SIGN 173: Management of chronic pain Methodology supplement

Contents

Developing the key questions

The key questions (KQ) in this update were based on those used in SIGN 136, published in 2013.[1] There were a number of differences between questions in this update from those used previously. At the first group meeting, in August 2023, the guideline development group agreed not to include original key questions 2 and 3 (timing of intervention and managed care approach) within the scope of the new guideline. For the current update, KQ5 (opioids) remained broadly the same with minor revision to wording (see Table 1). Key question 6 (high-dose opioid versus low-dose opioid) was not included. Three new questions on pharmacological therapies were added (KQ6 – naloxone, KQ6a – medicinal cannabis and KQ6b – muscle relaxants). Key questions 7 to 11 which covered a range of pharmacological therapies (simple analgesics, antiepileptics, topical analgesics, antidepressants, combination pharmacological therapies) remained the same. Key question 12 (physical therapies) was split into three separate questions (KQ12a – hands-on therapies, KQ12b – hands-off therapies, KQ12c – electrotherapy). Key question 13 (alternative therapies) remained the same. Key question 14 (expert/clinician guided self-help management advice/programmes/psychological treatments) was split into two separate questions (KQ14a – pain management programmes, KQ14b – psychological therapies). Key question 15 (self help) remained the same. Key question 16 (dietary interventions) remained the same, but following presentation of the results from the initial literature search, the guideline development group requested that SIGN identify evidence on additional interventions of interest. This required a new literature search. Key question 17 (occupational-based interventions) remained unchanged.

In 2024 the guideline development process was restructured into subdivisions of approximately equal size (‘waves’) to allow staging of the evidence review and considered judgement activities. This was instigated to limit the scale of concurrent work for both HIS research staff and guideline development group members and to provide an opportunity to publish recommendations more frequently in smaller batches. In October 2024, the guideline development group approved the removal of KQs 1 and 4 (screening tools and interactions between patients and healthcare

professionals) to focus on management of chronic pain and to align with capacity and project timescales.

In 2025 a draft guideline which contained contents of two waves was circulated for peer review and open consultation and published as an interim version.

A total of 18 key questions were developed.

Each key question was developed using a PICO framework (population, intervention, comparison and outcome) (see Table 1). Protocols for each question are described in Appendix 1.

Table 1. Key questions (PICO format).

Remit: Management of patients with chronic non-malignant pain in the non-specialist setting.

Definitions: Chronic pain is pain that lasts >12 weeks as defined by the International Association for the Study of Pain (IASP).[2]

Non-specialist setting is any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain.

Exclude: Headache and patients under 18 years of age.

PHARMACOLOGICAL THERAPIES

KQ number	Key question/population	Intervention	Comparators	Outcomes
5	In people with chronic non-malignant pain are opioids more likely than placebo or other interventions to improve pain severity, functional ability, and/or quality of life, and/or to cause adverse events/drug reactions, or dependency (physiological or psychological)?*	opioids: • buprenorphine • cocodamol • codeine • codydramol • diamorphine • dihydrocodeine • fentanyl • hydromorphone • meptazinol • methadone • morphine	• other active interventions • placebo	• pain intensity • pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, adverse drug reactions, including long-term risk of harm)

* This question was originally worded “In patients with chronic non-malignant pain are opioids effective compared with placebo or other interventions in pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse events/drug reactions, or dependency (physiological or psychological)?” It was changed at the fourth group meeting in Oct 2024 to reduce ambiguity.

		• oxycodone • tapentadol • targinact • tramadol		• dependency (physiological and psychological)

Notes: Exclude parenteral and neuraxial administration

Consider tolerance and changes over time

Consider high dose versus low dose

KQ number	Key question/population	Intervention	Comparators	Outcomes
6	Should naloxone be coprescribed when opioids are used for chronic pain (or when long-term/high-dose opioids are prescribed)?†	• naloxone	• no naloxone	• pain intensity • pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, adverse drug reactions, including long-term risk of harm)

† This question was originally worded “Should naloxone be coprescribed when opioids are indicated for chronic pain (or when long-term/high-dose opioids are prescribed)?” It was changed at the fourth group meeting in Oct 2024 when evidence was presented that opioids showed only small short-term benefits and the draft recommendation was altered to limit their use.

				• dependency (physiological and psychological)

KQ number	Key question/population	Intervention	Comparators	Outcomes
6a	In people with chronic non-malignant pain what is the effectiveness of medicinal cannabis compared with placebo or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse drug reactions or dependency (physiological or psychological)?	• medicinal cannabis	• other active interventions • placebo	• pain intensity • pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, adverse drug reactions, including long-term risk of harm) • dependency (physiological and psychological) • opioid use

Notes: include all delivery methods

KQ number	Key question/population	Intervention	Comparators	Outcomes
6b	In people with chronic non-malignant pain what is the effectiveness of muscle relaxants compared with placebo or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse drug reactions or dependency (physiological or psychological)?	muscle relaxants: • baclofen • benzodiazepines • methocarbamol	• other active interventions • placebo	• pain intensity • pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, adverse drug reactions, including long-term risk of harm) • dependency (physiological and psychological) • opioid use
7	In people with chronic non-malignant pain what is the effectiveness of simple analgesics compared with placebo or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse events/drug reactions or dependency (physiological or psychological)?	simple analgesics: • Cox inhibitors • Cox-2s • nefopam • non-steroidal anti-inflammatory drugs (NSAIDs) • paracetamol	• other active interventions • placebo	• pain intensity • pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, adverse drug reactions, including long-term risk of harm)

				• dependency (physiological and psychological)
8	In people with chronic non-malignant pain what is the effectiveness of anti-epilepsy drugs compared with placebo or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse drug reactions or dependency (physiological or psychological)?	antiepileptics: • carbamazepine • gabapentin • lacosamide • lamotrigine • levetiracetam • mirogabalin • oxcarbazepine • pregabalin • sodium valproate • topiramate	• other active interventions • placebo	• pain intensity • pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, adverse drug reactions, including long-term risk of harm) • dependency (physiological and psychological)
9	In people with chronic non-malignant pain what is the effectiveness of topical analgesics compared with placebo or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse events/drug reactions or dependency (physiological or psychological)?	topical analgesics: • capsaicin cream • capsaicin patch • lidocaine patch • topical NSAIDs • other unlicensed topical preparations, eg gabapentin	• other active interventions • placebo	• pain intensity • pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, adverse drug reactions, including long-term risk of harm)

				• dependency (physiological and psychological)
10	In people with chronic non-malignant pain what is the effectiveness of antidepressants compared with placebo or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse events/drug reactions or dependency (physiological or psychological)?	antidepressants: tricyclic antidepressants (TCAs) • amitriptyline • clomipramine • imipramine • nortriptyline selective serotonin reuptake inhibitors (SSRIs): • citalopram • escitalopram • fluoxetine • paroxetine • sertraline serotonin noradrenaline reuptake inhibitors (SNRIs) • duloxetine • mirtazapine • venlafaxine	• other active interventions • placebo	• pain intensity • pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, adverse drug reactions, including long-term risk of harm) • dependency (physiological and psychological)

11	In people with chronic non-malignant pain what is the effectiveness of combination pharmacological therapies compared with single pharmacological therapies on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse events/drug reactions or dependency (physiological or psychological)?	• combined pharmacological therapy	• single pharmacological therapy	• pain intensity • pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, adverse drug reactions, including long-term risk of harm) • dependency (physiological and psychological)

NON-PHARMACOLOGICAL THERAPIES

KQ number	Key question/population	Intervention	Comparators	Outcomes
12a	In people with chronic non-malignant pain what is the effectiveness of hands-on based interventions compared with comparator on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events?	hands-on interventions: • manual therapy • massage	• no treatment • other hands-on/off interventions • placebo • usual care • waiting list	• pain intensity • pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, including long-term risk of harm) • adherence to the prescribed intervention • healthcare use/attendance

Notes: Manual therapy includes:
- manipulation
- mobilisation
- Maitland concept
- Mckenzie concept
- Mulligan concept

Massage includes:
- sports massage
- deep tissue
- reflexology

KQ number	Key question/population	Intervention	Comparators	Outcomes
12b	In people with chronic non-malignant pain what is the effectiveness of hands-off based interventions compared with comparator on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events?	hands-off interventions: • exercise • mobility aids • physical activity	• no treatment • other hands-on/off interventions • placebo • usual care • waiting list	• pain intensity • pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, including long-term risk of harm) • adherence to the prescribed intervention • healthcare use/attendance

