

10

Chronic painful conditions

Box 10.1: Case study

Your GP registrar brings some difficult cases to a tutorial with you. The common theme for all three is that the patient is suffering from chronic pain, which is proving difficult to control over time. The three cases are a 70-year-old man with trigeminal neuralgia, a 75-year-old woman complaining of painful cramps and restless legs at night, and a 60-year-old woman whose post-herpetic neuralgia is poorly controlled.

What issues you should cover

Sociocultural factors, age, the type of painful stimulus, genetic makeup and other factors all combine to affect someone's perception of pain. Gender can be a factor too – men have been shown to have a higher threshold and tolerance to pain in research experiments.¹ Women develop chronic pain disorders more frequently than men and tend to describe pain that is more diffuse. Researchers are investigating the possibility that men and women react differently to some pain-relieving drugs.¹

Pain is commonly reported. In one study about half of respondents described having pain or discomfort that persisted continuously or intermittently for longer than three months.² One third of the 25–34 year olds in this study reported such pain compared to around two-thirds of over-65 year olds.

Pain is very disabling. In Scotland, one study showed that the pain experienced by a quarter of people with chronic pain was highly disabling and at least moderately limiting to their daily lives.²

Discuss the nature of chronic pain with patients. They often believe that chronic pain is the same as acute pain, only present all the time. Explain that acute pain is a danger signal that something is wrong. Chronic pain tells you that something has been wrong in the past and the nerves have become used to passing that signal onto the brain. Many people are unwilling to take adequate pain relief for chronic pain because they think they will not be able to receive acute pain warning signals. They need to be aware that they can

relieve chronic pain with analgesics but still be able to feel the acute pain of, for example, cutting themselves on the edge of a tin, or pulling a muscle during over-exertion. Beliefs about how chronic pain happens often lead people into inactivity. They avoid anything that might cause the pain in the short term instead of increasing their activity to improve muscle strength and co-ordination and stretch tight scar tissue to decrease the pain in the long term. Taking enough pain relief to prevent the emergence of pain, that is, prophylactically and not just in response to pain, reduces the passage of the pain messages along the nerves and helps to prevent the nerves becoming 'accustomed to passing that message'. Established pain leads to structural and neurochemical changes in the central nervous system that consolidate the pattern of pain. Taking enough pain relief also permits the graduated and frequent activity that improves chronic pain.

Measuring pain

Measuring the extent of pain that someone is experiencing involves attempting to quantify their description. Doctors and others have used visual analogue scales in an attempt to quantify pain or other measurement scales such as the McGill Pain Questionnaire (MPQ).^{3,4} The short form MPQ consists of 15 descriptive words that are rated according to the intensity and quality of pain. Those using the questionnaire indicate the location of their pain on a paper drawing of their body. It is difficult to apply the MPQ if the patient's perception of pain is constantly varying in terms of its site and intensity. A visual analogue scale is quicker to use, as the patient simply makes a vertical mark on a horizontal line, indicating the intensity of the pain according to the nearness of the mark to the ends of the horizontal line, labelled as nil or extreme pain.

The Pain Society has produced a series of pain scales to assist doctors and other healthcare staff in assessing pain in people for whom English is not their first language. The scales are produced in 16 different languages and can be downloaded from the Internet.⁵

Approaches to chronic pain

Interventions that are available for chronic pain management are presented in Box 10.2. If conventional analgesics relieve chronic pain to an adequate extent with no or with tolerable side-effects, then there is little reason to use other interventions described in Box 10.2 except in accordance with patient preference.

