

# Chronic pain: assessment and management

NICE guideline: search strategies

*NICE guideline*

*Search strategies*

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*This guideline was developed by the  
National Guideline Centre*



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# Appendix A: Search strategy 1

## Chronic pain search strategy1

This literature search strategy was used for the following review:

- What is the clinical and cost effectiveness of acupuncture or dry needling for the management of chronic primary pain?

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual.<sup>1</sup>

For more information, please see the Methods Report published as part of the accompanying documents for this guideline.

## A.1 Clinical search literature search strategy

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 1: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2019 Issue 11 of 12 CENTRAL to 2019 Issue 11 of 12	None

### Medline search terms

1.	Chronic pain/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp Complex Regional Pain Syndromes/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
6.	fibromyalgia/
7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	exp myofascial pain syndromes/

15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
24.	or/1-23
25.	letter/
26.	editorial/
27.	news/
28.	exp historical article/
29.	Anecdotes as Topic/
30.	comment/
31.	case report/
32.	(letter or comment*).ti.
33.	or/25-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animals/ not humans/
37.	exp Animals, Laboratory/
38.	exp Animal Experimentation/
39.	exp Models, Animal/
40.	exp Rodentia/
41.	(rat or rats or mouse or mice).ti.
42.	or/35-41
43.	24 not 42
44.	limit 43 to English language
45.	exp acupuncture therapy/
46.	acupuncture points/
47.	electroacupuncture/
48.	(acupuncture or electro acupuncture or electroacupuncture or dry needl*).ti,ab.
49.	or/45-48
50.	randomized controlled trial.pt.
51.	controlled clinical trial.pt.
52.	randomi#ed.ti,ab.
53.	placebo.ab.
54.	randomly.ti,ab.
55.	Clinical Trials as topic.sh.
56.	trial.ti.
57.	or/50-56

58.	Meta-Analysis/
59.	exp Meta-Analysis as Topic/
60.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
61.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
62.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
63.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
64.	(search* adj4 literature).ab.
65.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
66.	cochrane.jw.
67.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
68.	or/58-67
69.	44 and 49 and (57 or 68)

### Embase search terms

1.	Chronic pain/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp Complex regional pain syndrome/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
6.	fibromyalgia/
7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	myofascial pain/
15.	noncardiac chest pain/
16.	cystalgia/
17.	Pelvis pain syndrome/
18.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
19.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
20.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
21.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
22.	(temporomandibular adj3 joint adj3 pain).ti,ab.
23.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
24.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
25.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
26.	or/1-25
27.	letter.pt. or letter/

28.	note.pt.
29.	editorial.pt.
30.	case report/ or case study/
31.	(letter or comment*).ti.
32.	or/27-31
33.	randomized controlled trial/ or random*.ti,ab.
34.	32 not 33
35.	animal/ not human/
36.	nonhuman/
37.	exp Animal Experiment/
38.	exp Experimental Animal/
39.	animal model/
40.	exp Rodent/
41.	(rat or rats or mouse or mice).ti.
42.	or/34-41
43.	26 not 42
44.	limit 43 to English language
45.	exp acupuncture/
46.	electroacupuncture/
47.	(acupuncture or electro acupuncture or electroacupuncture or dry needl*).ti,ab.
48.	or/45-47
49.	randomized controlled trial.pt.
50.	controlled clinical trial.pt.
51.	randomi#ed.ti,ab.
52.	placebo.ab.
53.	randomly.ti,ab.
54.	Clinical Trials as topic.sh.
55.	trial.ti.
56.	or/49-55
57.	Meta-Analysis/
58.	exp Meta-Analysis as Topic/
59.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
60.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
61.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
62.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
63.	(search* adj4 literature).ab.
64.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
65.	cochrane.jw.
66.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
67.	or/57-66
68.	44 and 48 and (56 or 67)

### Cochrane search terms

#1.	MeSH descriptor: [Chronic Pain] explode all trees
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#2.	((chronic or persist* or idiopathic or atypical or a-typical) near/4 pain):ti,ab
#3.	MeSH descriptor: [Complex Regional Pain Syndromes] explode all trees
#4.	(complex regional pain syndrome* or CRPS or causalgia):ti,ab
#5.	((reflex or sympathetic) near/2 dystroph*):ti,ab
#6.	MeSH descriptor: [Fibromyalgia] explode all trees
#7.	(fibromyalgia* or fibrositis or myofascial pain syndrome):ti,ab
#8.	MeSH descriptor: [Vulvodynia] explode all trees
#9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis):ti,ab
#10.	MeSH descriptor: [Cystitis, Interstitial] explode all trees
#11.	(interstitial near/2 cystitis):ti,ab
#12.	MeSH descriptor: [Reflex Sympathetic Dystrophy] explode all trees
#13.	(algodystroph* or sudek or sudeck*):ti,ab
#14.	MeSH descriptor: [Myofascial Pain Syndromes] explode all trees
#15.	(loinpain near (haematuria or hematuria) near syndrome*):ti,ab
#16.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS):ti,ab
#17.	((pelvic or pelvis) near pain syndrome*):ti,ab
#18.	((non-cardiac or noncardiac) near/3 chest near/3 pain):ti,ab
#19.	(temporomandibular near/3 joint near/3 pain):ti,ab
#20.	((prostate or vulv* or bladder or perineal) near/3 pain):ti,ab
#21.	(functional pain syndrome* or non-cancer pain or noncancer pain):ti,ab
#22.	((pelvic or pelvis or abdominal) near/3 pain near/3 (unknown or un-known or idiopathic or atypic* or a-typic*)):ti,ab
#23.	(or #1-#22)
#24.	MeSH descriptor: [Acupuncture Therapy] explode all trees
#25.	MeSH descriptor: [Acupuncture Points] explode all trees
#26.	MeSH descriptor: [Electroacupuncture] explode all trees
#27.	(acupuncture or electro acupuncture or electroacupuncture or dry needl*):ti,ab
#28.	(or #24-#27)
#29.	#23 and #28

## A.2 Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to a Chronic Pain population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase for health economics and economic modelling.

**Table 2: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling studies

Database	Dates searched	Search filter used
Embase	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling studies
Centre for Research and Dissemination (CRD)	HTA - Inception – 30 September 2019 NHSEED - Inception to March 2015	None

### Medline (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex Regional Pain Syndromes/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	fibromyalgia/
7.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	exp myofascial pain syndromes/
15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*).ti,ab.
24.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
25.	or/1-24
26.	letter/
27.	editorial/
28.	news/
29.	exp historical article/
30.	Anecdotes as Topic/
31.	comment/

32.	case report/
33.	(letter or comment*).ti.
34.	or/26-33
35.	randomized controlled trial/ or random*.ti,ab.
36.	34 not 35
37.	animals/ not humans/
38.	exp Animals, Laboratory/
39.	exp Animal Experimentation/
40.	exp Models, Animal/
41.	exp Rodentia/
42.	(rat or rats or mouse or mice).ti.
43.	or/36-42
44.	25 not 43
45.	Economics/
46.	Value of life/
47.	exp "Costs and Cost Analysis"/
48.	exp Economics, Hospital/
49.	exp Economics, Medical/
50.	Economics, Nursing/
51.	Economics, Pharmaceutical/
52.	exp "Fees and Charges"/
53.	exp Budgets/
54.	budget*.ti,ab.
55.	cost*.ti.
56.	(economic* or pharmaco?economic*).ti.
57.	(price* or pricing*).ti,ab.
58.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
59.	(financ* or fee or fees).ti,ab.
60.	(value adj2 (money or monetary)).ti,ab.
61.	or/45-60
62.	exp models, economic/
63.	*Models, Theoretical/
64.	*Models, Organizational/
65.	markov chains/
66.	monte carlo method/
67.	exp Decision Theory/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/62-70
72.	44 and (61 or 71)

### Embase (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex regional pain syndrome/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	((reflex or sympatheti) adj2 dystroph*).ti,ab.
7.	fibromyalgia/
8.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
9.	vulvodynia/
10.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
11.	interstitial cystitis/
12.	(interstitial adj2 cystitis).ti,ab.
13.	algodystrophy/
14.	(algodystroph* or sudek or sudeck*).ti,ab.
15.	myofascial pain/
16.	noncardiac chest pain/
17.	cystalgia/
18.	Pelvis pain syndrome/
19.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
20.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
21.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
22.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
23.	(temporomandibular adj3 joint adj3 pain).ti,ab.
24.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
25.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
26.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
27.	or/1-26
28.	letter.pt. or letter/
29.	note.pt.
30.	editorial.pt.
31.	case report/ or case study/
32.	(letter or comment*).ti.
33.	or/28-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animal/ not human/
37.	nonhuman/
38.	exp Animal Experiment/
39.	exp Experimental Animal/
40.	animal model/

41.	exp Rodent/
42.	(rat or rats or mouse or mice).ti.
43.	or/35-42
44.	27 not 43
45.	health economics/
46.	exp economic evaluation/
47.	exp health care cost/
48.	exp fee/
49.	budget/
50.	funding/
51.	budget*.ti,ab.
52.	cost*.ti.
53.	(economic* or pharmaco?economic*).ti.
54.	(price* or pricing*).ti,ab.
55.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
56.	(financ* or fee or fees).ti,ab.
57.	(value adj2 (money or monetary)).ti,ab.
58.	or/45-57
59.	statistical model/
60.	exp economic aspect/
61.	59 and 60
62.	*theoretical model/
63.	*nonbiological model/
64.	stochastic model/
65.	decision theory/
66.	decision tree/
67.	monte carlo method/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/61-70
72.	44 and (58 or 71)