Notes: Exercise types include:

- aerobic
- resistance
- high-intensity interval training
- stretching
- tai chi
- Pilates
- swimming

- yoga

Physical activity:

(As defined by WHO - any bodily movement produced by skeletal muscles that requires energy expenditure. Physical activity refers to all movement including during leisure time, for transport to get to and from places, or as part of a person's work).[3]

Also consider reducing sedentary activity

Mobility aids include:

- walking stick
- walking frame
- wheelchair
- assistive devices (eg, supports, braces, splinting)

KQ number	Key question/population	Intervention	Comparators	Outcomes
12c	In people with chronic non-malignant pain what is the effectiveness of electrotherapy-based interventions compared with comparator on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events?	electrotherapy interventions: • extracorporeal shockwave therapy (ESWT) • interferential therapy (IT)	• no treatment • other electrotherapy interventions • placebo • usual care • waiting list	• pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, including long-term risk of harm)

		• low-level laser therapy (LLLT) • shortwave diathermy (SD) • transcutaneous electrical nerve stimulation (TENS) • therapeutic ultrasound (TU)		• adherence to the prescribed intervention • healthcare use/attendance
13	In people with chronic non-malignant pain what is the effectiveness of other/alternative interventions compared with comparator on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events?	alternative therapies: • acupuncture • aromatherapy • herbal medicine • homeopathy • hypnotherapy • music therapy • reiki	• no treatment • other alternative therapies • placebo • usual care • waiting list	• pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, including long-term risk of harm) • adherence to the prescribed intervention • healthcare use/attendance

Notes: Acupuncture includes:
- acupuncture
- electroacupuncture

Homeopathy includes:

- dry needling

- individualised (or classical) homeopathy, which involves a consultation followed by the prescription of a homeopathic medicine individualised to the patient,
- clinical homeopathy, where the same homeopathic medicine is used for a group of patients all presenting with the same clinical condition (eg, lycopodium for IBS, arnica for bruising),
- complex homeopathy, where a number of different homeopathic medicines are given either in a fixed combination or concurrently; and
- isopathy, where the homeopathic medicine is based on the substance which has led to the problem (eg, grass pollen for hay fever).

Herbal medicine is defined as:

All or part of a plant used for medicinal purposes, administered orally (ingestion) or applied topically (does not include *Cannabis sativa*), or individual chemicals derived from plants, or synthetic chemicals that were based on constituents of plants.

KQ number	Key question/population	Intervention	Comparators	Outcomes
14a	In people with chronic non-malignant pain what is the effectiveness of expert/clinician-guided pain management advice/programmes compared with no treatment or other interventions on pain scores, functional ability, mood, quality of life and adverse events?	• pain management programmes	• no treatment • other alternative therapies • placebo • usual care • waiting list	• pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, including long-term risk of harm)

Notes: relevant pain management programmes are:

- psychologically informed (eg, have components such as cognitive behavioural therapy (CBT) or pain neuroscience education (PNE))
- comprised of multiple interventions delivered concurrently (eg, exercise or physical activity, CBT, PNE, medication review)
- delivered in a group setting, either face-to-face or remotely (eg, online)
- typically run over several sessions or weeks
- led by healthcare professionals from more than one professional group (eg, psychologist, physiotherapist, pharmacist, allied health professional, doctor).

KQ number	Key question/population	Intervention	Comparators	Outcomes
14b	In people with chronic non-malignant pain what is the effectiveness of psychological therapy compared with no treatment or other interventions on pain scores, functional ability, mood, quality of life or adverse events?	psychological therapies: • acceptance and commitment therapy (ACT) • biofeedback • cognitive behavioural therapy (CBT) • mindfulness-based interventions (MBI) • relaxation	• no treatment • other psychological therapies • placebo • usual care • waiting list	• pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, including long-term risk of harm)

Notes: Consider mode of delivery (eg, digital/telehealth) and who delivers intervention

KQ number	Key question/population	Intervention	Comparators	Outcomes
15	In people with non-malignant chronic pain what is the effectiveness of patient and lay self-help advice compared with no treatment or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events?	self-help interventions: • bibliotherapy • computer-guided self help • structured or guided self-help • self-help groups versus one-to one interventions • shorter, structured educational classes • unguided self-help	• no treatment • other active interventions • placebo • usual care • waiting list	• pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, including long-term risk of harm)

Notes: Consider intensity of programmes and mode of delivery (eg, is telephone/video contact as effective as face-to-face?)

KQ number	Key question/population	Intervention	Comparators	Outcomes
16	In people with chronic non-malignant pain is there any evidence for the effectiveness of dietary interventions compared with usual care on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events?	dietary interventions: • antioxidants • chondroitin • glucosamine • omega-3 • vitamins (B, C, D)	• no treatment • other active interventions • placebo • usual care • waiting list	• pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, including long-term risk of harm)

The following additional search was added in June 2025

16extra	In people with chronic non-malignant pain is there any evidence for the effectiveness of dietary interventions compared with usual care on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events? Consider specific subgroups: • fibromyalgia • MSK pain • neuropathic pain • Painful Bladder Syndrome (interstitial cystitis) • endometriosis • pelvic pain	dietary interventions: • high-fibre diet • low FODMAP (Fermentable, Oligosaccharides, Disaccharides, Monosaccharides And Polyols) diet • magnesium supplementation • Mediterranean diet • turmeric	• no treatment • other active interventions • placebo • usual care • waiting list	• pain scores (30% and 50% reduction • functional ability • quality of life • harms (adverse events, including long-term risk of harm)

KQ number	Key question/population	Intervention	Comparators	Outcomes
17	In people with chronic non-malignant pain what is the effectiveness of occupation-based interventions on pain scores (30% reduction and 50% reduction),	occupation-based interventions: • activity pacing/activity management/grade	• attention control • other active interventions • usual care • waiting list	• pain scores (30% and 50% reduction • functional ability • quality of life

	occupational performance, engagement in personally meaningful occupations, return to work rates, quality of life or adverse events?	d activity/grading activity/adapting activity • advocacy skills development • community reintegration strategies • energy conservation strategies • environmental adaptations and or equipment provision/ADL equipment (eg, shower seat, toilet seat raise, walking frame or stick) • meaningful daily activity/meaningful occupation/enabling occupation • postural and positioning strategies		• engagement in personally meaningful occupations • work/employment related outcomes • sleep quality • harms (adverse events, including long-term risk of harm)

		• sensory integration strategies to help individuals monitor environmental triggers or exacerbating factors • sleep hygiene • therapeutic education and disease self-management training, including trigger identification, symptom tracking and pain flare-up planning • vocational rehabilitation (which help individuals with disabilities or other barriers to access employment, improve their functional abilities and successfully		

		participate in the workforce)		

Systematic evidence review

The evidence reviews conducted for this guideline update used Scottish Intercollegiate Guidelines Network (SIGN) methodology.[4]

Identifying and selecting the evidence

For each key question, following the development of the protocol, a structured literature search was carried out. The original 2013 search strategies were used as starting point and further developed by a Healthcare Improvement Scotland (HIS) information scientist in collaboration with SIGN review team (HIS health service researcher, programme manager) and guideline development group members.

Searching the evidence

Systematic reviews were selected as the primary evidence source to answer each key question owing to their rigorous, bias-minimising methods and analysis. For most key questions, more than one systematic review was identified. For key question 6 – naloxone, where only one systematic review was identified, we searched for randomised controlled trials (RCTs). For key question 6a – medicinal cannabis, we performed an additional search for randomised controlled trials to ensure no large trial had been published since the publication of the systematic reviews included in the evidence review.

For all key questions, we performed update searches (Table 2) if the original search was over six months old at the time the evidence summary was presented to the guideline development group. The same search strategies were used and were backdated to the last search date.

Summarising and presenting the body of evidence

For many topic areas, the key questions included multiple chronic pain conditions, interventions, comparators and outcomes. Therefore, many systematic reviews were often available. In these cases, following SIGN methodology, the SIGN review team identified an index review or set of index reviews for the guideline development group to focus on, considering quality, currency and match to the parameters of the key question. (Figure 1 and Table 3).