If analgesics are ineffective or cause intolerable side-effects, then the other methods described in Box 10.2 should be considered after checking that the

correct analgesics are being given in the correct dose by the correct route at the correct time.²

Box 10.2: Treatment methods for the relief of chronic pain²

- Analgesics:
 - conventional medication; ranging from paracetamol and non-steroidal anti-inflammatory drugs (NSAIDs) to morphine-like drugs
 - pain-modulating drugs – antidepressant, anticonvulsant and others
- Block nerve transmission:
 - reversible – e.g. local anaesthetic +/- steroid
 - irreversible – nerve destruction e.g. by neurolysis or radiofrequency
- Alternatives
 - stimulators e.g. transcutaneous electrical nerve stimulation
 - acupuncture
 - hypnosis
 - psychological techniques

Paracetamol

Paracetamol is widely used both purchased over the counter and prescribed by health professionals. Its short action leads to breakthrough pain unless it is taken four times daily and it deals inadequately with night pain. It has little anti-inflammatory action. It is often combined with weak opiates in fixed dose combinations.

Aspirin

Aspirin is an effective pain reliever with good anti-inflammatory properties but is limited by its side-effects, especially those of gastrointestinal haemorrhage, in effective dosages for chronic pain.

Non-steroidal anti-inflammatory drugs

NSAIDs are particularly useful when pain has an inflammatory component. Like aspirin, the risk of bleeding, the development of gastrointestinal ulceration, retention of sodium, hypertension and oedema limit their usefulness. They may trigger bronchospasm in susceptible people. Although selective cox-2 inhibitors may be less likely to cause gastrointestinal ulceration and bleeding, they are only safer, not completely safe.

Combination therapy

Using combination therapy may permit lower doses of each agent that may be better tolerated. A combination of NSAIDs with paracetamol may allow control of pain not managed by higher doses of either alone. NSAIDs may be better tolerated if combined with a gastro-protective agent like a proton pump inhibitor.

Opioids

Opioids may induce physical and psychological dependence in people who are not in pain but such dependence does not appear to happen to people who receive them for pain relief. Opiates cause constipation, sometimes urinary retention, and in larger doses may depress respiration and cause drowsiness, confusion, nausea and vomiting, urticaria and pruritus.

The dose is titrated against the extent of pain and increased as the patient's pain increases unless there are intolerable side-effects. Give opioids regularly without waiting for the pain to return.

Codeine, dihydrocodeine, and dextropropoxyphene are weak opiates often used in fixed dose combinations with paracetamol. It may be easier to titrate the dose using the drugs separately to a level where pain is controlled, before choosing a suitable combination. Strong opiates, such as morphine and fentanyl, are very useful for severe continuous pain. They can be combined with NSAIDs for control of severe pain with inflammation e.g. bone pain. They can be given in sustained release oral formulations or delivered by alternative routes such as sublingual, transdermal, by suppository, by subcutaneous infusion or occasionally by an epidermal route (together with a local anaesthetic).² Using a slow release formulation helps to prevent breakthrough pain occurring. Prescribe strong opiates with a stimulant laxative to prevent constipation.

Pain modulating drugs

Amitriptyline is used for pain relief at lower doses than those used in depression, e.g. 10–50 mg, but may still cause problems with a dry mouth, sleepiness and constipation. Other antidepressant medication can also be tried if amitriptyline is not tolerated. Anticonvulsant drugs are used in similar doses for providing analgesia as for controlling fits. Carbamazepine 100 mg three times daily titrating up to 1 g daily is useful for stabbing pain like trigeminal neuralgia, but drowsiness, dizziness, constipation and unsteadiness limit its usefulness at higher doses. Gabapentin 100 mg to 800 mg three times daily is increasingly being used for neuropathic pain and headache. Side-effects of gabapentin also include drowsiness, dizziness, and unsteadiness as well as arthralgia, dysarthria, amnesia, fatigue and weight changes, leucopaenia and

purpura. Antidepressants should be tried first as they may cause fewer side-effects than anticonvulsants.² Other drugs that are sometimes tried include clonidine and other alpha-2 adrenergic agonists, baclofen and ketamine.