### NHS EED and HTA (CRD) search terms

1.	MeSH DESCRIPTOR Chronic Pain EXPLODE ALL TREES
2.	(((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*))
3.	(((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain))
4.	MeSH DESCRIPTOR Complex Regional Pain Syndromes EXPLODE ALL TREES
5.	((complex regional pain syndrome* or CRPS or causalgia))
6.	MeSH DESCRIPTOR Fibromyalgia EXPLODE ALL TREES
7.	(((reflex or sympathetic) adj2 dystroph*))
8.	MeSH DESCRIPTOR Vulvodynia EXPLODE ALL TREES
9.	((vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis))

10.	MeSH DESCRIPTOR Cystitis, Interstitial EXPLODE ALL TREES
11.	((interstitial adj2 cystitis))
12.	MeSH DESCRIPTOR Reflex Sympathetic Dystrophy EXPLODE ALL TREES
13.	((algodystroph* or sudek or sudeck*))
14.	MeSH DESCRIPTOR Myofascial Pain Syndromes EXPLODE ALL TREES
15.	((loin pain adj (haematuria or hematuria) adj syndrome*))
16.	((LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS))
17.	((pelvic or pelvis) adj pain syndrome*))
18.	((non-cardiac or noncardiac) adj3 chest adj3 pain))
19.	((temporomandibular adj3 joint adj3 pain))
20.	((prostate or vulv* or bladder or perineal) adj3 pain))
21.	((functional pain syndrome* or non-cancer pain or noncancer pain))
22.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*))
23.	((fibromyalgia* or fibrositis or myofascial pain syndrome))
24.	(#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23)

## Appendix B: Search strategy 2

### Chronic pain search strategy 2

This literature search strategy was used for the following review:

- What are the best methods of communication between healthcare professionals and people with chronic pain?

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual.<sup>1</sup>

For more information, please see the Methods Report published as part of the accompanying documents for this guideline.

### B.1 Clinical search literature search strategy

Searches for patient views were run in Medline (OVID), Embase (OVID), CINAHL, Current Nursing and Allied Health Literature (EBSCO) and PsycINFO (ProQuest). Search filters were applied to the search where appropriate.

**Table 3: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Qualitative studies
Embase (OVID)	1946 – 30 September 2019	Exclusions Qualitative studies
CINAHL, Current Nursing and	Inception – 30 September 2019	Exclusions

Database	Dates searched	Search filter used
Allied Health Literature (EBSCO)		Qualitative studies
PsycINFO (ProQuest)	Inception – 30 September 2019	Qualitative studies

### Medline (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter/
5.	editorial/
6.	news/
7.	exp historical article/
8.	Anecdotes as Topic/
9.	comment/
10.	case report/
11.	(letter or comment*).ti.
12.	or/4-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animals/ not humans/
16.	exp Animals, Laboratory/
17.	exp Animal Experimentation/
18.	exp Models, Animal/
19.	exp Rodentia/
20.	(rat or rats or mouse or mice).ti.
21.	or/14-20
22.	3 not 21
23.	limit 22 to English language
24.	"patient acceptance of health care"/ or exp patient satisfaction/
25.	Patient Education as Topic/
26.	patient participation/
27.	((information* or advice or advising or advised or support*) adj3 (patient* or need* or requirement* or assess* or seek* or access* or disseminat*).ti,ab.
28.	(information* adj2 (patient* or need* or requirement* or support* or seek* or access* or disseminat* or barrier* or facilitat*).ti,ab.
29.	((client* or patient* or user* or carer* or consumer* or customer*) adj2 (attitud* or priorit* or perception* or preferen* or expectation* or choice* or perspective* or view* or satisfact* or inform* or experience or experiences or opinion* or educat* or learn* or train* or program* or advi?e* or instruct* or teach* or knowledge or understanding or misunderstanding or communicat* or involvement or support)).ti,ab.
30.	physician-patient relations/
31.	*decision making/
32.	((share* or sharing or making or made or agree* or participat* or support* or collaborat* or joint) adj2 decision*).ti,ab.
33.	shared decision making.ti,ab.
34.	((consult* or communicat* or learning) adj2 (style* or technique* or method* or

	approach*).ti,ab.
35.	Professional-Patient Relations/
36.	Motivational Interviewing/
37.	(collaborative working or motivation* interview* or therapeutic alliance or nondirective therap* or non directive therap* or reflective listening or decision balancing or interview* style* or intrinsic motivation*).ti,ab.
38.	or/24-37
39.	Qualitative research/ or Narration/ or exp Interviews as Topic/ or exp "Surveys and Questionnaires"/ or Health care surveys/
40.	(qualitative or interview* or focus group* or theme* or questionnaire* or survey*).ti,ab.
41.	(metasynthes* or meta-synthes* or metasummar* or meta-summar* or metastud* or meta-stud* or metathem* or meta-them* or ethno* or emic or etic or phenomenolog* or grounded theory or constant compar* or (thematic* adj3 analys*) or theoretical sampl* or purposive sampl* or hermeneutic* or heidegger* or husserl* or colaizzi* or van kaam* or van manen* or giorgi* or glaser* or strauss* or ricoeur* or spiegelberg* or merleau*).ti,ab.
42.	or/39-41
43.	23 and 38 and 42

#### Embase (Ovid) search terms

1.	chronic pain/ or intractable pain/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter.pt. or letter/
5.	note.pt.
6.	editorial.pt.
7.	case report/ or case study/
8.	(letter or comment*).ti.
9.	or/4-8
10.	randomized controlled trial/ or random*.ti,ab.
11.	9 not 10
12.	animal/ not human/
13.	nonhuman/
14.	exp Animal Experiment/
15.	exp Experimental Animal/
16.	animal model/
17.	exp Rodent/
18.	(rat or rats or mouse or mice).ti.
19.	or/11-18
20.	3 not 19
21.	limit 20 to English language
22.	patient attitude/ or patient preference/ or patient satisfaction/ or consumer attitude/
23.	patient information/ or consumer health information/
24.	patient education/
25.	patient participation/
26.	((information* or advice or advising or advised or support*) adj3 (patient* or need* or



	requirement* or assess* or seek* or access* or disseminat*).ti,ab.
27.	((information* adj2 (patient* or need* or requirement* or support* or seek* or access* or disseminat* or barrier* or facilitat*).ti,ab.
28.	((client* or patient* or user* or carer* or consumer* or customer*) adj2 (attitud* or priorit* or perception* or preferen* or expectation* or choice* or perspective* or view* or satisfact* or inform* or experience or experiences or opinion* or educat* or learn* or train* or program* or advi?e* or instruct* or teach* or knowledge or understanding or misunderstanding or communicat* or involvement or support)).ti,ab.
29.	doctor patient relation/
30.	*decision making/
31.	((share* or sharing or making or made or agree* or participat* or support* or collaborat* or joint) adj2 decision*).ti,ab.
32.	((consult* or communicat* or learning) adj2 (style* or technique* or method* or approach*).ti,ab.
33.	professional-patient relationship/
34.	motivational interviewing/
35.	client centered therapy/
36.	(collaborative working or motivation* interview* or therapeutic alliance or nondirective therap* or non directive therap* or reflective listening or decision balancing or interview* style* or intrinsic motivation*).ti,ab.
37.	or/22-36
38.	health survey/ or exp questionnaire/ or exp interview/ or qualitative research/ or narrative/
39.	(qualitative or interview* or focus group* or theme* or questionnaire* or survey*).ti,ab.
40.	(metasynthes* or meta-synthes* or metasummar* or meta-summar* or metastud* or meta-stud* or metathem* or meta-them* or ethno* or emic or etic or phenomenolog* or grounded theory or constant compar* or (thematic* adj3 analys*) or theoretical sampl* or purposive sampl* or hermeneutic* or heidegger* or husserl* or colaizzi* or van kaam* or van manen* or giorgi* or glaser* or strauss* or ricoeur* or spiegelberg* or merleau*).ti,ab.
41.	or/38-40
42.	21 and 37 and 41

### CINAHL (EBSCO) search terms

S1.	(MH "Chronic Pain")
S2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) n3 pain*)
S3.	S1 OR S2
S4.	(MH "Consumer Satisfaction+") OR (MH "Patient Education") OR (MH "Health Education")
S5.	(MH "Consumer Participation")
S6.	((information* or advice or advising or advised or support*) n3 (patient* or need* or requirement* or assess* or seek* or access* or disseminat*))
S7.	(information* n2 (patient* or need* or requirement* or support* or seek* or access* or disseminat* or barrier* or facilitat*))
S8.	((client* or patient* or user* or carer* or consumer* or customer*) n2 (attitud* or priorit* or perception* or preferen* or expectation* or choice* or perspective* or view* or satisfact* or inform* or experience or experiences or opinion* or educat* or learn* or train* or program* or advi?e* or instruct* or teach* or knowledge or understanding or misunderstanding or communicat* or involvement or support))
S9.	(MH "Physician-Patient Relations") OR (MH "Professional-Patient Relations+")
S10.	(MH "Decision Making, Patient+")

