

Scottish School of Primary Care

GP Clusters

Briefing

Paper 2



Chronic Pain

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Collaborative Quality Improvement in General Practice Clusters

This paper is the second in a series that relates to areas of quality and safety on which general practice clusters could usefully focus improvement activity. Each paper summarises research, guidelines and other evidence about areas of care which can be improved, and improvement methods and interventions.

Chronic Pain

Chronic pain is a highly prevalent condition that impacts greatly on individuals, their families, and the healthcare system – particularly primary care. Much management in primary care tends to focus around prescribing, but long-term use of many analgesics is associated with harm, and there is relatively little evidence to support their long-term effectiveness. This paper reviews the evidence behind some of the main management options for chronic pain in primary care, and presents approaches that are likely to improve patients' quality of life, making better use of primary healthcare, while also improving the safety of the prescribing they receive. However, it also highlights the many important areas where evidence is lacking, and where further research is required.

The problem

Chronic pain is defined as “pain which has persisted beyond normal tissue healing time”, generally taken to be three months.¹ Despite its recognition as a long-term condition in its own right and a clinical priority for Scotland since 2008, it has only been since 2015 that a specific Read Code (1M52) has existed. It is estimated that 20% of adults in Europe suffer from chronic pain,² and that 5.6% of the adult population have severe (i.e. intense and disabling) chronic pain,³ a prevalence similar to those of heart disease, diabetes and major depression. Globally and in Scotland, chronic pain conditions are by far the greatest cause of disability (measured as Years Lived with Disability).⁴ It is more common and more severe in older adults,^{2,3} and the problem is therefore increasing.

Chronic pain affects all aspects of health – physical, psychological, social – and is associated with poor overall quality of life.³ It is one of the commonest comorbidities of other long-term conditions, including heart and respiratory disease, cancer and diabetes.⁵ In particular, it is associated with depression, and this is likely to be bi-directional with pain exacerbating depression and *vice-versa*. Management therefore needs to recognize these diverse needs, and often requires a multi-dimensional, multi-disciplinary approach. Multi-morbidity is important when considering prescribing safety and the application of existing clinical guidelines (see SSPC Briefing Paper 001).⁶

There are an estimated 4.6 million GP appointments/year for chronic pain in the UK (equivalent to 793 full-time GPs).⁷ People with chronic pain consult a GP five times more frequently than those without,⁸ and are three times more likely to be hospitalised.⁹ In Scotland, prescribing of opioids increased 63% in the 10-year period to 2012; this was driven mainly by codeine, but also included tramadol and morphine, each of which more than doubled the number of prescriptions

issued in 2012 compared with 2003.¹⁰ Other analgesic prescribing has increased dramatically too, particularly gabapentin.^{11,12}

What evidence supports chronic pain management in primary care?

The NHS in Scotland has adopted the Scottish Service Model for Chronic Pain (see appendix 2). This recognizes that most chronic pain that presents to the health services is assessed and managed in primary care, but also that patients move between primary care and specialist services (and between primary care and community services).

In 2013, the Scottish Intercollegiate Guideline Network (SIGN) published SIGN 136 *Management of Chronic Pain*, with a revised version in 2019.¹³ This was the first, and remains the only, comprehensive evidence-based guideline for managing chronic pain in the non-specialist setting. It includes recommendations based on systematic reviews of the following management approaches:

- Assessment and planning of care
- Supported self-management
- Pharmacological therapies
- Psychologically-based interventions
- Physical therapies
- Complementary and dietary therapies

This paper will explore some of the key issues arising from the main SIGN recommendations and from other recent sources, to consider core elements for improvement in general practice. Readers are referred to the [full SIGN guideline](#) for further information.

Core elements for quality improvement

1. Assessment and planning of care

Although many formal questionnaires are available for measuring the severity and impact of chronic pain, there is little evidence that any of these directly affect clinical outcomes when compared with standard care. There is, however, consensus that early assessment of pain type (i.e. neuropathic or non-neuropathic) is important for guiding treatment from the start: many drugs that are specifically effective in neuropathic pain are ineffective in other pain types, and *vice-versa*.¹⁴ Screening tools such as the S-LANSS and DN4 are brief, simple to use, can identify neuropathic pain reliably,¹⁵ and have been shown to be feasible to apply in primary care.¹⁶ They cannot replace a standard history and examination, though they might provide a framework to guide this (e.g. identifying relevant pain characteristics). Evidence-based pathways are available to guide pharmacological treatment of neuropathic pain in primary care.^{13,17,18}