Transcutaneous electrical nerve stimulation

Transcutaneous electrical nerve stimulation (TENS) involves electrodes being placed on the skin and different electrical pulse rates being used to stimulate the affected area at different intensities. The electrodes need to be applied for at least an hour at a time. The intensity of delivery of the high-frequency pulses is sufficiently low to avoid muscle contractions. The theory behind the way it works is that when the spinal cord is bombarded with impulses from the TENS machine then it is distracted from transmitting the pain signals from the person's affected painful area. Evidence of benefits for its use are more clear cut for some conditions than others. It is likely to be beneficial for dysmenorrhoea and neck pain, but is of unknown effectiveness for low back pain and sciatica or chronic pain in general.^{2,6-8}

Acupuncture

Acupuncture is needle puncture of the skin at the site of traditional 'meridian' acupuncture sites or trigger points relating to the affected painful area(s). The needles are then stimulated manually or electrically. Most of the trials undertaken in relation to the use of acupuncture have been too small to provide conclusive evidence of its efficacy in chronic pain relief. Most high-quality studies have shown either no benefit or that acupuncture was worse than the controls with which it was compared. Research studies which used methods of investigation ranked as 'low quality' appeared to find that acupuncture had a better treatment effect than research studies where the methods were classified as 'high quality'.²

Psychological treatment

Psychological treatment can be helpful if patterns of response have not become too entrenched. Learning to live with the pain, learning to ignore it and carry on with activities despite the pain can be very valuable but patients may need considerable support to achieve this shift in attitude. Group therapy, well facilitated, can help some patients to come to terms with the disability imposed by the pain and become less fearful and more active. Others may need individual therapy, which is in short supply in the NHS. Depression is a frequent accompaniment to chronic pain. Specific cognitive behavioural therapy and sometimes antidepressants may be required, but chronic pain sufferers are often resentful of efforts to treat their understandable depression

and hopelessness, fearing that the health professional thinks the pain is imaginary or feigned. Some patients may find that learning self-hypnosis techniques can help to control the pain, especially during exacerbations or when trying to increase activity.

Trigeminal neuralgia

Box 10.3: Case study

Mr Lance described the pain on the left side of his face as sharp and stabbing like an electric shock. He had had the pain for a few weeks. It had started out of the blue and the attacks seemed to start for no reason, although sometimes washing his face or brushing his teeth could trigger it. The pain lasted about a minute when it came and he reckoned that he had about 50 episodes per day. The pain was so intense that it stopped him in his tracks or occasionally woke him up from sleep. In all his 70 years he had never known pain like it.

What issues you should cover

Trigeminal neuralgia is an intense pain in the distribution of one or more branches of the fifth cranial nerve, the trigeminal nerve. The pain lasts for between a few seconds and two minutes at a time. The episodes of pain generally occur during the day and not at night. Some people have hundreds of attacks a day while others can go for years between attacks. There are reports of trigeminal neuralgia becoming more severe, with shorter remissions and being less responsive to treatment over time. In general it is people over 50 years old who suffer from it. Some people believe that it is triggered by an ectopic artery in contact with the entry of the trigeminal nerve root in the brainstem. The cause is unknown in most cases. People with multiple sclerosis may develop trigeminal neuralgia at a young age and it is more common in women with hypertension.⁹

You will examine Mr Lance to check that there is no other cause for his facial pain such as dental pain. The episodic nature of the pain and the history of provoking the pain by washing and brushing his teeth are a classical history in trigeminal neuralgia.

Carbamazepine reduces the severity and frequency of the paroxysms of pain. Start at 100 mg one to two times daily, increasing up to a dosage of 200 mg three to four times a day.¹⁰ Adverse effects can include rashes, drowsiness, dizziness, constipation and ataxia. In one study, more than two-thirds of people benefited initially from taking carbamazepine for trigeminal neuralgia, but by 5–16 years later, about half required additional treatments.

