Anticipatory prescribing guidance

Anticipatory prescribing avoids delays in treating the most common symptoms at the end of life, improves symptom control and may prevent unwanted admissions to Hospital or Hospice IPU.

'Just in Case' (JIC) boxes are a small part of anticipatory prescribing, and are a system to improve the security and audit trail of medications prescribed.

JIC boxes are only to be used in patients own homes, and **not** other care settings.

Refer to Symptom management of adult palliative care patients for advice on medications and doses recommended, the below table gives suggestions on quantities to prescribe if indicated.

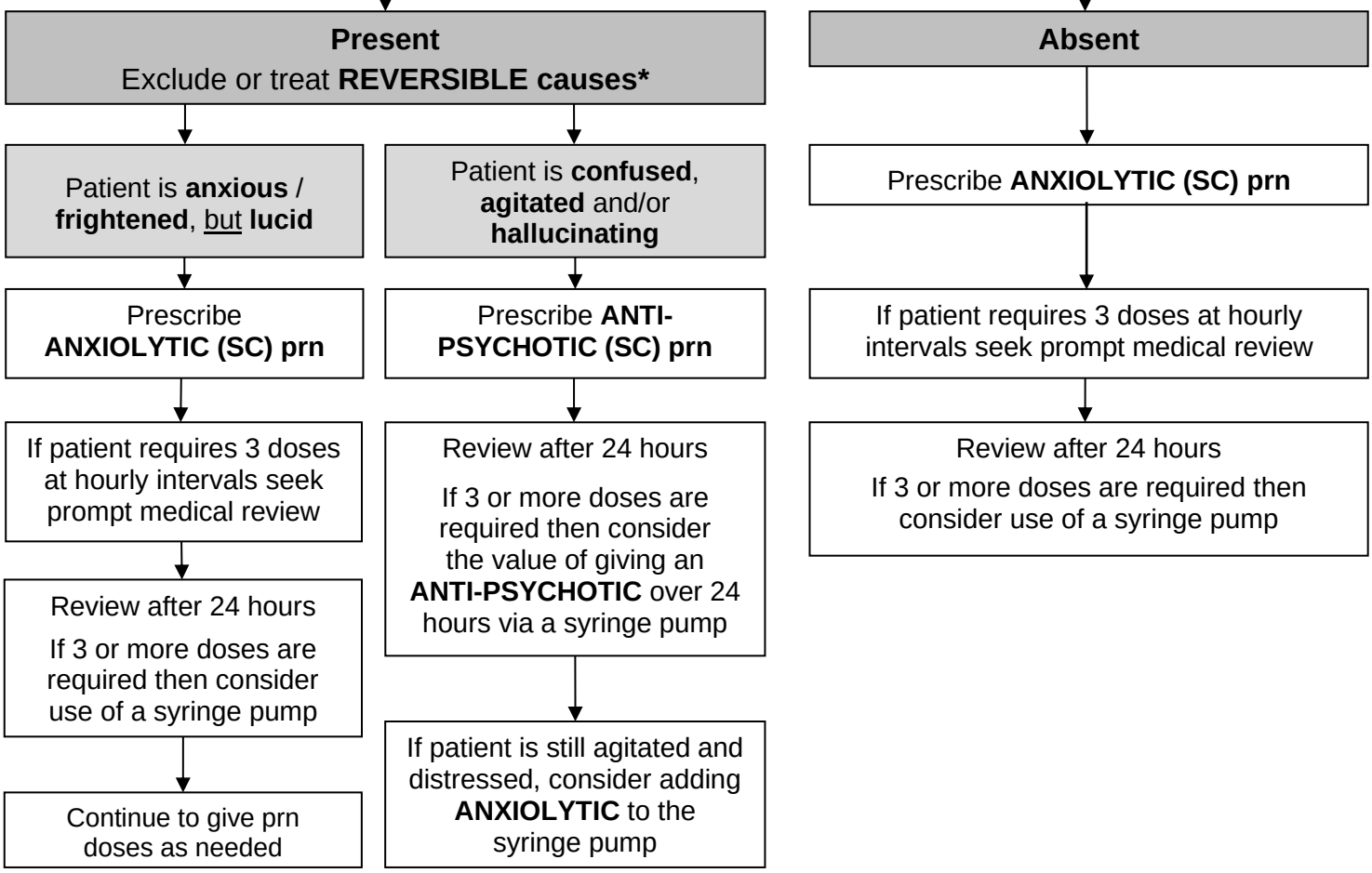
Symptom	Medication group	Medication and dosage form (refer to algorithms)	Suggested quantity[1]
Agitation	Anti-psychotic	**Haloperidol** 5mg/mL injection **OR** **Levomepromazine** 25mg/mL injection	5 ampoules
Anxiety	Anxiolytic	**Midazolam** 10mg/2mL injection	5 (Five) ampoules
Breathlessness	Opioid	**Morphine** 10mg/mL injection **OR** **Oxycodone** 10mg/mL injection	5 (Five) ampoules
Nausea and vomiting	Anti-emetic	**Cyclizine** 50mg/mL injection **OR** **Haloperidol** 5mg/mL injection[2] **OR** **Hyoscine BUTYLbromide** 20mg/mL injection **OR** **Levomepromazine** 25mg/mL injection[2] **OR** **Metoclopramide** 10mg/2mL injection **OR** **Ondansetron** 4mg/2mL injection	5 ampoules **or** use supply prescribed for agitation[2]
Pain	Opioid	**Morphine** 10mg/mL injection **OR** **Oxycodone** 10mg/mL injection	Use supply prescribed for breathlessness
Respiratory secretions	Anti-secretory	**Glycopyrronium bromide** 200 micrograms/mL injection	10 ampoules
Flush / Diluent	N/A	**Water for Injections** (10mL), **OR** **Sodium Chloride 0.9%** (10mL)	10 ampoules
Crisis dose	Only prescribe if patient at risk of seizure and/or bleed	**Midazolam** 10mg/2mL injection	Use supply prescribed for anxiety
		Midazolam 10mg/2mL pre-filled oramucosal syringe	2 pre-filled syringes