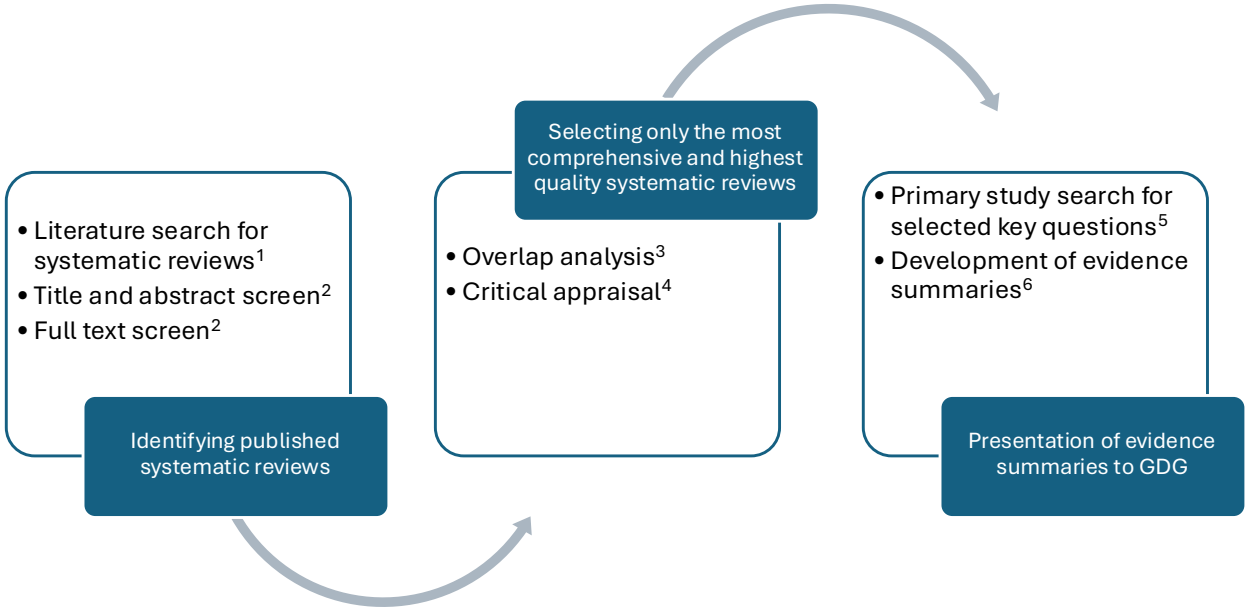
The results were presented to the group in the form of an evidence summary document accompanied by a PowerPoint presentation delivered via Microsoft Teams. Evidence summaries provided the group an overview of the evidence-base. Most evidence summaries included narrative text with evidence tables. Sometimes it was easier for the SIGN review team to directly cite the review text and/or tables where it would be clearer to do so.

For evidence identified from the update searches, we only included systematic reviews following comparison with the reviews cited in the original evidence summary. We did this by comparing the conclusions and included studies of each newly identified review with the review/s in the original evidence summaries. If new or contradictory information was identified, we critically appraised for quality. If rated high (++), acceptable (+) quality, or in the case of NMAs (sufficient quality), we provided the group the results in the form of an addendum.

Issues specific to the chronic pain literature

Difficulties in reporting make the interpretation of the evidence base challenging. Chronic pain is a complex phenomenon with consequent challenges for its assessment and management both in clinical trials and routine clinical practice. This is further complicated by the fact that even in the same condition the underlying pain mechanisms may differ significantly between individuals. While changes in peripheral pain processing might predominate in one patient, central changes may be much more important in the next patient with implications for the most effective treatment approaches in each case.[5-7]

Another important factor is how patients who drop out before completing the study are dealt with in the analysis. Using the last observation carried forward (LOCF) for patients who drop out is based on the assumption that, in an RCT, drop-outs will occur randomly between the treatment groups. The active treatment may be an effective analgesic but if it has an unpleasant adverse-effect profile then drop-outs are likely to be higher in a non-random manner in this treatment group. Pain scores prior to drop-out may therefore demonstrate efficacy, but in clinical practice this treatment is unlikely to be tolerated. The majority of RCTs use the imputation method of LOCF, and may therefore potentially overestimate the treatment effect.[8]



1 An information scientist conducted literature searches. The date range for each question was determined by the guideline deve lopment group.
2 Dual screening was conducted by two independent reviewers using systematic review software. A third reviewer was consulted wh ere there was disagreement on inclusion/exclusion.
3 Overlap analysis was undertaken to systematically identify the most comprehensive systematic reviews by comparing lists of i ncluded studies. For key questions where there were very large numbers of reviews identified this process was undertaken before critical appraisal or as an iterative process reducing the number of reviews both before and af ter critical appraisal.
4 Critical appraisal was conducted by two independent reviewers using the SIGN checklist for appraisal of systematic reviews or the ISPOR checklist for network meta-analysis.
5 For the questions on naloxone and medicinal cannabis, literature searches for primary studies were conducted. For naloxone t his was due to only one review being identified, which included only one study. For medicinal cannabis, this was to ensure no large recent trial had been published since the development of the included systematic review s.
6 For each key question, summaries of the main findings from the included reviews were developed, along with evidence tables wh ere appropriate. These were presented to the relevant guideline development subgroups to support their discussions and decision-making.

Figure 1. Approach used to select evidence

Rationales

Table 2. Rationale for search range

Question number	Topic area	Original search range	Update search range	Rationale for original search range
5	'Opioids'	01/01/2018 to 10,11/10/2023	01/10/2023 to 29/01/2025	▪ Question previously updated in 2018
6	'Naloxone'	01/01/2018 to 12,14/10/2023	01/10/2023 to 30/01/2025	▪ Following SIGN methodology (last five years)
6a	'Medicinal cannabis'	01/01/2018 to 06/11/2023	01/10/2023 to 22/08/2024	▪ Following SIGN methodology (last five years)
6b‡	'Muscle relaxants'	01/01/2018 to 06/11/2023	01/01/2018 to 24/03/2025*	▪ Following SIGN methodology (last five years)
7	'Simple analgesics'	01/01/2018 to 15,16,17,18/04/2024	01/04/2024 to 30/01/2025	▪ Following SIGN methodology (last five years)
8	'Antiepileptics'	01/01/2018 to 22,23,24/04/2024	01/04/2024 to 13/05/2025	▪ Following SIGN methodology (last five years)
9	'Topical analgesics'	01/01/2018 to 8,9/05/2024	? to 31/10/2024	▪ Following SIGN methodology (last five years)

‡ The group asked for Tizanidine and Dantrolene to be added to the search strategy. The search was re-run on 24/03/2025.

10	‘Antidepressants’	01/01/2018 to 18,20/11/2023	01/10/2023 to 04/02/2025	▪ Following SIGN methodology (last five years)
11	‘Combination pharmacotherapy’	01/01/2013 to 06/12/2024	Not updated (search <6 months old)	▪ Interest in combination pharmacotherapy within guideline development group
12a	‘Hands-on therapy’	01/01/2013 to 07,12,14/12/2023	01/12/2023 to 08/04/2025	▪ Growth in non-pharmacological approaches since guideline published in 2013
12b	‘Hands-off therapy’	01/01/2013 to 28,29,30/12/2023	01/11/2023 to 21/03/2025	▪ Growth in non-pharmacological approaches since guideline published in 2013
12c	‘Electrotherapy’	01/01/2013 to 17,20/11/2023	01/11/2023 to 04/04/2025	▪ Growth in non-pharmacological approaches since guideline published in 2013
13	‘Alternative therapies’	01/01/2013 to 07,08/02/2024	01/02/2024 to 11/04/2025	▪ Growth in non-pharmacological approaches since guideline published in 2013
14a	‘Pain management programmes’	01/01/2018 to 05,09/04/2024	01/04/2024 to 05,06/05/2025	▪ Following SIGN methodology (last five years)

14b	'Psychological therapies'	01/01/2013 to 09,10/01/2024	01/01/2024 to 07/02/2025	▪ Growth in non-pharmacological approaches since guideline published in 2013
15	'Self-help interventions'	01/01/2013 to 08,11/03/2024	01/03/2024 to 03/03/2025	▪ Growth in non-pharmacological approaches since guideline published in 2013
16**	'Dietary interventions'	01/01/2013 to 02/03/2024 Search for new interventions: 01/01/2013 to 06/06/2025	01/01/2024 to 10/04/2025 Search for new interventions: Not updated	▪ Growth in non-pharmacological approaches since guideline published in 2013
17[§]	"Occupation-based interventions'	01/01/2018 to 05/08/2024	06/08/2024 to 04/03/2025	▪ Following SIGN methodology (last five years)

[§] The guideline development group requested an additional search for clinical trials related to pacing interventions. This search was run on 04-07/10/2024.

