

Guidelines on the use of Subcutaneous Alfentanil

Indications

Alfentanil is a strong opioid with agonist activity at mu and kappa opiate receptors. It is a suitable alternative to diamorphine and oxycodone in a syringe driver. Its main place in therapy is in patients with renal impairment, as dose adjustment is not normally required (consider use if GFR <30mL/min)

Starting dose of alfentanil – opioid naïve patients

- When opioid naïve a suitable starting dose is 500 micrograms to 1000 micrograms (1mg) subcutaneously over 24 hours.
- The prescribing rules for alfentanil are the same as for morphine/diamorphine in a syringe driver. The subcutaneous breakthrough dose is calculated as being roughly 1/6th of the total 24 hours dose of s/c alfentanil in a syringe driver.

NOTE – alfentanil has short duration of action and prn doses may be needed every 2 hours. But take care to avoid over sedation.

- Increase dose in syringe driver by 30-50% increments if pain is uncontrolled.

Alfentanil is metabolised in the liver to inactive metabolites, and a dose reduction may be needed in hepatic impairment.

Transferring from other opioids to alfentanil

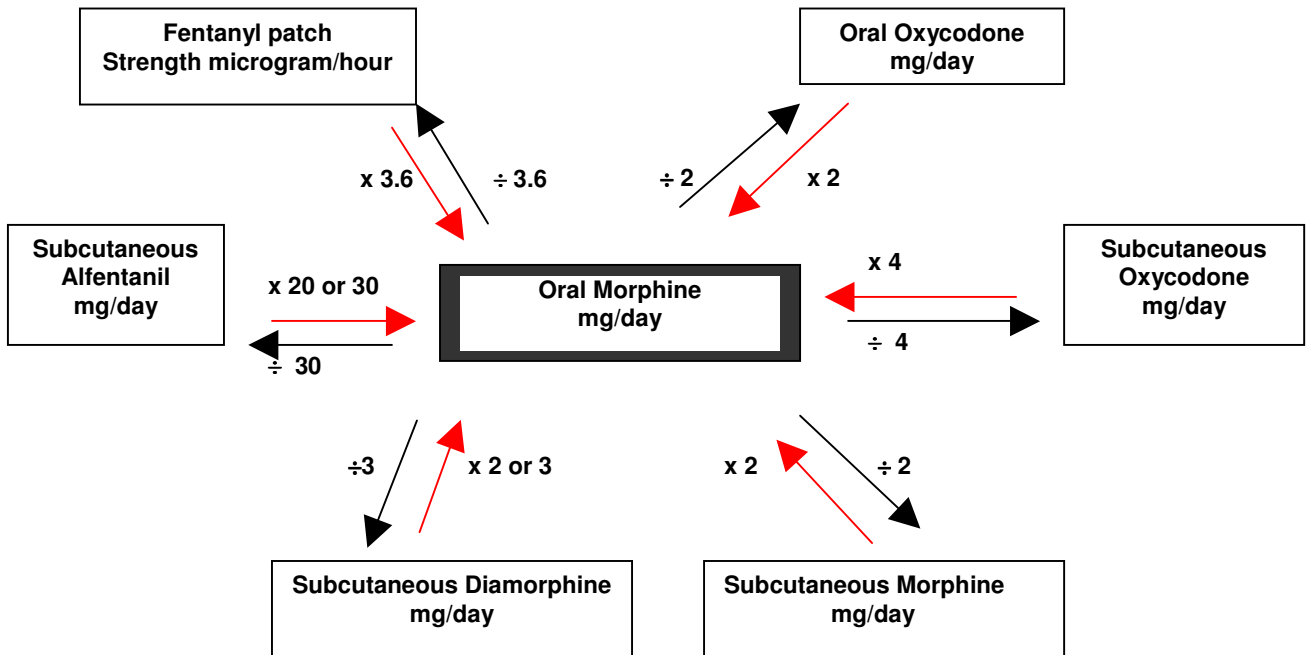
- When converting from other opioids use the conversion overleaf. Always convert current opioid to equivalent oral morphine dose and then convert this to subcutaneous alfentanil. (Note subcutaneous alfentanil is roughly 10 times more potent than subcutaneous diamorphine)
- When converting patients from fentanyl patches to a syringe driver experience suggests that it is better to leave the fentanyl patch in place and top up with the syringe driver. (As a general guide the dose of alfentanil in the syringe driver dose (in mg) should start at 1/50th of the patch strength (in micrograms/hr).

Compatibility and strengths available

- Alfentanil 500 micrograms in 1mL (2mL and 10mL amps) - routinely stocked at YH Pharmacy
- Alfentanil intensive care 5mg/mL - ordered on special request
- Ideally reconstitute with water for injection (or sodium chloride 0.9%) in a syringe driver.
- **Use water for injection if cyclizine is prescribed**
- Appears to be compatible with most drugs in a syringe driver, although has the potential to precipitate with cyclizine at higher concentrations. Avoid mixing alfentanil with cyclizine but if this is absolutely necessary only use water for injection as diluent (not sodium chloride).

Dose conversion chart

To make any conversion from one opiate to another always convert the dose back to an equivalent oral dose of morphine first



Note : These dose conversions are a guide only, based on average doses. At high doses conversion from one opiate to another must be always be reviewed cautiously to avoid sudden opiate toxicity.

Drug Interactions

Alfentanil is metabolised in the liver by the cytochrome P450 3A3/4 enzyme system. Plasma levels can therefore be affected by concurrent use of other drugs that affect these enzymes

Enzyme inducers (may reduce alfentanil levels)	Enzyme inhibitors (may increase alfentanil levels)
Carbamazepine Phenytoin Glucocorticoids	Midazolam Erythromycin Ciprofloxacin Fluconazole