

## Guidance for anticipatory prescribing and symptom control at the end-of-life

Symptom	Drug	PRN subcutaneous dose for anticipatory symptoms, as needed	Starting dose range over 24 hours in syringe driver (subcutaneous) if needed	Vial Strengths	Maximum dose over 24 hours
<b>1. Pain/Breathlessness</b> NB If already on oral opioids, see below for conversion. <b><u>If severe renal impairment, seek specialist advice</u></b>	<b>Diamorphine</b>	2.5mg 1 hourly if opioid naïve or 1/6 <sup>th</sup> of 24 hr subcutaneous opioid dose	7.5mg-15mg (if not already taking opioids)	5,10,30 or 100mg amps	No upper limit
	<b>Morphine</b>	2.5mg-5mg 1 hourly prn if opioid naïve or 1/6 <sup>th</sup> of 24 hr subcutaneous opioid dose	10mg-20mg (if not already taking opioids)	10mg/ml	No upper limit
<b>2. Nausea/vomiting</b> Opioid or centrally induced	<b>Haloperidol and/or Cyclizine*</b>	1.5mg-3mg bd	3mg-5mg	5mg/ml	10mg
		50mg tds (if not on regular cyclizine)	150mg	50mg/ml	150mg
Prokinetic	<b>Metoclopramide</b>	10mg tds	30mg-60mg	10mg/2ml	80mg
Second Line	<b>Levomepromazine</b>	6.25mg qds	6.25mg-12.5mg	25mg/ml	25mg
<b>3. Agitation</b> +anxiety (1 <sup>st</sup> line)	<b>Midazolam</b>	2.5mg-5mg initially 1 hourly prn	10mg-30mg	10mg/2ml	60mg
+hallucinations or confusion	<b>Haloperidol</b>	1.5mg-3mg bd	3mg-5mg	5mg/ml	10mg
	<b>Levomepromazine</b>	6.25-12.5mg (max qds)	6.25mg-12.5mg	25mg/ml	100mg
<b>4. Noisy breathing due to respiratory tract secretions</b>	<b>Glycopyrronium Bromide</b>	200 microgram 4 hourly	600microgram – 1200 microgram	600mcg/3ml	1200 microgram
	<b>Hyoscine Butylbromide*</b>	20mg 4 hourly	60mg-100mg	20mg/ml	120mg
	<b>Hyoscine Hydrobromide</b>	400 microgram 4 hourly	1.2mg-2.4mg	400mcg/ml	2.4mg

Advice is available 24 hours a day, 7 days a week to any healthcare professional from **the ADVICE LINE at Cornwall Hospice Care – 01736 757707**

The guidance above are well accepted drugs and doses used at the end-of-life. Call the advice line if advice is needed at any time.

Conversion of oral opioids to parenteral opioids is overleaf.\* Cyclizine is not compatible with Hyoscine Butylbromide or Oxycodone in a syringe driver.

# Opioid dose conversion

Oral Morphine			Subcutaneous Morphine		Subcutaneous Diamorphine		Oral Oxycodone			Subcutaneous Oxycodone		Fentanyl Transdermal	Subcutaneous Alfentanil	
4hr dose (mg)	12hr SR dose (mg)	24 hr total dose (mg)	4hr dose (mg)	24hr total dose (mg)	4hr dose (mg)	24hr total dose (mg)	4hr dose (mg)	12hr SR dose (mg)	24hr total dose (mg)	4hr dose (mg)	24hr total dose (mg)	Patch strength (micrograms)	4hr dose (mg)	24hr total dose (mg)
5	15	30	2.5	15	1.25	10	2.5	7.5	15	1.25	7.5	12mcg	0.125	1
10	30	60	5	30	2.5-5	20	5	15	30	2.5	15	25mcg	0.25	2
15	45	90	7.5	45	5	30	7.5	25	50	3.75	25	25mcg	0.5	3
20	60	120	10	60	7.5	40	10	30	60	5	30	37mcg	0.75	4
30	90	180	15	90	10	60	15	45	90	7.5	45	50mcg	1	6
40	120	240	20	120	12.5	80	20	60	120	10	60	75mcg	1.25	8
50	150	300	25	150	15	100	25	75	150	12.5	75	75mcg	1.5	10
60	180	360	30	180	20	120	30	90	180	15	90	100mcg	2	12
70	210	420	35	210	25	140	35	105	210	17.5	100	125mcg	2.5	14
80	240	480	40	240	27.5	160	40	120	240	20	120	125mcg	2.5	16
90	270	540	45	270	30	180	45	135	270	22.5	135	150mcg	3	18
100	300	600	50	300	35	200	50	150	300	25	150	150mcg	3.5	20
110	330	660	55	330	37.5	220	55	165	330	27.5	165	175mcg	3.75	22
120	360	720	60	360	40	240	60	180	360	30	180	200mcg	4	24

This is to be used as a guide rather than a set of definitive equivalences. Most data on doses is based on single dose studies so it is not necessarily applicable in chronic use, also individual patients metabolise different drugs at varying rates. The advice is always to calculate doses using Morphine as standard and to adjust them to suit the patient and the situation. Some of these doses have by necessity been rounded up or down to fit in with the preparations available. (Reproduced with kind permission of Margaret Gibbs, St Christopher's Hospice 2<sup>nd</sup> edition 2006)

DRUG	DRUG DOSE	APPROXIMATE CODEINE EQUIVALENCE	APPROXIMATE ORAL MORPHINE EQUIVALENCE
BuTrans 5	5 micrograms/hour	60mg/24 hours	10mg/ 24 hours
BuTrans 10	10 micrograms/hour	120mg/24 hours	20mg/ 24 hours
BuTrans 20	20 micrograms/hour	240mg/ 24 hours	40mg/ 24 hours