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UPDATE
Module 1656

This module covers:

- How chronic pain is managed according to the World Health Organization pain ladder
- How to select an appropriate analgesic dose to manage breakthrough pain if it occurs
- How to identify and manage opioid addiction
- The counselling points to cover when advising about the use of fentanyl patches

MAY »
Central nervous system

Chronic fatigue	May 4
Migraine	May 11
Multiple sclerosis	May 18
Chronic pain	May 25

June is infection month, starting with tuberculosis. This, and a bonus module on hypnotics, will appear online at www.chemistanddruggist.co.uk/update

Chronic pain case studies

Rosemary Blackie MRPharmS

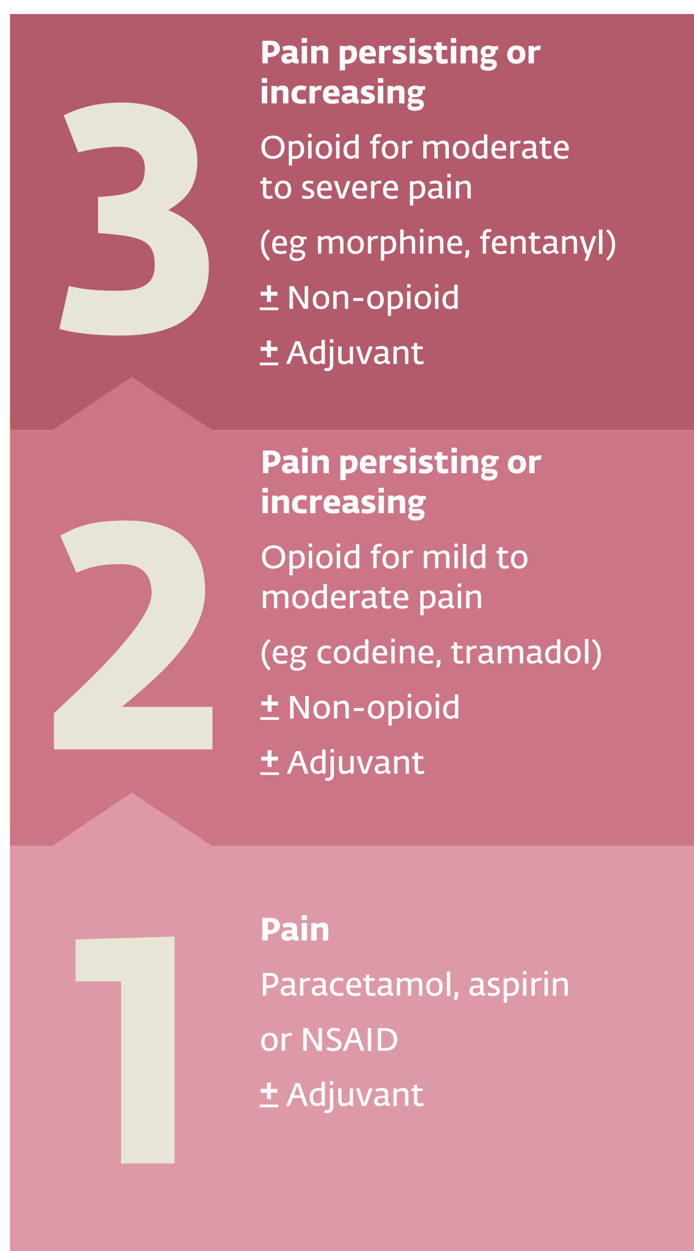
Around 7 million people in the UK suffer from chronic pain; half of these cases are related to back pain. Back pain costs the NHS around £1.3 million daily and causes the loss of around 4.9m working days per year.[1]

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.[2] In many cases pain serves to protect the body by warning there is something wrong that needs action, such as removing a hand from a burning object. However, pain can become distorted so it no longer serves a useful function, for example in hyperalgesia (increased sensitivity to pain).

Pain of less than 12 weeks' duration is classed as acute.[1] Chronic pain is that which continues for more than three months, persisting even after natural healing has taken place,[1] and can be severely physically and emotionally debilitating.

