

Guidelines For The Use Of Fentanyl Patches

Fentanyl is a strong opioid, which can be used as an alternative to morphine in patients with moderate to severe pain. Due to its long half-life, it will take at least 12 – 24 hours to achieve therapeutic drug levels and so is only of benefit in patients with **STABLE PAIN**.

Indications For Fentanyl Patches

- Unacceptable side effects from morphine
- Renal failure (can lead to confusion with morphine due to metabolite accumulation)
- Where oral or SC routes are inappropriate or unacceptable
- Compliance is poor but supervised patch application is possible

General Points

- Fentanyl patches should be changed every 3 days, at the same time of day. (Up to 25% of patients may require them to be changed every 48 hours)
- Fentanyl is less constipating than morphine – laxative therapy may require to be altered. (usually halved)
- Direct contact with heat will increase drug absorption
- Patches should be applied to dry, non-inflamed, non-irradiated skin on the upper arm or trunk. They may sometimes require micropore tape for adherence
- Apply new patch to a different skin site to previous patch
- Used patches still contain active drug. Once removed, they should be firmly folded in half and discarded in a sharps box (in-patient units) or in a domestic waste bin (patients at home). It is good practice in in-patient units to record this in the CD register. Patients at home should be reminded that used patches still contain active medicine, and must be kept away from children or animals.

Initiating Fentanyl Patches

N.B A 25mcg/hr patch is roughly equivalent to 90mg/day of oral morphine. This means that they are less suitable for patients who are on only small doses of MST. For advice on these types of patients and dose equivalents of other opioids such as oxycodone, seek advice from pharmacist or specialist palliative care teams.

Patient's Current Regimen	Guidance
12 hourly morphine e.g. MST	Give last dose of MST when applying the first patch. Ensure patient/carer knows when to stop current regular opioid.
4 hourly morphine e.g. Sevredol or Oramorph	Apply the patch in the morning and continue with oral morphine every 4 hours for the next 12 hours.
SC diamorphine Infusion	Apply the patch and continue the SC diamorphine infusion for the next 12 hours, then stop the infusion. For dose conversions, please seek advice from pharmacist or specialist palliative care team.

Breakthrough Analgesia

Breakthrough analgesia should always be available. Establish the equivalent dose of morphine that a patient is on using the rule:

$$25\text{mcg/hr fentanyl patch} \equiv 90\text{mg oral morphine}$$

Divide the total amount of morphine by 6 to estimate the breakthrough dose.

E.g. A patient is on a 50mcg/hr fentanyl patch. This is roughly equivalent to 180mg oral morphine a day. His breakthrough dose is therefore $180/6 = 30\text{mg}$ oral morphine.

30mg of oral normal release morphine (or equivalent dose of alternative opioid) should be prescribed in the "as required" section of the patient's drug kardex or on GP10.

If a patient cannot tolerate oral breakthrough, then the appropriate dose of SC diamorphine could be prescribed.

Adjusting The Dose

- It will take approximately 48 hours to reach steady state levels of fentanyl and so the dose should not be altered until after this time.
- If pain persists on current dose and it is definitely opioid responsive, then the dose of fentanyl patches should be increased in **25mcg increments** (larger increments may be appropriate for patients on high doses but specialist advice should be sought first). **It will take up to 24 hours for any increased dose to take effect.** However, in a small percentage of patients, the effect of dose changes may not be seen until after 48hours, and **dose increases should not be made at intervals of less than 48 or 72 hours.**
- Note that increases in the dose of fentanyl patches are NOT appropriate for patients who have incident pain, but whose pain is otherwise well controlled. Incident pain should be managed by appropriate use of breakthrough analgesia.
- Remove the patch if the patient is showing symptoms of opioid toxicity (e.g. drowsiness, confusion etc). CONTACT SPECIALIST PALLIATIVE CARE TEAM OR PHARMACIST.

Discontinuing Fentanyl Patches

A reservoir of fentanyl accumulates in the skin under the patch. Even after the patch has been removed, significant blood levels can persist for up to 24 hours. Patients should therefore be monitored for signs of opioid toxicity for 24-48 hours, if fentanyl is being changed to another opioid.

Switching From Fentanyl Patch to Oral Morphine (or alternative opioid)

1. Remove patch. Ensure normal release morphine or alternative opioid is prescribed on an 'as required' basis. Use advice from section "Breakthrough Analgesia" to obtain dose.
2. After 12 hours, prescribe a regular dose of normal release opioid 4-hourly in addition to the 'as required' dose.
3. Titrate the patient's opioid requirements for at least 48 hours with a normal release opioid before converting to a controlled release preparation.

Use of Fentanyl Patch with Diamorphine Infusion (End of Life)

1. Continue fentanyl patch at the same dose and change every 3 days unless there are intolerable side effects.
2. Prescribe diamorphine prn for breakthrough. Use "The rule of 5" i.e 4 hourly dose of diamorphine subcutaneously \equiv fentanyl patch strength divided by 5. E.g. fentanyl patch 100mcg/hr - breakthrough is 20mg diamorphine.
3. If the patient is requiring regular SC diamorphine for breakthrough, then the amount required in 24 hours can be given via the syringe driver. This is given in addition to the fentanyl patch.

References: 1. Royal Alexandra Hospital. Adult Drug Formulary 2003

2. Lothian Palliative Care Guidelines. Dec 2001

3. Twycross R et al. Palliative Care Formulary. 2nd Edition. Radcliffe Medical Press.

(originally developed for Royal Alexandra Hospital, Paisley)

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