

## 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	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, 2<sup>nd</sup> Ed (2005), and Palliative Care Formulary 7<sup>th</sup> 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](http://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:

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

### References:

Palliative Care Formulary 7<sup>th</sup> Edition 2020

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