Poorly controlled pain results in an increased risk of morbidity and severely reduced quality of life. The overriding aim of pain management is to ensure best pain control with minimum side effects. Pain management is at its most effective when it deals with problems that the pain causes, rather than physical symptoms.

The World Health Organization analgesic ladder



Case study 1

FRANCIS UPTON

AGE: 65 years

PRESENTATION: Mr Upton had an accident seven months ago that left him with leg pain. His regular monthly prescription is for:

- paracetamol 500mg x 100, one to two, four times a day
- codeine 30mg tablets x 224, two, four times a day
- nefopam 30mg tablets x 168, two, three times a day

Today he also has a prescription for diclofenac 50mg tablets, one, three times a

day. "I am still in pain," he complains. "I'm bunged up and fed up, the paracetamol is no good, and I rattle with tablets."

Discussion

The World Health Organization (WHO) analgesic ladder (see left) describes a stepped approach to pain management and advises medication is taken "by mouth, by the ladder and by the clock". The patient can move up and down the ladder, with adjuvants added at any stage. Other routes can be used if the drugs cannot be taken orally.

Mr Upton is on stage two of the analgesic ladder (paracetamol, a weak opioid and nefopam). The recommended dose of paracetamol is 1g four times daily; Mr Upton is not being given enough tablets to take this dose every day for a month.

Side effects of codeine include constipation and nausea. A laxative, such as macrogol, may need to be taken regularly, and patients should be given advice about fluid and fruit and fibre intake. If nausea is a problem, prophylactic antiemetics can be used.

Diclofenac is the non-steroidal anti-inflammatory drug (NSAID) with the highest cardiovascular risk profile. All NSAIDs should be prescribed at the lowest dose for the shortest time possible. If taken long term, naproxen may be a better option, and a proton pump inhibitor (PPI) should be coprescribed.

Action points

A phone call to the surgery sorts out the paracetamol quantity and Mr Upton is advised about the correct dose. He is also given dietary advice for his constipation and advised to take the diclofenac after food. He promises to see his doctor if the constipation persists or if he has any side effects from the diclofenac.

Case study 2

FRANCIS UPTON

AGE: 65 years

PRESENTATION: About a week later, Mr Upton returns with a prescription for MST 30mg twice daily, but is worried that he will become addicted.

Discussion

Addiction is unlikely when morphine is used appropriately for pain relief. Recommended starting doses for morphine are 20mg to 30mg daily for opioid-naïve patients and 40mg to 60mg daily for those switching from a regular weak opioid. The last codeine dose should be taken at the same time as the first MST dose, and further codeine doses should be avoided to allow clear assessment of pain relief. The number of tablets that Mr Upton has to take will also be reduced, increasing compliance.

For breakthrough pain Oramorph 10mg/ml should be used. If breakthrough pain occurs regularly, the MST dose should be adjusted to take account of how much Oramorph is being taken. The aim is no breakthrough pain with minimal MST side effects.

However, a few weeks later Mr Upton complains of new shooting-type pains that make it hard for him to walk. His doctor refers him to a pain clinic where he is prescribed amitriptyline 10mg once daily. "The internet says this is for depression," he says. "Have they given me the right medicine?"

Amitriptyline is indicated by Nice for neuropathic pain conditions and can be used for a number of different indications.[3] The starting dose for pain is 10mg daily, titrating up according to response and tolerability, to a maximum of 75mg daily. Side effects include dry mouth, drowsiness and urinary retention.[4]

Action points

Mr Upton is advised about the side effects of the amitriptyline and told to return to doctor if the pain relief is inadequate or side effects are intolerable.

Case study 3

JULIA BENFOLD

AGE: 84 years

PRESENTATION: The district nurse brings in a prescription for Mrs Benfold for diamorphine 10mg ampoules, 40mg over 24 hours by syringe driver x five plus other palliative care medicines. She has previously been taking two Zomorph 10mg capsules, twice a day.

