

Guidance for prescribing in patients with renal impairment at the end of life (estimated glomerular filtration rate <30)

For patients currently taking opioids consult your local specialist palliative care team for prescribing advice.

Achieving effective symptom relief is a priority for patients who are dying. Proactive anticipatory prescribing in patients who are thought to be approaching the dying phase is recognised as an important step to achieving good symptom control. Many patients with advanced and incurable illnesses have impaired renal function. It is important to consider this when prescribing for this group of patients.

In renal impairment the metabolism and excretion of drugs is often impaired. With opioids, metabolites can accumulate and this may lead to toxicity. To mitigate the risk of adverse drug effects, lower doses and prolonged dosing intervals are recommended, alongside the appropriate opioid choice.

For the purposes of this guidance, an eGFR <30 denotes renal impairment necessitating a prescribing adjustment. However, this should not be rigidly adhered to, and clinical judgement should be exercised when considering frail elderly or cachexic patients. Many patients with an eGFR of 30-60 will need adjustments in their medications, especially opioids.

Patients experiencing toxicity may exhibit signs of hallucinations, agitation, confusion, or myoclonic jerks. The significance of these should be considered carefully on an individual basis in terms of the burden to the patient.

To support anticipatory prescribing for patients who are dying within the acute hospital setting, electronic protocols are now available on EPMA within RCHT. These bundles will support staff in prescribing for patients who are opioid and non-opioid naïve, and have an eGFR <30. When prescribing according to guidance or electronic protocols it is still necessary to individualise where indicated.

For opioid naïve patients discharged from RCHT and requiring anticipatory prescribing to travel with the patient, Alfentanil will remain the opioid of choice in line with the anticipatory prescribing guidance. For patients in the community setting where repeated subcutaneous prn doses are required, Oxycodone may be more suitable in some circumstances i.e. where longer duration of doses are required.

Please seek advice if you have any questions at all about symptom control, side effects, management or prescribing advice please contact:

RCHT: Specialist Palliative and End of life Care Team on bleep 3055 (hours of work daily 8am-4pm).

Community setting: Bodmin switchboard 01208 251300 (daily 9am-5pm).

For advice outside of these hours contact Cornwall Hospice Care advice line – 01736 757707.

References:

Scotland palliative care guidelines <https://www.palliativecareguidelines.scot.nhs.uk/guidelines/end-of-life-care/renal-disease-in-the-last-days-of-life.aspx>

Palliative care adult network guidelines <https://book.pallcare.info/index.php?tid=181&dg=9>

RENAL ANTICIPATORY PRESCRIBING GUIDANCE FOR SYMPTOM CONTROL IN OPIOID NAÏVE PATIENTS WITH RENAL IMPAIRMENT EGFR <30

Symptom	Drug	Subcutaneous prn dose/ Doses for anticipatory symptoms	Starting dose range over 24 hours in syringe driver (subcutaneous)	Maximum dose over 24 hours	Supporting information
1. Pain / Breathlessness	Alfentanil (1st choice)	125 micrograms hourly	500 micrograms	No upper limit	<p>Alfentanil has a short half life. In some circumstances, it may be more suitable to use Oxycodone 1 mg sc prn hourly ie. recurrent prn dosing in a community setting. Please seek specialist palliative care advice.</p> <p>For patients already on a Fentanyl or Buprenorphine patch 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 driver. Please seek specialist palliative care advice.</p>
	<i>During Covid-19 period Alfentanil is reserved for ITU use unless under specialist guidance. Please use Oxycodone as below</i>		<i>Appropriate starting syringe driver dose for oxycodone can vary widely depending on individual patient factors. Please call your palliative care team for advice or advice line (24/7) on 01736 757707</i>		
2. Nausea / vomiting	Haloperidol (1st line)	0.5-1.5mg tds	1.5-3mg	5mg	<p>For patients with a low eGFR it is not imperative to switch opioid if symptoms are well controlled without toxicity.</p>
	Levomepromazine (2nd line)	6.25mg bd	6.25mg	12.5 mg	
3. Agitation +anxiety	Midazolam	2.5 mg 1 hourly	5-10mg	30mg	<p>For breathlessness unrelieved by opiates, consider Midazolam 2.5mg s/c prn hourly. Consider syringe driver of Midazolam 5-10mg s/c over 24hrs.</p>
+hallucinations or confusion	Haloperidol	0.5 -1.5mg tds	1.5-3mg	5mg	
4. Noisy breathing due to respiratory tract secretions*	Glycopyrronium Bromide (1st line)	200 micrograms 4 hourly	600 - 1200 micrograms	1200 micrograms	<p>Please note: Cyclizine is not recommended in patients with an eGFR <30.</p> <p>Hyoscine hydrobromide is not recommended in patients with an eGFR <30.</p>
	Hyoscine Butylbromide (2nd line)	20mg 4 hourly	40-120mg	120mg	

Please do not hesitate to seek advice if you have any questions about symptom control, side effects or management. 24 hour advice at Cornwall Hospice Care 01736 757707

This guidance is based on the National Scotland palliative care guidelines (<https://www.palliativecareguidelines.scot.nhs.uk/guidelines/medicine-information-sheets/alfentanil.aspx>) and the Palliative care adult network guidelines Plus <https://book.pallcare.info/index.php?tid=181&dg=9>

Guidance for anticipatory prescribing in renal failure: Authors: S Adams, E Thomas, A.Carey, A. Hart, J. Gibbins, K. Scott, L. Lanchbury September 2019 V1

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)	24 hr 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.

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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

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