# Care of the Dying
## Management in Severe Renal Failure

**Clinical Guideline**

Early recognition of the dying process allows for adequate preparation of the patient, the family and the carers. This clinical guidance covers the prescribing and management of patients who have entered the terminal phase of their illness. The terminal phase can be characterised by:

- day-to-day deterioration of clinical condition
- declining oral intake (difficulty with oral medication)
- profound weakness
- a reduction in the level of consciousness

Care and symptom control in a dying person is a continuous process. There should be on-going assessment of condition, needs and wishes of the dying person. This should also be documented in the "**Excellent Care at the End of Life**" care record.

**Always consider non-pharmacological measures for management of all these symptoms** : Refer: to Wirral Palliative Care Symptom Control Guidelines available on WUTH intranet.

The aim of this guidance is to provide advice for the prescribing of regular, when required (PRN) and anticipatory medicines for controlling common symptoms encountered in the last hours or days of life. including:

- Management of pain with oxycodone
- Management of pain for patients established on fentanyl patches
- Management of agitation
- Management of nausea and vomiting
- Management of dyspnoea
- Management of excessive respiratory tract secretions

**For the purposes of this guidance, eGFR <30 mls/min is considered severe renal failure.**

**General actions for consideration:**

- Discontinue inappropriate interventions and medications
- Identify the process for review of patient and carer support
- Prescribe PRN medication as recommended in this guidance
- The patient should be involved, as much as they want, in decisions regarding medication, their use and route of administration
- If a decision specific capacity assessment shows the patient is unable to participate in treatment decisions, then any available advance care plans, advance decisions to refuse treatment, lasting power of attorney for health and welfare and views of those important to the dying person should be taken into account.

**Additional information:**

- Syringe pump medication must always be prescribed on designated syringe pump prescription charts available within Wirral University Teaching Hospital, Primary Care and Wirral Hospice St Johns.
- In the community if drugs are not available from the patient's usual community pharmacy please refer to emergency community palliative care stock list.

**Useful Numbers / Contacts:**

**Wirral Hospice St John's**
24 hour Palliative Advice and Information Line (P.A.I.L) 0151 343 9529 Monday-Sunday 5pm-9am

**Integrated Specialist Palliative Care Team**
0151 328 0481 Monday - Friday 9am – 5pm
07825226724 Saturday, Sunday and Bank Holidays 9am – 5pm

## Reducing Dosing Errors with Opioid Medicines

The National Patient Safety Agency (NPSA) Rapid Response Report: 'Reducing Dosing Errors with Opioid Medicines', was issued due to the increase in number and severity of incidents concerning opioid medicines.

The following guidance must be adhered to when prescribing, dispensing or administering opioid medicines:

- Confirm any recent opioid dose, formulation, frequency of administration and any other analgesic prescribed for the patient.
- Ensure where a dose increase is intended, that the calculated dose is safe for the patient. Not normally more than 50% higher than the previous dose.
- Check the usual starting dose, frequency of administration, standard dosing increments, symptoms of overdose, and common side effects of that medicine and formulation.
- Ensure that **naloxone** (the antidote to opioid medicines) is available in the clinical area, to treat overdose and reverse unwanted, severe adverse effects. (See section :Pain Management, Naloxone in the Wirral Palliative Care Symptom Control Guidelines)
- In palliative care and chronic opioid use give **lower** doses of naloxone to carefully manage opioid-induced respiratory depression and sedation, while maintaining adequate analgesia: (NHS England , Patient Safety Alerts)
  - 100 to 200 micrograms IV stat. If respiratory response is inadequate, give 100 micrograms every 2 minutes.
  - Further doses may be necessary at one to two hour intervals especially when the opioid causing the toxicity has a long half life.

The NPSA Safer Practice Notice 12 recommends the following strengths of opioids are used to prepare doses:

**Oxycodone:**

- **10mg in 1mL** ampoules available for patients newly commenced on oxycodone and for stat / PRN doses.
- **20mg in 2mL** ampoules available for patients established on oxycodone who require larger doses via the syringe pump or larger stat / PRN doses.
- **50mg in 1mL** ampoules are **restricted** to those patients established on very high doses where there are volume problems in the syringe pump or where volume problems arise due to larger stat / PRN doses.

**Alfentanil: (only to be used following specialist palliative care advice)**

- **1 mg in 2ml ampoules -** available to prepare doses via syringe pump.
- **5mg in 1ml ampoules -** available for those patients established on larger doses in syringe pump or where there are volume problems in the syringe pump.

