

## 10. SUBCUTANEOUS INJECTIONS FOR SYMPTOM CONTROL IN PALLIATIVE CARE

SYMPTOM	DRUG	PRN dose for breakthrough (subcutaneous, SC) <i>Onset of action</i>	SYRINGE DRIVER DOSE (continuous subcutaneous infusion, CSC) over 24 hours <i>Check Compatibility</i>	Usual total Maximum dose/ 24 hours	Think box Consult Specialist Palliative Care Team for advice	Ampoule sizes available
PAIN	Morphine	2.5mg to 5mg if opiate naïve 1 to 4 hourly OR Divide 24h subcutaneous dose by 6, give 2 to 4 hourly. Increase PRN doses in line with syringe driver. <i>within 10-30 minutes</i>	For opiate naïve patients 5mg to 30mg  For patients already taking oral morphine divide total 24h dose by 2 and set new range for CSC.	Dose increases are not usually more than 30 to 50%.  Seek advice if doses greater than <b>60mg</b> are required or if patient has abnormal renal/liver function	Contact specialist for use of alternative opioids.  Increase syringe driver by total PRN needed in 24 hours  If on an opioid patch, leave in place and continue to change as normal unless otherwise advised	10mg, 15mg, 20mg, 30mg/ml in 1ml or 2ml amps
NAUSEA and VOMITING cause of nausea determines the anti-emetic choice	Haloperidol	0.5mg to 1.5mg every 8 hours <i>within 10-15 minutes</i>	1mg to 5mg	5mg	Metabolic causes Anxiolytic/sedative High doses for delirium and psychosis Avoid in Parkinson's disease.	5mg/1ml
	Metoclopramide	10mg to 20mg every 8 hours <i>within 15 minutes</i>	30mg to 60mg	40mg	Do not use if bowel colic prokinetic in upper GI tract. Caution in Parkinson's disease. Watch for akathisia/restlessness	10mg/2ml
	Cyclizine	25mg every 8 hours <i>within 2 hours</i>	75mg to 100mg	100mg	Useful in bowel obstruction and raised ICP. Avoid in heart failure	50mg/1ml
	Levomepromazine	6.25mg to 12.5mg every 8 hours 3.125mg as anti-emetic in very frail patients <i>within 30 minutes</i>	6.25mg to 25mg	25mg	2nd or 3rd line Also anxiolytic Avoid if risk of fitting Caution in Parkinson's disease	25mg/ml
ANXIETY, TERMINAL AGITATION	Midazolam	2.5mg to 5mg every 2 - 4 hours <i>within 5 - 10 minutes</i>	5mg to 30mg	60mg <i>(30mg in renal failure)</i>	<b>Consider lorazepam 0.5 -1mg po as sublingual (recognised unlicensed indication)</b> Think of cause e.g. pain/constipation/urinary retention	10mg/2ml
	Levomepromazine	6.25mg to 12.5mg every 8 hours <i>within 30 minutes</i>	12.5mg to 50mg	100mg	2nd line	25mg/ml
RESPIRATORY SECRETIONS	Glycopyrronium	200micrograms to 400micrograms every 6-8 hours <i>Within 30-40 minutes</i>	600micrograms to 1200 micrograms	1200 micrograms	Reposition patient Reassure relatives	200mcg/1ml 600mcg/3mls
SEIZURES	Midazolam	5mg to 10mg stat SC or IM for seizure lasting more than 5 minutes		60mg <i>(30mg in renal failure)</i>	if on anticonvulsant and now unable to take orally 2 <sup>nd</sup> dose repeated after 10 minutes if no effect and the patient is breathing normally.	10mg/2mls ampoules
	Buccal Midazolam	10mg Buccal stat				Buccolam® 10mg/2mls Epistatus® 10mg/ml