5mls occasionally up to 10mls/hr.
- If the patient becomes unexpectedly agitated it's important to check they are getting the drug- check each connection and the cannula site.
- We can give a bolus of 1 to 2 ml of the drug to control agitation. Once established, only if more than 4 to 6 bolus in 1 hour required should the rate be increased. *If we give a bolus we must record this on the observation chart.*
- We normally use 50ml bottles via an infusion pump but it can be given in a 50ml syringe via a syringe pump.
- The doctors may give the drug as a bolus of 2-5 mg/hr via a syringe, for intubation.

# What should we look out for?

- Check level of sedation
- For bolus doses check breathing and blood pressure observations
- As takes a longer time to kick in, only increase the infusion rate, after giving multiple boluses.