[1]**Suggested quantities** are a guide only, the amount and/or formulation prescribed should be adjusted if the patient is:

- receiving regular doses of injectable medications
- receiving high doses of injectable medications
- prescribed a syringe pump

Prescribers must complete the anticipatory prescribing medication administration record AND Health Insurance prescription form (primary care patients) OR HCS discharge prescription (HCS in-patients)

Agitation and Anxiety



Anti-psychotic	When to use	PRN Dose (SC)	Other comments
Haloperidol	Use for patients who are **confused**, **agitated** and/or **hallucinating**	1mg to 2.5mg 4 hourly (max 10mg in 24 hours)	**Avoid** in Parkinson's disease and Lewy Body Dementia Caution in epilepsy at higher doses
Levomepromazine		12.5mg 4 hourly (max 50mg in 24 hours) **Elderly, frail patients:** 6.25mg to 12.5mg 4 hourly (max 50mg in 24 hours)	More sedative Caution in patients at risk of falls (can cause postural hypotension) Lowers threshold for convulsions **Avoid** in epilepsy, Parkinson's disease and Lewy Body Dementia
Anxiolytic	**Indication**	**PRN Dose (SC)**	**Other comments**
Midazolam	Use for patients who are **anxious**, **frightened** but **lucid**	2.5mg to 5mg hourly (max 30mg in 24 hours)	Add to antipsychotics for acute distress, or if patient is a severe risk to themselves or others and non-pharmacological methods are unsuccessful

Supporting Information:

Exclude or treat **REVERSIBLE causes***, e.g. pain, alcohol withdrawal, hypercalcaemia, infection, opioid toxicity, urinary retention or constipation.