S11.	((share* or sharing or making or made or agree* or participat* or support* or collaborat* or joint) n2 decision*)
S12.	((consult* or communicat* or learning) n2 (style* or technique* or method* or approach*))
S13.	(MH "Motivational Interviewing")
S14.	(collaborative working or motivation* interview* or therapeutic alliance or nondirective therap* or non directive therap* or reflective listening or decision balancing or interview* style* or intrinsic motivation*)
S15.	S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14
S16.	(MH "Qualitative Studies+")
S17.	(MH "Qualitative Validity+")
S18.	(MH "Interviews+") OR (MH "Focus Groups") OR (MH "Surveys") OR (MH "Questionnaires+")
S19.	(qualitative or interview* or focus group* or theme* or questionnaire* or survey*)
S20.	(metasynthes* or meta-synthes* or metasummar* or meta-summar* or metastud* or meta-stud* or metathem* or meta-them* or ethno* or emic or etic or phenomenolog* or grounded theory or constant compar* or (thematic* n3 analys*) or theoretical sampl* or purposive sampl* or hermeneutic* or heidegger* or husserl* or colaizzi* or van kaam* or van manen* or giorgi* or glaser* or strauss* or ricoeur* or spiegelberg* or merleau*)
S21.	S16 OR S17 OR S18 OR S19 OR S20
S22.	S3 AND S15 AND S21
S23.	PT anecdote or PT audiovisual or PT bibliography or PT biography or PT book or PT book review or PT brief item or PT cartoon or PT commentary or PT computer program or PT editorial or PT games or PT glossary or PT historical material or PT interview or PT letter or PT listservs or PT masters thesis or PT obituary or PT pamphlet or PT pamphlet chapter or PT pictorial or PT poetry or PT proceedings or PT "questions and answers" or PT response or PT software or PT teaching materials or PT website
S24.	S22 not S23

### PsycINFO (ProQuest) search terms

1.	MAINSUBJECT.EXACT.EXPLODE("Chronic Pain") OR TI,AB((persist* OR intract* OR chronic OR longstanding OR "long standing" OR longterm OR "long term" OR refractory OR prolong* OR "long last*" OR sustain* OR linger* OR syndrome*) NEAR/3 pain*)
2.	(MAINSUBJECT.EXACT("Therapeutic Processes") OR TI,AB((share* OR sharing OR making OR made OR agree* OR participat* OR support* OR collaborat* OR joint) NEAR/2 decision*)) OR (TI,AB((consult* OR communicat* OR learning) NEAR/2 (style* OR technique* OR method* OR approach*)) OR MAINSUBJECT.EXACT("Decision Making"))
3.	MAINSUBJECT.EXACT("Motivational Interviewing") OR TI,AB("collaborative working" OR "motivation* interview*" OR "therapeutic alliance" OR "nondirective therap*" OR "non directive therap*" OR "reflective listening" OR "decision balancing" OR "interview* style*" OR "intrinsic motivation*")
4.	SU.EXACT("Client Education") OR SU.EXACT.EXPLODE("Client Attitudes") OR TI,AB((information* or advice or advising or advised or support*) N/3 (patient* or need* or requirement* or assess* or seek* or access* or disseminat*)) OR TI,AB(information* N/2 support*) OR TI,AB((client* or patient* or user* or carer* or consumer* or customer*) N/2 (attitud* or priorit* or perception* or preferen* or expectation* or choice* or perspective* or view* or satisfact* or inform* or experience or experiences or opinion*))
5.	((su.exact.explode("qualitative research") or su.exact("narratives") or su.exact.explode("questionnaires") or su.exact.explode("interviews") or su.exact.explode("health care services") or ti,ab(qualitative or interview* or focus group* or theme* or questionnaire* or survey*) or ti,ab(metasynthes* or meta-synthes* or metasummar* or meta-summar* or metastud* or meta-stud* or metathem* or meta-them* or ethno* or emic or etic or phenomenolog* or grounded theory or constant compar* or

	(thematic* near/3 analys*) or theoretical-sampl* or purposive-sampl* or hermeneutic* or heidegger* or husserl* or colaizzi* or van kaam* or van manen* or giorgi* or glaser* or strauss* or ricoeur* or spiegelberg* or merleau*))
6.	2 or 3 or 4

## Appendix C: Search strategy 3

### Chronic pain search strategy 3

This literature search strategy was used for the following review:

- What is the clinical and cost effectiveness of electrical physical modalities for the management of chronic primary pain?

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual.<sup>1</sup>

For more information, please see the Methods Report published as part of the accompanying documents for this guideline.

### C.1 Clinical search literature search strategy

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 4: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2019 Issue 11 of 12 CENTRAL to 2019 Issue 11 of 12	None

#### Medline (Ovid) search terms

1.	Chronic pain/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp Complex Regional Pain Syndromes/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
6.	fibromyalgia/
7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.

10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	exp myofascial pain syndromes/
15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
24.	or/1-23
25.	letter/
26.	editorial/
27.	news/
28.	exp historical article/
29.	Anecdotes as Topic/
30.	comment/
31.	case report/
32.	(letter or comment*).ti.
33.	or/25-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animals/ not humans/
37.	exp Animals, Laboratory/
38.	exp Animal Experimentation/
39.	exp Models, Animal/
40.	exp Rodentia/
41.	(rat or rats or mouse or mice).ti.
42.	or/35-41
43.	24 not 42
44.	limit 43 to English language
45.	Transcutaneous Electric Nerve Stimulation/
46.	(TENS or PENS or ALTENS or TNS or TENMS or TMS or TDCS).ti,ab.
47.	(electroanalges* or electro analges*).ti,ab.
48.	Electric Stimulation Therapy/
49.	electrotherap*.ti,ab.
50.	((transcutaneous or transcranial or percutaneous or cutaneous or transderm* or peripheral or microamperage) adj3 (stimulat* or electr*)).ti,ab.
51.	electrostimulat*.ti,ab.

52.	(interferential adj2 current*).ti,ab.
53.	((electric* or electro or interferential) adj2 (stimulat* or therap* or acupuncture)).ti,ab.
54.	Laser Therapy, Low-Level/
55.	(laser adj2 (therap* or treat* or phototherap* or irradiat* or biostimulat* or stimulat*)).ti,ab.
56.	Ultrasonic Therapy/ or Extracorporeal Shockwave Therapy/
57.	((ultrasound or ultra sound or ultrasonic or ultra sonic) adj3 (contin* or therap* or treat* or stimulat* or intervention*)).ti,ab.
58.	or/45-57
59.	randomized controlled trial.pt.
60.	controlled clinical trial.pt.
61.	randomi#ed.ti,ab.
62.	placebo.ab.
63.	randomly.ti,ab.
64.	Clinical Trials as topic.sh.
65.	trial.ti.
66.	or/59-65
67.	Meta-Analysis/
68.	exp Meta-Analysis as Topic/
69.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
70.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
71.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
72.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
73.	(search* adj4 literature).ab.
74.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
75.	cochrane.jw.
76.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
77.	or/67-76
78.	44 and 58 and (66 or 77)

### Embase (Ovid) search terms

1.	Chronic pain/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp Complex regional pain syndrome/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
6.	fibromyalgia/
7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	vulvodinia/
9.	(vulvodinia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.

14.	myofascial pain/
15.	noncardiac chest pain/
16.	cystalgia/
17.	Pelvis pain syndrome/
18.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
19.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
20.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
21.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
22.	(temporomandibular adj3 joint adj3 pain).ti,ab.
23.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
24.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
25.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
26.	or/1-25
27.	letter.pt. or letter/
28.	note.pt.
29.	editorial.pt.
30.	case report/ or case study/
31.	(letter or comment*).ti.
32.	or/27-31
33.	randomized controlled trial/ or random*.ti,ab.
34.	32 not 33
35.	animal/ not human/
36.	nonhuman/
37.	exp Animal Experiment/
38.	exp Experimental Animal/
39.	animal model/
40.	exp Rodent/
41.	(rat or rats or mouse or mice).ti.
42.	or/34-41
43.	26 not 42
44.	limit 43 to English language
45.	transcutaneous nerve stimulation/
46.	electrostimulation therapy/
47.	(TENS or PENS or ALTENS or TNS or TENMS or TMS or TDCS).ti,ab.
48.	(electroanalges* or electro analges*).ti,ab.
49.	electrotherap*.ti,ab.
50.	((transcutaneous or transcranial or percutaneous or cutaneous or transderm* or peripheral or microamperage) adj3 (stimulat* or electr*)).ti,ab.
51.	electrostimulat*.ti,ab.
52.	(interferential adj2 current*).ti,ab.
53.	((electric* or electro or interferential) adj2 (stimulat* or therap* or acupuncture)).ti,ab.
54.	(laser adj2 (therap* or treat* or phototherap* or irradiat* or biostimulat* or stimulat*)).ti,ab.
55.	Ultrasonic Therapy/

56.	((ultrasound or ultra sound or ultrasonic or ultra sonic) adj3 (contin* or therap* or treat* or stimulat* or intervention*)).ti,ab.
57.	low level laser therapy/
58.	electroanalgesia/
59.	or/45-58
60.	44 and 59
61.	random*.ti,ab.
62.	factorial*.ti,ab.
63.	(crossover* or cross over*).ti,ab.
64.	((doubl* or singl*) adj blind*).ti,ab.
65.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
66.	crossover procedure/
67.	single blind procedure/
68.	randomized controlled trial/
69.	double blind procedure/
70.	or/61-69
71.	systematic review/
72.	meta-analysis/
73.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
74.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
75.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
76.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
77.	(search* adj4 literature).ab.
78.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
79.	cochrane.jw.
80.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
81.	or/71-80
82.	60 and (70 or 81)

### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Chronic Pain] explode all trees
#2.	((chronic or persist* or idiopathic or atypical or a-typical) near/4 pain):ti,ab
#3.	MeSH descriptor: [Complex Regional Pain Syndromes] explode all trees
#4.	(complex regional pain syndrome* or CRPS or causalgia):ti,ab
#5.	((reflex or sympathetic) near/2 dystroph*):ti,ab
#6.	MeSH descriptor: [Fibromyalgia] explode all trees
#7.	(fibromyalgia* or fibrositis or myofascial pain syndrome):ti,ab
#8.	MeSH descriptor: [Vulvodynia] explode all trees
#9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis):ti,ab
#10.	MeSH descriptor: [Cystitis, Interstitial] explode all trees
#11.	(interstitial near/2 cystitis):ti,ab
#12.	MeSH descriptor: [Reflex Sympathetic Dystrophy] explode all trees
#13.	(algodystroph* or sudek or sudeck*):ti,ab

#14.	MeSH descriptor: [Myofascial Pain Syndromes] explode all trees
#15.	(loin pain near (haematuria or hematuria) near syndrome*):ti,ab
#16.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS):ti,ab
#17.	((pelvic or pelvis) near pain syndrome*):ti,ab
#18.	((non-cardiac or noncardiac) near/3 chest near/3 pain):ti,ab
#19.	(temporomandibular near/3 joint near/3 pain):ti,ab
#20.	((prostate or vulv* or bladder or perineal) near/3 pain):ti,ab
#21.	(functional pain syndrome* or non-cancer pain or noncancer pain):ti,ab
#22.	((pelvic or pelvis or abdominal) near/3 pain near/3 (unknown or un-known or idiopathic or atypic* or a-typic*)):ti,ab
#23.	(or #1-#22)
#24.	MeSH descriptor: [Transcutaneous Electric Nerve Stimulation] explode all trees
#25.	(TENS or PENS or ALTENS or TNS or TENMS or TMS or TDCS):ti,ab
#26.	(electroanalges* or electro analges*):ti,ab
#27.	MeSH descriptor: [Electric Stimulation Therapy] explode all trees
#28.	electrotherap*:ti,ab
#29.	((transcutaneous or transcranial or percutaneous or cutaneous or transderm* or peripheral or microamperage) near/3 (stimulat* or electr*)):ti,ab
#30.	electrostimulat*:ti,ab
#31.	(interferential near/2 current*):ti,ab
#32.	((electric* or electro or interferential) near/2 (stimulat* or therap* or acupuncture)):ti,ab
#33.	MeSH descriptor: [Laser Therapy] explode all trees
#34.	(laser near/2 (therap* or treat* or phototherap* or irradiat* or biostimulat* or stimulat*)):ti,ab
#35.	MeSH descriptor: [Ultrasonic Therapy] explode all trees
#36.	MeSH descriptor: [Extracorporeal Shockwave Therapy] explode all trees
#37.	((ultrasound or ultra sound or ultrasonic or ultra sonic) near/3 (contin* or therap* or treat* or stimulat* or intervention*)):ti,ab
#38.	(or #24-#37)
#39.	#23 and #38

## C.2 Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to a Chronic Pain population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase for health economics and economic modelling.

**Table 5: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling studies
Embase	2014 – 30 September 2019	Exclusions



Database	Dates searched	Search filter used
		Health economics studies Health economics modelling studies
Centre for Research and Dissemination (CRD)	HTA - Inception – 30 September 2019 NHSEED - Inception to March 2015	None

### Medline (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex Regional Pain Syndromes/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	fibromyalgia/
7.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	exp myofascial pain syndromes/
15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
24.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
25.	or/1-24
26.	letter/
27.	editorial/
28.	news/
29.	exp historical article/
30.	Anecdotes as Topic/
31.	comment/
32.	case report/
33.	(letter or comment*).ti.
34.	or/26-33

35.	randomized controlled trial/ or random*.ti,ab.
36.	34 not 35
37.	animals/ not humans/
38.	exp Animals, Laboratory/
39.	exp Animal Experimentation/
40.	exp Models, Animal/
41.	exp Rodentia/
42.	(rat or rats or mouse or mice).ti.
43.	or/36-42
44.	25 not 43
45.	Economics/
46.	Value of life/
47.	exp "Costs and Cost Analysis"/
48.	exp Economics, Hospital/
49.	exp Economics, Medical/
50.	Economics, Nursing/
51.	Economics, Pharmaceutical/
52.	exp "Fees and Charges"/
53.	exp Budgets/
54.	budget*.ti,ab.
55.	cost*.ti.
56.	(economic* or pharmaco?economic*).ti.
57.	(price* or pricing*).ti,ab.
58.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
59.	(financ* or fee or fees).ti,ab.
60.	(value adj2 (money or monetary)).ti,ab.
61.	or/45-60
62.	exp models, economic/
63.	*Models, Theoretical/
64.	*Models, Organizational/
65.	markov chains/
66.	monte carlo method/
67.	exp Decision Theory/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/62-70
72.	44 and (61 or 71)

### Embase (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.

4.	exp Complex regional pain syndrome/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	((reflex or sympatheti) adj2 dystroph*).ti,ab.
7.	fibromyalgia/
8.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
9.	vulvodynia/
10.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
11.	interstitial cystitis/
12.	(interstitial adj2 cystitis).ti,ab.
13.	algodystrophy/
14.	(algodystroph* or sudek or sudeck*).ti,ab.
15.	myofascial pain/
16.	noncardiac chest pain/
17.	cystalgia/
18.	Pelvis pain syndrome/
19.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
20.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
21.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
22.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
23.	(temporomandibular adj3 joint adj3 pain).ti,ab.
24.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
25.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
26.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
27.	or/1-26
28.	letter.pt. or letter/
29.	note.pt.
30.	editorial.pt.
31.	case report/ or case study/
32.	(letter or comment*).ti.
33.	or/28-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animal/ not human/
37.	nonhuman/
38.	exp Animal Experiment/
39.	exp Experimental Animal/
40.	animal model/
41.	exp Rodent/
42.	(rat or rats or mouse or mice).ti.
43.	or/35-42
44.	27 not 43
45.	health economics/
46.	exp economic evaluation/

47.	exp health care cost/
48.	exp fee/
49.	budget/
50.	funding/
51.	budget*.ti,ab.
52.	cost*.ti.
53.	(economic* or pharmaco?economic*).ti.
54.	(price* or pricing*).ti,ab.
55.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
56.	(financ* or fee or fees).ti,ab.
57.	(value adj2 (money or monetary)).ti,ab.
58.	or/45-57
59.	statistical model/
60.	exp economic aspect/
61.	59 and 60
62.	*theoretical model/
63.	*nonbiological model/
64.	stochastic model/
65.	decision theory/
66.	decision tree/
67.	monte carlo method/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/61-70
72.	44 and (58 or 71)

### NHS EED and HTA (CRD) search terms

#1.	MeSH DESCRIPTOR Chronic Pain EXPLODE ALL TREES
#2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*))
#3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain))
#4.	MeSH DESCRIPTOR Complex Regional Pain Syndromes EXPLODE ALL TREES
#5.	((complex regional pain syndrome* or CRPS or causalgia))
#6.	MeSH DESCRIPTOR Fibromyalgia EXPLODE ALL TREES
#7.	((reflex or sympathetic) adj2 dystroph*)
#8.	MeSH DESCRIPTOR Vulvodynia EXPLODE ALL TREES
#9.	((vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis))
#10.	MeSH DESCRIPTOR Cystitis, Interstitial EXPLODE ALL TREES
#11.	((interstitial adj2 cystitis))
#12.	MeSH DESCRIPTOR Reflex Sympathetic Dystrophy EXPLODE ALL TREES
#13.	((algodystroph* or sudek or sudeck*))
#14.	MeSH DESCRIPTOR Myofascial Pain Syndromes EXPLODE ALL TREES
#15.	((loin pain adj (haematuria or hematuria) adj syndrome*))

#16.	((LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS))
#17.	((pelvic or pelvis) adj pain syndrome*)
#18.	((non-cardiac or noncardiac) adj3 chest adj3 pain))
#19.	((temporomandibular adj3 joint adj3 pain))
#20.	((prostate or vulv* or bladder or perineal) adj3 pain))
#21.	((functional pain syndrome* or non-cancer pain or noncancer pain))
#22.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*))
#23.	((fibromyalgia* or fibrositis or myofascial pain syndrome))
#24.	(#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23)

## Appendix D: Search strategy 4

### Chronic pain search strategy 4

This literature search strategy was used for the following reviews:

- What is the clinical and cost effectiveness of exercise interventions for the management of chronic primary pain?

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual.<sup>1</sup>

For more information, please see the Methods Report published as part of the accompanying documents for this guideline.