Table 3. Rationale for selecting reviews.

Question number	Topic area	Rationale for modified SIGN methodology used
5	'Opioids'	**Original search:** 993 potential records; 97 after title and abstract screen, 22 after full-text screen, 21 after critical appraisal. 3 reviews prioritised for the evidence summary presented to guideline development group (Chou et al, 2020, Jeddi et al, 2024, Noori et al, 2022). **Rationale:** ▪ Chou et al (2020), an Agency for Healthcare Research and Quality (AHRQ) was prioritised as the 'index review' owing to AHRQ being an institution using similar robust methods comparable to SIGN. ▪ Jeddi et al (2024), a systematic review using network meta-analysis was identified from the search used for key question 6a – medicinal cannabis and prioritised as it provided further information for the effects of opioids. ▪ Noori et al (2022), a systematic review using network meta-analysis was prioritised owing to it providing further information for the effects of opioids. **Update search:** 303 potential records; 18 after title and abstract screen, 1 after full-text screen, 0 after comparison with prioritised index reviews. **Rationale:** ▪ In the remaining review following full-text screening, overlap analysis revealed 29 of the 34 randomised controlled trials were included in the prioritised review from Chou et al (2020).

6	'Naloxone'	**Original search:** 398 potential records; 15 after title and abstract screen, 1 after full-text screen, 1 after critical appraisal. 1 observational study for the evidence summary presented to guideline development group (Coffin et al, 2016). **Rationale:** ▪ One systematic review identified which included the above observational study. A search for randomised controlled trials was conducted and 0 records were identified. **Update search:** 50 potential records; 3 after title and abstract screen, 0 after full-text screen. **Rationale:** ▪ Not applicable. No randomised controlled trials included.

6a	'Medicinal cannabis'	**Original search:** 235 potential records; 55 after title and abstract screen, 16 after full-text screen, 13 after critical appraisal. 13 reviews prioritised for the evidence summary presented to guideline development group (Barakji et al, 2023, Bialas et al, 2022, Dykukha et al, 2021, Giossi et al, 2022, Jeddi et al, 2024, Johal et al, 2020, McDonagh et al, 2022, McParland et al, 2023, Mucke et al, 2018, Sainsbury et al, 2021, Stockings et al, 2018, Wang et al, 2021, Wong et al, 2020, Zeraatkar et al 2022). **Rationale:** ▪ All reviews post-critical appraisal were included owing to perceived interest in this key question. **Update search:** Rather than simply update the systematic review search, it was decided that a search for RCTs published after the date of the existing systematic review evidence would more accurately identify the existence of any important newer studies which might not yet have been combined into a systematic review. No RCTs were identified. Soliman et al (2025), a systematic review using meta-analysis was identified from the search used for key question 8. Therefore, this review was added to the original evidence summary as an addendum. **Rationale:** ▪ Soliman et al (2025) thought to offer a more recent update for the effects of medicinal cannabis.

6b	'Muscle relaxants'	**Original search:** 196 potential records; 9 after title and abstract screen, 2 after full-text screen, 1 after critical appraisal. 1 review included in evidence review (Shing et al, 2024) **Rationale:** ▪ Owing to 1 review (Oldfield et al, 2024) remaining at full-text screening stage, forward citation tracking identified a further review (Shing et al, 2024). **Update search:** Not updated. **Rationale:** ▪ Only key questions with searches conducted longer than 6 months ago at time of presentation to guideline development group were updated.

7	'Simple analgesics'	**Original search:** 570 potential records; 19 after title and abstract screen, 4 after full-text screen, 2 after critical appraisal. 2 reviews for the evidence summary presented to guideline development group (Gregori et al, 2018, McDonagh et al, 2020). **Rationale:** ▪ Straightforward inclusion of 2 reviews. **Update search:** 126 potential records; 4 after title and abstract screen, 1 after full-text screen, 1 after critical appraisal and comparison with original evidence summary (Cashin et al, 2025). **Rationale:** ▪ Cashin et al (2025) offered further information for NSAIDs in chronic LBP.

8	'Anti-epileptics'	**Original search:** 206 potential records; 44 after title and abstract screen, 31 after full-text screen, 15 after overlap comparison, 12 after critical appraisal, 9 after further comparison, 7 after excluding 2 at evidence synthesis stage due to how little data was presented on the findings of the primary studies. 7 reviews included in evidence review (Alyoubi et al, 2021, Derry et al, 2019, Enke et al, 2018, Jiang et al, 2022, Marchand et al, 2022, McDonagh et al, 2020, Meaadi et al, 2023). **Rationale:** ▪ Alyoubi et al (2021) included as investigating mirogabalin for diabetic peripheral neuropathic pain. ▪ Derry et al (2019) included as investigating pregabalin for neuropathic pain. ▪ Enke et al (2018) included as investigating anti-epileptics for chronic low back pain. ▪ Jiang et al (2022) included as investigating gabapentin for diabetic peripheral neuropathic pain. ▪ Marchand et al (2022) included as investigating gabapentin for chronic female pelvic pain. ▪ McDonagh et al (2020) included as AHRQ review covering anitepileptics for multiple chronic pain conditions. ▪ Meaadi et al (2023) included as investigating pregabalin and gabapentin for neuropathic pain. **Update search:** 56 potential records; 14 after title and abstract screen, 5 after full-text screen, 3 after comparison with original evidence summary, 2 after critical appraisal (Sadegh et al, 2024, Soliman et al, 2025). **Rationale:** ▪ Sadegh et al (2024) included as comparing anti-epileptic drugs with antidepressants.

		▪ Soliman et al (2025) included as comparing anti-epileptics with placebo.
9	'Topical analgesics'	**Original search:** 112 potential records; 22 after title and abstract screen, 5 after full-text screen, 4 after critical appraisal. 4 reviews included in evidence review (Falk et al, 2021, McDonagh et al, 2020, Serednicki et al, 2022, Wiffen et al, 2020). **Rationale:** ▪ Straightforward inclusion of 4 reviews. **Update search:** 10 potential records; 6 after title and abstract screen, 1 after full-text screen, 1 after critical appraisal. 1 review included in evidence review (Soliman et al, 2025) **Rationale:** ▪ Straightforward inclusion of 1 review.

10	'Antidepressants'	**Original search:** 206 potential records; 66 after title and abstract screen, 32 after full-text screen, 1 prioritised for the evidence summary presented to guideline development group after overlap comparison, 1 after critical appraisal (Birkinshaw et al, 2023). **Rationale:** ▪ Birkinshaw et al (2023), a Cochrane systematic review with network meta-analysis was prioritised as the 'index review' owing to Cochrane being an institution using similar robust methods comparable to SIGN. **Update search:** 74 potential records; 11 after title and abstract screen, 6 after full-text screen, and comparison with original evidence summary, 2 after critical appraisal (Narayan et al, 2024, Sadegh et al, 2024). **Rationale:** ▪ Narayan et al (2024) offered a different conclusion to index review and offers new information in older adults. Sadegh et al (2024) offered head-to-head comparison.

