



SUBCUTANEOUS INFUSION DRUG COMPATIBILITY CHART

	Morphine	Oxycodone	Methadone	Fentanyl	Clonazepam	Cyclizine	Dexamethasone	Famotidine	Glycopyrrolate	Haloperidol	Hyo, Butylbromide	Ketamine	Metoclopramide	Midazolam	Levomepromazine	Octreotide	Phenobarbitone
Morphine	♦		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x
Oxycodone		♦			✓	#	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Methadone	✓		♦		✓		✓	👁	✓	✓	✓	✓	✓	✓	✓		x
Fentanyl	✓			♦		✓	✓	👁		✓	✓	✓	✓	✓	✓		✓
Clonazepam	✓	✓	✓		♦	✓	✓		✓	✓	✓	✓	✓	✓	✓		x
Cyclizine	✓	#		✓	✓	♦	#	#	✓	✓	#	✓	✓	#	#	✓	x
Dexamethasone	✓	✓	✓	✓	✓	#	♦	👁	x	#	✓	✓	#	#	#	#	x
Famotidine	✓	👁	👁	👁		#	✓	♦	👁	✓	✓		✓	x	#	👁	x
Glycopyrrolate	✓	✓	✓	✓	✓	✓	x	👁	♦	✓			✓	✓	✓	✓	x
Haloperidol	✓	✓	✓	✓	✓	✓	#	#	✓	♦	✓	✓	✓	✓	✓	#	x
Hyo. Butylbromide	✓	✓	✓	✓	✓	#	✓	👁		✓	♦		✓	✓	✓	✓	x
Ketamine	✓		✓	✓	✓	✓	✓			✓		♦	✓	✓	✓		x
Metoclopramide	✓	✓	✓	✓	✓	✓	#	✓	✓	✓	✓	✓	♦	✓	✓	✓	x
Midazolam	✓	✓	✓	✓	✓	#	#	👁	✓	✓	✓	✓	✓	♦	✓	✓	x
Levomepromazine	✓	✓	✓	✓	✓	#	#	👁	✓	✓	✓	✓	✓	✓	♦	✓	x
Octreotide	✓	✓				✓	#	✓	✓	#	✓		✓	✓	✓	♦	x
Phenobarbitone	x		x	✓	x	x	x	x	x	x	x	x	x	x	x	x	♦

Not Compatible: X Compatible: ✓ Variable according to concentration: # Observational only 👁

Drug Compatibility:

This table must be used as a guide only.

It has been compiled from evidence in Dickman's The Syringe Driver, 2nd Ed (2005), and Palliative Care Formulary 7th ed (2020) and also from physical evidence in clinical practice at Arohanui Hospice.

It is the prescriber's choice as to the appropriate diluent to be used for each prescription.

Please consult information on page 2 of this document along with PCF7 (2020), Twycross & Wilcock or www.palliativedrugs.com

In clinical practice, every prescription should be checked to see if drug combination is compatible. It is always important to **continually** monitor contents of syringes and tubing to detect any incompatibility when there has been combination of medicines. (Twycross, Wilcock, Thorp.,1999).

Mixing of Drugs for Subcut Infusion – Special Notes

Use Sodium chloride 0.9% to make up volume in the syringe, unless otherwise stated.

If there are infusion site problems:

1. Use a larger syringe to enable a more dilute solution therefore decreasing drug concentration
2. Change to 12 hrly regime, thereby permitting further dilution of drug
3. Change drug to a less irritant one
4. Add 1mg Dexamethasone to the syringe
5. Use a Saf-T-intima cannula instead of a metal butterfly

If incompatibility occurs (eg discoloration, precipitation, crystallization) and the prescribed drugs are essential:

1. Try mixing the combination in 23 ml total volume (in a 30ml syringe)
2. Use two separate pumps

Drugs:

Cyclizine	causes many drugs to precipitate and should always be diluted with Water for Injection and added last
Dexamethasone	add last as it will precipitate with some other drugs
Haloperidol	in concentrations greater than 1mg/ml will cause precipitation
Methadone	can cause severe site irritation, but adding 1mg Dexamethasone may help, or rotate sites every two days
Phenobarbitone	use a separate syringe driver. May be diluted with Water for Injection or Sodium Chloride 0.9% . Although a 10:1 dilution has been advocated, many centres administer $\leq 2000\text{mg} / 24$ hours diluted to 23ml in a 30ml syringe
Levomepromazine	can cause tissue reactions, always use Sodium Chloride which may reduce this occurrence
Ketamine	dilute with Sodium chloride 0.9% . Do not mix with barbiturates or diazepam
Furosemide	use a separate syringe driver. $\leq 200\text{mg}$, no diluent is needed. $> 200\text{mg}$, dilute with Sodium Chloride 0.9%
Famotidine	dilute with Sodium Chloride 0.9%

References:

Palliative Care Formulary 7th Edition 2020

Scottish Palliative care guidelines <https://www.palliativecareguidelines.scot.nhs.uk/>