As well as distinguishing pain type, it is important to elicit details of the pain history (duration, intensity, location) and impact, associated features (red flags, yellow flags), co-morbidities and relevant biopsychosocial factors. These will guide approaches to treatment, and also provide baseline information against which progress can be compared. The STarTBack questionnaire tool, stratifies patients with back pain into low, medium and high risk of poor outcomes.¹⁹ In an RCT, those at medium risk were referred for physiotherapy, and those at high risk received psychologically augmented physiotherapy. After four months this led to a small but significant difference in disability scores compared to those who had not been stratified, and this remained at 12 months.¹⁹ The STarT tool is being trialled in other chronic pain conditions.

Recording this information is also important to facilitate person-centred care. It is likely that other healthcare practitioners will find the information helpful, both in understanding the patients' needs and in gauging response to treatment. It is not uncommon to find an individual, who is receiving long-term analgesic prescribing, to have little or no specific/obvious information in the primary care medical records to explain the reason for this. There is a Read code for chronic pain (1M52) and one relatively simple clinical improvement would be to develop primary care chronic pain registers by adding this Read code to the records of affected individuals. This will allow audit and review, and begin the process of implementing and measuring other improvements. The International Classification of Diseases will introduce, for the first time, a coding system for chronic diagnoses, with ICD-11 which becomes active in January 2022. This includes the diagnosis, with ICD-11 which becomes active in January 2022. This includes the diagnosis of 'chronic primary pain', defined as 'pain in one or more anatomic regions that persists or recurs for longer than 3 months and is associated with significant emotional distress or functional disability...and that cannot be better explained by another chronic pain condition.'²⁰ This concept and approach will facilitate recording in primary care, and confer other advantages too.²¹

2. Supported self-management

'Self-management' has a wide range of definitions, and an equally wide range of evidence to support its effectiveness. At its most basic, it is management of or by oneself and/or the taking of responsibility for one's own behaviour and well-being, and this is important to support any other interventions in chronic pain – therefore signposting to and application of self-management resources at an early stage in chronic pain is one of the nine Key Recommendations in the SIGN guideline. Several useful, basic resources are available for patient use, including the Pain Toolkit (www.paintoolkit.org) and Moodjuice (<http://www.moodjuice.scot.nhs.uk/ChronicPain.asp>), a Scottish Government site that includes a valuable patient-centred PDF. Other resources are highlighted in the SIGN guideline and at [Scottish NHS websites such as NHS Inform and NHS Lanarkshire](#).

A area for improvement is to share one or more of

these with patients, and to record having done so.

Formal self-management programmes can be lay-led, professionally-led or internet-based. These will often not be available for direct referral from primary care, but Pain Association Scotland runs monthly educational meetings in many areas (to which patients may self-refer) and more intensive 5-week self-management courses (to which GPs or specialists may refer) – see <http://www.painassociation.com/>.

3. Prescribing

Scotland published its National Chronic Pain Prescribing Strategy in 2018.²² This document provides a guide for quality prescribing in chronic pain and provides useful case studies of how some Boards have been successfully tackling the challenges of analgesic prescribing. Other useful resources can be found on the Effective Prescribing and Therapeutics website to support the appropriate initiation and review of analgesics. Prescribing rates of opioids, gabapentinoids and lidocaine plaster are displayed as Scottish National Therapeutic Indicators (NTIs).²³ where trends can be viewed at NHS Board, HSCP, HSCP and Practic level. Interactive graphs displaying the NTIs can be found at <https://scotland.shinyapps.io/nhs-prescribing-nti/>. Some or all are likely to be included soon in Scotland's Atlas of Healthcare Variation.²⁴

As highlighted above, we have seen a substantial rise in rates of analgesic prescribing in Scotland, including weak and strong opioids, gabapentin and topical agents. However, there is little evidence to determine whether this prescribing represents increasing or decreasing quality, a combination of both, or increasing need. There is undoubtedly, because of the ageing population, an increase in the prevalence of chronic pain, but it is unlikely that this fully explains the increases in prescribing.¹⁰ Recent evidence suggests that the rate of increase in analgesic prescribing is slowing, perhaps because prescribers and patients are becoming more aware of the potential harms associated with analgesic use.²⁵ Further research is required, but meanwhile several areas for potential improvement, monitoring and audit are important:^{13, 17}

