Guidance for Anticipatory prescribing for patients in renal failure (eGFR<30) at the end of life

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Renal Prescribing at End of Life

Supporting information

- For advice on prescribing and symptom management or conversions from other opioids contact the specialist palliative care team or the hospice
- *If fentanyl is temporarily unavailable give:
  - Oxycodone 1-2mg s/c PRN or morphine 1.25-2.5mg s/c PRN
- Many of the opioid analgesics and their metabolites may accumulate in renal failure causing toxicity with myoclonic jerks, profound narcosis and respiratory depression.
- Morphine and its metabolites are most likely to cause toxicity. Fentanyl and alfentanil are less likely to cause these problems as their metabolites are not active.
- The duration of effect from morphine and oxycodone may last longer than in a patient with normal renal function. (See conversion table.)
- If symptoms persist contact the specialist palliative care team
- For patients already on fentanyl or buprenorphine patches it is usually recommended that the patch is not removed. Continue to change the patch at prescribed intervals. Additional opioid is given, as appropriate, via a syringe pump. Do not forget to calculate the PRN dose based on the total 24hourly opioid dose (i.e. patch and pump together)
- In patients with a low eGFR it is not imperative to switch opioid if symptoms are well controlled without toxicity on the current regime
- Anticipatory prescribing in this way prevents a delay in symptom control at end of life
- Fentanyl and alfentanil are very short acting, so in some cases oxycodone s/c PRN (at a reduced dose 50% and increased dose interval 6-8hrly) may be necessary to control pain
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Terminal Restlessness and Agitation

Present

Midazolam 2.5mg s/c PRN

If more than 2 or 3 doses in 24hrs consider starting a s/c syringe driver of midazolam:
Midazolam 5-10mg over 24hrs

Continue to give PRN doses as required
Titrate according to need

Absent

Midazolam 2.5mg s/c PRN

Supporting information

- If symptoms persist contact the specialist palliative care team
- Anticipatory prescribing in this way prevents a delay in symptom control at end of life
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Respiratory Tract Secretions

Present

Hyoscine butylbromide 20mg s/c PRN

Present

If more than 2 or 3 doses in 24hrs consider starting a s/c syringe driver of hyoscine butylbromide:
Hyoscine butylbromide 40-120mg over 24hrs

Absent

Hyoscine butylbromide 20mg s/c PRN

Supporting information

- If symptoms persist contact the specialist palliative care team
- Glycopyrronium 200 micrograms s/c PRN may be used as an alternative. (If continuous infusion required, glycopyrronium 600-1800 micrograms over 24hrs in s/c syringe driver.)
- Anticipatory prescribing in this way prevents a delay in symptom control at end of life
- Hyoscine hydrobromide is not usually recommended
Nausea and/or vomiting

- **Present**
  - Levomepromazine 6.25mg s/c PRN

- **Absent**
  - Levomepromazine 6.25mg s/c PRN

If more than 2 or 3 doses in 24hrs consider starting a s/c syringe driver of levomepromazine:
   Levomepromazine 6.25mg over 24hrs

**Supporting information**

- If symptoms persist contact the specialist palliative care team
- Cyclizine is not usually recommended
- Haloperidol 0.5-1mg s/c PRN is a suitable alternative (if syringe driver is required, consider 1.5-3mg s/c over 24hrs)
- Anticipatory prescribing in this way prevents a delay in symptom control at end of life
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Breathlessness

Present

Is patient already taking oral opioids for breathlessness?

Yes

If patient is already taking strong opioids, contact the specialist palliative care team or hospice. If not available, see conversion chart.

No

Fentanyl 25 micrograms s/c PRN

If fentanyl is temporarily unavailable see below*

Absent

Fentanyl 25 micrograms s/c PRN

If fentanyl is temporarily unavailable see below*

If more than 2 or 3 doses in 24hrs, consider starting a s/c syringe driver of fentanyl

Fentanyl 100-250 micrograms in a syringe driver over 24hrs. PRN dose should be 1/8th of 24hr dose e.g.

100 micrograms/24hrs give 12.5 micrograms PRN

200 micrograms/24hrs give 25 micrograms PRN

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- For advice on prescribing and symptom management or conversions from other opioids contact the specialist palliative care team or the hospice
- *If fentanyl is temporarily unavailable give:
  - Oxycodone 1-2mg s/c PRN or morphine 1.25-2.5mg s/c PRN
- If the patient is breathless and anxious, consider midazolam 2.5mg s/c PRN. (If a continuous infusion is required, syringe driver of midazolam 5-10mg over 24hrs.)
- Many of the opioid analgesics and their metabolites may accumulate in renal failure causing toxicity with myoclonic jerks, profound narcosis and respiratory depression.
- Morphine and its metabolites are most likely to cause toxicity. Fentanyl and alfentanil are less likely to cause these problems as their metabolites are not active.
- The duration of effect from morphine and oxycodone may last longer than in a patient with normal renal function. (See conversion table.)
- If symptoms persist contact the specialist palliative care team
- Anticipatory prescribing in this way prevents a delay in symptom control at end of life
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Abbreviations

- eGFR: estimated glomerular filtration rate
- hrly: hourly
- hr(s): hour(s)
- mcg: micrograms
- mg: milligrams
- PRN: as required
- s/c: subcutaneous
- SR: slow release

References

1. Rowcroft Hospice – Guidelines for prescribing at the end of life for patients with renal impairment (estimated glomerular filtration rate<30) - Feb 2013