11	'Combination pharmacotherapy'	**Original search:** 1,626 potential records; 36 after title and abstract screen, 9 after full-text screen, 5 after overlap comparison, 4 after critical appraisal (Balanaser et al, 2023, Mathieson et al, 2019, Tambon et al, 2023, Thorpe et al, 2018). **Rationale:** ▪ Owing to nine reviews and more than one review in chronic low back pain and neuropathic pain, overlap analysis was conducted and 4 reviews (Afonso et al, 2021, Feise et al, 2023, Tatit et al, 2023, Wiffen et al, 2016) were excluded. **Update search:** Not updated. **Rationale:** ▪ Only key questions with searches conducted longer than 6 months ago at time of presentation to guideline development group were updated

12a	'Hands-on therapy'	**Original search:** 426 potential records; 111 after title and abstract screen, 47 after full-text screen, 12 after comparison with prioritised index review from AHRQ (Skelly et al, 2020), 11 after critical appraisal, 9 left after further comparison (Al Morraissi et al, 2022, Amataya et al, 2018, Coulter et al, 2018, Coulter et al, 2019, Dal Farra et al, 2022, Denneny et al, 2019, Guo et al, 2023, Rubenstein et al, 2019, Skelly et al, 2020). **Rationale:** ▪ Skelly et al (2020), an Agency for Healthcare Research and Quality (AHRQ) was prioritised as the 'index review' owing to AHRQ being an institution using similar robust methods comparable to SIGN. It also evaluated manipulation or massage for chronic low back pain, chronic neck pain, fibromyalgia, chronic pain associated with osteoarthritis of the hip or knee. ▪ Al Morraissi et al (2022) evaluated hands-on interventions for myogenous temporomandibular disorders. ▪ Amataya et al (2018) evaluated reflexology for chronic pain chronic pain associated with multiple sclerosis. ▪ Coulter et al (2018) evaluated hands-on interventions for chronic low back pain. ▪ Coulter et al (2019) evaluated hands-on interventions for chronic neck pain. ▪ Dal Farra et al (2022) evaluated myofascial manual therapies for chronic pelvic pain syndrome. ▪ Denneny et al (2019) evaluated trigger point therapy for chronic pain. ▪ Guo et al (2023) evaluated myofascial release for chronic mechanical neck pain. ▪ Rubenstein et al (2019) evaluated spinal manipulative therapies including manipulation and mobilisation manual therapy techniques for chronic low back pain. **Update search:**

		146 potential records; 12 after title and abstract screen, 4 after full-text screen, 3 after comparison with original evidence summary, 2 after critical appraisal (Cashin et al, 2025, Yao et al, 2024). **Rationale:** ▪ Cashin et al (2025) evaluated acupressure, an intervention not reported in the original evidence summary. ▪ Yao et al (2024) evaluated more hands-on interventions for temporomandibular disorders. No overlap with Al Morraissi et al (2022).

12b	'Hands-off therapy'	**Original search:** 1,651 potential records; 194 after title and abstract screen, 63 after full-text screen, 43 after comparison with prioritised index review from AHRQ (Skelly et al, 2020), 36 after critical appraisal, 10 left after further comparison (Bidonde et al, 2019, Correyero et al, 2023, De Zoete et al, 2021, Hayden et al, 2021, Hayden et al, 2021 (NMA), Kim et al, 2019, Luz Junior et al, 2019, Murillo-Garcia et al, 2022, Skelly et al, 2020, Verville et al, 2023). **Rationale:** ▪ Bidonde et al, (2019) evaluated exercise for fibromyalgia. ▪ Correyero-León et al (2023) evaluated aquatic combined aerobic and strengthening exercise for fibromyalgia. ▪ De Zoete et al (2021), an NMA, evaluated exercise for chronic neck pain. ▪ Hayden et al (2021) evaluated exercise for chronic low back pain. ▪ Hayden et al (2021), an NMA, evaluated exercise for chronic low back pain. ▪ Kim et al, 2019 evaluated flexibility exercise for fibromyalgia. ▪ Luz Junior et al (2019) evaluated Kinesio tape for chronic low back pain. ▪ Murillo-Garcia et al (2022) evaluated creative and repetitive dance for fibromyalgia. ▪ Skelly et al (2020) evaluated exercise for chronic low back pain, chronic neck pain, fibromyalgia, chronic pain associated with hip or knee osteoarthritis. ▪ Verville et al (2023) evaluated structured exercise for chronic low back pain. **Update search:** 412 potential records; 55 after title and abstract screen, 23 after full-text screen, 9 after comparison with original evidence summary, 6 after critical appraisal (Babilioni-Lopez et al, 2024, Gao et al, 2024, Jones et al, 2024, Kang et al, 2024, Wang et al, 2023, Yao et al, 2023).

		Rationale: ▪ Babilioni-Lopez et al (2024) evaluated water-based exercise for chronic low back pain. ▪ Gao et al (2024), an NMA, evaluated mind-body exercise for chronic neck pain and offered conflicting results to the original evidence summary. ▪ Jones et al (2024) evaluated exercise for chronic neck and shoulder pain in office workers. ▪ Kang et al (2024) evaluated tai chi in chronic low back pain, a mind-body exercise not covered in the original evidence summary. ▪ Wang et al (2023) evaluated water-based exercise in chronic musculoskeletal disorders. ▪ Yao et al (2023) was included owing to the focus on temporomandibular disorder, a chronic pain condition not specifically covered by the systematic reviews in the original evidence summary.

12c	'Electrotherapy'	**Original search:** 380 potential records; 84 after title and abstract screen, 35 after full-text screen, 26 after comparison with prioritised index review from AHRQ (Skelly et al, 2020), 18 after critical appraisal, 6 left after further comparison (Amataya et al, 2018, Franco et al, 2018, Johnson et al, 2022, Lu et al, 2018, Mykoniatis et al, 2021, Skelly et al, 2020). **Rationale:** ▪ Amataya et al, 2018 evaluated TENS for chronic low back pain associated with multiple sclerosis. ▪ Franco et al, 2018 evaluated ESWT, TENS, TU for chronic prostatitis/chronic pelvic pain syndrome. ▪ Johnson et al, 2022 evluated TENS for chronic pain ▪ Lu et al, 2018 evalauted LLLT for burning mouth syndrome. ▪ Mykoniatis et al (2021) evaluated LiST for chronic prostatitis/chronic pelvic pain syndrome. ▪ Skelly et al, 2020) evaluated multiple electrotherapy interventions for multiple chronic pain conditions. **Update search:** 124 potential records; 18 after title and abstract screen, 5 after full-text screen, 2 after comparison with original evidence summary), 0 after critical appraisal. **Rationale:** ▪ No systematic reviews included.

13	'Alternative therapies'	**Original search:** 642 potential records; 125 after title and abstract screen, 55 after full-text screen, 24 after comparison with prioritised index review from AHRQ (Skelly et al, 2020), 18 after critical appraisal, 11 left after further comparison (Al Morraissi et al, 2022, Boyd et al, 2019, Coitinho Biurra et al, 2023, Hernandez-Secorun et al, 2023, Langlois et al, 2022, Oltlean et al, 2014, Qin et al, 2022, Mu et al, 2020, Skelly et al, 2020, Sung et al, 2018, Yao et al, 2023). **Rationale:** ▪ Al Morraissi et al (2022) evaluated hypnotherapy interventions for myogenous temporomandibular disorders. ▪ Boyd et al, 2019 evaluated herbal medicine for chronic pain. ▪ Coitinho Biurra et al (2023) evaluated hypnotherapy for chronic pelvic pain. ▪ Hernandez-Secorun et al (2023) evaluated dry-needling for chronic neck pain. ▪ Langlois et al (2022) evaluated hypnosis for musculoskeletal and neuropathic pain. ▪ Oltlean et al (2014) evaluated herbal medicine for non-specific low back pain ▪ Qin et al (2022) evaluated acupuncture for chronic prostatitis/chronic pelvic pain syndrome. ▪ Mu et al (2020) evaluated acupuncture for chronic low back pain. ▪ Skelly et al (2020) evaluated acupuncture for multiple chronic pain conditions. ▪ Sung et al (2018) evaluated acupuncture evaluated acupuncture for chronic pelvic pain in women. ▪ Yao et al (2023) a NMA, evaluated acupuncture for temporomandibular disorders. **Update search:** 119 potential records; 18 after title and abstract screen, 4 after full-text screen, 4 after comparison with original evidence summary), 3 after critical appraisal (Fang et al, 2024, Jones et al, 2024, Starzec-Proserpio et al, 2025).

		Rationale: ▪ Fang et al (2024) review evaluated more clinical trials in acupuncture than Skelly et al (2020). ▪ Jones et al (2024) review evaluated more clinical trials in hypnosis than Langlois et al (2022). ▪ Starzec-Proserpio et al (2025) review evaluated acupuncture in female chronic pelvic pain.
14a	'Pain management programmes'	**Original search:** 2,800 potential records; 108 after title and abstract screen, 4 after full-text screen, 1 after comparison with prioritised index review from AHRQ (Skelly et al, 2021), 1 after critical appraisal, 11 left after further comparison (Skelly et al, 2021). **Rationale:** ▪ Skelly et al (2021) aligned with guideline development group definition of pain management programme. **Update search:** 734 potential records; 18 after title and abstract screen, 1 after full-text screen, 0 after comparison with original evidence summary. **Rationale:** ▪ No systematic reviews included.

