

This medicines information leaflet has been produced locally to support primary care and encourage prescribing that is safe, clinically appropriate and cost-effective to the NHS. It is not a clinical guideline.

## Background

- Alfentanil is a strong opioid which can be given by subcutaneous (SC) administration.
- Local palliative care teams consider alfentanil or fentanyl suitable for patients with CKD4 (severe renal impairment) or CKD5 end stage kidney disease (ESKD) i.e. eGFR <30 ml/min where oxycodone or morphine would be less renally safe.
- **Alfentanil is increasingly being used in syringe pumps in local hospice settings.** Alfentanil is available in a more concentrated form than fentanyl; a smaller equivalent dose volume is needed which facilitates administration by syringe pump.
- Alfentanil is not licensed for use as an analgesic nor for administration via the SC route or when mixed with other medicines in a syringe pump. However, it is well documented clinical practice in palliative medicine.
- Alfentanil is a synthetic, lipophilic opioid with a rapid onset of action and a short duration of action. It is metabolised in the liver by CYP3A4 to inactive metabolites which are excreted renally. If metabolism is affected by hepatic impairment (including the effects of ageing) or obesity, alfentanil may accumulate.
- Due to its short duration of action, **alfentanil is not used PRN.** Specialist teams are likely to recommend SC oxycodone for PRN use and advise on using smaller doses than usual.

## BSW Formulary Position and Traffic Light Status (TLS)

**For palliative care indication, alfentanil 500micrograms/1ml solution for injection has AMBER TLS.** GPs may be asked to prescribe alfentanil injections as part of palliative care in the community setting. Prescribing in the community should only be undertaken on Specialist recommendation with clear instructions on dosage. Use care when prescribing to ensure product selection and dose are correct. **Do not abbreviate micrograms due to risk of misreading.** Access the BSWformulary entry [here](#)

Alfentanil is a Schedule 2 controlled drug available in several presentations, most notably as alfentanil 500micrograms/1ml solution for injection ampoules and the high strength alfentanil 5mg/1ml solution for injection ampoules. Note the **high strength preparation is TEN times stronger and is only included on formulary for anaesthetic indications within acute trusts [hospital only therefore RED TLS].**



For prescribing in the community for palliative care indications, select **500microgram/ml strength** preparations available include:  
- 1mg in 2ml  
- 5mg in 10ml

# Use of ALFENTANIL via the subcutaneous route for symptom control in palliative and end of life care patients in the community (Adults).

The Palliative Care team and/or hospice will ensure the GP and community nursing team receive support to ensure safe administration of alfentanil via syringe pump and monitoring of the patient. **The discharge prescription will include full details of the dose of alfentanil. Changes in alfentanil dose post discharge should only be made on the guidance of the Palliative Care Team or hospice.**

The table below highlights the relative strength of SC alfentanil to other opioids currently in wider use in community settings. **For information only: primary care should seek specialist advice.**

Opioid Conversion Chart

Wessex Palliative Physicians Handbook of Palliative Care 9<sup>th</sup> Edition 2019