**** Due to its short half life, alfentanil is inappropriate for use for stat/PRN doses**

**Dose conversion of opioids –see Appendix 1 (Opiate Conversion Tables) of Wirral Palliative Care Symptom Control Guidelines available on WUTH intranet.**

## Reducing Dosing Errors with Midazolam

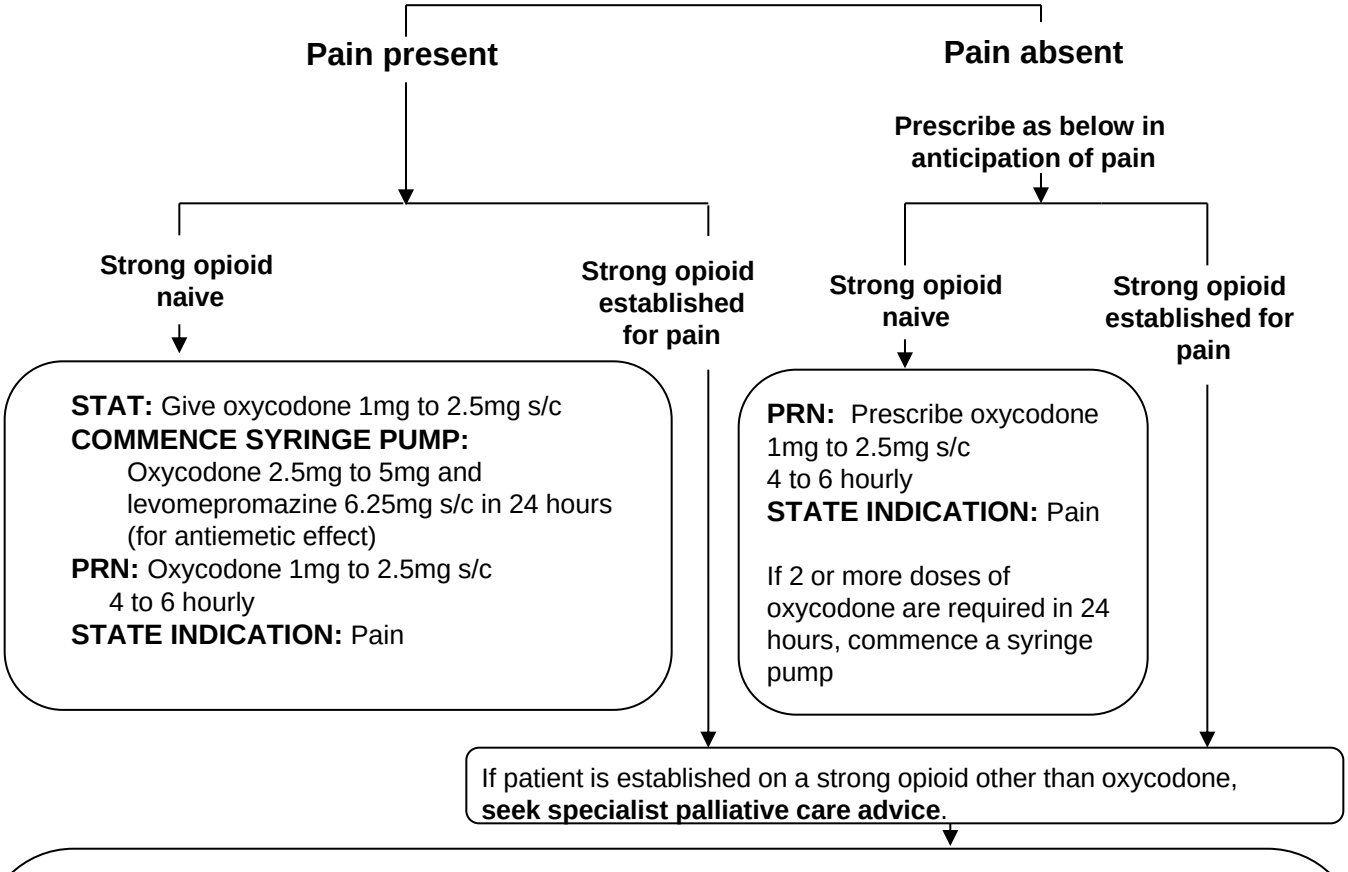
- The NPSA Rapid Response Report: 'Reducing Risk of Overdose with Midazolam Injection in adults', was issued in response to reports of the wrong dose of midazolam injection being administered for procedures requiring conscious sedation.
- Starting doses of midazolam at the lower end of the range, stated in this "Care of the Dying" guidance should be considered for symptom management in terminally ill patients however with regular review, subsequent daily doses should be proportional to the degree of agitation/ anxiety experienced by the patient during the terminal phase of their disease. **10mg in 2ml** ampoules of midazolam are routinely used to prepare doses via syringe pumps.
- This NPSA guidance recommends a stock of benzodiazepine antidote, **flumazenil**, is held in clinical areas where midazolam is used; however the use of this reversing agent is usually inappropriate during the management of the dying patient .
- Specific information on dose titration of midazolam in the care of the dying in severe renal failure is included in the attached 'Management of Agitation in severe renal failure' (see page 5). Doses should be titrated to the individual patients clinical need in accordance with these guidelines.