14b	'Psychological therapies'	**Original search:** 459 potential records; 126 after title and abstract screen, 22 after full-text screen, 17 after comparison with prioritised index reviews from AHRQ (Rosser et al, 2023, Skelly et al, 2020, Williams et al, 2020), 13 after critical appraisal, 4 left after further comparison AHRQ (Khoo et al, 2019, Rosser et al, 2023, Skelly et al, 2020 Williams et al, 2020). **Rationale:** ▪ Khoo et al (2019), a NMA evaluating CBT and MBSR for chronic pain. ▪ Rosser et al (2023), a Cochrane review evaluating remotely delivered ACT and CBT for chronic pain. ▪ Skelly et al (2020) evaluating multiple psychological interventions for multiple chronic pain conditions. ▪ Williams et al (2020), a Cochrane review evaluating ACT and CBT for chronic pain. **Update search:** 107 potential records; 29 after title and abstract screen, 11 after full-text screen, 2 after comparison with original evidence summary, 0 after critical appraisal. **Rationale:** ▪ No systematic reviews included.

15	'Self-help interventions'	**Original search:** 268 potential records; 78 after title and abstract screen, 19 after full-text screen, 17 after critical appraisal, 4 after comparison with prioritised index reviews (Cargin et al, 2023, Moreno-Ligero et al, 2023, Scholz et al, 2023, Wilson et al, 2024). **Rationale:** ▪ Wilson et al, (2024) - a systematic review with meta-analysis examining the effectiveness of peer support interventions for adults with chronic musculoskeletal pain. ▪ Cargnin et al (2023) - a systematic review of digital self-care interventions for pain and function in people with spine musculoskeletal disorders (neck pain, back pain or low back pain). ▪ Moreno-Ligero et al, (2023) - a systematic review exploring the effectiveness of mobile health (mHealth) interventions on pain, function and quality of life for people with chronic pain conditions. ▪ Scholz et al, (2023) - a systematic review with meta-analysis examining the effect of digital self-management interventions on various aspects of pain (intensity, catastrophising and interference/disability) for people with chronic low back pain. **Update search:** 41 potential records; 5 after title and abstract screen, 0 after full-text screen. **Rationale:** ▪ No systematic reviews included.

16	'Dietary interventions'	**Original search:** 278 potential records; 35 after title and abstract screen, 7 after full-text screen, 6 prioritised index reviews, 4 after critical appraisal (Chong et al, 2022, Gregori et al, 2018, Sodha et al, 2013, Straube et al, 2015). **Rationale:** Straightforward inclusion of 4 reviews. **Update search:** 56 potential records; 10 after title and abstract screen, 1 after full-text screen, 1 after comparison with original evidence summary, 1 after critical appraisal (Lee et al, 2024). **Rationale:** ▪ Lee et al (2024) evaluated vitamin D supplementation for chronic low back pain. **Search for new interventions:** **Original search:** 83 potential records; 34 after title and abstract screen, 7 after full-text screen, 6 after critical appraisal (Crawford et al, 2019, Elma et al, 2020, Field et al, 2021, Frediani et al, 2024, Sinopoulou et al, 2021 – Crohn's disease and inflammatory bowel disease, Sinopoulou et al, 2021 – Ulcerative colitis). **Rationale:** ▪ Straightforward inclusion of 6 reviews for new interventions.

17	"Occupation-based interventions'	**Original search:** 520 potential records; 18 after title and abstract screen, 5 after full-text screen, 4 after critical appraisal, 3 after further comparison (Guy et al, 2019, Wergryznek et al, 2020, Whale et al, 2022). **Rationale:** ▪ Straightforward inclusion of 3 reviews. **Update search:** 54 potential records; 1 after title and abstract screen, 0 after full-text screen. **Rationale:** ▪ No systematic reviews included.

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Appendix 1 - Protocols

Key question 5 (opioids) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	01/10/2023
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In people with chronic non-malignant pain are opioids more likely than placebo or other interventions to improve pain severity, functional ability, and/or quality of life, and/or to cause adverse events/drug reactions, or dependency (physiological or psychological)? Consideration will be given to the following: • Anti-epileptic drugs and opioid coprescribing • Tolerance and changes over time • High-dose versus low-dose • Efficacy and pain potentiation
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Opioids administered via oral, buccal and transdermal routes, including buprenorphine, co-codamol, codeine, co-dydramol, diamorphine, dihydrocodeine, fentanyl, hydromorphone, meptazinol, methadone, morphine, oxycodone, tapentadol, targinact, tramadol Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • Placebo

Section	Content
	• Other active comparator(s) Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events or drug reactions (drug related deaths) including long term risk of harm • Dependency (physiological or psychological) Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2018 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies

Section	Content
	• Human studies We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.

Section	Content
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Lorna Thompson (Health service researcher) Chloe Fawns-Ritchie - External research collaborator Dhan Senaratne - External research collaborator
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Opioids
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk

Key question 6 (naloxone) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	16/10/2023
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	Should naloxone be coprescribed when opioids are used for chronic pain (or when long-term/high-dose opioids are prescribed)?
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Naloxone coprescription Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • No prescription of naloxone Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events or drug reactions (drug related deaths) including long term risk of harm • Dependency (physiological or psychological)

Section	Content
	Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. • Primary studies (where no relevant systematic reviews are identified). Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2018 onwards: • Embase • MEDLINE • Cochrane Database of Systematic Reviews Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further.

Section	Content
	• We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Intervention
18. Language	English
19. Country	Scotland

Section	Content
20. Review team members	Igor Brbre (Information scientist) Jenny Harbour (Health service researcher) Pamela Jenkins (Health service researcher) Lorna Thompson (Health service researcher)
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Coprescribing Naloxone
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 6a (cannabis) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	07/11/2023
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of medicinal cannabis compared with placebo or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse drug reactions or dependency (physiological or psychological)? Consideration will be given to the following: • All methods of delivery
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Medicinal cannabis (*Cannabis sativa*) Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • Placebo • Other active comparator(s) Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster

Section	Content
	Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events or drug reactions (drug related deaths) including long term risk of harm • Dependency (physiological or psychological) • Opioid use Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2018 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.

Section	Content
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.

Section	Content
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Pamela Jenkins (Health service researcher) Lorna Thompson (Health service researcher) Lucy Whitaker - External research collaborator Mia Koponen - External research collaborator
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Medicinal cannabis
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 6b (muscle relaxants) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	01/10/2023
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of muscle relaxants compared with placebo or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse drug reactions or dependency (physiological or psychological)?
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Muscle relaxants including baclofen, benzodiazepines (diazepam, lorazepam – see BNF for others), methocarbamol Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • Placebo • Other active comparator(s) Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster

Section	Content
	Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events or drug reactions • Dependency (physiological or psychological) • Opioid use Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2018 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software.

Section	Content
	• Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews

Section	Content
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Lorna Thompson (Health service researcher)
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Muscle relaxants Baclofen Benzodiazepines Diazepam Lorazepam Methocarbamol
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 7 (simple analgesics) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	19/04/2024
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of simple analgesics compared with placebo or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse events/drug reactions or dependency (physiological or psychological)?
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • COX inhibitors, COX-2, nefopam, non-steroidal anti-inflammatories (NSAIDS), acetaminophen (paracetamol) Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • Placebo • Other active comparator(s) Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster

Section	Content
	Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events or drug reactions • Dependency (physiological or psychological) Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2018 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software.

Section	Content
	• Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews

Section	Content
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Lorna Thompson (Health service researcher)
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Acetaminophen (paracetamol) COX inhibitors COX-2 Nefopam, Non-steroidal anti-inflammatories (NSAIDS)
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 8 (anti-epileptics) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	25/04/2024
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of anti-epileptic drugs compared with placebo or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse drug reactions or dependency (physiological or psychological)?
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Gabapentin, pregabalin, sodium valproate, carbamazepine/oxcarbazepine, topiramate, lamotrigine, lacosamide, levetiracetam and mirogabalin Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • Placebo • Other active comparator(s) Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster

Section	Content
	Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events or drug reactions (• Dependency (physiological or psychological) Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2018 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software.

Section	Content
	• Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews

Section	Content
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Lorna Thompson (Health service researcher)
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Anti-epileptic Gabapentin Pregabalin Sodium valproate Carbamazepine/oxcarbazepine Topiramate Lamotrigine Lacosamide Levetiracetam Mirogabalin
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 9 (topical analgesics) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	10/05/2024
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of topical analgesics compared with placebo or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse events/drug reactions or dependency (physiological or psychological)?
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Topical analgesics including lidocaine patch, capsaicin cream or patch, topical non-steroidal anti-inflammatories, other unlicensed topical preparations eg gabapentin Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • Placebo • Other active comparator(s) Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction)

Section	Content
	• Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events or drug reactions • Dependency (physiological or psychological) Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2018 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:**

Section	Content
	• We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.

