NICE National Institute for Health and Care Excellence

Royal College of Physicians

NICE guideline

Chronic pain (primary and secondary) in over 16s: assessment of all chronic pain and management of chronic primary pain

NICE guideline
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Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the Yellow Card Scheme.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Contents

This guideline replaces ESUOM27.

This guideline should be read in conjunction with CG150, CG61, NG59, CG173, CG177, NG100 and NG65.

Overview

This guideline covers assessing all chronic pain (chronic primary pain, chronic secondary pain, or both) and managing chronic primary pain in people aged 16 years and over. Chronic primary pain is pain with no clear underlying cause, or pain (or its impact) that is out of proportion to any observable injury or disease.

This guideline should be used alongside NICE guidelines for other chronic pain conditions, including the NICE guidelines on headaches, low back pain and sciatica, rheumatoid arthritis, osteoarthritis, spondyloarthritis, endometriosis, neuropathic pain and irritable bowel syndrome.

See a visual summary setting out how to use NICE guidelines for assessing and managing chronic primary and chronic secondary pain.

The recommendations in this guideline were developed before the COVID-19 pandemic.

This guideline was commissioned by NICE and developed in partnership with the Royal College of Physicians (RCP).

Who is it for?

- Healthcare professionals
- Commissioners and providers of services
- People with chronic primary pain and chronic secondary pain, their families and carers

Context

Chronic pain (sometimes known as long-term pain or persistent pain) is pain that lasts for more than 3 months. Pain can be secondary to (caused by) an underlying condition (for example, osteoarthritis, rheumatoid arthritis, ulcerative colitis, endometriosis). Chronic pain can also be primary. Chronic primary pain has no clear underlying condition or the pain (or its impact) appears to be out of proportion to any observable injury or disease. The decisions about the search for any injury or disease that may be causing the pain, and about whether the pain or its impact are out of proportion to any identified injury or disease, are matters for clinical judgement in discussion with the patient. The mechanisms underlying chronic primary pain are only partially understood and the definitions are fairly new. All forms of pain can cause distress and disability, but these features are particularly prominent in presentations of chronic primary pain. This guideline is consistent with the ICD-11 definition of chronic primary pain.

ICD-11 gives examples of chronic primary pain, including fibromyalgia (chronic widespread pain), complex regional pain syndrome, chronic primary headache and orofacial pain, chronic primary visceral pain and chronic primary musculoskeletal pain. These specific conditions were used as search terms for the evidence underpinning the recommendations in this guideline, along with more general terms that describe studies in chronic pain populations. Categorisations may change with time and advances in understanding of disease mechanisms.

Section 1.1 of this guideline covers assessment for people living with all types of chronic pain (chronic primary pain, chronic secondary pain, or both). The experience of pain is always influenced by social factors (including deprivation, isolation, lack of access to services), emotional factors (including anxiety, distress, previous trauma), expectations and beliefs, mental health (including depression and post-traumatic stress disorder) and biological factors. When assessing chronic primary pain and chronic secondary pain, these potential contributors to the presentation should be considered.

Section 1.2 of this guideline contains recommendations for managing chronic primary pain. Recommendations for managing chronic secondary pain can be found in the NICE guidelines for those conditions. Diagnostic categories may overlap and primary and secondary pain conditions may coexist. In these cases, management should be guided by both this guideline and the NICE guideline for the secondary pain condition.

In the UK the prevalence of chronic pain is uncertain, but appears common, affecting perhaps one-third to one-half of the population. It is not known what proportion of people with chronic pain either need or wish for treatment. The prevalence of chronic primary pain is unknown, but is estimated to be between 1% and 6% in England.

Recommendations

People have the right to be involved in discussions and make informed decisions about their care, as described in NICE's information on making decisions about your care.

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

1.1 Assessing all types of chronic pain (chronic primary pain, chronic secondary pain, or both)

This section covers all types of chronic pain (pain that persists or recurs for more than 3 months). It includes chronic primary pain (in which no underlying condition adequately accounts for the pain or its impact) and chronic secondary pain (in which an underlying condition adequately accounts for the pain or its impact).

Chronic primary pain and chronic secondary pain can coexist.

These recommendations aim to inform a care and support plan by setting out a comprehensive person-centred assessment of the causes and effects of pain and agreeing possible management strategies, including self-management.

Person-centred assessment

1.1.1 Offer a person-centred assessment to those presenting with chronic pain (chronic primary pain, chronic secondary pain, or both), to identify factors contributing to the pain and how the pain affects the person's life.

1.1.2 When assessing and managing any type of chronic pain (chronic primary pain, chronic secondary pain, or both) follow the recommendations in the

NICE guidelines on patient experience in adult NHS services and shared decision making, particularly relating to:

- knowing the patient as an individual
- enabling patients to actively participate in their care, including:
  - communication
  - information
  - shared decision making.

1.1.3 Foster a collaborative and supportive relationship with the person with chronic pain.

Thinking about possible causes for pain

1.1.4 Think about a diagnosis of chronic primary pain if there is no clear underlying (secondary) cause or the pain or its impact is out of proportion to any observable injury or disease, particularly when the pain is causing significant distress and disability.

1.1.5 Make decisions about the search for any injury or disease that may be causing the pain, and about whether the pain or its impact are out of proportion to any identified injury or disease, using clinical judgement in discussion with the person with chronic pain.

1.1.6 Recognise that an initial diagnosis of chronic primary pain may change with time. Re-evaluate the diagnosis if the presentation changes.

1.1.7 Recognise that chronic primary pain can coexist with chronic secondary pain.

Talking about pain – how this affects life and how life affects pain

1.1.8 Ask the person to describe how chronic pain affects their life, and that of their family, carers and significant others, and how aspects of their life may affect their chronic pain. This might include:

- lifestyle and day-to-day activities, including work and sleep disturbance
- physical and psychological wellbeing
- stressful life events, including previous or current physical or emotional trauma
- current or past history of substance misuse
- social interaction and relationships
- difficulties with employment, housing, income and other social concerns.