### D.1 Clinical search literature search strategy

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 6: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2019 Issue 11 of 12 CENTRAL to 2019 Issue 11 of 12	None

### Medline (Ovid) search terms

1.	Chronic pain/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp Complex Regional Pain Syndromes/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
6.	fibromyalgia/
7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	exp myofascial pain syndromes/
15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
24.	or/1-23
25.	letter/
26.	editorial/
27.	news/
28.	exp historical article/
29.	Anecdotes as Topic/
30.	comment/
31.	case report/
32.	(letter or comment*).ti.
33.	or/25-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animals/ not humans/
37.	exp Animals, Laboratory/
38.	exp Animal Experimentation/
39.	exp Models, Animal/
40.	exp Rodentia/
41.	(rat or rats or mouse or mice).ti.
42.	or/35-41

43.	24 not 42
44.	limit 43 to English language
45.	exp exercise/
46.	exp exercise therapy/
47.	exp Exercise Movement Techniques/
48.	exp "physical education and training"/
49.	(pilates or yoga or feldenkrais or swim* or walk* or run* or jog* or treadmill* or tread mill*).ti,ab.
50.	(stretch* adj3 (active* or passive* or relax* or static* or dynamic* or gentl* or ballistic* or force* or isometric or technique* or exercis* or therap*)).ti,ab.
51.	(aerobic* adj (exercise* or train* or therap*)).ti,ab.
52.	((corrective* or biomechanic* or propiocet* or balance or flexib*) adj2 (exercise* or train* or therap*)).ti,ab.
53.	((biomechanic* or mckenzie) adj (method* or course*)).ti,ab.
54.	((strength* or stabil* or program* or train* or therap* or technique* or treat*) adj3 exercise*).ti,ab.
55.	(physical adj (fitness or conditioning or education or training or mobility or activit\$ or exertion or effort)).ti,ab.
56.	danc*.ti,ab.
57.	(fitness* adj3 (program* or train* or therap*)).ti,ab.
58.	(tai ji or tai chi or taichi or taiji or taijiquan).ti,ab.
59.	(qigong or ch'i k#ng or ch'i g#ng or chi k#ng or chi g#ng or qi k#ng or qi g#ng).ti,ab.
60.	core stability.ti,ab.
61.	exp hydrotherapy/
62.	((water* or bath* or pool or pools or shower* or underwater* or spa or spas or aqua*) adj2 (exercise* or train* or therap* or treat*)).ti,ab.
63.	(hydrotherap* or hydro-therap*).ti,ab.
64.	(graded motor imagery or GMI or mirror therapy).ti,ab.
65.	or/45-64
66.	44 and 65
67.	randomized controlled trial.pt.
68.	controlled clinical trial.pt.
69.	randomi#ed.ti,ab.
70.	placebo.ab.
71.	randomly.ti,ab.
72.	Clinical Trials as topic.sh.
73.	trial.ti.
74.	or/67-73
75.	Meta-Analysis/
76.	exp Meta-Analysis as Topic/
77.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
78.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
79.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
80.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
81.	(search* adj4 literature).ab.
82.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or

	cinahl or science citation index or bids or cancerlit).ab.
83.	cochrane.jw.
84.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
85.	or/75-84
86.	66 and (74 or 85)

### Embase (Ovid) search terms

1.	Chronic pain/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp Complex regional pain syndrome/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
6.	fibromyalgia/
7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	myofascial pain/
15.	noncardiac chest pain/
16.	cystalgia/
17.	Pelvis pain syndrome/
18.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
19.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
20.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
21.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
22.	(temporomandibular adj3 joint adj3 pain).ti,ab.
23.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
24.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
25.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
26.	or/1-25
27.	letter.pt. or letter/
28.	note.pt.
29.	editorial.pt.
30.	case report/ or case study/
31.	(letter or comment*).ti.
32.	or/27-31
33.	randomized controlled trial/ or random*.ti,ab.
34.	32 not 33
35.	animal/ not human/



36.	nonhuman/
37.	exp Animal Experiment/
38.	exp Experimental Animal/
39.	animal model/
40.	exp Rodent/
41.	(rat or rats or mouse or mice).ti.
42.	or/34-41
43.	26 not 42
44.	exp exercise/
45.	exp kinesiotherapy/
46.	exp physical education/
47.	(pilates or yoga or feldenkrais or swim* or walk* or run* or jog* or treadmill* or tread mill*).ti,ab.
48.	(stretch* adj3 (active* or passive* or relax* or static* or dynamic* or gentl* or ballistic* or force* or isometric or technique* or exercis* or therap*).ti,ab.
49.	(aerobic* adj (exercise* or train* or therap*).ti,ab.
50.	((corrective* or biomechanic* or propiocet* or balance or flexib*) adj2 (exercise* or train* or therap*).ti,ab.
51.	((biomechanic* or mckenzie) adj (method* or course*).ti,ab.
52.	((strength* or stabil* or program* or train* or therap* or technique* or treat*) adj3 exercise*).ti,ab.
53.	(physical adj (fitness or conditioning or education or training or mobility or activit\$ or exertion or effort)).ti,ab.
54.	danc*.ti,ab.
55.	(fitness* adj3 (program* or train* or therap*).ti,ab.
56.	(tai ji or tai chi or taichi or taiji or taijiquan).ti,ab.
57.	(qigong or ch'i k#ng or ch'i g#ng or chi k#ng or chi g#ng or qi k#ng or qi g#ng).ti,ab.
58.	core stability.ti,ab.
59.	exp hydrotherapy/
60.	((water* or bath* or pool or pools or shower* or underwater* or spa or spas or aqua*) adj2 (exercise* or train* or therap* or treat*).ti,ab.
61.	(hydrotherap* or hydro-therap*).ti,ab.
62.	(graded motor imagery or GMI or mirror therapy).ti,ab.
63.	or/44-62
64.	43 and 63
65.	limit 64 to English language
66.	randomized controlled trial.pt.
67.	controlled clinical trial.pt.
68.	randomi#ed.ti,ab.
69.	placebo.ab.
70.	randomly.ti,ab.
71.	Clinical Trials as topic.sh.
72.	trial.ti.
73.	or/66-72
74.	Meta-Analysis/
75.	exp Meta-Analysis as Topic/

76.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
77.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
78.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
79.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
80.	(search* adj4 literature).ab.
81.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
82.	cochrane.jw.
83.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
84.	or/74-83
85.	65 and (73 or 84)

### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Chronic Pain] explode all trees
#2.	((chronic or persist* or idiopathic or atypical or a-typical) near/4 pain):ti,ab
#3.	MeSH descriptor: [Complex Regional Pain Syndromes] explode all trees
#4.	(complex regional pain syndrome* or CRPS or causalgia):ti,ab
#5.	((reflex or sympathetic) near/2 dystroph*):ti,ab
#6.	MeSH descriptor: [Fibromyalgia] explode all trees
#7.	(fibromyalgia* or fibrositis or myofascial pain syndrome):ti,ab
#8.	MeSH descriptor: [Vulvodynia] explode all trees
#9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis):ti,ab
#10.	MeSH descriptor: [Cystitis, Interstitial] explode all trees
#11.	(interstitial near/2 cystitis):ti,ab
#12.	MeSH descriptor: [Reflex Sympathetic Dystrophy] explode all trees
#13.	(algodystroph* or sudek or sudeck*):ti,ab
#14.	MeSH descriptor: [Myofascial Pain Syndromes] explode all trees
#15.	(loinpain near (haematuria or hematuria) near syndrome*):ti,ab
#16.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS):ti,ab
#17.	((pelvic or pelvis) near pain syndrome*):ti,ab
#18.	((non-cardiac or noncardiac) near/3 chest near/3 pain):ti,ab
#19.	(temporomandibular near/3 joint near/3 pain):ti,ab
#20.	((prostate or vulv* or bladder or perineal) near/3 pain):ti,ab
#21.	(functional pain syndrome* or non-cancer pain or noncancer pain):ti,ab
#22.	((pelvic or pelvis or abdominal) near/3 pain near/3 (unknown or un-known or idiopathic or atypic* or a-typic*)):ti,ab
#23.	(or #1-#22)
#24.	MeSH descriptor: [Exercise] explode all trees
#25.	MeSH descriptor: [Exercise Therapy] explode all trees
#26.	MeSH descriptor: [Exercise Movement Techniques] explode all trees
#27.	MeSH descriptor: [Physical Education and Training] explode all trees
#28.	(pilates or yoga or feldenkrais or swim* or walk* or run* or jog* or treadmill* or tread

	mill*):ti,ab
#29.	(stretch* near/3 (active* or passive* or relax* or static* or dynamic* or gentl* or ballistic* or force* or isometric or technique* or exercis* or therap*)):ti,ab
#30.	(aerobic* near (exercise* or train* or therap*)):ti,ab
#31.	((corrective* or biomechanic* or propiocet* or balance or flexib*) near/2 (exercise* or train* or therap*)):ti,ab
#32.	((biomechanic* or mckenzie) near (method* or course*)):ti,ab
#33.	((strength* or stabil* or program* or train* or therap* or technique* or treat*) near/3 exercise*):ti,ab
#34.	(physical near (fitness or conditioning or education or training or mobility or activit\$ or exertion or effort)):ti,ab
#35.	danc*:ti,ab
#36.	(fitness* near/3 (program* or train* or therap*)):ti,ab
#37.	(tai ji or tai chi or taichi or taiji or taijiquan):ti,ab
#38.	(qigong or ch'i k?ng or ch'i g?ng or chi k?ng or chi g?ng or qi k?ng or qi g?ng):ti,ab
#39.	core stability:ti,ab
#40.	MeSH descriptor: [Hydrotherapy] explode all trees
#41.	((water* or bath* or pool or pools or shower* or underwater* or spa or spas or aqua*) near/2 (exercise* or train* or therap* or treat*)):ti,ab
#42.	(hydrotherap* or hydro-therap*):ti,ab
#43.	(graded motor imagery or GMI or mirror therapy):ti,ab
#44.	(or #24-#43)
#45.	#23 and #44

## D.2 Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to a Chronic Pain population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase for health economics and economic modelling.

