*current thinking on...*

# managing pain in palliative care

Welcome to our CPD module series for community pharmacy technicians. Written in conjunction with the *Pharmacy Magazine* CPD series, it will mirror the magazine's programme throughout the year. The series has been designed for you to use as part of your continuing professional development.

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## MODULE NUMBER: 50

**Aim:** To provide an overview of how pain is managed in palliative care and the role that different drugs can play.

**Objectives:** After reading this module, pharmacy technicians will:
- Understand how effective analgesia can be provided to patients
- Be familiar with the drugs used in palliative care pain management.

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, which is often referred to as acute or chronic.

Acute pain serves a vital function – it makes us aware of damage to the body and makes us behave accordingly: in other words, we seek treatment.

Chronic pain (i.e. pain that persists) can be classified as:
- Peripheral – originates from outside the central nervous system (CNS)
- Neuronal – a disturbance in the pain processing mechanism in the brain
- Mixed – a peripheral mechanism that triggers central mechanisms in the brain.

Cancer pain tends to be peripheral in origin since it is caused primarily by damage to surrounding intact tissue from excessive tissue growth (metastases).

### Medical treatment of pain

Analgesia is the process of providing pain relief. Effective analgesia is provided by understanding the underlying cause of the pain.

Inflammatory pain is treated with non-steroidal anti-inflammatory drugs (NSAIDs) or opioids, whereas neuropathic pain, which is characterised by burning, tingling or electric shock type sensations, is mainly treated with tricyclic antidepressant drugs (TCAs) or anti-epileptic drugs (AEDs). For cancer pain, the most effective analgesia is provided by opioids.

The World Health Organization's guidance on the treatment of cancer pain is based upon the progressive use of increasingly potent analgesics, as demonstrated by its 'analgesic ladder', which involves the following three steps:

**Step 1: Mild pain: non-opioid with or without adjuvant**
Simple analgesics like paracetamol or ibuprofen will often suffice. Both drugs are available in different formulations, including dispersible tablets, liquids and suppositories.

While NSAIDS are effective at combating inflammation, they can cause gastrointestinal side effects such as nausea, dyspepsia and even ulceration. Patients receiving regular NSAIDs may also be prescribed omeprazole (20mg) or another proton pump inhibitor (PPI) to protect against gastric bleeding.

Adjuvant analgesics are drugs with other primary indications that are also effective at providing relief from pain. These include some antidepressants (mostly TCAs) and some AEDs.

**Step 2: Mild to moderate pain: a weak opioid with or without a non-opioid or an adjuvant**
Weak opioids such as codeine or dihydrocodeine with or without paracetamol (e.g. co-codamol) and/or an NSAID and, if appropriate, an adjuvant. Tramadol is often used in preference to codeine as it is less constipating and carries a lower risk of addiction, making it more appealing to patients.

**Step 3: Moderate to severe pain: strong opioid with or**

**dealing with breakthrough pain**

Breakthrough pain occurs when the regular analgesic dose of a modified release formulation is insufficient to control the pain. It is characteristically spontaneous/unexpected, of moderate to severe intensity and peaks within one to two minutes. Immediate release (IR) morphine (e.g. Oramorph solution) is usually prescribed.

Breakthrough pain can also be incident-related (i.e. associated with certain actions, such as walking or having a wound dressing changed). The 'breakthrough' medication could therefore be taken in anticipation of an incident. Patients generally report pain relief much more quickly after taking the solution (oramorph) than IR tablets.

**without a non-opioid or an adjuvant**

Morphine is often used to replace the weaker opioids – with or without paracetamol and/or NSAIDs. The combined use of modified release (MR) preparations (e.g. MST) plus immediate release (IR) (e.g. Oramorph) for breakthrough pain is usually effective for controlling pain in most patients.

## Management of chronic cancer pain

Chronic cancer pain is generally treated by the philosophy of "by mouth, by the clock and by the ladder".

- By mouth: the oral route should be first line, but alternative means of administration may be warranted
- By the clock: regular (titrated) doses of analgesia should be given at the specified time (e.g. every 12 hours), regardless of whether pain is occurring or causing distress. 'As required' (prn) doses can be used, but should not form the basis of pain relief
- By the ladder: The WHO pain ladder should be used for reference.

## Doses and formulations

The maximum licensed dose of each of the different analgesic drugs should be used. Morphine IR preparations take about 20 minutes for their analgesic effect to become apparent. Once the patient is stabilised on a 24-hour morphine dose, doses should be administered 12 hourly using an MR preparation.

Some MR formulations can take up to two hours to have an analgesic effect and should NOT be used for breakthrough pain (prn use). Dispensing labels should specify dosing as 'every 12 hours' and not 'twice a day' for MR products.

## Opioid dose escalation

The MR dose of morphine (or any other opioid) should be carefully calculated based on the patient's needs. A number of deaths have occurred recently in patients who had received inappropriate doses. Community pharmacists are in an invaluable position to ensure prescribed doses are safe and appropriate. To reduce dosing errors with opioids, the National Patient Safety Agency recommends that all professionals who prescribe, dispense or administer opioids should:

- Confirm the most recent opioid dose – including formulation and frequency of administration, plus any other analgesic medicines prescribed. Be alert for any unexpected dose increases or for mix-ups between MR and IR preparations
- Where the dose is to be increased, confirm the calculated dose increase is safe for the patient. Always check if in doubt and remember to check all daily doses of opioids, including PRN doses
- Gain familiarity with the medicine being prescribed, dispensed or administered – including the usual starting dose, frequency of administration and standard dosing increments.

