This guidance has been developed as a tool to support safe and effective prescribing of medication that alleviates the common symptoms that occur in the dying patient.

1. Pain
2. Nausea and Vomiting
3. Agitation
4. Respiratory Tract Secretions
5. Dyspnoea

Most patients who are dying will experience one or more of these symptoms and will require medication that is administered subcutaneously either PRN or via a syringe driver. The IV or IM routes are not routinely recommended in the dying patient.

It is good practice to prescribe PRN medication in advance of the last few days of life. This prevents delays in patients receiving medication.

Suggested quantities of standard as required medication prescribed in anticipation and dose / ampoule.

**CYCLIZINE**
50mg/1ml amps x 10

**MIDAZOLAM**
5mg/ml 2ml amps x 10

**GLYCOPPYRRONIUM**
200 micrograms/ml amps x 20

**WATER FOR INJECTIONS**
10ml amps x 20

**MORPHINE**
10mg/1ml amps x 10

**OR**

**DIAMORPHINE**
5mg amps x 10

For patients who have epilepsy or have experienced seizures and are no longer able to take oral medication commence a syringe driver with 20mg MIDAZOLAM over 24 hours to prevent seizures. Ensure MIDAZOLAM 5mg SC PRN is also prescribed in addition for seizures.

Where patients have been prescribed DEXAMETHASONE for symptoms associated with raised intracranial pressure continue the same dose either once or twice daily as an SC injection or via a separate syringe driver over 24 hours.
PAIN MANAGEMENT – Diamorphine
Patient established on oral morphine or opioid naive.

Important: It is the responsibility of the prescriber to ensure that guidelines are followed when prescribing opioids. Every member of the team has a responsibility to check that the intended dose is safe for the individual patient. Knowledge of previous opioid dose is essential for the safe use of these products. Advice should be sought if prescribing outside of these guidelines or when the limits of own expertise are reached (NPSA/2008/RRR05).

CONTACT THE PALLIATIVE CARE TEAM (Details below) FOR ADVICE IF:
- The patient has moderate to severe renal failure.
- The patient has new severe pain or pain that has persisted after 24 hours on a syringe driver.

PATIENT IS TAKING ORAL MORPHINE

- Stop all oral Morphine
- Convert total daily dose of oral Morphine to subcutaneous route by dividing by 3 and prescribe this dose subcutaneously via a syringe driver over 24 hours (see example (a) below).
- Prescribe a breakthrough pain dose of Diamorphine that is 1/6th of the calculated total Diamorphine dose IN SYRINGE DRIVER, SC hourly PRN (see example (b) below). (Commence at 2.5mg)
- Reassess after 24 hours.

- If patient has required additional Diamorphine for breakthrough pain calculate total dose given over 24 hours and increase dose in syringe driver by 50% of this amount.
- Ensure breakthrough dose remains at 1/6th of syringe driver dose.

Example (a) syringe driver dose
Converting from oral Morphine to syringe driver
- e.g. Zomorph 60 mg 12 hourly = 120 mg
  120mg/3= 40 mg
- Diamorphine subcutaneously via syringe driver over 24 hours = 40 mg

Example (b) calculating breakthrough dose
The breakthrough dose is 1/6th of total daily Diamorphine dose
- e.g. Patient requires 60 mg via syringe driver over 24 hours
  60/6 = 10 mg Diamorphine SC PRN

Patient has pain

- Prescribe and give Diamorphine 2.5 mg-5 mg SC STAT
- Prescribe Diamorphine 7.5 mg via syringe driver over 24 hours
- Prescribe Diamorphine 2.5-5 mg SC PRN hourly for breakthrough pain.

Prescribe in anticipation of symptom Diamorphine 2.5 mg-5 mg SC PRN hourly

KEY
SC = Subcutaneous
PRN = as required

24/7 PALLIATIVE CARE ADVICE LINE FOR HEALTH PROFESSIONALS 0844 225 0677
HALTON, ST.HELENS & KNOWSLEY
PAIN MANAGEMENT
Patient established on oral morphine or opioid naive.

Important; It is the responsibility of the prescriber to ensure that guidelines are followed when prescribing opioids. Every member of the team has a responsibility to check that the intended dose is safe for the individual patient. Knowledge of previous opioid dose is essential for the safe use of these products. Advice should be sought if prescribing outside of these guidelines or when the limits of own expertise are reached (NPSA/2008/RRR05)

CONTACT THE PALLIATIVE CARE TEAM (Details below) FOR ADVICE IF:
➢ The patient has moderate to severe renal failure.
➢ The patient has new severe pain or pain that has persisted after 24 hours on a syringe driver.