---

**These clinical guidelines are in accordance with NICE guidance on opiate prescribing and End of Life care, Cheshire and Merseyside specialist palliative care guidelines and Wirral Palliative Care Symptom Control Guidelines .**

# Care of the dying: Management of Pain in severe renal failure

## (When oral route NOT available)




**STAT:** If in pain, give s/c oxycodone PRN dose (calculated below) as syringe pump is commenced

**COMMENCE SYRINGE PUMP: To calculate total 24 hours s/c oxycodone dose required:**

$$\frac{\text{Total 24 hour oral oxycodone}}{2} = \text{24 hour s/c oxycodone in syringe pump}$$

**PRN breakthrough analgesia:** $\frac{\text{24 hour s/c oxycodone dose}}{6}$ = oxycodone s/c 4 to 6 hourly

**NB** To calculate subsequent oxycodone requirement for the next 24 hours - add all PRN s/c doses received in the last 24 hours to the current dose in the syringe pump, (not normally more than 50% higher than the previous dose) and also recalculate a new PRN dose.

If problems of opiate toxicity or intolerance to oxycodone occur, conversion to alfentanil in the syringe pump may be appropriate – **seek specialist palliative care advice.**

**Consider continuing Paracetamol and NSAIDs via alternative routes if clinically indicated.**

**OBTAIN SPECIALIST PALLIATIVE CARE ADVICE IF SYMPTOMS PERSIST**



•Care of the dying – Management in severe renal failure – Clinical Guideline V14 Principal authors: Dr F Ahmad & Cheryl Currie
•Approved by Medicines Clinical Guidance Team Sept 2016 Review date: Sept 2019

# Care of the dying: Management of Pain in patients with severe renal failure already established on fentanyl patches

## Pain present

**CONTINUE EXISTING FENTANYL PATCH DOSE AND CHANGE EVERY 72 HOURS**

**STAT:** Give a stat dose of oxycodone s/c – see table below.

**PRN:** Oxycodone s/c 4 to 6 hourly PRN for breakthrough pain**.** See table below.

**If patient is taking an alternative strong opioid as breakthrough analgesia (Hydromorphone), seek specialist palliative care advice.**

If 2 or more PRN doses of oxycodone are required in 24 hours, commence a syringe pump.

**Consider continuing Paracetamol and NSAIDs via alternative routes if clinically indicated.**

**COMMENCE SYRINGE PUMP:**
Add together all s/c oxycodone doses given in the previous 24 hours and give in addition to the fentanyl patch
**Recalculate the new PRN breakthrough dose by seeking specialist palliative care advice.**

## Pain controlled

**Prescribe as below in anticipation of pain**

**CONTINUE EXISTING FENTANYL PATCH DOSE AND CHANGE EVERY 72 HOURS**

**PRN:** Prescribe oxycodone s/c 4 to 6 hourly PRN for breakthrough pain. See table below

**If patient is taking an alternative strong opioid as breakthrough analgesia (Hydromorphone), seek specialist palliative care advice.**

If 2 or more PRN doses of oxycodone are required in 24 hours commence a syringe pump.

| Fentanyl patch (microgram/hr) | SC oxycodone PRN 4 to 6 hourly (mg) |
|---|---|
| 12 | 1 |
| 25 | 2.5 |
| 37 | 5 |
| 50 | 5 |
| 62 | 7.5 |
| 75 | 7.5 |
| 100 | 10 |
| 125 | 12.5 |
| 150 | 15 |
| 175 | 17.5 |
| 200 | 20 |
| 225 | 22.5 |
| 250 | 25 |
| 275 | 30 |
| 300 | 30 |

**OBTAIN SPECIALIST PALLIATIVE CARE ADVICE IF SYMPTOMS PERSIST**



•Care of the dying – Management in severe renal failure – Clinical Guideline V14 Principal authors: Dr F Ahmad & Cheryl Currie
•Approved by Medicines Clinical Guidance Team Sept 2016 Review date: Sept 2019

# Care of the dying: Management of Agitation in severe renal failure

**(Identify & treat any reversible causes of Agitation: refer to guidelines)**

## Agitation present

**STAT:** Give Midazolam 1.25mg to 2.5mg s/c and assess response. Repeat stat dose if remains agitated. Consider commencing Syringe pump.

