Opioids for the management of persistent non-cancer pain

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**OBJECTIVES**

1. Explain the history of opioid prescription;
2. Describe the pharmacology of opioids;
3. Understand the importance of patient selection when prescribing opioids;
4. Discuss the adverse effects of prescribing opioids.

**REFERENCES**


**Learning objectives**

Each week *Nursing Times* publishes a guided learning article with reflection points to help you with your CPD. After reading the article you should be able to:

- Explain the history of opioid prescription;
- Describe the pharmacology of opioids;
- Understand the importance of patient selection when prescribing opioids;
- Discuss the adverse effects of prescribing opioids.

nociceptive pain, which is the term used to describe acute pain frequently associated with tissue damage or trauma, and chronic pain, which has a longer duration (months or even years).

A significant amount of chronic pain is referred to as neuropathic pain – this arises from current or past damage to peripheral and/or central nerves or diabetic neuropathy, following viral damage and as a result of diseases such as multiple sclerosis. Neuropathic pain commonly consists of unprovoked burning pain in and radiating from the area innervated by the damaged nerves, and an exquisite sensitivity to light-touch stimuli (McMahon and Caffery, 2004).

Until the early 1980s strong opioids were rarely used for the long-term management of patients without life-limiting illness. Current opinion is that in some patients with severe pain, these drugs can provide analgesia and perhaps improve quality of life, without the need for escalating doses (McIlwain and Ahidieh, 2005).

**Long-term opioid use**

Strong opioids have been found effective with a variety of pain conditions in clinical trials but earlier clinical trial data supporting their use related to patients taking the drugs in relatively modest doses over short periods. Trials are now being published with longer time periods (Cowan et al, 2005). Breivik (2005) suggests that trials of several years’ duration are required but these have yet to be performed.

There are still, however, some uncertainties about the safety of using opioids over long periods and more information is needed about their efficacy when prescribed for months and years. It is possible that these drugs may have harmful effects when used on a long-term basis, including endocrine and sexual dysfunction and immunological compromise (Page, 2005; Vallejo et al, 2004). These adverse effects need to be studied further.

The factors discussed above point to the need for responsible prescribing of opioids to achieve a balance between delivering effective pain relief to those who need it and avoiding adverse effects. The British Pain Society (2004), in collaboration with several royal colleges, has produced an excellent resource for health care professionals working with people who might benefit from opioids. This document aims to support responsible prescribing and ensure access to these drugs for those patients who might benefit from their use.
Nurses may not currently prescribe opioids for persistent pain, but they will be involved in the continuing management of patients taking these drugs (Jennings, 2004; Vallerand, 2003). By being familiar with these recommendations, nurses have the potential to influence their implementation.

**Opioids in persistent non-cancer pain**

Persistent non-cancer pain is a significant problem that presents unique challenges to health care professionals. One real concern is the possibility that prescribed opioids may be diverted to people who use them for non-medical reasons. However, a policy studies group in the US has called for a balanced response to this issue, to prevent diversion without interfering with their legitimate use (Gilson et al, 2004).

Marketing authorisation has been granted to a number of opioid drugs for the treatment of severe non-cancer pain and health care professionals are therefore being encouraged by the pharmaceutical industry to prescribe these drugs more frequently. Research undertaken with people who have used opioids for longer periods is emerging but the subject is relatively underexplored (Vallejo et al, 2004; Watt-Watson et al, 2004). It is partly for these reasons that many countries have produced written recommendations about the use of opioids for people with persistent non-cancer pain.

**The pharmacology of opioids**

Opioids are drugs that exert their activity by acting as agonists at opioid receptors and elicit the characteristic actions of natural morphine-like substances. These receptors are widespread throughout the central and peripheral nervous systems.

Table 1 lists examples of non-injectable strong opioids available in the UK.