1.1.9 Be sensitive to the person's socioeconomic, cultural and ethnic background, and faith group, and think about how these might influence their symptoms, understanding and choice of management.

1.1.10 Explore a person's strengths as well as the impact of pain on their life. This might include talking about:

- their views on living well
- the skills they have for managing their pain
- what helps when their pain is difficult to control.

1.1.11 Ask the person about their understanding of their condition, and that of their family, carers and significant others. This might include:

- their understanding of the causes of their pain
- their expectations of what might happen in the future in relation to their pain
- their understanding of the outcome of possible treatments.

1.1.12 When assessing chronic pain in people aged 16 to 25 years, take into account:

- any age-related differences in presentation of symptoms
- the impact of the pain on family interactions and dynamics

- the impact of the pain on education and social and emotional development.

  See the NICE guideline on transition from children's to adult's services for young people using health or social care services.

1.1.13 Recognise that living with pain can be distressing and acknowledge this with the person with chronic pain.

Providing advice and information

1.1.14 Provide advice and information relevant to the person's individual preferences, at all stages of care, to help them make decisions about managing their condition, including self-management.

1.1.15 Discuss with the person with chronic pain and their family or carers (as appropriate):

- the likelihood that symptoms will fluctuate over time and that they may have flare-ups
- the possibility that a reason for the pain (or flare-up) may not be identified
- the possibility that the pain may not improve or may get worse and may need ongoing management
- there can be improvements in quality of life even if the pain remains unchanged.

1.1.16 When communicating normal or negative test results, be sensitive to the risk of invalidating the person's experience of chronic pain.

Developing a care and support plan

1.1.17 Discuss a care and support plan with the person with chronic pain. Explore in the discussions:

- their priorities, abilities and goals
- what they are already doing that is helpful

- their preferred approach to treatment and balance of treatments for multiple conditions
- any support needed for young adults (aged 16 to 25) to continue with their education or training, if this is appropriate.

1.1.18 Explain the evidence for possible benefits, risks and uncertainties of all management options when first developing the care and support plan and at all stages of care.

1.1.19 Use these discussions to inform and agree the care and support plan with the person with chronic pain and their family or carers (as appropriate).

1.1.20 Offer management options:

- in line with section 1.2 of this guideline if the assessment suggests the person has chronic primary pain
- in line with the NICE guideline for the underlying chronic pain condition if the underlying condition adequately accounts for the pain and its impact (see the NICE guidelines on headaches, low back pain and sciatica, rheumatoid arthritis, osteoarthritis, spondyloarthritis, endometriosis, neuropathic pain and irritable bowel syndrome).

1.1.21 When chronic primary pain and chronic secondary pain coexist, use clinical judgement to inform shared decision making about management options in section 1.2 of this guideline and in the NICE guideline for the chronic pain condition.

Flare-ups

1.1.22 Offer a reassessment if a person presents with a change in symptoms such as a flare-up of chronic pain. Be aware that a cause for the flare-up may not be identified.

1.1.23 If a person has a flare-up of chronic pain:

- review the care and support plan

- consider investigating and managing any new symptoms
- discuss what might have contributed to the flare-up (see recommendation 1.1.8 for influences on the experience of pain).

For a short explanation of why the committee made these recommendations and how they might affect practice, see the rationale and impact section on assessing chronic pain.

Full details of the evidence and the committee's discussion are in evidence review A: factors that may be barriers to successfully managing chronic pain (chronic primary pain and chronic secondary pain) and evidence review B: communication between healthcare professionals and people with chronic pain (chronic primary pain and chronic secondary pain).

See also the rationale section on pain management programmes.

Full details of the evidence and the committee's discussion are in evidence review C: pain management programmes for chronic pain (chronic primary pain and chronic secondary pain).

1.2 Managing chronic primary pain

This section covers managing chronic primary pain (in which no underlying condition adequately accounts for the pain or its impact). Chronic primary pain and chronic secondary pain can coexist.

Non-pharmacological management of chronic primary pain

Exercise programmes and physical activity for chronic primary pain

1.2.1 Offer a supervised group exercise programme to people aged 16 years and over to manage chronic primary pain. Take people's specific needs, preferences and abilities into account.

1.2.2 Encourage people with chronic primary pain to remain physically active for longer-term general health benefits (also see NICE guidelines on physical activity and behaviour change: individual approaches).

For a short explanation of why the committee made these recommendations and how they might affect practice, see the rationale and impact section on exercise programmes and physical activity for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review E: exercise for chronic primary pain.

Psychological therapy for chronic primary pain

1.2.3 Consider acceptance and commitment therapy (ACT) or cognitive behavioural therapy (CBT) for pain for people aged 16 years and over with chronic primary pain, delivered by healthcare professionals with appropriate training.

1.2.4 Do not offer biofeedback to people aged 16 years and over to manage chronic primary pain.

For a short explanation of why the committee made these recommendations and how they might affect practice, see the rationale and impact section on psychological therapy for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review F: psychological therapy for chronic primary pain.

Acupuncture for chronic primary pain

1.2.5 Consider a single course of acupuncture or dry needling, within a traditional Chinese or Western acupuncture system, for people aged 16 years and over to manage chronic primary pain, **but only if** the course:

- is delivered in a community setting **and**

- is delivered by a band 7 (equivalent or lower) healthcare professional with appropriate training **and**
- is made up of no more than 5 hours of healthcare professional time (the number and length of sessions can be adapted within these boundaries) **or**
- is delivered by another healthcare professional with appropriate training and/or in another setting for equivalent or lower cost.