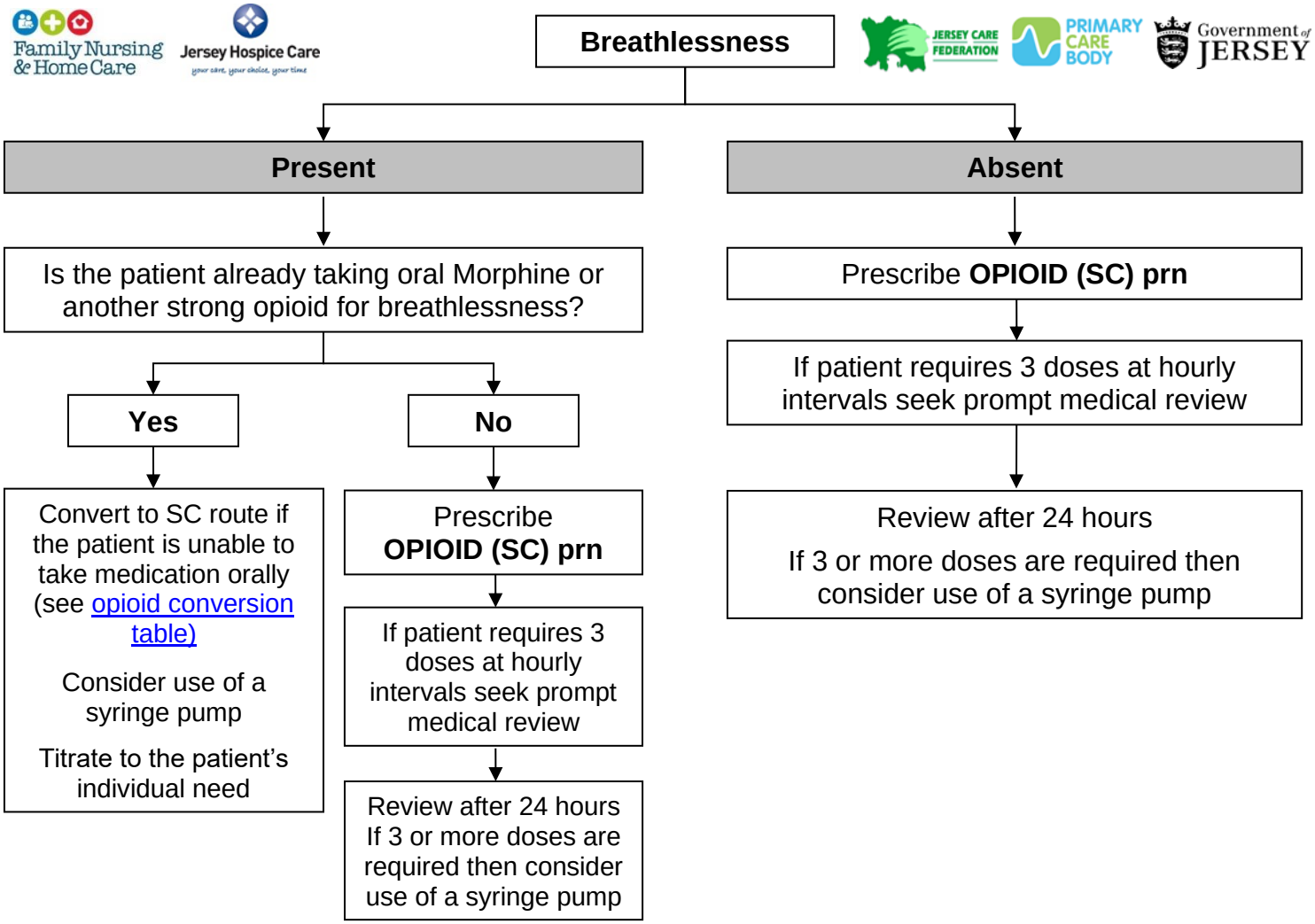
If a dose range is prescribed always commence at the lower dose.

Treatment of agitation and anxiety does not require the use of opioids **unless** it is thought to be caused by pain.

If using either Levomepromazine or Haloperidol for the management of nausea and vomiting this should be taken into account when titrating doses for agitation and restlessness.

Consider dose reduction for the elderly, frail or patients with dementia.

In patients with Parkinson's disease, do not use antipsychotics, use a benzodiazepine if required.



Opioid	When to use	PRN Dose (SC)	Other comments
Morphine	**First line** (unless patient already takes Oxycodone)	1.25mg to 2.5mg hourly (opioid naïve)*	**Avoid** in renal impairment (eGFR < 30mL/min)
Oxycodone	Patient already taking oral Oxycodone Renal impairment (eGFR < 30mL/min)	1.25mg hourly (opioid naïve)*	**Avoid** in renal failure (eGFR < 10mL/min), except for breakthrough doses
Diamorphine	Morphine dose in syringe pump > 300mg Seek specialist advice if Diamorphine indicated	Seek specialist advice	**Avoid** in renal impairment (eGFR < 30mL/min) Useful if Morphine volume too large to fit in syringe
Alfentanil	Renal failure (eGFR < 10mL/min) Seek specialist advice if Alfentanil indicated		Alfentanil has a short half-life Use Oxycodone for breakthrough doses

Supporting Information:

If the patient is breathless **and** anxious, consider Midazolam 2.5mg SC hourly prn.