PATIENTS IS TAKING ORAL MORPHINE

➢ Stop all oral Morphine
➢ Convert total daily dose of oral Morphine to subcutaneous route by dividing by 2 and prescribe this dose subcutaneously via a syringe driver over 24 hours (see example (a) below).
➢ Prescribe a breakthrough pain dose of Morphine that is 1/6th of the calculated total Morphine dose IN SYRINGE DRIVER, SC hourly PRN (see example (b) below).
➢ Reassess after 24 hours.

➢ If patient has required additional Morphine for breakthrough pain calculate total dose given over 24 hours and increase dose in syringe driver by 50% of this amount.
➢ Ensure breakthrough dose remains at 1/6th of syringe driver dose.

Example (a) syringe driver dose
Converting from oral Morphine to syringe driver
e.g. Zomorph 60 mg 12 hourly = 120 mg
120mg/2 = 60 mg
Dose of Morphine subcutaneously via syringe driver over 24 hours = 60 mg

Example (b) calculating breakthrough dose
The breakthrough dose is 1/6 th of total daily morphine dose
e.g. Patient requires 60 mg Morphine via syringe driver over 24 hours
60/6 = 10 mg Morphine SC PRN

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KEY
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PAIN MANAGEMENT
Patients established on Fentanyl Patches

Important: It is the responsibility of the prescriber to ensure that guidelines are followed when prescribing opioids. Every member of the team has a responsibility to check that the intended dose is safe for the individual patient. Knowledge of previous opioid dose is essential for the safe use of these products. Advice should be sought if prescribing outside of these guidelines or when the limits of own expertise are reached (NPSA/2008/RRR05)

- DO NOT COMMENCE FENTANYL PATCHES FOR PAIN RELIEF IN THE DYING PHASE.
- If the patient has severe renal dysfunction and requires additional pain relief seek advice on prescribing from the palliative care team.

FENTANYL ESTABLISHED

PAIN PRESENT

DO NOT remove Fentanyl Patch
continue and re-apply every 72 hours.

PAIN CONTROLLED
Prescribe opioid for breakthrough pain as needed. As table below.

Prescribe adequate dose of breakthrough opioid analgesia as table below.
Re-asses after 24 Hrs
If 2 or more doses of breakthrough opioid are required in 24 hrs commence syringe driver. Prescribe 50% of the total amount of breakthrough given in previous 24hrs via syringe driver in addition to Fentanyl patch.

OBTAIN SPECIALIST PALLIATVE CARE ADVICE REGARDING CALCULATING SUBSEQUENT PRN DOSE OF OPIOID S/C ONCE OPIOID IS REQUIRED IN SYRINGE DRIVER.

<table>
<thead>
<tr>
<th>Fentanyl Patch strength</th>
<th>Up to hourly Morphine sc PRN</th>
<th>Up to hourly Oxycodone sc PRN</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 micrograms per hour</td>
<td>2.5 mg</td>
<td>1.25mg – 2.5mg</td>
</tr>
<tr>
<td>25 micrograms per hour</td>
<td>5 mg</td>
<td>2.5 mg</td>
</tr>
<tr>
<td>50 micrograms per hour</td>
<td>10 mg</td>
<td>5 mg</td>
</tr>
<tr>
<td>75 micrograms per hour</td>
<td>20 mg</td>
<td>10 mg</td>
</tr>
</tbody>
</table>

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24/7 PALLIATIVE CARE ADVICE LINE FOR HEALTH PROFESSIONALS 0844 225 0677
HALTON, ST.HELENS & KNOWSLEY
PAIN MANAGEMENT
For patients established on oral Oxycodone

Important: It is the responsibility of the prescriber to ensure that guidelines are followed when prescribing opioids. Every member of the team has a responsibility to check that the intended dose is safe for the individual patient. Knowledge of previous opioid dose is essential for the safe use of these products. Advice should be sought if prescribing outside of these guidelines or when the limits of own expertise are reached (NPSA/2008/RRR05)
- BOTH 3:2 AND 2:1 CONVERSIONS FROM ORAL OXYCODONE TO THE SUBCUTANEOUS ROUTE ARE USED.
- IN THE DYING PHASE USE 3:2 AS BELOW

CONVERT ORAL OXYCODONE TO SUBCUTANEOUS ROUTE AS BELOW

- CALCULATE DOSE REQUIRED OVER 24 HOURS IN SYRINGE DRIVER:
  SYRINGE DRIVER DOSE = 2/3 OF ORAL DAILY DOSE.
  e.g. Oxycontin 45 mg 12 hrly = 90 mg
  2/3 of 90 mg = 60 mg
dose required in syringe driver = 60 mg

- CALCULATE DOSE OF OXYCODONE REQUIRED FOR RELIEF OF BREAKTHROUGH PAIN.
  BREAKTHROUGH DOSE = 1/6TH DOSE IN SYRINGE DRIVER.
  e.g. Oxycodone 60 mg/24 hours in syringe driver = 10 mg Oxycodone SC PRN

- RE-ASSESS AFTER 24HRS – if patient has required breakthrough analgesia calculate total amount given in previous 24 hrs and increase dose in syringe driver by 50% of this amount.