For a short explanation of why the committee made this recommendation and how it might affect practice, see the rationale and impact section on acupuncture for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review G: acupuncture for chronic primary pain.

Electrical physical modalities for chronic primary pain

1.2.6 Do not offer any of the following to people aged 16 years and over to manage chronic primary pain because there is no evidence of benefit:

- TENS
- ultrasound
- interferential therapy.

For a short explanation of why the committee made this recommendation and how it might affect practice, see the rationale and impact section on electrical physical modalities for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review H: electrical physical modalities for chronic primary pain.

Pharmacological management of chronic primary pain

For guidance on safe prescribing and managing withdrawal of antidepressants and

dependence-forming medicines, see NICE's guideline on medicines associated with dependence or withdrawal symptoms.

1.2.7 Consider an antidepressant, either amitriptyline, citalopram, duloxetine, fluoxetine, paroxetine or sertraline, for people aged 18 years and over to manage chronic primary pain, after a full discussion of the benefits and harms.

In April 2021, this was an off-label use of these antidepressants. See NICE's information on prescribing medicines.

1.2.8 Seek specialist advice if pharmacological management with antidepressants is being considered for young people aged 16 to 17 years.

1.2.9 If an antidepressant is offered to manage chronic primary pain, explain that this is because these medicines may help with quality of life, pain, sleep and psychological distress, even in the absence of a diagnosis of depression.

1.2.10 Do not initiate any of the following medicines to manage chronic primary pain in people aged 16 years and over:

- antiepileptic drugs including gabapentinoids, unless gabapentinoids are offered as part of a clinical trial for complex regional pain syndrome (see the recommendation for research on pharmacological interventions)
- antipsychotic drugs
- benzodiazepines
- corticosteroid trigger point injections
- ketamine
- local anaesthetics (topical or intravenous), unless as part of a clinical trial for complex regional pain syndrome (see the recommendation for research on pharmacological interventions)
- local anaesthetic/corticosteroid combination trigger point injections

- non-steroidal anti-inflammatory drugs
- opioids
- paracetamol.

  Pregabalin and gabapentin (gabapentinoids) are Class C controlled substances (under the Misuse of Drugs Act 1971) and scheduled under the Misuse of Drugs Regulations 2001 as Schedule 3. Evaluate patients carefully for a history of drug misuse before prescribing and observe patients for development of signs of misuse and dependence (MHRA Drug Safety Update April 2019).

1.2.11 If a person with chronic primary pain is already taking any of the medicines in recommendation 1.2.10, review the prescribing as part of shared decision making:

- explain the lack of evidence for these medicines for chronic primary pain **and**
- agree a shared plan for continuing safely if they report benefit at a safe dose and few harms **or**
- explain the risks of continuing if they report little benefit or significant harm, and encourage and support them to reduce and stop the medicine if possible.

1.2.12 When making shared decisions about whether to stop antidepressants, opioids, gabapentinoids or benzodiazepines, discuss with the person any problems associated with withdrawal. For more information, see the section on making shared decisions about withdrawing medicines in NICE's guideline on medicines associated with dependence or withdrawal symptoms.

1.2.13 For recommendations on stopping or reducing antidepressants or dependence-forming medicines, see:

- the section on medication review in NICE's guideline on medicines optimisation and
- the section on reviewing medicines in NICE's guideline on medicines adherence and

- the section on reviewing a dependence-forming medicine or antidepressant in NICE's guideline on medicines associated with dependence or withdrawal symptoms

1.2.14 For recommendations on reviewing treatments, see:

- the section on medication review in NICE's guideline on medicines optimisation and
- the section on reviewing medicines in NICE's guideline on medicines adherence and
- the section on reviewing a dependence-forming medicine or antidepressant in NICE's guideline on medicines associated with dependence or withdrawal symptoms.

1.2.15 For recommendations on cannabis-based medicinal products, including recommendations for research, see the NICE guideline on cannabis-based medicinal products.

For a short explanation of why the committee made these recommendations and how they might affect practice, see the rationale and impact section on pharmacological management for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review J: pharmacological management for chronic primary pain.

Terms used in this guideline

Chronic pain

Pain that persists or recurs for more than 3 months. This includes both chronic primary pain and chronic secondary pain, which can coexist. Other terms used include persistent pain and long-term pain.

Chronic primary pain

Chronic primary pain has no clear underlying condition or the pain or its impact is out of proportion to any observable injury or disease. The mechanisms underlying chronic primary pain are only partially understood and the definitions are fairly new. All forms of pain can cause distress and disability, but these features are particularly prominent in presentations of chronic primary pain. This guideline is consistent with the ICD-11 definition of chronic primary pain.

Fibromyalgia (chronic widespread pain) is a type of chronic primary pain. ICD-11 also categorises complex regional pain syndrome, chronic primary headache and orofacial pain, chronic primary visceral pain and chronic primary musculoskeletal pain as types of chronic primary pain.

Flare-up

A flare-up is a sudden, temporary worsening of symptoms. Usually this refers to more intense pain on a day-to-day basis. It can also refer to a change in fatigue, stiffness, function or disease activity. Flare-ups can be unpredictable and the time they last can vary.

Pain management programme

This guideline defines a pain management programme as any intervention that has 2 or more components, including a physical and a psychological component, delivered by trained people, with some interaction/coordination between the 2 components.

Recommendations for research

The guideline committee has made the following recommendations for research.

Key recommendations for research

1 Psychological therapy – mindfulness for chronic primary pain

What is the clinical and cost effectiveness of mindfulness therapy for managing chronic primary pain in people aged 16 years and over?

For a short explanation of why the committee made the recommendation for research, see the rationale section on psychological therapy for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review F: psychological therapy for chronic primary pain.