***For conversion of strong opioids into a syringe pump / prn doses, refer to the opioid conversion table.**

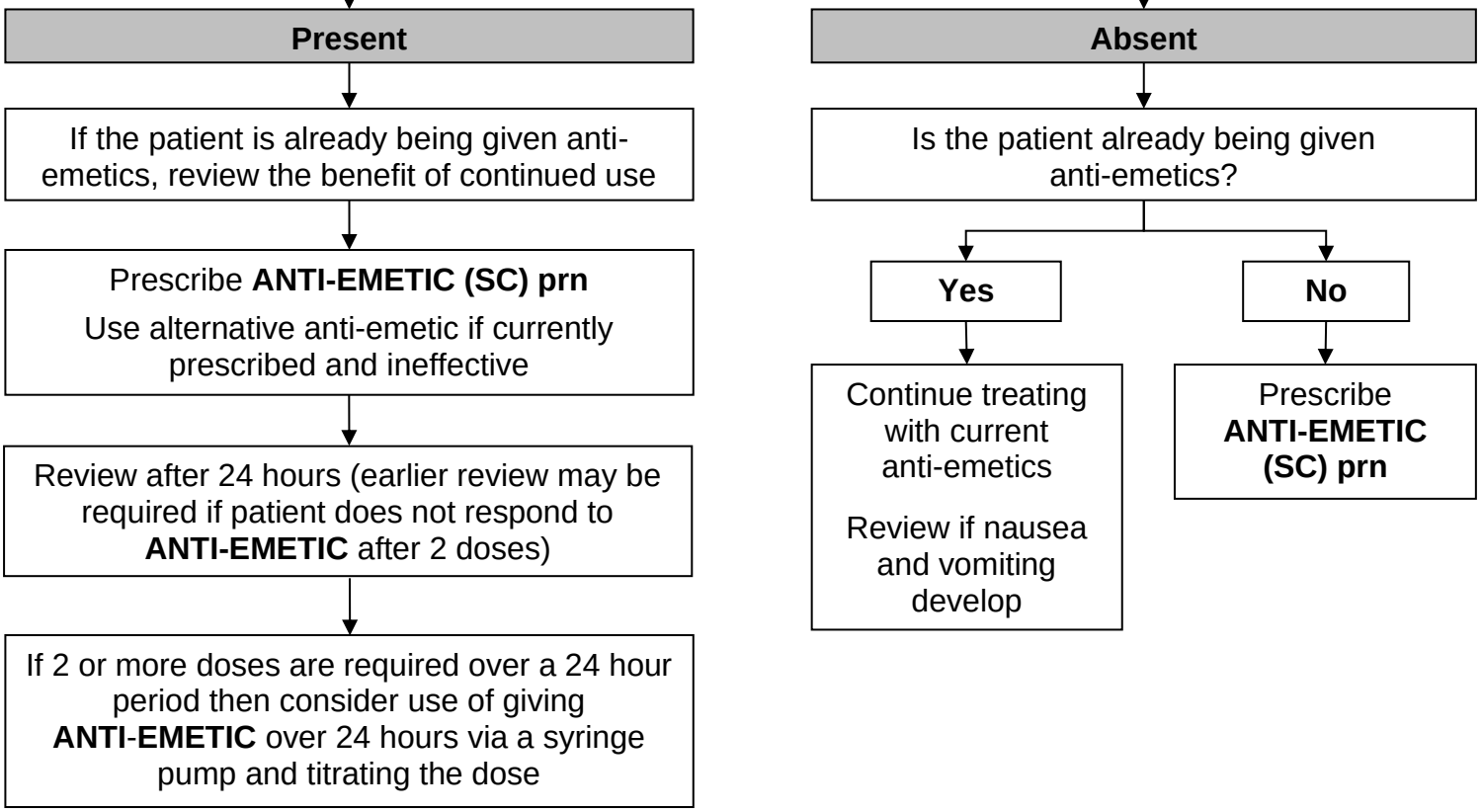
If a dose range is prescribed always commence at the lower dose.

For breakthrough doses prescribe a prn dose of opioid which is 1/6th of total 24 hour dose for breathlessness (i.e. the equivalent of Morphine 30mg SC via a syringe pump over 24 hours = 5mg SC hourly prn).

If using an opioid for pain management take this into account when titrating opiates for breathlessness.

Consider dose reduction for the elderly, frail or patients with dementia and mild / moderate renal impairment (avoid Morphine / Diamorphine if eGFR < 30mL/min).

