

SPAGG

Coversheet for Specialist Palliative Audit and Guideline Group Agreed Documentation

This sheet is to accompany all documentation agreed by SPAGG. This will assist maintenance of the guidelines as well as demonstrating the governance process undertaken prior to members seeking local approval in their areas of work.

Document Title	Prescribing algorithm for treating pain in patients with renal impairment using FENTANYL injection subcutaneously Please note there is also an ALFENTANIL version of this algorithm
Document Date	December 2019
Document Purpose and Intended Audience	Algorithm designed to be used by professionals in all healthcare settings caring for palliative patients who have renal impairment (defined as eGFR <30ml/min) and are experiencing pain.
Authors	Dr Elizabeth Freshwater, Locum Palliative Consultant at John Taylor Hospice, Dr Anna Lock, Consultant Palliative Medicine SWBH NHS Trust
References	See end of guidance
Consultation Process	This algorithm will be audited and reviewed in 1year
Monitoring	
Review Date (must be within three years)	December 2020
Approval Signatures: SPAGG chair SPAGG deputy chair SPAGG secretary	Chair: Dr J Tomas Secretary: Dr N Sanyal
Date Approved by SPAGG:	13 /11/2019
Date submitted to Area Prescribing Committee:	

Guidance Name

Version History

Version	Date	Summary of change/ process

Prescribing Algorithm for Pain for patients with renal impairment using FENTANYL injection subcutaneously

Please note there is also an ALFENTANIL version of this algorithm

Version History

Version	Date	Summary of Change/Process
1.0	Nov 2019	Adapted from the Sandwell and West Birmingham NHS Trust "Guideline for managing pain in the last days of life for patients with chronic renal impairment"

Scope of guidance

1. This is for use by professionals in all healthcare settings caring for patients with palliative diagnosis and renal impairment in pain who require fentanyl by SC injection or infusion.
2. For the purposes of this document renal impairment may be chronic or acute, and is defined as eGFR <30 mls/min.
3. For the purposes of this document the dying phase is considered to be a prognosis of less than six weeks, or if 'phase of illness' ranking is used then when patient is ranked as 'deteriorating' or 'dying'.
4. This algorithm should be used in conjunction with other [SPAGG guidance](#) relating to the care of patients in the dying phase.

OPIOID CONVERSION TABLE
For use in patient with renal impairment (eGFR<30ml/min)

There is no exact equivalence between opioids therefore starting low and titrating upwards is recommended safe practice.

Approximately equivalent opioid doses for PRN use:

Oral morphine	Morphine injection	Fentanyl injection
5 mg	2.5 mg	25 micrograms
10 mg	5 mg	50 micrograms

DO NOT use these equivalent doses for larger doses without specialist palliative advice, as the small numbers entailed have been rounded up.

Approximately equivalent opioid doses for starting doses in subcutaneous infusions (CSCI):

Oral morphine in 24 hours	Morphine injection via CSCI	Fentanyl injection via CSCI
30 mg	15 mg	150 micrograms
60 mg	30 mg	300 micrograms

Opioid choice in pre-existing renal impairment: Consider not using morphine in continuous infusion for patients with known renal impairment because of the high risk of accumulation and adverse effects.

However it is **not** necessary to routinely check the renal function of all patients thought to be entering the dying phase who are comfortable on their regular opioid- even if they develop undetected renal impairment, it may not be necessary to convert them to alternative unless they develop side effects or signs of opioid toxicity.

Fentanyl's excretion is not affected by renal impairment, which means it is less likely to cause side effects and opioid toxicity due to accumulation in this situation, and is the drug of choice for continuous subcutaneous infusion.

Starting dose of fentanyl CSCI: this should be based on prior opioid requirements and titrated upwards according to the amount of subsequent PRN doses required *in addition* to the continuous infusion – there is no upper limit provided the pain is responding well to the opioid and there are no symptoms or signs of adverse effects or toxicity.

Breakthrough analgesia accompanying fentanyl CSCI: use of fentanyl for 'as required' doses is limited by the volume of solution required at higher doses – do not give more than 100 micrograms at once. An alternative is to use low dose alternative subcutaneous opioid e.g. morphine.

Seek specialist palliative care advice: if converting from alternative strong opioids, if analgesia requirements are escalating or alfentanil (an alternative opioid) is prescribed – fentanyl and alfentanil are **not** interchangeable.

Further information: is available from the WMPCP Guidelines on opioids and dose conversion [here](#).

**Prescribing Algorithm for Pain in patients with renal impairment (eGFR <30mls/min)
using FENTANYL SUBCUTANEOUSLY**

Explanation & psychological support for patient/ carers / family	Exclude treatable causes for pain e.g. constipation	Consider positioning for comfort
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Patient with known renal impairment needs or may need parenteral analgesia

Is patient already taking opioids?

Yes

No

Contact the Specialist Palliative Care Team for advice.

If they are not immediately available, consider:

1. continuing the regular oral opioid and managing with PRN doses, but monitor for symptoms or signs of opioid toxicity
OR
2. use the opioid conversion table to calculate the appropriate fentanyl CSCI dose and discontinue the regular oral opioid.

and seek specialist advice as soon as possible.

**Fentanyl 25micrograms S/C 1 hourly prn^{1,2}
or
Morphine sulphate 1.25mg-2.5 mg S/C 2 hourly prn**

If two or more doses are required over 24 hours consider starting a CSCI of fentanyl 100-200micrograms via syringe driver over 24 hours. PRN dose should be approx. 1/6th of the 24 hour dose.

Example:

150microgram/24 hours give 25 microgram prn or
300microgram/24 hours give 50microgram prn

References:

1. Brown *et al.* (2012) Kidney disease from advanced disease to bereavement. *Oxford Specialist Handbook* (2e). Oxford University Press.
2. Douglas C *et al.* (2009) Symptom management for the adult patient dying with advanced chronic kidney disease: a review of the literature and development of evidence-based guidelines by a United Kingdom Expert Consensus Group. *Palliative Medicine*. **23**: 103–110.
3. Twycross *et al.* (2017) Palliative Care Formulary
4. [West Midlands Palliative Care Physicians Guidelines 2019](#)