Pimozide is a cardiotoxic drug that has been used to treat trigeminal neuralgia that proved refractory to carbamazepine, but its use is restricted because of its toxicity and association with sudden death.⁹ Other drugs that have been used to treat trigeminal neuralgia that are of unknown effectiveness include: baclofen, lamotrigine, tizanidine, phenytoin, clonazepam, sodium valproate, gabapentin and levetiracetam.⁹

Other types of treatments that are tried include: nerve blocks, acupuncture, alcohol injection, radiofrequency thermocoagulation, injection of phenol and laser treatment – over affected or trigger areas. There is no evidence of effectiveness for any of these approaches.⁹

Box 10.4: Case study continued

Mr Lance is one of the lucky ones, and responds well to carbamazepine. The episodes of pain are completely controlled at a dose of 200 mg three times a day.

Restless legs (Ekbom's syndrome)

Box 10.5: Case study

Miss Fidget has come to consult you because of the aching and tingling she gets in her legs whenever she rests in a chair or lies in bed. She complains that the cramps in her legs at night in bed are so severe that they keep her awake. Moving her legs does relieve the aching. She wants some assistance in controlling the pains in her legs and helping her to sleep better.

Restless legs syndrome usually presents in middle or old age. One in 20 of the population suffer from it to a greater or lesser degree. The restlessness feeling gives the sufferer an urge to move their legs, and subsequent movement relieves the aching symptoms. Symptoms are usually worse at night. Some people also describe involuntary jerking of their legs when they are dropping off to sleep. Miss Fidget has a typical presentation.

What issues you should cover

Most cases of restless legs syndrome are idiopathic. Rule out any other diagnosis which might be associated with, or the underlying cause of, the aching limbs or involuntary twitching. When you examine a patient like Miss Fidget, think of the possibilities of Parkinson's disease, pregnancy, sensory neuropathy

(especially that secondary to uraemia or diabetes), side-effects of medication, iron deficiency and rheumatoid arthritis. If any of these conditions were to blame, you would take appropriate action, instigating treatment or altering medication, etc. If there is no underlying condition, you should find that the physical examination is normal.

You would reassure Miss Fidget and explain that her restless legs syndrome had no serious underlying cause, but is likely to be with her for the rest of her life. You might advise her to avoid caffeine or alcohol or stop smoking if any of these are relevant to her lifestyle. She could try hot or cold baths or rubbing her legs. You would check that she has a reasonably nutritious diet and encourage her to take regular exercise. She might get further information about how she can help herself from the Restless Legs Syndrome Foundation or the Ekbohm Support Group.^{11,12}

If self-help measures fail and her sleep is sufficiently disturbed or Miss Fidget cannot tolerate the symptoms, you might try a benzodiazepine such as diazepam or temazepam as an intermittent therapy to avoid tolerance or dependency. In a refractory case, you might prescribe an anticonvulsant such as clonazepam, gabapentin or sodium valproate, or consider dopaminergic drugs, although you would have to discuss these options with Miss Fidget as they are not licensed for the restless legs syndrome.¹³⁻¹⁵

Post-herpetic neuralgia

Box 10.6: Case study

You saw Mrs Belt a couple of months ago when she presented with shingles. By the time she came to see you she had had the zoster rash on the left side of her mid-trunk for about two weeks and was worried that it was not clearing up. At that time, the pain she was experiencing was along the line of the fifth thoracic nerve and there were still crops of vesicles with scabs on, over the area. You decided then that it was too late to institute treatment with an antiviral agent. Now she is still complaining of persistent intense pain and itchiness over the site where the rash had been.

Post-herpetic neuralgia is pain that sometimes follows an acute infection with herpes zoster and the healing of the associated rash. Herpes zoster (shingles) is more common in people over 50 years old. Eleven in 1000 people over 80 years old each year will have a herpes zoster infection.¹⁶ Subsequent neuralgia is more likely the older the person is when they suffer from shingles. About a third of those aged over 80 years develop post-herpetic neuralgia.

Herpes zoster is an acute infection caused by the activation of a latent varicella zoster virus in people who have been rendered vulnerable from a previous attack of chickenpox. It affects the sensory ganglia and the areas of the body they serve.