Section	Content
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Lorna Thompson (Health service researcher)
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Topical analgesics Lidocaine patch Capsaicin cream Non-steroidal anti-inflammatories
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 10 (antidepressants) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	20/10/2023
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of antidepressants compared with placebo or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life, adverse events/drug reactions or dependency (physiological or psychological)?
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Antidepressants including tricyclics (amitriptyline, nortriptyline, clomipramine, imipramine), selective serotonin reuptake inhibitors: (fluoxetine, citalopram, sertraline, paroxetine, escitalopram) and serotonin and norepinephrine reuptake inhibitors (duloxetine, mirtazapine, venlafaxine) Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • Placebo • Other active comparator(s) Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s):

Section	Content
	• Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events or drug reactions (drug related deaths) including long term risk of harm • Dependency (physiological or psychological) Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative, meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2018 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.

Section	Content
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, eg Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.

Section	Content
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Jenny Harbour (Health service researcher) Lorna Thompson (Health service researcher) Christine Pacitti- External research collaborator Julie Stewart - External research collaborator
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Antidepressants
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 11 (combination pharmacotherapy) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	05/12/2024
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-cancer related pain what is the effectiveness of combination pharmacological therapies compared with single pharmacological therapies?
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Combinations of pharmacological agents (polypharmacy) Exclusion(s): • Not applicable Consider: Maximum safe doses Safety of opioids plus gabapentin
9. Comparator(s) or control	Inclusion(s): • Single pharmacological therapies Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster

Section	Content
	Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events or drug reactions (drug related deaths) including long term risk of harm • Dependency (physiological or psychological) Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2013 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software.

Section	Content
	• Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews

Section	Content
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Lorna Thompson (Health service researcher)
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Combination pharmacotherapy
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 12a (hands-on interventions) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	14/12/2023
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of hands-on based interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events?
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Manual therapy including manipulation, mobilisation, Maitland concept, McKenzie concept, Mulligan concept • Massage including sports massage, deep tissue and reflexology Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • No treatment • Other active comparator(s) • Placebo • Usual care • Waiting list Exclusion(s): • Not applicable

Section	Content
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events or drug reactions (drug related deaths) including long term risk of harm • Adherence to the prescribed intervention • Healthcare use/attendance Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2013 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies

Section	Content
	We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, eg Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any

Section	Content
	differences will be reconciled to a final agreed quality rating.
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Lorna Thompson (Health service researcher) Pamela Jenkins (Health service researcher) Jenifer Dallas - External research collaborator
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Manual therapy Massage
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 12b (hands-off interventions) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	04/12/2023
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of hands-off based interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events?
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Exercise including aerobic, resistance, high intensity interval training, stretching, tai chi, pilates, yoga, swimming • Physical activity as defined by WHO: any bodily movement produced by skeletal muscles that requires energy expenditure. Physical activity refers to all movement including during leisure time, for transport to get to and from places, or as part of a person's work. • Reducing sedentary activity • Mobility aids including walking stick, walking frame and wheelchairs. • Orthoses including supports, braces and splinting. Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • No treatment

Section	Content
	• Other active comparator(s) • Placebo • Usual care • Waiting list Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events or drug reactions (drug related deaths) including long term risk of harm • Dependency (physiological or psychological) Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2013 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies.

Section	Content
	• We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data.

Section	Content
	• Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Lorna Thompson (Health service researcher) Pamela Jenkins (Health service researcher) Bhushan Thakkar - External research collaborator Paul Barratt - External research collaborator
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Exercise Physical activity Orthoses

Section	Content
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 12c (electrotherapy interventions) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	21/11/2023
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of electrotherapy-based interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events?
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Electrotherapy including interferential current, laser therapy (low-level and high-level laser therapy), pulsed-shortwave diathermy, ultrasound microcurrent therapy, shockwave therapy, transcutaneous electrical nerve stimulation (TENS) Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • No treatment • Placebo • Usual care • Wait list • Other non-pharmacological interventions Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s):

Section	Content
	• Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events • Adherence to the prescribed intervention • Healthcare use/utilisation Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2018 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.

Section	Content
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.

Section	Content
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland
20. Review team members	Catriona Vernal (SIGN programme manager) Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Lorna Thompson (Health service researcher)
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Electrotherapy TENS Interferential Laser therapy Pulsed-shortwave diathermy Ultrasound Microcurrent therapy Shockwave therapy
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 13 (complimentary therapies) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	12/02/2024
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of complementary/alternative interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events? Consideration will be given to the following: • Homeopathy: Individualised (or classical) homeopathy, involves a consultation followed by the prescription of a homeopathic medicine individualised to the patient; Clinical homeopathy, where the same homeopathic medicine is used for a group of patients all presenting with the same clinical condition (e.g. lycopodium for IBS, arnica for bruising); Complex homeopathy, where a number of different homeopathic medicines are given either in a fixed combination or concurrently; and Isopathy, where the homeopathic medicine is based on the substance which has led to the problem (e.g. grass pollen for hay fever). • Herbal medicine: All or part of a plant used for medicinal purposes, administered orally (ingestion) or applied topically (Does not include Cannabis sativa), individual chemicals derived from plants, or synthetic chemicals that were based on constituents of plants
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s):

Section	Content
	• Alternative interventions include acupuncture (including dry needling and electroacupuncture), aromatherapy, homeopathy, herbal medicine, hypnotherapy, music therapy, reiki Consideration will be given to the following: • Homeopathy: Individualised (or classical) homeopathy, involves a consultation followed by the prescription of a homeopathic medicine individualised to the patient; Clinical homeopathy, where the same homeopathic medicine is used for a group of patients all presenting with the same clinical condition (e.g. lycopodium for IBS, arnica for bruising); Complex homeopathy, where a number of different homeopathic medicines are given either in a fixed combination or concurrently; and Isopathy, where the homeopathic medicine is based on the substance which has led to the problem (e.g. grass pollen for hay fever). • Herbal medicine: All or part of a plant used for medicinal purposes, administered orally (ingestion) or applied topically (Does not include Cannabis sativa), individual chemicals derived from plants, or synthetic chemicals that were based on constituents of plants Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • No treatment • Placebo • Other active comparator(s) • Usual care • Waiting list Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events • Adherence to the prescribed intervention

Section	Content
	• Healthcare use/utilisation Exclusion(s): • Not applicable •
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2013 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further.

Section	Content
	• We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland

Section	Content
20. Review team members	Graham Boniface (Health service researcher) Hilda Emengo (Health service researcher) Igor Brbre (Information scientist) Jenny Harbour (Health service researcher) Joanna Kelly (Health service researcher) Lorna Thompson (Health service researcher) Ariane Sultana - External research collaborator Tom Herbert - External research collaborator
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Complementary therapies Acupuncture Herbal medicine Homeopathy
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 14a (pain management programmes) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	18/04/2024
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of pain management programmes compared with no treatment or other interventions on pain scores, functional ability, mood, quality of life and adverse events? Consideration will be given to the following: • Face-to face and remote (online) delivery.
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache

8. Intervention(s)	Inclusion(s):
	• Pain management programmes with the following characteristics:
	  • Psychologically informed (eg has components such as cognitive behavioural therapy (CBT) or pain neuroscience education (PNE))
	  • Delivered in a group setting (typically over a number of weekly sessions, online or face-to-face)
	  • Multiple interventions delivered concurrently (eg movement like exercise or physical activity, CBT, PNE, medication review)
	  • Led by healthcare professionals from more than one professional group
	Exclusion(s):

Section	Content
	• If a review includes a mix of individual and group pain management programmes, we will exclude the review if less than 80% of interventions are group-based.
9. Comparator(s) or control	Inclusion(s): • No treatment • Other active comparator(s) Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Mood • Quality of life, eg EQ-5D, SF-36 • Adverse events Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Secondary care Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2018 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE • CINAHL Other searches:

Section	Content
	• We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data.

