Better MURs for patients with chronic pain

Susan Youssef, senior lecturer at De Montfort University and community pharmacist with Dean & Smedley Ltd, describes some of the problems encountered during medicines use reviews with people with chronic pain and ways of improving care for these patients.

Pain can be described as “chronic” if it persists for more than 12 weeks. Common causes of chronic pain include back pain, osteoarthritis, malignancy and infection. This common symptom is not always optimally controlled so it can be beneficial to use a medicines use review to explore analgesic use and efficacy. Some regions are already developing “MUR plus” pain management schemes. Readers will be aware of the World Health Organization’s analgesic ladder for cancer pain (see Figure 1), and this can be used to focus an MUR.

Mild pain (step 1)
Paracetamol is a suitable first choice analgesic for patients with mild (or mild to moderate) pain and I have found that a common complaint is that it is ineffective. However, many of these patients take subtherapeutic doses (eg, one or two tablets per day), often because they dislike the idea of taking eight tablets a day or because they have been alarmed by reports of overdose in the media. The MUR is an opportunity to inform these patients that maximal pain relief can be gained by using paracetamol’s full therapeutic dose and to reassure them that this is safe.

I have also found that some patients believe they should only take analgesics when in pain and the MUR can be used to explain that taking analgesics regularly rather than at the onset of pain will result in better control — it will prevent breakthrough pain and, importantly, it will avoid frustration and the assumption that an analgesic is not working.

Non-steroidal anti-inflammatory drugs (NSAIDs) can be considered if no benefit is seen from paracetamol alone. (They can be used at any stage of the analgesic ladder unless contraindicated.) All patients prescribed an NSAID for chronic pain should have a proton pump inhibitor prescribed and the MUR is an opportunity to ensure this. If a patient has not been prescribed one, then he or she should be referred to the GP for this to be considered. During a few MURs patients have reported chest tightness (due to bronchospasm) and this has also prompted a review with the GP.

If NSAIDs alone are inadequate at controlling pain then therapeutic doses of paracetamol can be recommended as an adjunct before progressing to step 2 of the analgesic ladder.

Adjuvants can be prescribed at any stage of the analgesic ladder. These are often tried in conditions such as neuralgia, migraine and osteoarthritis, and patients can be made aware that there may be alternative options in addition to conventional pain killers. It should be noted that not all commonly used adjuvants are unlicensed for analgesia.

Mild to moderate pain (step 2)
Codeine and dihydrocodeine are weak opioids suitable at step 2. Codeine has a maximal analgesic effect at 240mg/day and doses above this limit result in greater adverse effects, such as constipation, nausea, vomiting and dry mouth, with little more effect on pain.

Patients who experience constipation may benefit from using a laxative, such as lactulose, regularly to prevent further constipation and the nuisance of subsequent treatment. This applies to all patients on a regular opioid, whether at step 2 or 3 of the analgesic ladder.

Approximately 7 per cent of Caucasians, 3 per cent of black people and 1 per cent of Asians have poor or absent metabolism of codeine (analgesia is thought to be largely due to metabolism to morphine), resulting in a reduced or absent analgesic effect. The analgesic effect of dihydrocodeine appears to be primarily due to the parent compound.

Patients describing ineffective pain control from a weak opioid can be advised also to use therapeutic doses of paracetamol.

MURs are an opportunity to explore any side effects that the patient may be experiencing. The use of tramadol for the management of certain types of mild to moderate chronic pain — particularly back pain — has increased in recent years. The British National Formulary says that at high doses (no more than 400mg a day is usually required) tramadol behaves as a strong opioid. The drug works by enhancing serotoninergic and adrenergic pathways as well as having an opioid effect, and it has low dependence potential. Common side effects include:

- Dose dials may help patients using fentanyl or buprenorphine patches to remember when to change them.

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Step 1 mild pain
Weak opioid
Non opioid
+/– adjuvant

Step 2 mild to moderate pain
Weak opioid
+/– Non opioid
+/– adjuvant

Step 3 moderate to severe pain
Strong opioid
+/– Non opioid
+/– adjuvant

Figure 1: The WHO three-step analgesic ladder.

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nausea, vomiting, constipation, dry mouth, sweating and somnolence.

According to summaries of product characteristics, tolerance, psychic and physical dependence may develop with long-term use and if long-term pain treatment with tramadol is required, “careful and regular monitoring should be carried out (if necessary with breaks in treatment) to establish whether and to what extent further treatment is necessary”.