Nausea and Vomiting



Anti-emetic	When to use	PRN Dose (SC)	Other comments
Cyclizine	Raised intracranial pressure Intestinal obstruction	50mg TDS (max 150mg in 24 hours)	**Avoid** in severe heart failure Can cause skin irritation when given SC
Haloperidol	Metabolic or drug induced	0.5mg to 1.5mg 4 hourly (max 5mg in 24 hours)	**Avoid** in Parkinson's disease and Lewy Body Dementia Caution in epilepsy at higher doses
Hyoscine BUTYLbromide	Intestinal obstruction Intestinal colic	20mg 4 hourly (max 120mg in 24 hours)	Does not cross blood-brain barrier (BBB) so should not cause sedation / confusion
Levomepromazine	Broad spectrum anti-emetic	5mg 4 hourly (Max 25mg in 24 hours)	More sedative. Caution in patients at risk of falls (can cause postural hypotension) Lowers threshold for convulsions **Avoid** in epilepsy, Parkinson's disease and Lewy Body Dementia
Metoclopramide	Gastric stasis	10mg TDS (Max 30mg in 24 hours)	**Avoid** in bowel obstruction with colic **Avoid** with anticholinergic drugs, in Parkinson's disease/Lewy Body Dementia
Ondansetron	Chemotherapy Radiotherapy	4mg to 8mg TDS (max 24mg in 24 hours)	**Avoid** prolonged use (> 5 days) as causes constipation

Supporting Information:

Exclude or treat **REVERSIBLE** causes, then tailor your prescribing accordingly.

Use the subcutaneous route if patient is vomiting, or the oral route has not worked.

If using either Levomepromazine or Haloperidol for the management of agitation and restlessness this should be taken into account when titrating doses for nausea and vomiting.

Consider dose reduction for the elderly, frail or patients with dementia.

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Pain

Patient is in pain

Is the patient already taking oral Morphine or another strong opioid*? (opioid patches should **not** be removed unless clinically indicated)

Yes

Review current analgesia, consider opioid dose increase

Convert to SC route if the patient is unable to take medication orally (see opioid conversion table)

Consider use of a syringe pump

Continue to give prn doses as needed (at 1/6th of 24 hour background opiate dose)

No

Review current analgesia

Prescribe **OPIOID (SC) prn**

If patient requires 3 doses at hourly intervals seek prompt medical review

Review after 24 hours
If 3 or more doses are required then consider use of a syringe pump

Patient's pain is controlled

Is the patient already taking oral Morphine or another strong opioid*? (opioid patches should **not** be removed unless clinically indicated)

Yes

Convert to SC route if the patient is unable to take medication orally (see opioid conversion table)

Consider use of a syringe pump

Continue to give prn doses as needed (at 1/6th of 24 hour background opiate dose)

No

Prescribe **OPIOID (SC) prn**

If patient requires 3 doses at hourly intervals seek prompt medical review

Review after 24 hours
If 3 or more doses are required then consider use of a syringe pump

Opioid	When to use	PRN Dose (SC)	Other comments
Morphine	**First line** (unless patient already takes Oxycodone)	2.5mg to 5mg hourly (opioid naïve)*	**Avoid** in renal impairment (eGFR < 30mL/min)
Oxycodone	Patient already taking oral Oxycodone Renal impairment (eGFR < 30mL/min)	1.25mg to 2.5mg hourly (opioid naïve)*	**Avoid** in severe renal failure (eGFR < 10mL/min), except for breakthrough doses
Diamorphine	Morphine dose in syringe pump >300mg Seek specialist advice if Diamorphine indicated	Seek specialist advice	**Avoid** in renal impairment Useful if morphine volume too large to fit in syringe
Alfentanil	Renal failure (eGFR < 10mL/min) Seek specialist advice if Alfentanil indicated		Alfentanil has a short half-life Use Oxycodone for breakthrough doses

Supporting Information:

***For conversion of strong opioids into a syringe pump / prn doses, refer to the opioid conversion table.**

If a dose range is prescribed always commence at the lower dose.

For breakthrough doses prescribe a prn dose of opioid which is 1/6th of total 24 hour dose for pain (i.e. the equivalent of Morphine 30mg subcutaneously over 24 hours = 5mg SC hourly prn).
This may need to be reduced to 1/10th when using higher doses.

If using opiates for breathlessness management take this into account when titrating opiates for pain.

Consider dose reduction for the elderly, frail or patients with dementia and mild / moderate renal impairment (avoid Morphine / Diamorphine if eGFR < 30mL/min).