Neuropathic pain post-herpes zoster infection or from diabetes mellitus is often associated with depression. Treatments for which there is good evidence of pain relief are gabapentin or a tricyclic antidepressant such as amitriptyline.¹⁶ Start gabapentin at 300 mg per day, increased daily until there is sufficient pain relief, up to a maximum of 1.8 g per day.¹⁰ Amitriptyline could be started at 10–25 mg at night, and increased up to 75 mg depending on response.¹⁰ Another option is a topical local anaesthetic preparation such as the cream, capsaicin 0.75%, applied three to four times per day, after the herpes zoster lesions have healed – though the evidence for benefit is uncertain.²

You could encourage Mrs Belt to understand the cause and effects of her neuropathic pain from self-help materials.¹⁷

Box 10.7: Case study continued

Three months later, Mrs Belt's sister developed the pain and rash of herpes zoster, also on her trunk. Mrs Belt encouraged her sister to consult you as soon as the first few vesicles erupted. You were able to prescribe famciclovir 250 mg three times daily for seven days, as she had presented within 72 hours of the onset of the rash.¹⁰ Two months later, she felt well, her rash had cleared and she was no longer experiencing pain over the area where the shingles had been.

Collecting data to demonstrate your learning, competence, performance and standards of service delivery

Example cycle of evidence 10.1

- Focus: relationships with patients
- Other relevant focus: clinical care

Box 10.8: Case study

The pain that Mrs Wrack is experiencing from her osteoarthritis seems unrelenting. She has been on a waiting list for a knee joint replacement for several months and the pain is so severe that she has difficulty getting about in and outside her house. Being the main carer for her husband who has multiple sclerosis compounds Mrs Wrack's problem. Mrs Wrack thinks that using her knee over the years to stabilise her husband when helping him to dress and move from his bed has caused the osteoarthritis.

This is just an example. Keep your task simple. You could choose three or four cycles of evidence to demonstrate your competence each year.

Stage 1: Select your aspirations for good practice

The excellent GP:

- is up to date with developments in clinical practice and regularly reviews his or her knowledge and performance
- only prescribes treatments that make an effective contribution to the patient's overall management
- accompanies referrals with the information needed by the specialist to make an appropriate and efficient evaluation of the patient's problem.

Stage 2: Set the standards for your outcomes

Outcomes might include:

- the way learning is applied
- a learnt skill
- a protocol
- a strategy that is implemented
- meeting recommended standards.

- Develop a treatment schedule for chronic pain relief.
- Conduct an audit of outcomes of patient referrals for conditions with associated chronic pain, including the patients' perspectives, in line with intended practice.

Stage 3A: Identify your learning needs

- Write down your current approach to chronic pain management for patients with and without cancer, as a flow diagram and compare with a published algorithm of best practice.²
- Carry out a survey of patients whom you have treated for chronic pain to determine the extent of pain relief and limitations of daily activities. You might identify ten consecutive patients from requests for repeat prescribing of analgesics or those consulting you as follow ups for pain relief.
- Focus on Mrs Wrack's case and review the original referral letter to see if her home circumstances and caring responsibilities were described to enable the specialist to prioritise her case.

Stage 3B: Identify your service needs

Any of the needs assessment exercises in 3A may also reveal service needs.

- Audit the repeat prescribing of opiates or NSAIDs by asking 20 patients to attend for review of their medication. Find out how long it is since the patient was reviewed, the extent of the pain relief, the existence of any side-effects, and what pain-relieving approaches other than medication have been tried.
- Review the length of time patients with chronic pain are waiting for treatment by others: by a physiotherapist, during the stages in referral to an orthopaedic surgeon and for joint replacement, what equipment is prescribed e.g. a

TENS machine, and the waiting time for an initial appointment at pain clinic. Consider what you might have done to speed any of these processes including supplying evidence to your PCO to influence the commissioning process.