Discussion

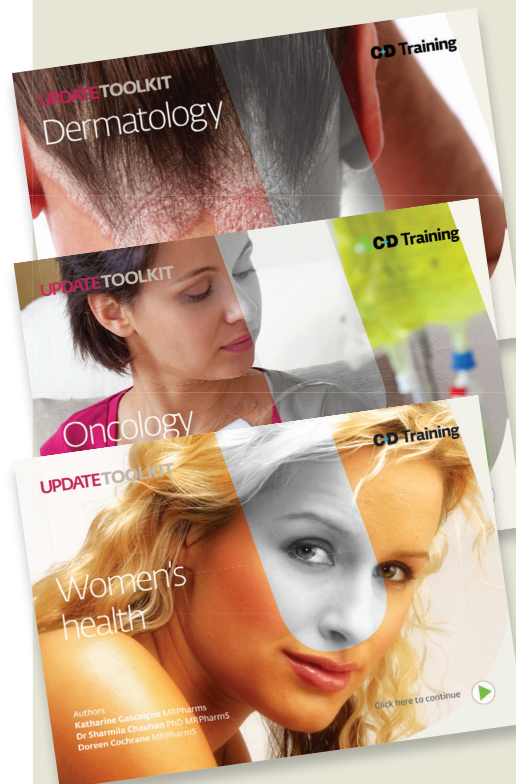
For conversion from oral morphine to diamorphine, the diamorphine dose is calculated by dividing the total daily dose of morphine by one third, so the starting diamorphine dose for Mrs Benfold would be 10mg to 15mg every 24 hours.

If breakthrough pain occurs, the BNF recommends that a subcutaneous or intramuscular injection equivalent to one-tenth to one-sixth of the total daily dose be given. For Mrs Benfold 1.5mg to 2.5mg, as required, should be adequate. It is usually given every four hours, but palliative care teams do use it up to every hour if needed.

Action points

A phone call to the GP is made to sort out the dose and the need for breakthrough pain relief also discussed. Later, the nurse returns with a prescription for diamorphine 50mg/24 hours.

The nurse is asked about the dose increase and she explains Mrs Benfold needed 30mg of extra pain relief in the past 24 hours. The new dose is appropriate because Mrs Benfold has had a total of 40mg administered in the last 24 hours, and the extra is within the recommended safe increase for diamorphine of 30 to 50 per cent.



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Case study 4

KARL SOBOLEWSKI

AGE: 45 years

PRESENTATION: Mr Sobolewski comes into the pharmacy regularly and the counter assistant mentions that he is purchasing co-codamol 8/500mg at least once a week.

Discussion

The MHRA warnings on the over-the-counter sale of medicines containing codeine are that they should be used for no longer than three days due to addiction risk.[6] Mr Sobolewski may have become addicted to the tablets and could also be overusing them.

A number of approaches could be taken, including discussing symptoms, giving advice about alternatives and referral to the GP for appropriate treatment. The pharmacist could also refuse to supply any more tablets or agree to supply within certain parameters.

Records of purchases or sale refusals should be kept. Patients who appear to be overusing pain medication should be advised about the issue of potential addiction, but reassured that it does not mean they are a drug user. Addiction can creep up unawares following initial pain and it is important to get an appropriate diagnosis and treatment by a doctor.

Potential effects of OTC opioid addiction include constipation, paracetamol overdose, side effects, increasing drug-seeking behaviour, medication overuse headaches, and irritability, aggression and agitation.

Action points

Mr Sobolewski admits to feeling that he may have a problem and is advised to consult his GP. He is also given advice about reduction in use and self-help services, and given information about effectively managing pain with over-the-counter medicines.

Case study 5

DOREEN BRANKSOME

AGE: 64 years

PRESENTATION: Mrs Branksome asks about lower back and knee pain, which particularly affects her when walking. She say she has been taking paracetamol, but only when the pain is bad, for the past 14 weeks.

Discussion

Paracetamol should be taken at a dose of 1g every four to six hours. Topical NSAID preparations may be suitable if a history of stomach ulcers rules out oral NSAIDs. They can take up to two weeks to have a full effect but the additional massage is also beneficial. Combination paracetamol/weak opioid products often give more side effects than pain control because 16mg of codeine, four times daily is sub-therapeutic.[7]

Regular exercise should be recommended[8] to ensure good muscle strength and maintain posture, as well as all the other benefits. It should be carried out with care, and within the limits of capacity. GPs can refer patients to structured exercise programmes, manual therapy or acupuncture.[8]

Topical NSAIDs and capsaicin are indicated for osteoarthritis of the knee and studies show that they offer pain relief comparable to oral preparations.[9]

Action points

Mrs Branksome is given information about correct paracetamol doses and exercise and advised to see the GP as this is now chronic pain and should be investigated further.