**Table 7: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling studies
Embase	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling studies
Centre for Research and Dissemination (CRD)	HTA - Inception – 30 September 2019 NHSEED - Inception to March 2015	None

### Medline (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex Regional Pain Syndromes/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	fibromyalgia/
7.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
8.	vulvodinia/
9.	(vulvodinia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	exp myofascial pain syndromes/
15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
24.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
25.	or/1-24
26.	letter/
27.	editorial/
28.	news/
29.	exp historical article/
30.	Anecdotes as Topic/
31.	comment/
32.	case report/
33.	(letter or comment*).ti.
34.	or/26-33
35.	randomized controlled trial/ or random*.ti,ab.
36.	34 not 35
37.	animals/ not humans/
38.	exp Animals, Laboratory/
39.	exp Animal Experimentation/
40.	exp Models, Animal/
41.	exp Rodentia/

42.	(rat or rats or mouse or mice).ti.
43.	or/36-42
44.	25 not 43
45.	Economics/
46.	Value of life/
47.	exp "Costs and Cost Analysis"/
48.	exp Economics, Hospital/
49.	exp Economics, Medical/
50.	Economics, Nursing/
51.	Economics, Pharmaceutical/
52.	exp "Fees and Charges"/
53.	exp Budgets/
54.	budget*.ti,ab.
55.	cost*.ti.
56.	(economic* or pharmaco?economic*).ti.
57.	(price* or pricing*).ti,ab.
58.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
59.	(financ* or fee or fees).ti,ab.
60.	(value adj2 (money or monetary)).ti,ab.
61.	or/45-60
62.	exp models, economic/
63.	*Models, Theoretical/
64.	*Models, Organizational/
65.	markov chains/
66.	monte carlo method/
67.	exp Decision Theory/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/62-70
72.	44 and (61 or 71)

### Embase (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex regional pain syndrome/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
7.	fibromyalgia/
8.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
9.	vulvodinia/
10.	(vulvodinia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.

11.	interstitial cystitis/
12.	(interstitial adj2 cystitis).ti,ab.
13.	algodystrophy/
14.	(algodystroph* or sudek or sudeck*).ti,ab.
15.	myofascial pain/
16.	noncardiac chest pain/
17.	cystalgia/
18.	Pelvis pain syndrome/
19.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
20.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
21.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
22.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
23.	(temporomandibular adj3 joint adj3 pain).ti,ab.
24.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
25.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
26.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
27.	or/1-26
28.	letter.pt. or letter/
29.	note.pt.
30.	editorial.pt.
31.	case report/ or case study/
32.	(letter or comment*).ti.
33.	or/28-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animal/ not human/
37.	nonhuman/
38.	exp Animal Experiment/
39.	exp Experimental Animal/
40.	animal model/
41.	exp Rodent/
42.	(rat or rats or mouse or mice).ti.
43.	or/35-42
44.	27 not 43
45.	health economics/
46.	exp economic evaluation/
47.	exp health care cost/
48.	exp fee/
49.	budget/
50.	funding/
51.	budget*.ti,ab.
52.	cost*.ti.
53.	(economic* or pharmaco?economic*).ti.

54.	(price* or pricing*).ti,ab.
55.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
56.	(financ* or fee or fees).ti,ab.
57.	(value adj2 (money or monetary)).ti,ab.
58.	or/45-57
59.	statistical model/
60.	exp economic aspect/
61.	59 and 60
62.	*theoretical model/
63.	*nonbiological model/
64.	stochastic model/
65.	decision theory/
66.	decision tree/
67.	monte carlo method/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/61-70
72.	44 and (58 or 71)

#### NHS EED and HTA (CRD) search terms

#1.	MeSH DESCRIPTOR Chronic Pain EXPLODE ALL TREES
#2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*)
#3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain))
#4.	MeSH DESCRIPTOR Complex Regional Pain Syndromes EXPLODE ALL TREES
#5.	((complex regional pain syndrome* or CRPS or causalgia))
#6.	MeSH DESCRIPTOR Fibromyalgia EXPLODE ALL TREES
#7.	((reflex or sympathetic) adj2 dystroph*)
#8.	MeSH DESCRIPTOR Vulvodynia EXPLODE ALL TREES
#9.	((vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis))
#10.	MeSH DESCRIPTOR Cystitis, Interstitial EXPLODE ALL TREES
#11.	((interstitial adj2 cystitis))
#12.	MeSH DESCRIPTOR Reflex Sympathetic Dystrophy EXPLODE ALL TREES
#13.	((algodystroph* or sudek or sudeck*))
#14.	MeSH DESCRIPTOR Myofascial Pain Syndromes EXPLODE ALL TREES
#15.	((loin pain adj (haematuria or hematuria) adj syndrome*))
#16.	((LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS))
#17.	((pelvic or pelvis) adj pain syndrome*))
#18.	((non-cardiac or noncardiac) adj3 chest adj3 pain))
#19.	((temporomandibular adj3 joint adj3 pain))
#20.	((prostate or vulv* or bladder or perineal) adj3 pain))
#21.	((functional pain syndrome* or non-cancer pain or noncancer pain))
#22.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic*))

	or a-typic*))
#23.	((fibromyalgia* or fibrositis or myofascial pain syndrome))
#24.	(#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23)

## Appendix E: Search strategy 5

### Chronic pain search strategy 5

This literature search strategy was used for the following reviews:

- What is the clinical and cost effectiveness of manual therapy for the management of chronic primary pain?

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual.<sup>1</sup>

For more information, please see the Methods Report published as part of the accompanying documents for this guideline.

### E.1 Clinical search literature search strategy

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 8: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2019 Issue 11 of 12 CENTRAL to 2019 Issue 11 of 12	None
AMED, Allied and Complementary Medicine (OVID)	1985 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies

#### Medline (Ovid) search terms

1.	Chronic pain/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp Complex Regional Pain Syndromes/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.



6.	fibromyalgia/
7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	exp myofascial pain syndromes/
15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
24.	or/1-23
25.	letter/
26.	editorial/
27.	news/
28.	exp historical article/
29.	Anecdotes as Topic/
30.	comment/
31.	case report/
32.	(letter or comment*).ti.
33.	or/25-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animals/ not humans/
37.	exp Animals, Laboratory/
38.	exp Animal Experimentation/
39.	exp Models, Animal/
40.	exp Rodentia/
41.	(rat or rats or mouse or mice).ti.
42.	or/35-41
43.	24 not 42
44.	limit 43 to English language
45.	exp Musculoskeletal Manipulations/
46.	((musculoskeletal or musculo skeletal or physical) adj (manipulat* or therap* or treat)).ti,ab.
47.	(muscle* energy adj (technique* or therap*)).ti,ab.
48.	((autogenic or reciprocal) adj inhibition).ti,ab.

49.	(isometric relax* or facilitat* stretch*).ti,ab.
50.	(massag* or rolfing or structural integration or myotherapy).ti,ab.
51.	((myofascial or trigger or soft tissue) adj3 (therap* or release)).ti,ab.
52.	(acupressure or shiat#u or chih ya or zhi ya or kinesiology or chiropract* or bodywork or body work or reflexolog*).ti,ab.
53.	((manual or mobili* or zone or manipulat*) adj3 (therap* or treat* or technique*)).ti,ab.
54.	((osteopath* or chiropract* or manual* or ortho*) adj3 (manipulat* or mobili* or adjust*)).ti,ab.
55.	((spine or spinal or lumbosacral or lumbo-sacral or lumbar) adj3 (manipulat* or mobili* or adjust*)).ti,ab.
56.	(maitland adj (concept or technique)).ti,ab.
57.	Traction/
58.	traction*.ti,ab.
59.	or/45-58
60.	randomized controlled trial.pt.
61.	controlled clinical trial.pt.
62.	randomi#ed.ti,ab.
63.	placebo.ab.
64.	randomly.ti,ab.
65.	Clinical Trials as topic.sh.
66.	trial.ti.
67.	or/60-66
68.	Meta-Analysis/
69.	exp Meta-Analysis as Topic/
70.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
71.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
72.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
73.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
74.	(search* adj4 literature).ab.
75.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
76.	cochrane.jw.
77.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
78.	or/68-77
79.	44 and 59
80.	79 and (67 or 78)

### Embase (Ovid) search terms

1.	Chronic pain/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp Complex regional pain syndrome/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
6.	fibromyalgia/

7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	myofascial pain/
15.	noncardiac chest pain/
16.	cystalgia/
17.	Pelvis pain syndrome/
18.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
19.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
20.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
21.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
22.	(temporomandibular adj3 joint adj3 pain).ti,ab.
23.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
24.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
25.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
26.	or/1-25
27.	letter.pt. or letter/
28.	note.pt.
29.	editorial.pt.
30.	case report/ or case study/
31.	(letter or comment*).ti.
32.	or/27-31
33.	randomized controlled trial/ or random*.ti,ab.
34.	32 not 33
35.	animal/ not human/
36.	nonhuman/
37.	exp Animal Experiment/
38.	exp Experimental Animal/
39.	animal model/
40.	exp Rodent/
41.	(rat or rats or mouse or mice).ti.
42.	or/34-41
43.	26 not 42
44.	limit 43 to English language
45.	exp manipulative medicine/
46.	exp *soft tissue/
47.	exp *physiotherapy/
48.	((musculoskeletal or musculo skeletal or physical) adj (manipulat* or therap* or treat)).ti,ab.
49.	(muscle* energy adj (technique* or therap*)).ti,ab.