2 Psychological therapy – CBT for insomnia in chronic primary pain

What is the clinical and cost effectiveness of cognitive behavioural therapy (CBT) for insomnia or CBT for insomnia and pain for managing chronic primary pain in people aged 16 years and over?

For a short explanation of why the committee made the recommendation for research, see the rationale section on psychological therapy for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review F: psychological therapy for chronic primary pain.

3 Manual therapies for chronic primary pain

What is the clinical and cost effectiveness of manual therapy for managing chronic primary pain in people aged 16 years and over?

For a short explanation of why the committee made the recommendation for research, see the rationale section on manual therapy for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review I: manual therapy for chronic primary pain.

4 Repeat courses of acupuncture for chronic primary pain

What is the clinical and cost effectiveness of repeat courses of acupuncture or dry needling for managing chronic primary pain in people aged 16 years and over?

For a short explanation of why the committee made the recommendation for research, see the rationale section on acupuncture for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review G: acupuncture for chronic primary pain.

5 Pharmacological interventions – gabapentinoids and local anaesthetics for complex regional pain syndrome

What is the clinical and cost effectiveness of gabapentinoids or local anaesthetics for managing complex regional pain syndrome in people aged 16 years and over?

For a short explanation of why the committee made the recommendation for research, see the rationale section on pharmacological management for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review J: pharmacological management for chronic primary pain.

Other recommendations for research

Factors that may be barriers to successfully managing chronic pain, including chronic primary pain

What risk factors enable stratification of treatment for people aged 16 years and over with chronic pain?

For a short explanation of why the committee made the recommendation for research, see the rationale section on assessing chronic pain.

Full details of the evidence and the committee's discussion are in evidence review A: factors that may be barriers to successfully managing chronic pain (chronic primary pain and chronic secondary pain).

Social interventions for chronic pain, including chronic primary pain

What is the clinical and cost effectiveness of social interventions aimed at improving the quality of life of people aged 16 years and over with chronic pain?

For a short explanation of why the committee made the recommendation for research, see the rationale section on social interventions for chronic pain.

Full details of the evidence and the committee's discussion are in evidence review D: social interventions for chronic pain (chronic primary pain and chronic secondary pain).

Psychotherapy for chronic primary pain

What is the clinical and cost effectiveness of psychodynamic psychotherapy for managing chronic primary pain in people aged 16 years and over?

For a short explanation of why the committee made the recommendation for research, see the rationale section on psychological therapy for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review F: psychological therapy for chronic primary pain.

Relaxation therapy for chronic primary pain

What is the clinical and cost effectiveness of relaxation therapies for managing chronic primary pain in people aged 16 years and over?

For a short explanation of why the committee made the recommendation for research, see the rationale section on psychological therapy for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review F: psychological therapy for chronic primary pain.

Laser therapy for chronic primary pain

What is the clinical and cost effectiveness of laser therapy for managing chronic primary pain in people aged 16 years and over?

For a short explanation of why the committee made the recommendation for research, see the rationale section on electrical physical modalities for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review H: electrical physical modalities for chronic primary pain.

Transcranial magnetic stimulation for chronic primary pain

What is the clinical and cost effectiveness of transcranial magnetic stimulation for managing chronic primary pain in people aged 16 years and over?

For a short explanation of why the committee made the recommendation for research, see the rationale section on electrical physical modalities for chronic primary pain.

Full details of the evidence and the committee's discussion are in evidence review H: electrical physical modalities for chronic primary pain.

Rationale and impact

These sections briefly explain why the committee made the recommendations and how they might affect practice.

Assessing chronic pain (chronic primary pain and chronic secondary pain)

Recommendations 1.1.1 to 1.1.23

Why the committee made the recommendations

Possible barriers to successfully managing chronic pain

There was not enough evidence to indicate whether any psychological, biological or social factors predict successful pain management. The committee acknowledged the importance of a comprehensive patient-centred approach to assessment and management. They agreed that it is important for the healthcare professional to understand how pain is affecting a person's life and vice versa, taking into account the person's socioeconomic, cultural and ethnic background, and faith group. A care and support plan should be based on the effects of pain on day-to-day activities, as well as a person's preferences, abilities and goals, while acknowledging that it is not possible to predict what might happen in the future.

The committee agreed that it was important to acknowledge that pain can fluctuate over time and flare-ups are to be expected. Recommendations were formed by expert consensus to guide assessment of flare-ups of pain.

Communication between healthcare professionals and people with chronic pain

The committee agreed that the evidence on communication was in line with what was generally considered best practice. However, evidence demonstrated shortcomings in people's experience of consultations with healthcare professionals. The committee agreed that this area needs addressing. They emphasised the fundamental importance of good

communication to the experience of care for people with chronic pain, especially when many or all treatments are ineffective for some people or not well tolerated by everyone. The committee reviewed the recommendations from the NICE guideline on patient experience in adult NHS services alongside the qualitative evidence to identify any areas needing specific recommendations for people with chronic pain. They agreed that the heterogeneous, complex and potentially distressing nature of the condition should be reflected in the recommendations. More specifically, a comprehensive assessment should elicit an understanding of the effects of the pain, and how this is viewed by the person and those around them. Understanding what is important to the person is the first step in developing a care and support plan. The committee agreed that it is important to explore a person's priorities, preferences, abilities and goals, because these can help inform the plan.

The committee highlighted the importance of being honest about the uncertainty of the prognosis, because the evidence suggested that this is valued by people with chronic pain. Evidence showed that discussions about self-management often happen late in the care pathway, or not at all. The committee considered that all relevant management options should be considered at all stages of care, including the first contact. They made a recommendation to provide advice and information, relevant to the person's individual preferences, at all stages of care, to help them make decisions about managing their condition. Evidence showed that normal or negative test results can be communicated in a way that is perceived as being dismissive of pain. Therefore, the committee made a recommendation to promote sensitivity around communicating test results.