Respiratory Secretions

Present

Prescribe **ANTI-SECRETORY (SC) prn**

ANTI-SECRETORY medication should only be administered if the patient is not disturbed by the side effect of a dry mouth

If at least 1 dose is required over a 24 hour period then consider use of a syringe pump

Continue to give prn doses accordingly (take note of max total 24 hour dose)

If symptoms persist after 24 hours consider increasing the total dose and give via a syringe pump over 24 hours

Absent

Prescribe **ANTI-SECRETORY (SC) prn**

Anti-Secretory	When to use	PRN Dose (SC)	Other comments
Glycopyrronium	**First line**	200 microgram 4 hourly (max 1.2mg in 24 hours)	Does not cross blood-brain barrier (BBB) so should not cause sedation / confusion
Hyoscine BUTYLbromide	First line if patient also has intestinal obstruction	20mg 4 hourly (max 120mg in 24 hours)	
Hyoscine HYDRObromide	Only to be used if Glycopyrronium / Hyoscine butylbromide not tolerated	400 microgram 4 hourly (max 2.4mg in 24 hours)	Does cross BBB so can cause sedation / confusion

Supporting Information:

Respiratory secretions can be very distressing to those around the patient, however patients themselves are rarely distressed by noisy secretions. It is helpful to explain this and that the patient is not choking.

It is appropriate to treat if the patient appears distressed by the secretions, and are not disturbed by the side effects of a dry mouth. Treatment may also be needed if the patient is unconscious and symptoms are distressing to the patient's loved ones despite explaining the above.

Anti-secretory medication should ideally be started early as a preventative measure if they are going to be used, and the patient is not going to be distressed by a dry mouth.

It is easier to prevent secretions forming than to remove secretions that have gathered in the upper airways or oropharynx if treatment with the above medications is withheld.

Despite re-positioning (including tipping the head of the bed down) and using all available medication, some patients will continue to breathe noisily. It is sometimes appropriate to consider intermittent suction, but this needs to be assessed on an individual basis; taking into account associated risks including soft tissue trauma.

If one anti-secretory medication has been used and found to be ineffective, do not switch to the alternative option (seek specialist advice).

Opioid conversion

Key points:

- **Key**: **IR** (immediate release), **MR** (modified release), **PRN** (pro re nata – 'when required')
- the below dose conversions are approximate only and vary between individuals (use as a guide only)
- in the table, doses have been rounded up or down to fit with the preparations available
- use the lowest dose of medication needed to achieve symptom control
- seek specialist advice when doses are greater than equivalent to Morphine (oral) 180mg in 24 hours, due to the risk of opioid toxicity
- regularly review patients after switching to a different opioid, checking for signs of toxicity and their level of pain control
- consider reducing the equi-analgesic dose by 30% to 50% if converting to an alternative opioid (e.g. Fentanyl to Morphine or Oxycodone)
- due to toxicity risk it may be necessary to use lower doses in patients who are:
  - elderly or frail
  - opioid naïve
  - in renal impairment
  - in liver impairment
  - already on high doses of opioids

Opioid Conversion Table

Morphine					**Oxycodone**					**Buprenorphine**	**Fentanyl**	**Tramadol**	**Codeine phosphate**
Oral (mg)			**Subcutaneous (mg)**		**Oral (mg)**			**Subcutaneous (mg)**		**Transdermal patch (microgram/hr) <u>Stable</u> pain only**		**Oral (mg)**	**Oral (mg)**
PRN dose **(IR)**	12 hr dose **(MR)**	**24 hr total dose**	PRN dose	**24 hr total dose**	PRN dose **(IR)**	12 hr dose **(MR)**	**24 hr total dose**	PRN dose	**24 hr total dose**	**Change every <u>7 days</u>**	**Change every <u>3 days</u>**	**24 hr dose**	**24 hr dose**
1.25	5	**10**								**5**		100	120
2.5	10	**20**	1.25	**10**	1.25	5	**10**	1.25	**5**	**10**		200	240
5	15	**30**	2.5	**15**	2.5	10	**20**	1.25	**10**	**15**		300	
7.5	20	**40**	3.75	**20**	3.75	10	**20**	1.25	**10**	**20**	**12**	400	
10	30	**60**	5	**30**	5	15	**30**	2.5	**15**				
15	45	**90**	7.5	**45**	7.5	20	**40**	3.75	**20**		**25**		
20	60	**120**	10	**60**	10	30	**60**	5	**30**		**37**		
30	90	**180**	15	**90**	15	45	**90**	7.5	**45**		**50**		
40	120	**240**	20	**120**	20	60	**120**	10	**60**		**75**		