Stage 4: Make and carry out a learning and action plan

- Read up about best practice in relieving chronic pain and the evidence for the various interventions.²
- Attend a couple of sessions at the local pain clinic and learn which patients would benefit from being referred and the interventions used in the clinic. Build links with pain clinic staff to enable you to telephone for advice in the future.
- Compose a treatment policy relating to chronic pain relief in general and for various common conditions. Discuss it at the second session at the pain clinic with the specialist in charge.
- Run an educational session at the practice for other GPs, practice nurses, attached physiotherapists, district nurses and any others with an interest, to share patients' views and present the draft treatment policy for discussion, before accepting it as a practice team.
- Discuss how the agreed treatment policy can be implemented with key people in the practice team and decide what shortfalls there are in terms of resources (e.g. availability of equipment or therapy or over-long referral routes) and liaise with the PCO about unmet needs.

Stage 5: Document your learning, competence, performance and standards of service delivery

- Compare your algorithm of chronic pain relief with best practice.
- Keep the results from the patients' survey of the extent of pain relief.
- Keep the referral letter about Mrs Wrack, appropriately anonymised for your portfolio, and your comments on additional information you might have added that would have helped her case to be prioritised.
- Keep the results of an audit of repeat prescribing of analgesics.
- Review the outcomes of referrals of patients with chronic pain.
- Make notes on best practice from reading.
- Make notes on key learning points from sitting in at the pain clinic.
- Keep a copy of the agreed practice treatment policy for chronic pain.
- Keep a copy of the letter to the PCO detailing shortfalls in provision of treatment for patients with chronic pain.

Box 10.9: Case study continued

The PCO used the information you gathered about the inadequacy of resources for prompt management of patients with chronic pain, to review the effectiveness of the referral pathway. The review group included those representing orthopaedic surgery, the pain clinic, allied health professionals in primary care and several patients who had recently been through the system. This resulted in investment of additional resources at all stages and the evaluation of the changes continues.

Example cycle of evidence 10.2

- Focus: if things go wrong
- Other relevant focus: keeping good records

Box 10.10: Case study

When you came into work today there is a message for you from one of your GP colleagues that one of your patients, Mrs Board, has been admitted as an emergency with a severe haematemesis and she is in a bad way. You see from her computer records that she has been taking NSAIDs for two to three years for her chronic back pain. The message from your colleague has been pinned to the paper medical record, which was taken out on the home visit and then left on your desk. You flick through the hospital letters and, to your horror, you see that she has an old history of a gastric ulcer, which was not considered when she was started on her NSAIDs.

This is just an example. Keep your task simple. You could choose three or four cycles of evidence to demonstrate your competence each year.

Stage 1: Select your aspirations for good practice

The excellent GP:

- contacts the patient soon after it is apparent that a mistake has occurred
- tells the patient what has happened and how it can be put right
- co-operates with any investigation arising from a complaint.

Stage 2: Set the standards for your outcomes

Outcomes might include:

- the way learning is applied
 - a learnt skill
 - a protocol
 - a strategy that is implemented
 - meeting recommended standards.
- Record how the practice team learns from a mistake to minimise a recurrence.
 - Revise the practice protocol for prescribing of NSAIDs in line with recommended practice.

Stage 3A: Identify your learning needs

- Undertake a significant event audit of Mrs Board's case with other GPs responsible for repeat prescribing in your practice.
- Discuss the process for Mrs Board or a relative lodging a complaint with the practice manager and defence society so that you are ready for anything and know how to respond and be fair to Mrs Board.

Stage 3B: Identify your service needs

Any of the needs assessment exercises in 3A may also reveal service needs.

- Invite the prescribing adviser from the PCO, or a local pharmacist, to review or comment on your management of repeat prescribing arrangements with special emphasis on NSAIDs.
- Pull the notes of everyone receiving repeat prescribing of NSAIDs over the course of six weeks to be sure of catching all relevant patients, to check for any past history of peptic ulcer. If you are a paperless or paperlight practice, you should be able to undertake such a check from your computer records.
- Invite Mrs Board (once she is better) and any other patients who have made justified complaints to work with the practice team to review and critique systems and organisation.