No evidence was identified for people aged 16 to 18 years. The committee agreed that the recommendations still apply, but they also agreed that there may be specific considerations for young adults (aged 16 to 25), including age-related differences in presentation of symptoms, family interactions and dynamics, and impact on their education and emotional development.

How the recommendations might affect practice

The recommendations reflect best practice, but are currently implemented to varying degrees across NHS settings and will involve a change of practice for some providers. To fully implement these recommendations for people with chronic pain, longer consultations or additional follow up may be needed to discuss self-management and treatment options.

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Exercise programmes and physical activity for chronic primary pain

Recommendations 1.2.1 and 1.2.2

Why the committee made the recommendations

Evidence from many studies showed that exercise reduced pain (23 studies) and improved quality of life (22 studies) compared with usual care in people with chronic primary pain. Benefit was seen for both short- and long-term follow up and was consistent across different types of exercise. Most of the evidence was for professionally led supervised group exercise and for women with fibromyalgia or people with chronic neck pain. As there was no evidence to suggest that effectiveness differed for types of chronic primary pain, it was agreed there was no reason this evidence could not apply for the whole review population. There was limited evidence comparing different types of exercise with each other although, from what was available, there was minimal difference between the types. The committee agreed the most appropriate type of exercise may depend on the type of pain. For these reasons, the committee did not specify what type of exercise should be used, and agreed it could be any of the types included in the studies reviewed (cardiovascular, mind–body, strength, or a combination of approaches).

An economic model comparing exercise (all types) with no exercise was developed for this guideline and showed that exercise was likely to be cost effective (both if using only the time horizon of the trials and also when extrapolating the quality of life gain beyond the trials). The analysis used studies in which exercise was predominantly group based. The committee considered the results to be robust, and agreed that the studies used in the model were representative of the whole evidence review. Exercise remained cost effective when the assumed benefits and costs were varied (sensitivity analysis).

There were no negative effects demonstrated except for more people discontinuing from exercise programmes. The committee agreed that people are more likely to continue with exercise if the programme offered suits their lifestyle and physical ability and addresses their individual health needs. They agreed that the choice of programme as well as the content should take into account people's abilities and preferences. This might include providing individual exercise advice for different members of a group.

The committee's experience was that many people with chronic primary pain find it

difficult to be physically active. The committee agreed that it is important for these people to continue to be physically active after a formal exercise programme ends, but the type of physical activity should be sustainable for the person.

How the recommendations might affect practice

The types of exercise programmes currently offered vary from place to place, often determined by the needs of the local population. In areas where supervised group exercise is currently not provided, implementing the recommendation will lead to increased resource use.

The committee discussed that if costs are incurred by engaging in physical activity after a formal exercise programme ends, this would be a personal cost for people with chronic primary pain, and would not fall to the NHS.

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Psychological therapy for chronic primary pain

Recommendations 1.2.3 and 1.2.4

Why the committee made the recommendations

ACT for chronic primary pain

Most of the evidence showed that acceptance and commitment therapy (ACT) improved quality of life and sleep, and reduced pain and psychological distress. Although clinical evidence was from a fairly small number of studies, 1 economic evaluation also showed ACT to be cost effective. The committee agreed that ACT was likely to offer a good balance of benefits and costs and so recommended that it should be considered as a psychological therapy for chronic primary pain. There was not enough evidence to support a preference for ACT over cognitive behavioural therapy (CBT) or CBT over ACT.

CBT for chronic primary pain

Most of the evidence showed that CBT for pain improved quality of life for people with chronic primary pain. A consistent benefit was not demonstrated in other outcomes, but

the committee considered that the evidence may have underestimated the benefits because the studies varied in terms of the level of training of the therapists and the way the therapy was delivered. There was no strong evidence of harm. Two economic evaluations also showed CBT to be cost effective. The committee agreed that the evidence was not of high quality so they decided to recommend that CBT (for pain) is considered, rather than making a stronger recommendation to offer CBT (for pain).

Although there was some benefit of CBT for insomnia (CBT-I), particularly for quality of life and sleep, the amount of evidence was smaller and did not include economic evidence, so was insufficient to justify a practice recommendation. The committee agreed to make a recommendation for research on CBT-I to inform future guidance.

Biofeedback for chronic primary pain

Evidence for biofeedback was conflicting, with little evidence of benefit and some evidence of harm. For this reason, the committee decided that this should not be offered as a management option for people with chronic primary pain.

Relaxation, mindfulness and psychotherapy for chronic primary pain

There was not enough evidence for relaxation therapy, mindfulness or psychotherapy for the committee to make recommendations, but what evidence there was suggested there may be some benefit. The committee decided to make recommendations for research on relaxation, mindfulness and psychotherapy to inform future guidance. For psychotherapy this was specifically for psychodynamic psychotherapy.

Pain education, sleep hygiene and hypnosis for chronic primary pain

Limited evidence showed no clinically important effect of pain education in improving quality of life or psychological distress for people with chronic primary pain. But there was a possible benefit for pain and no evidence of harm. The committee noted that education should be part of good clinical practice and providing information to help increase a person's understanding about their condition should be encouraged. They agreed that providing information on pain was part of developing a care and support plan, covered by other recommendations in this guideline.

Limited evidence showed a benefit of sleep hygiene for improving quality of life, sleep and pain. The committee considered that sleep hygiene is a component of CBT-I and evidence

showed that sleep hygiene was no more effective than CBT-I. Therefore the committee decided not to make a recommendation for sleep hygiene.

Evidence from a single study suggested that hypnosis may improve pain, but there was no benefit seen for quality of life or psychological distress for people with chronic primary pain. The committee agreed that hypnosis is not widely used to manage chronic primary pain in current clinical practice and the evidence did not indicate enough benefit to warrant further research.