50.	((autogenic or reciprocal) adj inhibition).ti,ab.
51.	(isometric relax* or facilitat* stretch*).ti,ab.
52.	(massag* or rolfing or structural integration or myotherapy).ti,ab.
53.	((myofascial or trigger or soft tissue) adj3 (therap* or release)).ti,ab.
54.	(acupressure or shiat#u or chih ya or zhi ya or kinesiology or chiropract* or bodywork or body work or reflexolog*).ti,ab.
55.	((manual or mobili* or zone or manipulat*) adj3 (therap* or treat* or technique*)).ti,ab.
56.	((osteopath* or chiropract* or manual* or ortho*) adj3 (manipulat* or mobili* or adjust*)).ti,ab.
57.	((spine or spinal or lumbosacral or lumbo-sacral or lumbar) adj3 (manipulat* or mobili* or adjust*)).ti,ab.
58.	(maitland adj (concept or technique)).ti,ab.
59.	Traction/
60.	traction*.ti,ab.
61.	or/48-60
62.	random*.ti,ab.
63.	factorial*.ti,ab.
64.	(crossover* or cross over*).ti,ab.
65.	((doubl* or singl*) adj blind*).ti,ab.
66.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
67.	crossover procedure/
68.	single blind procedure/
69.	randomized controlled trial/
70.	double blind procedure/
71.	or/62-70
72.	systematic review/
73.	meta-analysis/
74.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
75.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
76.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
77.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
78.	(search* adj4 literature).ab.
79.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
80.	cochrane.jw.
81.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
82.	or/72-81
83.	44 and 61 and (71 or 82)

### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Chronic Pain] explode all trees
#2.	((chronic or persist* or idiopathic or atypical or a-typical) near/4 pain):ti,ab
#3.	MeSH descriptor: [Complex Regional Pain Syndromes] explode all trees
#4.	(complex regional pain syndrome* or CRPS or causalgia):ti,ab

#5.	((reflex or sympathetic) near/2 dystroph*):ti,ab
#6.	MeSH descriptor: [Fibromyalgia] explode all trees
#7.	(fibromyalgia* or fibrositis or myofascial pain syndrome):ti,ab
#8.	MeSH descriptor: [Vulvodynia] explode all trees
#9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis):ti,ab
#10.	MeSH descriptor: [Cystitis, Interstitial] explode all trees
#11.	(interstitial near/2 cystitis):ti,ab
#12.	MeSH descriptor: [Reflex Sympathetic Dystrophy] explode all trees
#13.	(algodystroph* or sudek or sudeck*):ti,ab
#14.	MeSH descriptor: [Myofascial Pain Syndromes] explode all trees
#15.	(loinpain near (haematuria or hematuria) near syndrome*):ti,ab
#16.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS):ti,ab
#17.	((pelvic or pelvis) near pain syndrome*):ti,ab
#18.	((non-cardiac or noncardiac) near/3 chest near/3 pain):ti,ab
#19.	(temporomandibular near/3 joint near/3 pain):ti,ab
#20.	((prostate or vulv* or bladder or perineal) near/3 pain):ti,ab
#21.	(functional pain syndrome* or non-cancer pain or noncancer pain):ti,ab
#22.	((pelvic or pelvis or abdominal) near/3 pain near/3 (unknown or un-known or idiopathic or atypic* or a-typic*)):ti,ab
#23.	(or #1-#22)
#24.	MeSH descriptor: [Musculoskeletal Manipulations] explode all trees
#25.	((musculoskeletal or musculo skeletal or physical) near (manipulat* or therap* or treat)):ti,ab
#26.	(muscle*energy near (technique* or therap*)):ti,ab
#27.	((autogenic or reciprocal) near inhibition):ti,ab
#28.	(isometric relax* or facilitat* stretch*):ti,ab
#29.	(massag* or rolfing or structural integration or myotherapy):ti,ab
#30.	((myofascial or trigger or soft tissue) near/3 (therap* or release)) ti,ab
#31.	(acupressure or shiat?u or chih ya or zhi ya or kinesiology or chiropract* or bodywork or body work or reflexolog*):ti,ab
#32.	((manual or mobili* or zone or manipulat*) near/3 (therap* or treat* or technique*)):ti,ab
#33.	((osteopath* or chiropract* or manual* or ortho*) near/3 (manipulat* or mobili* or adjust*)):ti,ab
#34.	((spine or spinal or lumbosacral or lumbo-sacral or lumbar) near/3 (manipulat* or mobili* or adjust*)):ti,ab
#35.	(maitland near (concept or technique)):ti,ab
#36.	MeSH descriptor: [Traction] explode all trees
#37.	traction*:ti,ab
#38.	(or #24-#37)
#39.	#23 and #38

#### AMED (Ovid) search terms

1.	pain intractable/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp complex regional pain syndromes/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.

5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
6.	fibromyalgia/
7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
9.	cystitis/
10.	(interstitial adj2 cystitis).ti,ab.
11.	(algodystroph* or sudek or sudeck*).ti,ab.
12.	exp myofascial pain syndromes/
13.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
14.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
15.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
16.	(temporomandibular adj3 joint adj3 pain).ti,ab.
17.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
18.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
19.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
20.	or/1-19
21.	case report/
22.	(letter or comment*).ti.
23.	or/21-22
24.	randomized controlled trials/ or random*.ti,ab.
25.	23 not 24
26.	animals/ not humans/
27.	(rat or rats or mouse or mice).ti.
28.	or/25-27
29.	20 not 28
30.	randomized controlled trials/
31.	randomized controlled trial.pt.
32.	controlled clinical trial.pt.
33.	placebo.ab.
34.	random*.ti,ab.
35.	trial.ti,ab.
36.	groups.ab.
37.	or/30-36
38.	Meta-Analysis/
39.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
40.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
41.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
42.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
43.	(search* adj4 literature).ab.
44.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
45.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.

46.	or/38-45
47.	29 and (37 or 46)
48.	exp Musculoskeletal manipulations/
49.	Traction/
50.	massage/ or exp mobilisation/
51.	soft tissue/
52.	exp physical therapy modalities/
53.	((musculoskeletal or musculo skeletal or physical) adj (manipulat* or therap* or treat)).ti,ab.
54.	(muscle* energy adj (technique* or therap*)).ti,ab.
55.	((autogenic or reciprocal) adj inhibition).ti,ab.
56.	(isometric relax* or facilitat* stretch*).ti,ab.
57.	(massag* or rolfing or structural integration or myotherapy).ti,ab.
58.	((myofascial or trigger or soft tissue) adj3 (therap* or release)).ti,ab.
59.	(acupressure or shiat#u or chih ya or zhi ya or kinesiology or chiropract* or bodywork or body work or reflexolog*).ti,ab.
60.	((manual or mobili* or zone or manipulat*) adj3 (therap* or treat* or technique*)).ti,ab.
61.	((osteopath* or chiropract* or manual* or ortho*) adj3 (manipulat* or mobili* or adjust*)).ti,ab.
62.	((spine or spinal or lumbosacral or lumbo-sacral or lumbar) adj3 (manipulat* or mobili* or adjust*)).ti,ab.
63.	(maitland adj (concept or technique)).ti,ab.
64.	traction*.ti,ab.
65.	or/48-64
66.	47 and 65

## E.2 Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to Chronic Pain population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase for health economics and economic modelling.

**Table 9: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling studies
Embase	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling studies
Centre for Research and Dissemination (CRD)	HTA - Inception – 30 September 2019 NHSEED - Inception to March 2015	None

### Medline (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex Regional Pain Syndromes/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	fibromyalgia/
7.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	exp myofascial pain syndromes/
15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
24.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
25.	or/1-24
26.	letter/
27.	editorial/
28.	news/
29.	exp historical article/
30.	Anecdotes as Topic/
31.	comment/
32.	case report/
33.	(letter or comment*).ti.
34.	or/26-33
35.	randomized controlled trial/ or random*.ti,ab.
36.	34 not 35
37.	animals/ not humans/
38.	exp Animals, Laboratory/
39.	exp Animal Experimentation/
40.	exp Models, Animal/
41.	exp Rodentia/



42.	(rat or rats or mouse or mice).ti.
43.	or/36-42
44.	25 not 43
45.	Economics/
46.	Value of life/
47.	exp "Costs and Cost Analysis"/
48.	exp Economics, Hospital/
49.	exp Economics, Medical/
50.	Economics, Nursing/
51.	Economics, Pharmaceutical/
52.	exp "Fees and Charges"/
53.	exp Budgets/
54.	budget*.ti,ab.
55.	cost*.ti.
56.	(economic* or pharmaco?economic*).ti.
57.	(price* or pricing*).ti,ab.
58.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
59.	(financ* or fee or fees).ti,ab.
60.	(value adj2 (money or monetary)).ti,ab.
61.	or/45-60
62.	exp models, economic/
63.	*Models, Theoretical/
64.	*Models, Organizational/
65.	markov chains/
66.	monte carlo method/
67.	exp Decision Theory/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/62-70
72.	44 and (61 or 71)

### Embase (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex regional pain syndrome/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
7.	fibromyalgia/
8.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
9.	vulvodynia/
10.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.