Stage 4: Make and carry out a learning and action plan

- Read up about the frequency of adverse effects with NSAIDs, contraindications to treatment and best practice in prescribing.²
- Work with the practice team to learn from the significant event audit of Mrs Board's case, and make an action plan to minimise recurrence (e.g. issue a reminder to patients on NSAIDs to consult to review drug therapy if they experience indigestion; ensure that significant past medical history is flagged up on computer or paper-based medical records).
- Attend a workshop on chronic pain management to learn about the full range of approaches to providing pain relief: their licensed use, relative effectiveness and frequency of adverse effects.

Stage 5: Document your learning, competence, performance and standards of service delivery

- Make notes of the significant event audit and subsequent action plan.
- Keep the revised practice prescribing policy and review arrangements for NSAIDs.
- Keep the report from the pharmaceutical adviser or local pharmacist.
- Keep a record of the review of patients on NSAIDs and their past medical history (with anonymised patient details for your portfolio).
- Record the patients' critique of practice systems and organisation and the subsequent action notes.
- Keep the record of attendance at the workshop on chronic pain management, your reflections on what you have learnt and what you will change once back in the practice.

Box 10.11: Case study continued

Mrs Board quickly recovered from the gastric ulcer seen at endoscopy, once her *Helicobacter pylori* infection was treated. She did not lodge a complaint and accepted your apology for the oversight of her previous ulcer history. She felt partly responsible for her stomach bleed as she recalled how you had warned her to stop taking the NSAIDs if they triggered indigestion. She had ignored that advice as she thought that suffering indigestion was better than the severe back pain.

Example cycle of evidence 10.3

- Focus: research
- Other relevant focus: clinical care

Box 10.12: Case study

A new professor of rheumatology has taken up a post at your local university. He has started several research projects. He is actively recruiting patients for his various trials and asks your practice to refer patients to his team. He needs patients with various conditions who suffer from chronic pain as they want to compare the effects of acupuncture with the use of medication. You can see that patients will benefit from the speedy referral process.

This is just an example. Keep your task simple. You could choose three or four cycles of evidence to demonstrate your competence each year.

Stage 1: Select your aspirations for good practice

The excellent GP:

- protects patients' rights and makes sure that they are not disadvantaged by taking part in research
- has information available on laws and requirements (e.g. research ethics) relating to general practice.

Stage 2: Set the standards for your outcomes

Outcomes might include:

- the way learning is applied
- a learnt skill
- a protocol
- a strategy that is implemented
- meeting recommended standards.

- Ensure the practice has a policy for GPs and staff undertaking research.
- Ensure you have library and learning resources for chronic pain management available.

Stage 3A: Identify your learning needs

- Find out if you can easily access paper-based resources (e.g. books or files) or electronic sites describing best practice in management of trigeminal neuralgia, restless legs, or post-herpetic neuralgia in your practice.
- Reflect on whether you are up to date with current requirements for undertaking research or participating in someone else's research study. Decide if you are clear about research governance, what studies require ethics approval, how you obtain your trust's permission to host research, what information patients need before giving their consent to participate in research, etc.

Stage 3B: Identify your service needs

Any of the needs assessment exercises in 3A may also reveal service needs.

- Compare best practice in treating pain from trigeminal neuralgia, restless legs and post-herpetic neuralgia with the interventions that the university research team are comparing in their research. Seek an independent view (e.g. another specialist from outside the trial) as to whether patients will be disadvantaged by you referring them to the trial, remembering the benefits of a speedy referral process. Alternatively, you could ask to see any peer review already carried out about the proposed research.
- Ask the PCO for a copy of the algorithm describing research governance management systems and guidance on how they affect you. Discuss with others in the practice what systems you need to develop to link into the new NHS requirements.
- Ask several patients to comment on the trial's patient information leaflet to check that it is suitable for patients in your population.

