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NHS Sheffield Clinical Commissioning Group

Guidelines on the use of Transdermal (TD) Opioid (fentanyl and buprenorphine) in a primary care setting

Purpose

These guidelines are designed to support the safe prescribing of opioid patches and reduce unnecessary expenditure.[1] After reports of serious adverse events (including overdoses and deaths), there are regulatory safety warnings about TD fentanyl that are also applicable to TD buprenorphine.[2,3,4]

Acute pain

- Hospital discharge: If prescribed short term after an injury or post-operatively, taper dose and stop in timely manner (i.e after days/weeks rather than months) to avoid long term harms.

Chronic pain (see NICE Guidance NG193: Chronic Pain and Local Guidance)

- **TD Fentanyl: Only initiate for chronic non-cancer pain if supported with advice from a Specialist Pain or Palliative Care Service that the patient is under.**
- TD Buprenorphine: Keep dose low (<35micrograms/hour) and review regularly.
- There is little evidence opioids are helpful in long-term pain.[5] If no objective benefit, taper patch and do not restart. Long-term use (> 3 months) carries increased risk of dependence and addiction, even at therapeutic doses.[6]

Palliative care: See Sheffield Palliative Care Formulary (Sheffield PCF).[7]

Indications for opioid patches

- **Codeine and morphine (slow release Zomorph®) are Sheffield's first choice opioids.**
- Opioid patches should be reserved for patients with stable opioid sensitive pain and at least ONE of the following[2]:
  - ❖ **Oral route is unacceptable due to poor compliance or dysphagia**
  - ❖ **Oral morphine cannot be tolerated due to significant side effects**
  - ❖ **Renal failure**

******Opioid patches have a slow onset and offset for both action and side-effects. Do not use for acute and/or unstable pain[2]******

Prescribe by brand

- To minimise risk with medication errors and ensure continuity for patients prescribe opioid patches by brand. If changing brand counsel patient to avoid confusion.[1,2,8]
  The Sheffield Formulary choice is:
  - **Bunov®** (buprenorphine 7-day patch 5, 10 and 20 micrograms/hour). For 15 micrograms/hour patch apply as a Bunov® 5 and 10 micrograms/hour patch or Butec® 15micrograms/hour. [1].
  - **Transtec®** (buprenorphine 'higher strength' 3- or 4-day patch). Transtec® is a 4-day patch which enables the patch to be replaced on fixed days twice weekly**.**
  - **Mezolar®** (fentanyl 3-day patch).

Patient information

- Patient leaflet: Opioid Patches Patient Information Leaflet (MHRA safety fentanyl PIL (large print)
- **Safety issues**[3,4]
  - **Avoid heating patch or skin. Fever, heat pad or hot bath may increase absorption of drug from the patch causing toxicity and shortening duration of action. Fatalities have occurred as a result.**
  - **Accidental patch transfer to someone else. A patch may cause serious harm if it accidentally touches or sticks to somebody else's skin or if a child puts it in their mouth. This could be life-threatening. Patches should be kept out of reach and sight of children. Dispose of patches safely.**

Rationalise prescribing

- When first starting an opioid patch the current pain relief should be continued for the first 12 hours and then stopped. Only provide pain relief for breakthrough pain if cancer pain or palliative care.
- Co-prescribing a sedating drug e.g benzodiazepine with an opioid should be avoided due to increased risk of sedation and respiratory depression.[9,10,11]

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General prescribing points

- TD opioids are just as likely to cause side effects such as nausea and vomiting, but may reduce constipation. When converting from oral morphine to an opioid patch half the laxative and re-titrate.[1,2]
- For patients who cannot swallow Zomorph® capsules their contents can be administered directly in semi-solid food (puree, jam, yoghurt) (note: they should not be chewed and should normally be swallowed whole. The administration of broken, chewed or crushed capsules or granules may lead to a rapid release and absorption of a potentially fatal dose of morphine.[12]
- Renal failure: buprenorphine is considered safe in renal failure and fentanyl less likely to cause toxicity in renal failure than morphine.[2]
- A maximum of two buprenorphine patches can be applied at any one time.[10,11]
- Patch may need to be removed prior to MRI - discuss with radiology or medicines information.[2]
- See information on opioids and the law around driving: https://www.gov.uk/drug-driving-law

Approximate equivalent doses[5,13]

(refer to tables in: BNF[13] Sheffield PCF[7] and individual SPC[9,10,11])

The initial dose of TD opioid should be based on the patient's opioid history. The fentanyl equivalences in this table are for patients on well-tolerated opioid therapy for long periods.

TD Fentanyl is a potent opioid: Do not use in opioid naïve patient due to risk of respiratory depression.