**COMMENCE SYRINGE PUMP:** Midazolam 2.5mg to 5mg s/c in 24 hours (titrate dose by adding 30% of PRN doses of midazolam required in previous 24 hours to current syringe pump)

**PRN:** Midazolam 1.25mg to 2.5mg s/c 4 to 6 hourly
**If needing more than Midazolam 30mg/24 hrs in syringe pump and PRN doses, seek specialist palliative care advice.**

**If established on total of midazolam 60mg/24 hrs and agitation still present**

**STAT:** Give levomepromazine 12.5 mgs s/c

**SYRINGE PUMP:** Reprime and **ADD** levomepromazine 12.5 to 25mgs s/c in 24 hours
(Dose of levomepromazine can be increased up to maximum of 200mg s/c in 24 hours but **seek specialist palliative care advice** at levomepromazine doses above 50mg s/c in 24 hours)

**PRN:** Levomepromazine 12.5 mgs to 25mgs s/c 4 to 6 hourly

## Agitation absent

**Prescribe as below in anticipation of agitation**

**PRN:** Prescribe midazolam 1.25 to 2.5 mg s/c 4 to 6 hourly.

If 2 or more doses of midazolam required in 24 hours commence syringe pump

**OBTAIN SPECIALIST PALLIATIVE CARE ADVICE IF SYMPTOMS PERSIST**



•Care of the dying – Management in severe renal failure – Clinical Guideline V14
•Approved by Medicines Clinical Guidance Team Sept 2016
Principal authors: Dr F Ahmad & Cheryl Currie
Review date: Sept 2019

# Care of the dying: Management of Nausea and Vomiting in severe renal failure
## (when oral route NOT available)

- **Identify & treat any reversible causes of Nausea & Vomiting: refer to guidelines**
- **If patient is already taking an oral antiemetic, seek specialist palliative care advice as to whether this should continue via a syringe pump.**
- **If patient is not already taking an antiemetic, assess likely causes & refer to Wirral Palliative Care Symptom Control Guidelines & commence appropriate antiemetic.**
- **If no obvious cause, commence broad spectrum antiemetic as outlined below & seek specialist palliative care advice.**

### Nausea and / or Vomiting present

**STAT:** Give levomepromazine 6.25mg s/c

**COMMENCE SYRINGE PUMP:**
Levomepromazine 6.25mg to 12.5mg s/c in 24 hours

(Dose of levomepromazine may be titrated by adding the PRN doses required in the previous 24 hours, to the current levomepromazine dose in the syringe pump)
(Usual dose range for levomepromazine 6.25mg to 25mg in 24 hours for nausea and vomiting).

**PRN:** Levomepromazine 6.25mg s/c 4 to 6 hourly

If maximum total daily levomepromazine s/c dose exceeds 25mg in 24 hours, **seek specialist palliative care advice**.

### Nausea and / or Vomiting absent

**Prescribe as below in anticipation of nausea and vomiting**

**PRN:** Prescribe levomepromazine 6.25mg s/c 4 to 6 hourly

If 2 or more doses of levomepromazine are required in 24 hours commence a syringe pump.

**OBTAIN SPECIALIST PALLIATIVE CARE ADVICE IF SYMPTOMS PERSIST**

**Where Nausea / Vomiting are associated with suspected bowel obstruction, refer to specific section in the Wirral Palliative Care Symptom Control Guidelines & seek specialist advice.**



•Care of the dying – Management in severe renal failure – Clinical Guideline V14 Principal authors: Dr F Ahmad & Cheryl Currie
•Approved by Medicines Clinical Guidance Team Sept 2016 Review date: Sept 2019

# Care of the dying: Management of Dyspnoea in severe renal failure

**(when oral route NOT available)**

**(Identify & treat any reversible causes of Dyspnoea: refer to guidelines)**

- **If the patient is already established on a strong opioid for pain: seek specialist palliative care advice**

## Dyspnoea present

### Strong opioid naive

**STAT:** Give oxycodone1mg s/c and assess response. Repeat stat dose if remains dyspnoeic and consider commencing syringe pump.