How the recommendations might affect practice

The resource impact will depend on the uptake of the recommendations. CBT is used in the NHS for chronic primary pain, although it is not standard practice everywhere. ACT is a relatively new intervention but is also used to varying degrees in practice. The costs of both interventions depend on the number and length of sessions, whether they are group or individual (or face to face or virtual/online), and who they are run by. Therefore costs can vary.

If used for chronic primary pain, biofeedback is usually used in physiotherapy as a method of monitoring progress, rather than as a treatment in itself. The recommendation is therefore unlikely to have a significant impact on current practice.

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Acupuncture for chronic primary pain

Recommendation 1.2.5

Why the committee made the recommendation

Many studies (27 in total) showed that acupuncture reduced pain and improved quality of life in the short term (up to 3 months) compared with usual care or sham acupuncture. There was not enough evidence to determine longer-term benefits. The committee acknowledged the difficulty in blinding for sham procedures, but agreed that the benefit compared with a sham procedure indicated a specific treatment effect of acupuncture. There was a wide variation among the studies in the type and intensity of the intervention used, and the studies were from many different countries. The committee agreed that the

type of acupuncture or dry needling should depend on the individual needs of the person with pain.

Two economic evaluations (1 in the UK) showed that acupuncture offered a good balance of benefits and costs for people with chronic neck pain. However, both studies had limitations; a notable limitation being that the costs of acupuncture seemed low. Threshold analysis based on these studies indicated the maximum number of hours of a band 6 and 7 healthcare professional's time that would make the intervention cost effective.

An original economic model was developed for this guideline, which compared acupuncture with no acupuncture. The model used data from studies with usual care comparisons, not comparisons with sham acupuncture, because the committee agreed that a usual care comparison in an economic model better reflects the real world benefit of the intervention. The model showed that acupuncture was likely to be cost effective. The committee considered the results to be robust, and agreed that the studies used in the model were representative of the whole evidence review. Acupuncture remained cost effective when the assumed benefits and costs were varied (sensitivity analysis).

Overall, the committee agreed that there was a large evidence base showing acupuncture to be clinically effective in the short term (3 months); the original economic modelling also showed it is likely to be cost effective. However, they were uncertain whether the beneficial effects would be sustained long term and were aware of the high resource impact of implementation. Taking these factors into account, the committee made a recommendation to consider acupuncture or dry needling for chronic primary pain, caveated by the factors likely to make the intervention cost effective. These were: only if delivered in the community, and with a maximum of 5 treatment hours (based on the average resource use in the trials in the model and on the threshold analysis), and from a band 7 (equivalent cost or lower) healthcare professional (based on the threshold analysis). It was agreed there may be different ways of delivering the service that enable acupuncture to be delivered for the same costs, which would equally be appropriate. The committee agreed that discontinuing before this total amount of course time would be an option if the person finds that the first few sessions are not effective.

No evidence was found to inform a recommendation for repeat courses of acupuncture. The committee agreed that further research would help to inform future practice (see the recommendation for research on repeat courses of acupuncture for chronic primary pain).

How the recommendation might affect practice

There is variation in the availability and use of acupuncture for chronic primary pain, with a recent reduction in these services. The recommendation is expected to lead to increased use and need for acupuncture services and therefore to have a resource impact. This is due to the number of people with chronic primary pain, and acupuncture usually being an individual patient intervention and so staff intensive.

Return to recommendation

Electrical physical modalities for chronic primary pain

Recommendation 1.2.6

Why the committee made the recommendation

Limited evidence showed some benefit of electrical therapies for chronic primary pain, but sample sizes were small and benefit beyond 3 months was unclear.

Laser therapy and transcranial magnetic stimulation for chronic primary pain

The exception was laser therapy and transcranial magnetic stimulation (TMS), which both showed a benefit for patient-reported pain. Laser therapy also demonstrated improvements in quality of life in larger studies than for other electrical physical modalities.

The laser therapy used in the studies varied widely, particularly in terms of wavelength, power, and the time the laser was applied to each painful area. Evidence for TMS was from 7 studies, and although benefits were seen in pain reduction, there were no benefits in any other outcome.

Evidence at more than 3 months' follow up was limited for both laser therapy and TMS, and there was no evidence on cost effectiveness.

Taking into account the quality of the evidence, the limited long-term data and the lack of evidence on cost effectiveness, the committee decided not to make a practice recommendation for laser therapy or TMS. However, because the limited evidence was

promising, they agreed to make recommendations for research on laser therapy for chronic primary pain and transcranial magnetic stimulation for chronic primary pain to inform future guidance.

TENS, ultrasound and interferential therapy for chronic primary pain

Limited evidence for TENS showed no clinically important difference compared with sham TENS and usual care across several outcomes at less than 3 months, and no longer-term evidence was identified. There was no evidence for ultrasound or interferential therapy. The committee noted these technologies have been around for some time so it is unlikely that new research would be undertaken. These treatments are being used by some in the NHS without evidence of benefit, so the committee agreed that TENS, ultrasound and interferential therapy should not be offered for chronic primary pain. Resources should be re-allocated to areas with more evidence of clinical and cost effectiveness.

PENS and transcranial direct current stimulation for chronic primary pain

There was a very limited amount of evidence for PENS and transcranial direct current stimulation (TDCS), which suggested inconsistent benefits in some outcomes only. The committee agreed this was insufficient for a recommendation. As neither intervention is widely used in current practice for chronic primary pain, they did not think further research was warranted.

How the recommendation might affect practice

TENS, ultrasound and interferential therapy are being used by some in the NHS without evidence of benefit. Resources should be re-allocated to areas with more evidence of clinical and cost effectiveness.