- ENSURE THAT BREAKTHROUGH DOSE REMAINS 1/6TH OF DOSE IN SYRINGE DRIVER

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NAUSEA & VOMITING – for patients without heart failure

PRESENT

Not on anti-emetics

Prescribe Cyclizine 50mg SC stat dose and commence 150 mg/24 hours via syringe driver.

If symptoms persist ADD Haloperidol 1.5 mg – 5 mg SC via syringe driver over 24 hours

ABSENT

On anti-emetics

Seek advice via advice line – number below

Prescribe in anticipation of symptom Cyclizine 50 mg SC 8 Hourly PRN

CYCLIZINE IS NOT RECOMMENDED IN PATIENTS WITH HEART FAILURE.
Alternative anti-emetics according to local policy & procedure may be prescribed, e.g.
Haloperidol 1.5mg – 3mg SC PRN max 10mg/24 hours.
1.5mg-5mg via a syringe driver over 24 hours
Levomepromazine 6.25mg SC PRN 8 hourly or 6.25 mg – 25 mg via a syringe driver over 24 hrs

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TERMELNIAL RESTLESSNESS & AGITATION

The intention of sedation in palliative care is to relieve distress – unconsciousness may occur but is not a desired outcome (refer to NPSA/2008/RRR011)

PRESENT

Urinary retention and rectal distension from constipation are common reversible causes of agitation – ensure these are excluded.

➢ Prescribe Midazolam 2.5 mg – 5 mg SC PRN until syringe driver commenced. If 2.5 mg ineffective after 30 minutes, give a further 5 mg (total 7.5 mg in 1 hour). If patient remains agitated seek medical review and contact Specialist Palliative Care Team for advice.
➢ If agitation likely to persist commence Midazolam 10 mg-20 mg SC via Syringe Driver over 24 hours.
➢ In addition prescribe Midazolam 2.5 mg-5 mg SC PRN up to hourly.

ABSENT

Prescribe in anticipation of symptom Midazolam 2.5 mg – 5 mg SC up to hourly PRN. Maximum 30 mg in 24 hours.

To calculate the subsequent subcutaneous dose of Midazolam over 24 hours:
➢ Calculate and add total dose of Midazolam given on a PRN basis over previous 24 hours to current 24 hour dose via syringe driver.
➢ Increase the dose of Midazolam accordingly up to 30 mg in syringe driver over 24 hours.
➢ Continue with PRN Midazolam – calculate dose as 1/6th of syringe driver dose.

If Midazolam 30 mg in syringe driver is reached and symptoms are not controlled, please seek advice.

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RESPIRATORY TRACT SECRETIONS

It is important to start treatment as soon as symptoms occur

PRESENT

- Prescribe Glycopyrronium 200 micrograms SC STAT &
- Commence syringe driver containing Glycopyrronium 1200 micrograms over 24 hours.
- Prescribe in addition Glycopyrronium 200 micrograms 6 hourly prn (max dose 2400 micrograms in 24 hours)

If respiratory tract secretions persist over the next 24 hours, increase Glycopyrronium to 2400 micrograms over 24 hours. This is a maximum dose. There is no benefit from additional PRN doses.

NB- Hyoscine Hydrobromide can be used as an alternative use 400 micrograms SC as PRN dose and 1200 micrograms via syringe driver

ABSENT

Prescribe Glycopyrronium 200 micrograms sc 6 hourly PRN (Max 2400 micrograms in 24 hrs)

Prescribing in anticipation of this common symptom may prevent delay in commencing treatment.

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PRESCRIBING GUIDELINES FOR SYMPTOM MANAGEMENT IN THE DYING PATIENT

DYSPNOEA

YES

DISTRESSING BREATHLESSNESS

NO

➢ Prescribe **Morphine** 2.5 mg - 5 mg SC 4 hourly PRN & **Midazolam** 2.5 mg SC 4 hourly PRN

➢ **State on drug chart that indication is breathlessness**

   Or if breathlessness is constant

➢ **Morphine** 5 mg - 10 mg via syringe driver over 24 hours (if previously taking oral opioid for breathlessness convert previous oral opioids dose) (see pain algorithm) & **Midazolam** 5 mg - 10 mg via syringe driver over 24 hours.

Prescribe PRN opioids & anxiolytic in anticipation of symptom

**Morphine** 2.5 mg SC 4 hourly PRN & **Midazolam** 2.5 mg SC 4 hourly PRN

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