TD Buprenorphine	Oral morphine 24-hour dose	TD Fentanyl
5 micrograms/hour (7-day patch)	12mg (or codeine 120mg/day or tramadol 120mg/day)	
10 micrograms/hour (7-day patch)	24mg	
	30mg	12 micrograms/hour
15 micrograms/hour (7-day patch)	36mg	
20 micrograms/hour (7-day patch)	48mg	
	60mg	25 micrograms/hour
If using opioid patches for chronic non-cancer pain and no significant improvement of pain with oral morphine equivalent 60mg/day (or fentanyl 25 micrograms/hour or buprenorphine 20 micrograms/hour) refer to pain clinic for further recommendation. Do not increase dose further without specialist advice. ***Opioids aware states: The risk of harm increases substantially at doses above an oral morphine equivalent of 120mg/day, but there is no increased benefit.[5]***		
35 micrograms/hour (3- or 4-day patch)	84mg	
	90mg	37 micrograms/hour
	120mg	50 micrograms/hour
52.5 micrograms/hour (3- or 4-day patch)	126mg	
70 micrograms/hour (3- or 4-day patch)	168mg	
	180mg	75 micrograms/hour
	240mg	100 micrograms/hour

Converting from oral opioid to TD opioid

- Consider seeking specialist advice when selecting the opioid and dose to switch to.[14]
- **Equivalent potencies are only approximate and can be unpredictable.** When converting from one opioid to another, it is often appropriate to use a lower dose than the suggested equivalence above. Close monitoring for side effects and efficacy is mandatory, especially at higher doses.[1]
- If switching where there is possible opioid-induced hyperalgesia, reduce calculated equivalent dose by 25–50%.[14]
- There is a delay of many hours after patch application before therapeutic levels of a drug are reached. Continue regular opioid for the first 12 hours after the patch is applied. For example:
  - 4 hourly medication: apply patch and continue with next three doses of regular analgesia, then discontinue
  - 12 hourly medication: apply patch with last dose of slow-release opioid, then discontinue.[9,10,11]

Dose titration

- The total daily dose should not be increased in steps greater than 50% of the previous total daily dose.[1,2]
- See Sheffield PCF or manufacturer's information for advice on dose titration.

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Patch application and removal:[9,10,11]

- **Always remove the old patch before applying the new patch**.
- Inspect patch prior to use. **Do NOT use cut or damaged patches** (Fentanyl patches are available as matrix and reservoir formulations. Cutting a reservoir patch could lead to leaking and overdose).
- Avoid touching adhesive side of the patch.
- Press the patch firmly in place with palm of the hand for approximately 30 seconds, making sure the contact is complete, especially around the edges[10]. Adhesive tape can be applied around the edges to aid adherence[1] (note this is off licence for fentanyl and the higher strength 3- or 4-day buprenorphine patches).
- Compared with fentanyl, TD buprenorphine (as Transtec®) adheres better. However, after patch removal it is associated with more persistent erythema. This is generally caused by the adhesive, but occasionally by buprenorphine itself. Careful removal of patches minimises skin irritation[2].
- Used patches still contain fentanyl or buprenorphine; See Opioid PIL and manufacturer advice for safe disposal of patches. Any unused patches should be returned to a pharmacy[1].

Rotation of patch application site

- Buprenorphine 7-day patch: leave 3-4 weeks before applying a new patch to the same skin site.[10]
- Buprenorphine 3- or 4-day patch: leave at least 1 week before applying a new patch to the same skin site[11]
- Fentanyl 3-day patch: leave several days before applying a new patch to the same skin site.[9]

Discontinuing opioid patch

- When removing the patch, significant plasma concentrations may exist for ≤24h because of the reservoir of drug within the skin[1,2]. In general, discontinuation of an opioid should be gradual in order to prevent withdrawal symptoms. After discontinuation of TD buprenorphine, withdrawal symptoms are unlikely but cannot be excluded after long term use.[10,11] See Opioid tapering guidance.

Changing from an opioid patch to a different opioid

- Switching from an opioid patch must be undertaken very carefully. Ideally only consider a switch after a break in treatment with opioid patches, or where the patient will be carefully monitored after the switch. If there are any safety risks such as patient or carer confusion then a switch should generally be avoided or risks managed[1]. **For palliative care patients seek specialist advice**.

Buprenorphine:

- At present, only limited information is available on the starting dose of other opioids administered after discontinuation of the buprenorphine patch. After removing a buprenorphine patch it takes around 12 hours for buprenorphine serum concentrations to decrease by 50% for the 7 day patch, and 30 hours for the 4 day patch. As a general rule, a subsequent opioid should NOT be administered within 24 hours after removal of a buprenorphine patch.[10,11]

Fentanyl:

- After removing a fentanyl patch, serum concentrations decrease gradually, taking approx 20 – 27 hours to fall by 50%.[9]

If needing to switch from an opioid patch to an alternative opioid seek specialist advice, particularly when high doses are involved.

Monitor patient for signs of breakthrough pain and opioid toxicity for 24-48 hours

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For manufacturer's information on individual drugs consult the SPCs available at: http://www.medicines.org.uk