Return to recommendation

Pain management programmes

Why the committee did not make a recommendation

Most of the evidence for people with chronic primary pain (8 studies) showed no difference in quality of life with pain management programmes led by professionals

compared with usual care or waiting list controls. There were no benefits observed in any other outcomes. The committee agreed that because of this evidence, and uncertainty about cost effectiveness, they were unable to make a recommendation for or against the use of pain management programmes for chronic primary pain. They agreed that management options should be tailored after a patient-centred assessment.

For mixed types of chronic pain, benefit was observed in quality of life from all 4 studies. However, limited benefits were observed for function, psychological distress and other outcomes. Where benefits were observed, they were only small. The committee noted that most of the evidence for quality of life was from people with chronic low back pain, with the exception of 1 small study in people with knee pain. Evidence for other outcomes was from a broader mix of types of chronic pain. The committee agreed that they could not determine the effectiveness of pain management programmes for all types of chronic pain from this evidence. They agreed to cross-refer to related NICE guidelines for pain management options.

The committee discussed that although it may be expected that combinations of single interventions within a pain management programme might result in aggregated benefits or at least equal benefits to those shown from the interventions delivered individually, this was not reflected in the evidence. The committee discussed possible reasons for this, which might include the possibility that interventions were delivered differently or to different intensity in programmes than when delivered individually. They may also be more tailored to individual preferences when delivered in isolation. The committee also considered that people who attend pain management programmes may have already tried single interventions and so might respond differently to others, even though they have the same diagnosis.

The committee discussed whether pain management programmes may be beneficial to some people with chronic pain and may also be cost effective, but agreed that the evidence did not allow conclusions to be drawn.

Differences in programme delivery methods, including intensity, duration, components, structure and staffing, and aims meant that the committee were not able to determine whether there was a particular content and characteristics of a programme that could be effective. The committee discussed making a research recommendation to help determine the elements that could make up an effective pain management programme for people with chronic pain, but agreed that there are too many contributing factors to effectively address this for all types of chronic pain.

Manual therapy for chronic primary pain

Recommendation for research on manual therapy for chronic primary pain

Why the committee made the recommendation

There was only a small amount of evidence available for each of the types of manual therapy from studies of small sample sizes. The committee considered the lack of evidence for the different types of manual therapy as well as the limitations of the evidence. The committee were concerned about the quality of the evidence and the variation in the type and intensity of the therapy. For example, vigorous soft tissue techniques might be very similar in practice to mobilisation. For some types of manual therapy, there was no evidence for outcomes beyond 3 months. The committee were not able to draw any definite conclusions from the evidence about the best type of manual therapy and so could not make recommendations for practice. However, the committee agreed that the benefits compared with usual care were promising and there was no evidence of harm. Therefore, they decided to make a research recommendation.

Pharmacological management for chronic primary pain

Recommendations 1.2.7 to 1.2.15

Why the committee made the recommendations

Antidepressants for chronic primary pain

Evidence indicated that antidepressants (amitriptyline, citalopram, duloxetine, fluoxetine, paroxetine and sertraline) improved quality of life, pain, sleep and psychological distress compared with placebo. But there were some limitations in the quality and amount of the evidence. Most of the evidence was for women with fibromyalgia. However, included evidence from other types of chronic primary pain was consistent with these findings. The committee agreed that there was no evidence demonstrating a different response to treatment in other chronic primary pain conditions, and therefore it was agreed there was no reason this recommendation could not apply to all chronic primary pain conditions.

The antidepressants were considered by class, but evidence was only available for certain drugs within each class. The committee agreed these should be stated in the recommendation. No evidence was identified that compared antidepressant classes with each other, and the committee agreed that although there were some inconsistencies in benefits observed between classes, they could not assume one class to be more or less effective than another. Duloxetine (the only SNRI with evidence for chronic primary pain) had a larger amount of long-term evidence of effectiveness. However, due to the lack of head-to-head comparisons between the antidepressant classes, the committee could not recommend duloxetine in preference to the other antidepressants for which there was evidence. The committee agreed to recommend considering any of the antidepressants for which there was evidence of benefit. The decision of which antidepressant to try should be based on a fully informed discussion with the person with chronic primary pain, taking into account the risks and benefits.

Although none of the antidepressants have marketing authorisations for chronic primary pain, there are no licensed alternatives for this indication and these medications are already used in practice for this purpose. The committee agreed that doses of SSRIs and SNRIs should be in line with BNF recommendations for depression. For amitriptyline, the evidence indicating benefit included very low doses of 5 mg per day. The committee therefore agreed it was appropriate to start amitriptyline at the lowest possible dose and titrate up to no more than 100 mg per day. Efficacy of antidepressants should be reviewed at 4 to 6 weeks. No evidence was identified for people aged 16 to 17 years. The committee agreed that if pharmacological management was being considered for people of this age, specialist advice should be sought.

The committee agreed that the risk of withdrawal symptoms should be considered when prescribing antidepressants and these should not be continued if they were not effective. They recommended that the recommendations in the NICE guideline on depression in adults should be followed if stopping or reducing antidepressants.

Cannabis-based medicinal products for chronic primary pain

No evidence was identified on the effectiveness of cannabis-based products for chronic primary pain, and some evidence suggested that the treatment could cause adverse events in the short term. However, this was limited evidence from a small study. Although the committee agreed that more research would be useful to inform future practice, they decided this was adequately covered within the NICE guideline on cannabis-based medicinal products.

Opioids for chronic primary pain

No evidence was identified on the effectiveness of opioids for chronic primary pain. Although there were limitations, evidence from non-randomised studies on the long-term use (more than 6 months) of opioids for chronic pain suggested an increased risk of dependence. Based on their experience, the committee agreed that even short-term use of opioids could be harmful for a chronic condition. The evidence of long-term harm, along with lack of evidence on effectiveness of opioids, persuaded the committee to recommend against starting opioid treatment for people with chronic primary pain.