## Alternatives to morphine: switching between strong opioids

Some patients have inadequate pain relief or persistent unacceptable side effects which necessitate changing to a different opioid. All opioids have the same spectrum of side effects, but their intensity can vary (see table 1, above).

## Prescribing points

All strong opioids are POM Schedule 2 Controlled Drugs. This means that they are subject to prescription and storage requirements. Midazolam injection 10mg in 2ml is a Schedule 3 Controlled Drug.

Prescriptions for Schedule 2 and 3 Controlled Drugs must meet the legal requirements and must be signed by the prescriber, be dated and specify the prescriber's address. It is illegal to dispense a controlled drug unless all of the information required by law is given on the prescription. This includes:

- Name and address of patient
- The form and, where appropriate, the strength of the preparation
- The total quantity to be supplied in words AND figures*
- The dose.

**Pharmacists can amend the prescription if the total quantity is specified in words but not figures, or if it contains minor typographical errors. At times, particularly during the out of hours period, pharmacists may be faced with an ethical dilemma when presented with an incorrect (illegal) prescription. The primary concern of the pharmacist should be the patient, and any decision made should be in the patient's best interest. It is therefore advisable to keep a record of the decision-making process.*

**Table 1. Alternatives to morphine**

| Drug name | Route of administration | Prescribing information |
|---|---|---|
| Oxycodone<br>Effective within an hour. Duration up to 12 hours | • Oral IR capsules (OxyNorm) or solution and MR tablets (OxyContin)<br>• Subcutaneous and intravenous as injection or infusion | Oral dose: 5mg every 4-6 hours (max 400mg). |
| Hydromorphone | • Oral IR capsules (Palladone) and MR capsules (Palladone SR)<br>• Subcutaneous 'specials' injection | Licensed oral liquid unavailable, but capsules can be opened and the contents sprinkled onto a spoonful of cold, soft food. |
| Buprenorphine | • Sublingual tablets (Temgesic)<br>• Intramuscular injection<br>• Transdermal patch (BuTrans, Transtec) | Patches worn for 72 to 96 hours. |
| Fentanyl | • Transdermal patch (DurogesicDtran)<br>• Sublingual tablets (Abstral)<br>• Buccal tablets (Effentora)<br>• Lozenges/lollipop (Actiq)<br>• Nasal spray (Instanyl) | Long half life – patch should be removed at least 8 hours prior if switching to another formulation.<br>The different formulations and different routes are NOT equipotent. |
| Alfentanil (useful in renal failure) | • Subcutaneous injection<br>• 'Specials' intranasal spray<br>• Tablets | |
| Diamorphine | • Subcutaneous injection | Drug of choice for subcutaneous administration for severe pain. |

## Special uses and orders

It is likely that most community pharmacies will not routinely stock most products prescribed for pain relief in palliative care. These will need to be specially ordered, either through the usual wholesale channels or from 'specials' manufacturers. In both circumstances, delays to supply may occur. Pharmacy staff should communicate such issues early on to patients or carers and other healthcare professionals to help avoid delays in product supply, and increased distress for the patient and/or their carer.

Most of the drugs that have been mentioned are not licensed to be used in this way. Indeed, in palliative care, up to a quarter of all prescriptions written are for licensed drugs given for unlicensed indications, and/or via an unlicensed route or at unlicensed doses. This means that the drug is being used outside of its marketing authorisation – which is also referred to as 'off label' use.

When a licensed medicine is used outside the terms defined by its product licence or marketing authorisation (e.g. outside defined indications, doses, routes of administration or contrary to listed warnings), the prescriber assumes all liability for its use. Since November 2012, if a prescriber wishes to use a product off-licence, he or she must write on the prescription the use for which it is being prescribed (e.g. 'for nausea'). It is generally advised and considered good clinical practice to use a licensed product whenever it is available – regardless of the cost.

## Further reading


- www.palliativedrugs.com
- *Palliative Care Formulary* (PCF4). Available from palliativedrugs.com
- *Oxford Handbook of Palliative Care.* Oxford University Press.


**opioid prescriptions: remember your ABC**

**A:** Anti-emetic when starting opioids

**B:** Breakthrough pain (use short acting-opioid)

**C:** Constipation (ensure softener/stimulant laxatives are prescribed).

## Record your learning

**Once you have read this article, use the following CPD questions to help you reflect on what you have learned and how it might affect your everyday work. Remember to record your learning on the GPhC website if you are registered (www.uptodate.org.uk). Otherwise, it is good practice to record it in your ongoing learning and development folder.**

- What did I learn that was new? ***(Evaluate)***
- How have I put this into practice? (Provide examples of how learning has been applied.) ***(Evaluate)***
- Do I need to learn anything else in this area? ***(Reflect)***

TRAINING MATTERS CPD SUPPORT — REFLECT, PLAN, ACT, EVALUATE

**Next month:** We take a closer look at common winter conditions.