- Any drug initiated for chronic pain should be subjected to early, frequent and recorded review with the patient, titrated up to maximum tolerated effective dose, and stopped if found to be ineffective or if adverse effects outweigh benefits. This particularly applies to drugs with common serious adverse effects or abuse potential (e.g. strong opioids and gabapentinoids), and/or that are expensive to prescribe (e.g. lidocaine patches). Once the dose is stable and effectiveness has been established, regular recorded review should occur at least every six to twelve months, and more frequently if needed. This review should: (1) confirm ongoing need for and effectiveness of medication; (2) screen for side effects; and (3) adjust dose or discontinue prescription as appropriate.¹³ See also the '7-steps' approach to medicines review in polypharmacy (Appendix 3).²⁹



- Some of the drugs that are effective in one type of pain have little or no evidence of effect in other types, and may cause harm.^{14, 17} For example, gabapentin and pregabalin should not generally be used for pain that is not neuropathic. (and they have recently been reclassified as controlled drugs). Similarly, NSAIDs have no evidence of effectiveness in neuropathic pain. These drugs, when prescribed, should be associated with a recorded diagnosis to match their indication.
- Although effective in short-term pain relief, there is little or no evidence for the effectiveness of long-term use of strong opioids in chronic pain, and these should only be initiated with caution²⁶. Indeed, recent evidence finds that they generally cause more harm than good with long-term treatment.^{13 27} The recent revision of the SIGN Guideline has added to guidance from the British Pain Society (in collaboration with RCGP and other Royal Colleges)³⁰ and the Faculty of Pain Medicine (Royal College of Anaesthetists)³¹ recommending, among other things: (1) only initiating strong opioids after a discussion about realistic treatment goals and after informed discussion around the potential side effects and longer term risks (including loss of effectiveness over time); (2) assessing risk of addiction and misuse before prescribing; and (3) referring to a pain specialist if daily doses of >90mg morphine equivalent are required.

4. Psychological based therapies

Although there is reasonable evidence for the effectiveness of some psychological therapies in chronic pain, it is recognized that these are often difficult to access from primary care. Brief education about chronic pain was shown to reduce sick leave and disability,³² and the beneficial role of education supported in a recent systematic review.³³ An awareness of psychological needs is important, and referral for psychological therapies, for example via specialist pain services, should be considered where appropriate. These include cognitive behavioural therapy (CBT), and multi-disciplinary pain management programmes. There is insufficient evidence currently to recommend approaches such as mindfulness and online-CBT, but these continue to be investigated and may form useful adjuncts to the available armoury of therapeutic options.

There is good evidence that, in patients who have comorbid depression and chronic pain, effective treatment of depression leads to improved pain outcomes.³⁴ Recording an assessment, even brief, of psychological health in patient with chronic pain is therefore likely to lead to improved overall management and outcomes, and could be subjected to audit and review.

Physical activity

There is strong evidence for the benefits of physical exercise and activity as part of the management of chronic pain. The quality of evidence varies between different exercise formats, but a systematic review of Cochrane Reviews of exercise-based interventions for chronic pain found 414 titles and concluded (1) that exercise caused no harm; and (2) that exercise resulted in improved pain intensity, physical function, psychological function and quality of life.³⁵ However, advice alone to remain active is insufficient, and the following have been shown to improve adherence and

outcomes:¹³ supervised exercise sessions; individualised exercises in group settings; addition of supplementary material; and combined group/home exercise programmes. This is a cheap and potentially cost-effective intervention that should be considered and recorded in primary care. Many exercise referral initiatives are available in primary care, and extension of the [PARCS Project](#) (a patient-centred approach to activities for people with chronic illness) to include chronic pain is under consideration.

Implementation in real-life NHS practice

With a condition as common and complex as chronic pain, it is, of course, impossible to provide full multi-dimensional assessment and management to every patient presenting to primary care, at every consultation. This is well-recognized. The focus for improvement should be on those activities that are relatively simple to conduct, and empower patients to be involved in their own care, while optimising safety and effectiveness. This could begin by identifying those in the practice who have chronic pain, now made easier with the advent of the new Read code – this will facilitate future audit and evaluation of improvements, as well as allowing an understanding of each practice's chronic pain population.