**COMMENCE SYRINGE PUMP:** Oxycodone 1mg to 2mg s/c in 24 hours and Levomepromazine 6.25mg s/c in 24 hours (for antiemetic effect)

**PRN:** Oxycodone 1mg s/c 4 to 6 hourly

**STATE INDICATION:** Dyspnoea

### Strong opioid established for Dyspnoea

If patient is established on a strong opioid other than oxycodone, **seek specialist palliative care advice**.

**STAT:** If needed give oxycodone s/c PRN dose (calculated below) as the syringe pump is commenced

**COMMENCE SYRINGE PUMP: To calculate the 24 hour s/c oxycodone dose required:**

$$\frac{\text{Total 24 hour oral oxycodone}}{2} = \text{24 hour s/c oxycodone in syringe driver}$$

**PRN dose:**

$$\frac{\text{24 hour s/c oxycodone dose}}{6} = \text{oxycodone s/c 4 to 6 hourly}$$

**NB** To calculate subsequent oxycodone requirement for the next 24 hours add all PRN s/c doses received in the last 24 hours to the current dose in the syringe pump, (not normally more than 50% higher than the previous dose) and also recalculate a new PRN dose.

## Dyspnoea absent

**prescribe as below in anticipation of dyspnoea**

### Strong opioid naive

**PRN:** Prescribe oxycodone 1 mg s/c 4 to 6 hourly

**STATE INDICATION:** Dyspnoea
If 2 or more doses of oxycodone are required in 24 hours commence a syringe pump.

### Strong opioid established for Dyspnoea

If patient is established on a strong opioid other than oxycodone, **seek specialist palliative care advice**.

**STAT:** If needed give oxycodone s/c PRN dose (calculated below) as the syringe pump is commenced

**COMMENCE SYRINGE PUMP: To calculate the 24 hour s/c oxycodone dose required:**

$$\frac{\text{Total 24 hour oral oxycodone}}{2} = \text{24 hour s/c oxycodone in syringe driver}$$

**PRN dose:**

$$\frac{\text{24 hour s/c oxycodone dose}}{6} = \text{oxycodone s/c 4 to 6 hourly}$$

**NB** To calculate subsequent oxycodone requirement for the next 24 hours add all PRN s/c doses received in the last 24 hours to the current dose in the syringe pump, (not normally more than 50% higher than the previous dose) and also recalculate a new PRN dose.

**OBTAIN SPECIALIST PALLIATIVE CARE ADVICE IF SYMPTOMS PERSIST**



•Care of the dying – Management in severe renal failure – Clinical Guideline V14 Principal authors: Dr F Ahmad & Cheryl Currie
•Approved by Medicines Clinical Guidance Team Sept 2016 Review date: Sept 2019

# Care of the dying: Management of Excessive Respiratory tract Secretions in severe renal failure

**If patient is already established on s/c hyoscine butyl bromide prior to the dying phase contact specialist palliative care for advice.**

## Excessive Respiratory tract Secretions present

**STAT:** Give glycopyrronium 200micrograms s/c.

Syringe pump should be started immediately after giving the stat dose.

**COMMENCE SYRINGE PUMP:**
Glycopyrronium 600micrograms s/c in 24 hours.

**PRN:** Glycopyrronium 200micrograms s/c 2 to 4 hourly.

**If PRN dose is required in the initial 24 hours after commencing the syringe pump, increase glycopyrronium dose to 1.2mg s/c in 24 hours.**

NB Total maximum daily dose of glycopyrronium is 2.4mg s/c in 24 hours including PRN doses but may be higher **on specialist palliative care advice.**

## Excessive Respiratory tract Secretions absent

**Prescribe as below in anticipation of secretions**

**PRN:** Prescribe glycopyrronium 200micrograms s/c 2 to 4 hourly.

If a glycopyrronium PRN dose is required in 24 hours, commence a syringe pump.

**OBTAIN SPECIALIST PALLIATIVE CARE ADVICE IF SYMPTOMS PERSIST**



•Care of the dying – Management in severe renal failure – Clinical Guideline V14
•Approved by Medicines Clinical Guidance Team Sept 2016
Principal authors: Dr F Ahmad & Cheryl Currie
Review date: Sept 2019