Section	Content
	• Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland
20. Review team members	Donald Nicolson (Health service researcher) Graham Boniface (Health service researcher) Hilda Emengo (Health service researcher) Igor Brbre (Information scientist) Joanna Kelly (Health service researcher) Lorna Thompson (Health service researcher) Moray Nairn (SIGN programme manager)
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Opioids

Section	Content
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 14b (psychological therapies) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	12/01/2024
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of psychological therapy compared with no treatment or other interventions on pain scores, functional ability, mood, quality of life or adverse events? Consideration will be given to the following: • Mode of delivery (digital/telehealth) • Intensity • Who delivers intervention
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Psychological interventions including acceptance and commitment therapy (ACT), biofeedback, cognitive behavioural therapy (CBT), mindfulness-based interventions, relaxation • Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • No treatment • Other active comparator(s) Exclusion(s): • Not applicable

Section	Content
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Mood • Quality of life, eg EQ-5D, SF-36 • Adverse events Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2013 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE • PsycINFO Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.

Section	Content
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.

Section	Content
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Jenny Harbour (Health service researcher) Lorna Thompson (Health service researcher)
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain ACT Biofeedback CBT Mindfulness Relaxation
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 15 (self-help interventions) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	11/03/2024
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with non-malignant chronic pain what is the effectiveness of patient and lay self-help advice compared with no treatment or other interventions on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events? Consideration will be given to the following: • Consider: intensity of programmes, mode of delivery (i.e. is telephone/video contact as effective as face to face)
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Interventions including bibliotherapy, unguided self-help, computer-guided self-help, structured or guided self-help, self-help groups versus one-to-one interventions, shorter, structured educational classes Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • No treatment • Other active comparator(s) Exclusion(s): • Not applicable

Section	Content
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2013 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE • PsycINFO Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.

Section	Content
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.

Section	Content
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland
20. Review team members	Donald Nicolson (Health service researcher) Igor Brbre (Information scientist) Jenny Harbour (Health service researcher) Lorna Thompson (Health service researcher) Rebecca Hunter - External research collaborator Tom Herbert - External research collaborator
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Self-help interventions
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 16 (dietary interventions) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	02/02/2024
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain is there any evidence for the effectiveness of dietary interventions compared with usual care on pain scores (30% reduction and 50% reduction), functional ability, quality of life or adverse events? Consideration will be given to the following: • Weight management
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Vitamins (B, C, D) • Omega-3 • Antioxidants • Glucosamine • Chondroitin • Dietary/nutritional supplements or replacements Later interventions added: • High fibre diets • Low FODMAP diets • Magnesium supplements • Turmeric (curcuma) Exclusion(s): • Not applicable

Section	Content
9. Comparator(s) or control	Inclusion(s): • Usual care Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% or more reduction and 50% or more reduction) • Functional ability, eg brief pain inventory (BPI), pain disability index, Western Ontario and McMaster Universities Arthritis Index and Roland-Morris Disability Questionnaire (RDQ) • Quality of life, eg EQ-5D, SF-36 • Adverse events Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Non-specialist pain services, ie any setting where the training and infrastructure is not specifically designed for treating patients with chronic pain. Exclusion(s): • Not applicable
13. Searches	We will search the following databases from 01/01/2013 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to:

Section	Content
	• English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:** • We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.

Section	Content
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Lorna Thompson (Health service researcher)
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain Dietary supplements
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/

Key question 17 (occupational-based interventions) protocol

Section	Content
1. Type of product	Scottish Intercollegiate Guidelines Network (SIGN) guideline
2. Title	Management of chronic pain
3. Start date	06/08/2024
4. Named contact and contact email	Dr Moray Nairn moray.nairn@nhs.scot
5. Condition or domain being studied	Chronic pain
6. Review question	In patients with chronic non-malignant pain what is the effectiveness of occupational-based interventions on pain scores (30% reduction and 50% reduction), functional performance, physical capacity, engagement in personally meaningful occupations, return to work rates, quality of life or adverse events?
7. Population(s) or participants	Inclusion(s): • Adults aged 18 years and over with chronic non-cancer related pain for three or more months. Exclusion(s): • Adults with chronic headache
8. Intervention(s)	Inclusion(s): • Energy conservation strategies • Activity pacing/activity management/graded activity/grading activity/adapting activity • Postural and positioning strategies • Sensory integration strategies to help individuals monitor environmental triggers or exacerbating factors • Therapeutic education and disease self-management training, including trigger identification, symptom tracking and pain flare-up planning • Advocacy skills development • Community reintegration strategies • Environmental adaptations and or equipment provision/ADL equipment (e.g., shower seat, toilet seat raise, walking frame or stick) • Meaningful daily activity/meaningful occupation/enabling occupation • Sleep hygiene

Section	Content
	• Vocational rehabilitation Exclusion(s): • Not applicable
9. Comparator(s) or control	Inclusion(s): • Usual care • Wait list • Attention control • Other active comparator(s) Exclusion(s): • Not applicable
10. Main outcome(s)	Inclusion(s): • Pain scores (30% reduction and 50% reduction) • Occupational performance (e.g. Canadian Occupational Performance Measure (COPM) or the activity engagement domain from the Chronic Pain Acceptance Questionnaire (CPAQ) • Engagement in personally meaningful occupations (e.g. Canadian Occupational Performance Measure (COPM), Pain Disability Questionnaire (PDQ)) • Work/employment related outcomes (e.g. return to work rates, satisfaction in work life balance, confidence to manage long term condition at work) • Quality of life • Adverse events Exclusion(s): • Not applicable
11. Types of studies to be included	Inclusion(s): • Published systematic reviews (including narrative meta-analysis and network meta-analysis) of randomised controlled trials (RCTs) or observational studies. Exclusion(s): • Umbrella reviews • Scoping reviews
12. Context or setting	Inclusion(s): • Primary care • Secondary care Exclusion(s): • Not applicable

Section	Content
13. Searches	We will search the following databases from 01/01/2018 onwards: • Cochrane database of systematic reviews • Embase • MEDLINE Other searches: • We will not systematically search the reference lists of retrieved included studies. • We may incorporate additional evidence sources identified during the review process. Searches will be limited to: • English language studies • Human studies We will publish the full search strategies as supporting material to the guideline.
14. Selection of studies and data extraction	**Selection of studies:** • We will de-duplicate all records identified by the searches in EndNote and upload into EPPI-Reviewer software. • Two reviewers will independently screen the title and abstract of every evidence source retrieved, to determine which studies should be assessed further. • We will retrieve the full text of potentially eligible evidence sources and assess them in line with the criteria outlined above. • If we are unable to access the evidence source as full text, we will contact the corresponding author. • We will resolve any disagreements through discussion or referral to a third reviewer. Additionally, for reviews of reviews: • If, following full-text screening, multiple (10 or more) reviews meet the inclusion criteria, we will prioritise those published by institutions using robust methods that are most comparable to SIGN's, e.g Agency for Healthcare Research and Quality, Cochrane Collaboration. • We will supplement prioritised reviews, where appropriate, with the most recent reviews that add useful further information for developing recommendations related to the key question. • Where disagreement exists in selecting reviews, we will seek consensus from the guideline development group. **Data extraction:**

Section	Content
	• We will use a standardised form to extract data from studies. • One reviewer will independently extract key participant and intervention characteristics and report data on efficacy outcomes and adverse events. • A second reviewer will quality assure extracted data. • Where statistical data differs between text and table or graph (eg forest plot), we will take the data from the latter.
15. Risk of bias (quality) assessment	• Two reviewers will assess independently risk of bias (quality) using the appropriate SIGN checklist and any differences will be reconciled to a final agreed quality rating.
16. Strategy for data synthesis	• We will summarise narratively the key findings of studies and evidence tables may be developed, where appropriate, to aid considered judgement.
17. Type of review	Select type of review from drop down list below: Review of reviews
18. Language	English
19. Country	Scotland
20. Review team members	Graham Boniface (Health service researcher) Igor Brbre (Information scientist) Lorna Thompson (Health service researcher)
21. Collaborators	We will publish the list of guideline development group members and collaborators within the published guideline on the Right Decision Service website - https://rightdecisions.scot.nhs.uk/
22. Conflicts of interest	The review authors declare that they have no known conflicts of interest. Conflicts of interest are managed by Healthcare Improvement Scotland according to its declarations of interest policy.
23. Funding source(s) or sponsor	This guideline will be completed by SIGN and Healthcare Improvement Scotland's Research and Information Service, which receive funding from Healthcare Improvement Scotland/Scottish Government.
24. Keywords	Chronic pain

Section	Content
	Occupation-based therapy
25. Details of final publication	Right Decision Service - https://rightdecisions.scot.nhs.uk/ SIGN - https://www.sign.ac.uk/