Benzodiazepines and NSAIDs for chronic primary pain

Limited evidence suggested a lack of benefit of benzodiazepines and non-steroidal anti-inflammatory drugs (NSAIDs) for chronic primary pain. Evidence suggested that psychological and physical functioning were poorer with benzodiazepines than with placebo. Although there was no evidence for long-term use, the committee noted the addictive properties of benzodiazepines and agreed to recommend against starting treatment with benzodiazepines for chronic primary pain.

Evidence suggested that short-term use of NSAIDs made no difference to people's quality of life, pain or psychological distress. A small amount of evidence suggested that NSAIDs reduced physical function, compared with placebo. In view of the risks of harm with NSAIDs (gastrointestinal bleeding) and the lack of evidence of short-term or long-term effectiveness, the committee decided to recommend against starting NSAIDs for chronic primary pain.

Antiepileptics for chronic primary pain

Evidence suggested a lack of benefit of gabapentinoids for chronic primary pain. No evidence was identified on the long-term safety of gabapentinoids, however the committee were aware of reports of harm and risk of misuse and dependence highlighted by the MHRA notification of the reclassification of gabapentinoids as a class C substance controlled under the Misuse of Drugs Act 1971 and scheduled under the Misuse of Drugs Regulations 2001 as Schedule 3. There was no evidence identified for any other antiepileptics for chronic primary pain. Because antiepileptics are associated with known harms, particularly gabapentinoids which carry a risk of substance misuse and dependence, the committee agreed that they could not recommend starting antiepileptics for chronic primary pain. They applied this recommendation across all types of chronic

primary pain and all antiepileptics (although there was evidence for only some types) because of their knowledge of the harms associated with these drugs. They were aware that gabapentinoids are currently recommended for neuropathic pain and expert opinion within the committee suggested that complex regional pain syndrome (CRPS) is sometimes understood as a neuropathic pain disorder. Based on the expert opinion of some committee members they therefore decided to make a recommendation for research on the use of gabapentinoids for CRPS to inform future guidance.

Local anaesthetics (topical or intravenous) for chronic primary pain

Evidence for local anaesthetics was limited. A small amount of evidence for short-term use of topical local anaesthetics suggested that there is either no benefit or that their use could result in worse outcomes for pain than placebo. No evidence was identified for intravenous use. The committee therefore agreed to recommend against the use of topical or intravenous local anaesthetics for chronic primary pain. However, based on the expert opinion of some members of the committee, it was noted that local anaesthetics may be useful for people with CRPS, who are under-represented in randomised controlled trials. They therefore decided to make a recommendation for research on the use of local anaesthetics for CRPS to inform future guidance.

Paracetamol, ketamine, corticosteroids, anaesthetic/corticosteroid combinations and antipsychotics for chronic primary pain

No evidence was identified for paracetamol, ketamine, antipsychotics, corticosteroids or anaesthetic/corticosteroid combinations (for the latter 2 evidence was only considered for trigger point injections). From their own experience, and from the summaries of product characteristics, the committee agreed that these medicines have possible harms. The committee agreed that not commenting on these medicines could result in their continued use in practice, which would be inappropriate given the lack of evidence and possible harms, so they recommended against starting any of these treatments for chronic primary pain.

Reviewing current medicine use

The committee agreed that when recommendations had been made against the use of medicines, there should be guidance for people who are already taking these, including guidance for those who report benefit from these medicines (this includes pain medicines bought over the counter). They therefore included a recommendation based on expert

opinion to explain the risks of continuing a medicine, to inform a decision about whether the risks outweighed the benefits and whether the medicine should be reduced or stopped, or continued safely. A recommendation was also made to highlight possible withdrawal symptoms after stopping some medicines.

How the recommendations might affect practice

There is currently variation in the use of drugs to treat chronic primary pain. The recommendations are likely to have a resource impact in the short term because there may be increased resource use from helping people to stop treatments, particularly opioids and gabapentinoids. SNRI antidepressants are also slightly more expensive than other types of antidepressant such as tricyclics, but this does depend on dose. In the longer term, the recommendations should reduce the use of drugs for managing chronic primary pain, with a consequent reduction in harms and cost savings.

Return to recommendations

Social interventions for chronic pain (chronic primary pain and chronic secondary pain)

Recommendation for research on social interventions for chronic pain, including chronic primary pain

Why the committee made the recommendation

No evidence was identified. The committee noted that provision of social prescribing link workers is part of the NHS long term plan, and so there is already a move towards social interventions within the NHS. The committee were aware of evidence for social interventions in conditions other than chronic pain, but they agreed that this evidence could not be extrapolated as the issues faced by people with chronic pain are likely to be different from those populations. They could not make a recommendation for chronic pain without evidence on clinical and cost effectiveness. The committee decided to make a research recommendation to gather high-quality evidence on social interventions in the NHS, specifically for adults with chronic pain. This will hopefully inform future guidance.

Finding more information and committee details

To find NICE guidance on related topics, including guidance in development, see the NICE webpage on neurological conditions.

For full details of the evidence and the guideline committee's discussions, see the evidence reviews. You can also find information about how the guideline was developed, including details of the committee.

NICE has produced tools and resources to help you put this guideline into practice. For general help and advice on putting our guidelines into practice, see resources to help you put NICE guidance into practice.

Update information

Minor changes since publication

April 2022: We added links to NICE's guideline on medicines associated with dependence or withdrawal symptoms in the section on pharmacological management of chronic primary pain.

January 2022: Minor changes to redirect NICE Pathways links.

October 2021: We added a link to NICE's shared decision making guideline in recommendation 1.1.2.

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