| 'Strong' opioids |                 |                  |                   |                  |                |                 |                  |                                |                  | Patches           |                  | 'Weak opioids'                 |                  |  |  |                  |                  |
|------------------|-----------------|------------------|-------------------|------------------|----------------|-----------------|------------------|--------------------------------|------------------|-------------------|------------------|--------------------------------|------------------|--|--|------------------|------------------|
| Morphine         |                 |                  |                   |                  | Oxycodone      |                 |                  |                                |                  | Diamorphine       | Alfentanil       | Fentanyl                       | Buprenorphine    | Tramadol                                       | Codeine Phosphate                              |                  |                  |
| Oral (mg)        |                 |                  | Subcutaneous (mg) |                  | Oral (mg)      |                 |                  | Subcutaneous <sup>1</sup> (mg) |                  | Subcutaneous (mg) |                  | Subcutaneous <sup>2</sup> (mg) |                  | Transdermal Patch (mcg/hr)<br>Stable pain only | Transdermal patch (mcg/hr)<br>Stable pain only | Oral (mg)        | Oral (mg)        |
| 4 hr dose (IR)   | 12 hr dose (MR) | 24 hr total dose | 4 hr dose         | 24 hr total dose | 4 hr Dose (IR) | 12 hr Dose (MR) | 24 hr total dose | 4 hr dose                      | 24 hr total dose | 4 hr dose         | 24 hr total dose | 4 hr dose                      | 24 hr total dose | Change every 72 hours                          | Change at intervals indicated                  | 24 hr total dose | 24 hr total dose |
| 1.25             |                 | <b>10</b>        |                   |                  |                |                 |                  |                                |                  |                   |                  |                                |                  |  | 5 7 days                                       | 100              | 120              |
| 2.5              | 10              | <b>20</b>        | 1.25              | <b>10</b>        | 1.25           | 5               | <b>10</b>        | 1.25                           | 5                | 1.25              | 5                | 0.125                          | <b>0.5</b>       |  | 10 7 days                                      | 200              | 240              |
| 5                | 15              | <b>30</b>        | 2.5               | <b>15</b>        | 2.5            | 10              | <b>20</b>        | 1.25                           | <b>10</b>        | 1.25              | <b>10</b>        | 0.125                          | <b>1</b>         | 6-12   | 15 7 days                                      | 300              |                  |
| 7.5              | 20              | <b>40</b>        | 5                 | <b>20</b>        | 5              | 10              | <b>20</b>        | 2.5                            | <b>10</b>        | 2.5               | <b>15</b>        | 0.25                           | <b>1.5</b>       | 12   | 20 7 days                                      | 400              |                  |
| 10               | 30              | <b>60</b>        | 5                 | <b>30</b>        | 5              | 15              | <b>30</b>        | 2.5                            | <b>15</b>        | 2.5               | <b>20</b>        | 0.25                           | <b>2</b>         | 12-25  | 35 72 hrs                                      |                  |                  |
| 15               | 45              | <b>90</b>        | 7.5               | <b>45</b>        | 7.5            | 25              | <b>45</b>        | 3.75                           | <b>25</b>        | 5                 | <b>30</b>        | 0.5                            | <b>3</b>         | 25-37  | 52.5 72 hrs                                    |                  |                  |
| 20               | 60              | <b>120</b>       | 10                | <b>60</b>        | 10             | 30              | <b>60</b>        | 5                              | <b>30</b>        | 7.5               | <b>40</b>        | 0.75                           | <b>4</b>         | 37-50  | 52.5 72 hrs                                    |                  |                  |
| 30               | 90              | <b>180</b>       | 15                | <b>90</b>        | 15             | 45              | <b>90</b>        | 7.5                            | <b>45</b>        | 10                | <b>60</b>        | 1                              | <b>6</b>         | 50-75  |  |                  |                  |

<sup>1</sup>Some units recommend a 1:1 conversion from CSCI morphine to CSCI oxycodone\* rather than the 2:1 conversion in the table above.  
<sup>2</sup>Some units recommend an 18:1 conversion from PO morphine to CSCI alfentanil\* rather than the 30:1 conversion in the table above.  
\*Seek specialist advice when doses are greater than the equivalent of 180mg PO morphine in 24 hours  
Consider reducing the equianalgesic dose by 25-33% if converting from a less sedating opioid, e.g. fentanyl to morphine, oxycodone or diamorphine, as sedative actions may be greater for an equianalgesic dose.

## References and other useful links

### BSW Specialist Contact Information (HCPs only)

- Patients under care of Prospect Hospice: 24-hour advice line: 01793 816109
- Patients under care of Dorothy House Hospice: 24-hour advice line: 0345 0130 555
- Patients under care of Salisbury Hospice: 24-hour advice line: 01722 425113

### Also see:

- RUH - [Palliative Care Guidance for GPs](#)
- GWH and SFT - [Palliative care Prescription Support](#)
- Wessex Pall. Care Handbook, a good practice guide. 9th edition 2019 accessed via [https://www.ruh.nhs.uk/For\\_Clinicians/departments\\_ruh/Palliative\\_Care/symptom\\_management/index.asp?menu\\_id=3](https://www.ruh.nhs.uk/For_Clinicians/departments_ruh/Palliative_Care/symptom_management/index.asp?menu_id=3)
- SPC for Alfentanil 500micrograms/ml soln for inj <https://www.medicines.org.uk/emc/product/6427/smpc>
- MHRA DSU [Medical and non-medical prescribing: mixing medicines in clinical practice - GOV.UK \(www.gov.uk\)](#)
- Scottish Pall. Care Guidelines - Renal Disease in Last Days of Life. [Scottish Palliative Care Guidelines - Renal Disease in the Last Days of Life](#)
- Palliative Care Adult Network Guidelines. [Palliative Care Guidelines Plus \(pallcare.info\)](#)