Stage 4: Make and carry out a learning and action plan

- Meet up with the research governance manager for a tutorial on research ethics and research governance systems. Compose a policy for practice staff to fit the legal and NHS requirements.

- Write out what constitutes best practice in treating trigeminal neuralgia, post-herpetic neuralgia and restless legs syndrome. Then compare previous treatment with the next case of each that presents and add notes about any subsequent change of treatment.
- Attend a seminar by the university research team introducing their research plans and put specific questions and queries to the team.
- Compile a list of library or other resources (paper/electronic) your practice needs to buy so that there is sufficient reference material available in relation to chronic pain management and research ethics. Check your choice with the local health librarian if possible and place an order.

Stage 5: Document your learning, competence, performance and standards of service delivery

- Keep a copy of the practice policy on GPs and staff undertaking research.
- List the contents of the reference library in the practice and the resources available in each consulting room (e.g. paper and electronic versions of *Clinical Evidence*¹⁸).
- Keep a copy of the research ethics approval and details of the research study in which you intend to participate.
- Record the questions and answers from the research seminar.
- Keep the checklist of best practice in treatment of chronic pain in trigeminal neuralgia, post-herpetic neuralgia and restless legs syndrome.

Box 10.13: Case study continued

After your preparations in understanding and preparing for participating in the research study, all goes smoothly. Patients are happy with the information leaflet about the trials and most consent to join in. Nearly all the local GPs and practices co-operate to refer suitable patients so that the research study is sufficiently powerful to be able to provide conclusive evidence of relative benefits of the treatments being compared.

References

- 1 Bradbury J (2003) Why do men and women feel and react to pain differently? *Lancet*. **361**: 2052–3.
- 2 Moore A, Edwards J, Barden J *et al.* (eds) *Bandolier's Little Book of Pain*. Oxford University Press, Oxford.

- 3 Melzack R (1975) The McGill Pain Questionnaire: major properties and scoring methods. *Pain*. **1**: 277–99.
- 4 Wilkin D, Hallam L and Doggett MA (1992) *Measures of Need and Outcome for Primary Health Care*. Oxford University Press, Oxford.
- 5 www.painsociety.org/pain_scales.html.
- 6 Proctor M and Farquhar C (2003) Dysmenorrhoea. *Clinical Evidence*. **9**: 1994–2013. www.clinicalevidence.com.
- 7 Binder A (2003) Neck pain. *Clinical Evidence*. **9**: 1277–91. www.clinicalevidence.com.
- 8 van Tulder M and Koes B (2003) Low back pain and sciatica (chronic). *Clinical Evidence*. **9**: 1260–76. www.clinicalevidence.com.
- 9 Zakrzewska J (2003) Trigeminal neuralgia. *Clinical Evidence*. **9**: 1490–8. www.clinicalevidence.com.
- 10 Joint Formulary Committee (2003) *British National Formulary*. British Medical Association/Royal Pharmaceutical Society, London.
- 11 www.rls.org.
- 12 <http://welcome.to/ekbom>.
- 13 Telstad W, Sorensen O, Larsen S *et al.* (1984) Treatment of restless legs syndrome with carbamazepine: a double-blind study. *British Medical Journal*. **288**: 444–6.
- 14 Macmahon D and Chaudhuri R (2003) Identifying and treating restless legs syndrome. *Prescribing in Practice*. 48–52.
- 15 Brodeur C, Montplaisir J, Godbout R *et al.* (1988) Treatment of restless legs syndrome and periodic movements during sleep with L-dopa: a double-blind, controlled study. *Neurology*. **38**: 1845–8.
- 16 Lancaster T, Wareham D and Yaphe J (2003) Postherpetic neuralgia. *Clinical Evidence*. **9**: 890–900.
- 17 www.neuropathy-trust.org.
- 18 www.clinicalevidence.com.