One important step is to identify those, from the many presenting with pain, who are at greatest risk of chronicity or problematic pain. The British Pain Society in collaboration with the Faculty of Pain Medicine (Royal College of Anaesthetists) is trialling the use of two screening questions to facilitate a brief assessment, including in primary care:³⁶

1. *In the past month has your pain been bad enough to stop you doing many of your day-to-day activities?*
2. *In the past month has this pain been bad enough to make you feel worried or low in mood?*

A positive response to either of these could prompt, at the least, the recognition of the need for a fuller assessment or review. It may be that, at first, all that is required is signposting to some of the self-management and/or physical activity information highlighted above. Recording the responses and any resources provided will allow future consultations to be better informed.



Similarly, the pressures on prescribing are well-recognized, and influenced by many factors. Our recent research suggests that, while there is great variability in opioid prescribing rates between practices, much of this can be accounted for by factors beyond the practice's control – relative deprivation, urban/rural location, and practice list size.¹⁰ Nonetheless, it is likely that many practices can consider approaches to improving their frequency of review of long-term analgesic prescribing (particularly in the initial stages of a new drug), and the recording of relevant indications.

It is expected that improvements in these areas will lead to the requirement for fewer primary care appointments, as well as in clinical outcomes, and this is backed to some extent by available evidence. However, evidence is generally lacking, and this is partly due to the lack of routine recording of chronic pain as a clinical diagnosis.

Implication for collaborative quality improvement in general practice clusters

Chronic pain is common, complex and demanding on primary care services. Many patients with chronic pain have responded unsatisfactorily to management, and present with very long-term distress and disability. Any improvements in their management, or in the prevention of this long-term distress will reduce healthcare use and increase overall quality of life. This paper has presented some potential improvements that can be implemented in individual practices, and discussed in clusters, perhaps with a view to collaborative approaches to monitoring and evaluation. The available evidence is insufficient to stipulate specific measures, but we hope that these suggestions (Appendix 1) will provide material for discussion, audit and, eventually, improvement.

Chronic pain would be a suitable topic for early implementation of general practice clusters because it is a topic which matters to NHS Scotland, to Health Boards and to GPs caring for patients with a distressing condition. There are a number of indicators, which can be monitored locally and nationally as Therapeutic Indicators²⁸ and in GP clinical IT systems, and for which the focusing of professional attention on clinical assessment, pharmacological therapy and information provision would lead to potentially large reductions in high-risk prescribing with some evidence that associated healthcare use is reduced.

Further reading

- Scottish Intercollegiate Guideline Network Guideline Development Group. 136: *Management of Chronic Pain. A National Clinical Guideline*. Edinburgh: SIGN, 2013. <https://www.sign.ac.uk/sign-136-management-of-chronic-pain.html>

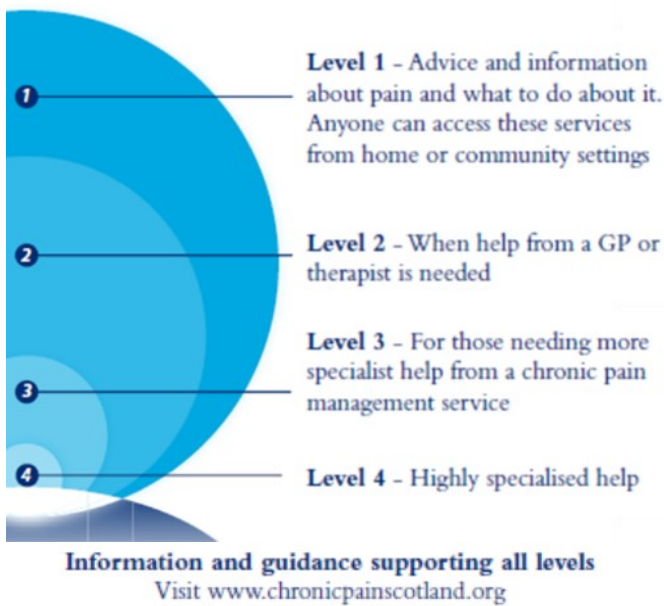
Appendix 1. Proposed quality improvement activities for chronic pain in general practice