Case study 6

DOREEN BRANKSOME

AGE: 64 years

PRESENTATION: After speaking with you, Mrs Branksome visits her GP. Later, she brings in a prescription for fentanyl patches 12mcg. "So how do I use these things?" she asks.

Discussion

Fentanyl is a strong opioid that can be administered orally, intransally and transdermally. The first patches should coincide with the last dose of the usual opiate, if used. Adequate pain relief takes about 12 hours[7] so it is not possible to assess pain relief until after this. Immediate-release opioid pain relief should not be given, but non-opioid adjunct therapies should be continued.

Fentanyl patches should be applied to a clean, dry, non-hairy area of the upper arm or torso and the site rotated. The area of application and the patch itself should not be exposed to external heat (including hot baths) as this increases absorption and the risk of side effects, which include respiratory depression drowsiness.[5,10]

Should overdose occur, medical attention is required and patients should be monitored for 24 hours after patch removal.[5] It takes 17 hours or longer for concentrations in the blood to decrease by 50 per cent.[5]

Once used, some active ingredient remains in the patch, so it should be folded in half and discarded safely. Skin irritation can occur and patches should be brand-prescribed.

Action points

Mrs Branksome is given advice about how to apply the patches and their disposal. It is explained that it may take 12 hours for adequate pain relief.

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5 minute test

■ Sign up to take the 5 Minute Test and get your answers marked online: chemistanddruggist.co.uk/update

Take the 5 Minute Test

1. Around 7 million people in the UK suffer from chronic pain.
True or false?

2. Pain is classed as chronic when it continues for more than six months.
True or false?

3. Naproxen is the NSAID with the highest cardiovascular risk profile.
True or false?

4. Recommended morphine starting doses are 20mg to 30mg daily for opioid-naïve patients.
True or false?

5. Side effects of amitriptyline include dry mouth, drowsiness and urinary retention.
True or false?

6. For conversion from oral morphine to diamorphine, the diamorphine dose is calculated by halving the total daily dose of morphine.
True or false?

7. The recommended safe increase in dose for diamorphine is 30 to 50 per cent.
True or false?

8. OTC medicines containing codeine should be used for no than longer than seven days.
True or false?

9. Adequate pain relief with fentanyl patches takes about 48 hours.
True or false?

10. Fentanyl patches should not be exposed to external heat after application as this increases absorption and the risk of side effects.
True or false?

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Tips for your CPD entry on chronic pain

Reflect **After what period of time is pain considered chronic? What is the usual starting dose for oral morphine?**

Plan **This article explores the role of the pharmacist in chronic pain management through a case study approach. It includes information about the World Health Organization (WHO) analgesic ladder, oral morphine doses, neuropathic pain treatment, fentanyl patches and dose increases for diamorphine. The management of pain with over-the-counter medicines is also discussed.**

Act **Read the Update article and the suggested reading (below), then take the 5 Minute Test (above). Update and Update Plus subscribers can then access their answers and a pre-filled CPD logsheet online at chemistanddruggist.co.uk/mycpd.**

Read more about pain and pain relief on the Patient UK website, which also includes information about the WHO analgesic ladder
http://tinyurl.com/chronicpain1

Find out more about neuropathic pain and its treatment from the Patient UK website
http://tinyurl.com/chronicpain2

Read more about opioid analgesics on the Patient UK website
http://tinyurl.com/chronicpain3

Read the patient leaflet about managing pain with OTC medicines on the British Pain Society website and print out or order copies for your patients
http://tinyurl.com/chronicpain4

Revise your knowledge of analgesics from the BNF Section 4.7 Analgesics

Evaluate **Are you now confident in your knowledge of the management of chronic pain conditions? Could you give advice to patients about the different medications available, both OTC and on prescription?**

ASK THE EXPERT

June is infection month and our expert is on hand to answer your queries. From HIV to antibiotics, submit your questions by email: **jennifer.richardson@ubm.com**