The use of compound analgesics, such as co-codamol 8/500mg and 30/500mg and co-dydramol, is widespread. Patients can experience similar side effects as with using codeine alone.

Patients taking paracetamol or compound analgesics should be advised to be cautious of using over-the-counter products that contain analgesics should be advised to be cautious of using over-the-counter products that contain analgesics should be advised to be cautious of using over-the-counter products that contain analgesics.

Moderate to severe pain (step 3)

Morphine is often the first-line strong opioid prescribed because it is well tolerated and there are a wide variety of formulations available (e.g., solution, tablets and modified-release preparations). However, over 4,200 reports of dosing errors with strong opioids were reported to the National Patient Safety Agency (NPSA) by June 2008. The NPSA rapid response report, “Reducing dosing errors with opioid medicines”, recommends that dose increases for morphine should be no more than 50 per cent of the previous dose.

Recent dose increases can act as a suitable trigger for an M U R. According to data obtained from N H S Prescription Services for six months in 2009, over three primary care trusts in which Dean & Smedley Ltd pharmacies are located, the four most commonly prescribed opioids in primary care were buprenorphine, fentanyl, morphine and oxycodone.

Panel 1 lists safe recommended dose increases for these opioids and in their most commonly prescribed preparations. Where the summary of product characteristics is not exact or prescriptive, general principles are:

- Increases should be steady.
- Total daily doses should be increased by up to 50 per cent at lower dose ranges (e.g., below 100mg morphine in 24 hours) every two to three days until pain relief is achieved.

If a patient has recently been switched from a weak to a strong opioid, pharmacists should also check that the appropriate conversion factor has been used. Opioid conversion factors can be found in summaries of product characteristics. The NPSA advises that patients switching from one opioid to another require regular assessment of analgesic efficacy and adverse effects experienced. These could be checked during an M U R.

Transdermal fentanyl is suitable for patients who have stable pain and prefer a patch product, patients with swallowing difficulties and those with nausea and vomiting. An M U R is an opportunity to make sure patients prescribed patches are using them correctly — a new patch should be applied to a different skin site from previously (several days should elapse before a site is reused). The area should be dry and hairless.

Patients should also be advised not to apply patches during or after a bath or shower because heat increases the rate of fentanyl release.

During M U Rs I have come across patients who forget to change or remove patches. Such patients might benefit from a “dose dial” which reminds them when the next patch application is due. These are available free from Janssen-Cilag (tel 0800 631 8450).

Buprenorphine is available as four- or seven-day patches (Transteck and BuTrans, respectively). Again the M U R is an opportunity to check that patients have robust reminder mechanisms to ensure that the patch is removed at the correct time and immediately replaced with a new patch on a different skin site. For BuTrans, the same area should be avoided for at least three weeks and for Transteck, the same area should be avoided for at least six days.

Patients who have recently switched to transdermal fentanyl or buprenorphine should be advised that there may be a time-lag from initial patch application until the full therapeutic effect is achieved, so that they do...
not think the drug is ineffective and so that the higher doses are not prescribed unnecessarily. For example, with Durogesic DTrans, the initial evaluation of the analgesic effect should not be made until the patch has been worn for 24 hours. And for BuTrans, analgesic effect should not be evaluated until the patch has been worn for 72 hours. Pharmacists should be aware of this and be wary of rapid dose escalation with transdermal preparations. Some patients may require an additional analgesic until the patches take adequate effect.

With fentanyl and buprenorphine more than one patch may be used to achieve a desired dose but the maximum number of buprenorphine patches that can be used at the same time is two.

Resources
Patients displaying variations in their pain control and who are unable to account for this may benefit from keeping a pain diary to monitor their pain over time and help reveal any triggers. A patient-friendly version of a pain diary is available at www.pfizerlife.co.uk. Patients are asked to rate their pain and to note down what made their pain worse and better. They are also asked what activities they could do and what they could not.

The British Pain Society produces a series of pain scales in several languages. These are designed to improve pain assessment by both patients and healthcare professionals and could allow pharmacists to play a greater part in monitoring analgesia. For example, after an MUR, I sometimes ask patients to score their pain when they bring a repeat prescription.

Community pharmacists can play a valuable role in the management of patients with pain and MURs are an ideal opportunity to do this. Panel 2 contains a checklist of useful points to cover during these MURs.

References

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