1. Establish recording of the diagnosis of chronic pain, using the new Read code – this can be done retrospectively (e.g. from prescribing records) and prospectively, and will form the basis for other audit and improvement activities.
2. Carry out and record an appropriate assessment of patients presenting with chronic pain. This may or may not involve the use of formal assessment tools, but should include some of the basics highlighted above – pain type, duration, cause (if known), site, impact and relevant complicating factors.
3. Develop a basic, easily-accessible resource kit for providing patients with information to support education, self-management and physical activity. This might include some or all of the resources highlighted above. Record when these have been provided.
4. Prescribing reviews. Identify specific drugs or drug classes for which special attention is merited (e.g. strong opioids, gabapentinoids), and identify patients prescribed these long-term. Establish and record periodic (e.g. annual) reviews of these patients, including the dose, effectiveness, adverse effects, and recorded relevant indication(s). Record changes in prescribing that arise.
5. Identify patients with co-morbid chronic pain and depression, and review management of each condition with view to improving the outcomes of the both.

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Appendix 2. Scottish Service Model for Chronic Pain



Level 1 – Most people will be able to manage pain with simple pain killers, gently increasing activity, relaxation and using techniques such as a TENS machine, heat or cold. Voluntary organisations such as Pain Association Scotland, Pain Concern or Arthritis Care can be very helpful. There is also good advice available at chronicpainscotland.org or from pharmacists.

Level 2 – Primary Care – A GP or physiotherapist will be able to assess pain and help with medication, advice or an exercise programme. Some specialist pain management services have clinics in Primary care.

Level 3 – Secondary Care – Hospital Pain Clinics are run in every Health Board in Scotland. They may be able to advise further about treatments that are already being used, or to suggest other treatments. Details of each service can be found in the Service Improvement Groups section of the national website.

Level 4 – These are very specialised services, such as the National Residential Pain Management Programme, in Glasgow or Spinal Cord Stimulation services in Aberdeen, Dundee, Edinburgh and Glasgow.

Appendix 3. The '7-steps' approach to medication review²⁰

Step 1: Identify aims and objectives of drug therapy. Before embarking on a clinical medication review, it is helpful to establish the aims and objectives of drug therapy on the basis of the information available, i.e. patient demographics, medical and drug history, laboratory markers, social situation. Based on this information, likely treatment objectives can often be identified, and will require agreement with the patient (see step 7).

Appendix 3. (continued)

Step 2: Identify essential drug therapy. A rational first step of the medication review is to separate the list of drugs the patient is currently taking into those that are essential and should usually not be stopped from those that could potentially be stopped. Essential drugs in this respect are those that have a replacement function or may cause rapid symptomatic decline or loss of disease control if stopped.

Step 3: Does the patient take unnecessary drug therapy? For the remaining drugs, it should be verified that each has a function in achieving the above defined therapeutic objectives and whether their use is supported by a sufficient up to date evidence base. In addition to stopping drug therapy with expired indications, the continued need for prophylactic treatments in patients with a short life expectancy should be considered.

Step 4: Are therapeutic objectives being achieved?

The next step is to check whether the remaining drugs are the most effective for the indication they are used for and whether they are actually achieving what they are intended to achieve. If this is not the case, the possibility of patient non-adherence should be investigated as a potential explanation. Otherwise, the need for intensifying doses or adding or replacing drugs may also be considered.

Step 5: Is the patient at risk of ADRs or suffering actual ADRs? The presence of ADRs can sometimes be identified from laboratory data (e.g. hypokalaemia from diuretic use), or the patient reports such symptoms. However, ADR identification often requires a more proactive approach of identifying ADR risks (including drug-drug and drug-disease interactions, but also the patient's ability to self-medicate) and asking the patient specific questions (e.g. about the presence of anticholinergic symptoms, dizziness or drowsiness).

Step 6: Is drug therapy cost-effective? Opportunities for cost minimisation should be explored, but changing drugs for cost reasons should only be considered if effectiveness, safety or adherence are not compromised.

Step 7: Is the patient willing and able to take drug therapy as intended? Assessment of adherence has been mentioned in steps 4 and 5 as a way to explain drug therapy failure or identify drug therapy risks, but this step aims at optimising the drug regimen so that adherence is as easy as possible. In order to maximise their involvement and cooperation, patients should be explicitly asked what they hope to achieve from drug therapy and be empowered to make decisions regarding effectiveness versus safety as well as symptom control versus longevity

http://www.sign.ac.uk/pdf/polypharmacy_guidance.pdf



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