<table>
<thead>
<tr>
<th>APPROVED NAME</th>
<th>FORMULATION AVAILABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buprenorphine</td>
<td>Sublingual, transdermal</td>
</tr>
<tr>
<td>Diamorphine</td>
<td>Oral</td>
</tr>
<tr>
<td>Dipipanone</td>
<td>Oral</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>Transdermal, transmucosal oral</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>Oral</td>
</tr>
<tr>
<td>Methadone</td>
<td>Oral</td>
</tr>
<tr>
<td>Morphine</td>
<td>Oral</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>Oral</td>
</tr>
<tr>
<td>Pentazocine</td>
<td>Oral</td>
</tr>
<tr>
<td>Pethidine</td>
<td>Oral</td>
</tr>
<tr>
<td>Tramadol*</td>
<td>Oral</td>
</tr>
</tbody>
</table>

Oral formulations may be immediate or modified-release

*Tramadol may behave as a strong or a weak opioid depending on the dose used.

Just as adults and children require different prescribing patterns, individuals may respond to opioids differently and switching patients between different opioids may be worthwhile. Dose ratios may vary and therapy should always be individualised after specialist advice, such as that obtained from specialist pain management or drug information services.

**REFERENCES**


This article has been double-blind peer-reviewed.

For related articles on this subject and links to relevant websites see www.nursingtimes.net
Opioids are classified as strong or weak but the distinction between these groups is not always clear – it may depend on the dose. Examples of weak opioids are codeine and dihydrocodeine. The term weak opioid should not encourage lack of caution in prescribing. While these recommendations do not apply to patients who use weak opioids within the BNF dose range, they do refer to those who use weak opioids outside the range.

**Patient selection**

There is no strong evidence on how to identify patients at high risk of misusing or diverting opioids prescribed as analgesics. Nor are there any defining personality characteristics. Opioids can be used effectively for pain management in people with previous or current drug and alcohol problems, but this requires considerable expertise and very clear requirements and sanctions. That risk must be set against not identifying patients who would benefit from opioids without developing problems.

Unrealistic expectations of excellent analgesia in the prescriber or in the patient can lead to dose escalation, so patients need careful explanation of the likely benefits and adverse effects.

Given that selection is at present based on best clinical judgement, it is inevitable that some patients will start to use opioids outside their prescription.

Addiction, or problem drug use, is defined as frequent use that:

- The user finds difficult to control;
- Causes harmful consequences in terms of the user’s psychological or physical health or social or occupational function;
- Is continued despite the consequences – that is, it is not defined primarily by the development of tolerance and dependence or occurrence of withdrawal symptoms.

Portenoy (1996), on reviewing the evidence, suggested what deviant and nondeviant behaviours might be found in people with pain who were prescribed opioids. Probable deviant behaviours included forging prescriptions, multiple dose escalations, repeatedly obtaining prescriptions from other sources (such as A&E) despite warnings against doing so, and deterioration in work or social function. Behaviours that were probably not deviant included hoarding, complaining about the need for more analgesia, occasional dose escalation and openly obtaining a prescription from another source.

All these behaviours, although they properly cause concern, may actually indicate that the patient is receiving inadequate pain relief. If on increasing the dose the behaviours stop and the patient’s function improves, this is indeed the case; if the behaviours continue and the patient’s function worsens, then a serious problem is the likely explanation.

**Prescribing recommendations**

The primary benefit of the appropriate use of opioids in persistent pain is analgesia. It may also have an indirect benefit of causing patients to make less use of other health care resources.

Patients may experience an improvement in physical function, psychological well-being and sleep (Rowbotham et al, 2003) as well as improved social function (Dysvik et al, 2004). However, opioids should not be used as primary anxiolytics or sedatives.

The drugs must only be used to facilitate rehabilitation that should involve clear goals, with plans for steady progress.

It is important that prescribers exercise judgement and care when considering this treatment and monitor patients on a regular basis.

**Adverse effects of persistent opioid use**

Nausea, vomiting, itching and somnolence are common opioid side-effects. These problems usually occur within the first few days of commencing a drug and decrease with time. However, itching may persist and may preclude continuation of that drug.

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**Guided reflection**

**Use the following points to write a reflection for your PREP portfolio:**

- Detail your place of work and why you read this article;
- Explain how the use of opioids is relevant to your area of practice;
- Outline the main points you have learnt from this article;
- Discuss how you will use this information to improve patient care;
- What action do you intend to take to follow up what you have learnt?