11.	interstitial cystitis/
12.	(interstitial adj2 cystitis).ti,ab.
13.	algodystrophy/
14.	(algodystroph* or sudek or sudeck*).ti,ab.
15.	myofascial pain/
16.	noncardiac chest pain/
17.	cystalgia/
18.	Pelvis pain syndrome/
19.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
20.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
21.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
22.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
23.	(temporomandibular adj3 joint adj3 pain).ti,ab.
24.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
25.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
26.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
27.	or/1-26
28.	letter.pt. or letter/
29.	note.pt.
30.	editorial.pt.
31.	case report/ or case study/
32.	(letter or comment*).ti.
33.	or/28-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animal/ not human/
37.	nonhuman/
38.	exp Animal Experiment/
39.	exp Experimental Animal/
40.	animal model/
41.	exp Rodent/
42.	(rat or rats or mouse or mice).ti.
43.	or/35-42
44.	27 not 43
45.	health economics/
46.	exp economic evaluation/
47.	exp health care cost/
48.	exp fee/
49.	budget/
50.	funding/

51.	budget*.ti,ab.
52.	cost*.ti.
53.	(economic* or pharmaco?economic*).ti.
54.	(price* or pricing*).ti,ab.
55.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
56.	(financ* or fee or fees).ti,ab.
57.	(value adj2 (money or monetary)).ti,ab.
58.	or/45-57
59.	statistical model/
60.	exp economic aspect/
61.	59 and 60
62.	*theoretical model/
63.	*nonbiological model/
64.	stochastic model/
65.	decision theory/
66.	decision tree/
67.	monte carlo method/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/61-70
72.	44 and (58 or 71)

### NHS EED and HTA (CRD) search terms

#1.	MeSH DESCRIPTOR Chronic Pain EXPLODE ALL TREES
#2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*)
#3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain))
#4.	MeSH DESCRIPTOR Complex Regional Pain Syndromes EXPLODE ALL TREES
#5.	((complex regional pain syndrome* or CRPS or causalgia))
#6.	MeSH DESCRIPTOR Fibromyalgia EXPLODE ALL TREES
#7.	((reflex or sympathetic) adj2 dystroph*)
#8.	MeSH DESCRIPTOR Vulvodynia EXPLODE ALL TREES
#9.	((vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis))
#10.	MeSH DESCRIPTOR Cystitis, Interstitial EXPLODE ALL TREES
#11.	((interstitial adj2 cystitis))
#12.	MeSH DESCRIPTOR Reflex Sympathetic Dystrophy EXPLODE ALL TREES
#13.	((algodystroph* or sudek or sudeck*))
#14.	MeSH DESCRIPTOR Myofascial Pain Syndromes EXPLODE ALL TREES
#15.	((loin pain adj (haematuria or hematuria) adj syndrome*))
#16.	((LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS))
#17.	((pelvic or pelvis) adj pain syndrome*))

#18.	(((non-cardiac or noncardiac) adj3 chest adj3 pain))
#19.	((temporomandibular adj3 joint adj3 pain))
#20.	(((prostate or vulv* or bladder or perineal) adj3 pain))
#21.	((functional pain syndrome* or non-cancer pain or noncancer pain))
#22.	(((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)))
#23.	((fibromyalgia* or fibrositis or myofascial pain syndrome))
#24.	(#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23)

## Appendix F: Search strategy 6

### Chronic pain search strategy 6

This literature search strategy was used for the following reviews:

- What is the clinical and cost effectiveness of pain management programmes for the management of chronic pain?

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual.<sup>1</sup>

For more information, please see the Methods report published as part of the accompanying documents for this guideline.

### F.1 Clinical search literature search strategy

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 10: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2019 Issue 11 of 12 CENTRAL to 2019 Issue 11 of 12	None

### Medline (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter/
5.	editorial/
6.	news/
7.	exp historical article/
8.	Anecdotes as Topic/
9.	comment/
10.	case report/
11.	(letter or comment*).ti.
12.	or/4-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animals/ not humans/
16.	exp Animals, Laboratory/
17.	exp Animal Experimentation/
18.	exp Models, Animal/
19.	exp Rodentia/
20.	(rat or rats or mouse or mice).ti.
21.	or/14-20
22.	3 not 21
23.	limit 22 to English language
24.	"Delivery of Health Care"/
25.	Self Care/
26.	telemedicine/ or telerehabilitation/
27.	Self-Help Groups/
28.	Pain Management/
29.	Professional Patient Relations/
30.	((tele adj2 (heal* or medicine or care)) or tele-health or tele-medicine or tele-care or telehealth or telemedicine or telecare).ti,ab.
31.	(caregiver* or self-car* or self-manag* or self-help or self-administrat* or self-monitor* or self-medicat* or selfcar* or selfmanagement or selfhelp or selfadministrat* or selfmonitor* or selfmedicat*).ti,ab.
32.	(Self adj2 (car* or manag* or program or programs or programme or programmes or help or admistrat* or monitor* or medicat*).ti,ab.
33.	disease management.ti,ab.
34.	expert patient*.ti,ab.
35.	((management or rehab*) adj3 (programme or programmes or program or programs or course* or session* or group* or class* or scheme* or strateg* or initiative* or training)).ti,ab.
36.	((professional or clinician or peer) adj3 (programme or program or programs or programmes)).ti,ab.
37.	(pain management adj2 (program or programs or programmes or programme or rehab*)).ti,ab.
38.	or/24-37

39.	randomized controlled trial.pt.
40.	controlled clinical trial.pt.
41.	randomi#ed.ti,ab.
42.	placebo.ab.
43.	randomly.ti,ab.
44.	Clinical Trials as topic.sh.
45.	trial.ti.
46.	or/39-45
47.	Meta-Analysis/
48.	exp Meta-Analysis as Topic/
49.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
50.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
51.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
52.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
53.	(search* adj4 literature).ab.
54.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
55.	cochrane.jw.
56.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
57.	or/47-56
58.	23 and 38
59.	58 and (46 or 57)

### Embase (Ovid) search terms

1.	chronic pain/ or intractable pain/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter.pt. or letter/
5.	note.pt.
6.	editorial.pt.
7.	case report/ or case study/
8.	(letter or comment*).ti.
9.	or/4-8
10.	randomized controlled trial/ or random*.ti,ab.
11.	9 not 10
12.	animal/ not human/
13.	nonhuman/
14.	exp Animal Experiment/
15.	exp Experimental Animal/
16.	animal model/
17.	exp Rodent/
18.	(rat or rats or mouse or mice).ti.
19.	or/11-18

20.	3 not 19
21.	limit 20 to English language
22.	"Delivery of Health Care"/
23.	self care/
24.	telemedicine/ or telehealth/ or telerehabilitation/
25.	self help/
26.	pain management/
27.	professional-patient relationship/
28.	((tele adj2 (heal* or medicine or care)) or tele-health or tele-medicine or tele-care or telehealth or telemedicine or telecare).ti,ab.
29.	(caregiver* or self-car* or self-manag* or self-help or self-administrat* or self-monitor* or self-medicat* or selfcar* or selfmanagement or selfhelp or selfadministrat* or selfmonitor* or selfmedicat*).ti,ab.
30.	(Self adj2 (car* or manag* or program or programs or programme or programmes or help or admistrat* or monitor* or medicat*).ti,ab.
31.	disease management.ti,ab.
32.	expert patient*.ti,ab.
33.	((management or rehab*) adj3 (programme or programmes or program or programs or course* or session* or group* or class* or scheme* or strateg* or initiative* or training)).ti,ab.
34.	((professional or clinician or peer) adj3 (programme or program or programs or programmes)).ti,ab.
35.	(pain management adj2 (program or programs or programmes or programme or rehab*)).ti,ab.
36.	or/22-35
37.	21 and 36
38.	random*.ti,ab.
39.	factorial*.ti,ab.
40.	(crossover* or cross over*).ti,ab.
41.	((doubl* or singl*) adj blind*).ti,ab.
42.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
43.	crossover procedure/
44.	single blind procedure/
45.	randomized controlled trial/
46.	double blind procedure/
47.	or/38-46
48.	systematic review/
49.	meta-analysis/
50.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
51.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
52.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
53.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
54.	(search* adj4 literature).ab.
55.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
56.	cochrane.jw.
57.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.

58.	or/48-57
59.	37 and (47 or 58)

### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Chronic Pain] explode all trees
#2.	MeSH descriptor: [Pain, Intractable] explode all trees
#3.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) near/3 pain*):ti,ab
#4.	(or #1-#3)
#5.	MeSH descriptor: [Delivery of Health Care] explode all trees
#6.	MeSH descriptor: [Self Care] explode all trees
#7.	MeSH descriptor: [Telemedicine] explode all trees
#8.	MeSH descriptor: [Telerehabilitation] explode all trees
#9.	MeSH descriptor: [Self-Help Groups] explode all trees
#10.	MeSH descriptor: [Pain Management] explode all trees
#11.	MeSH descriptor: [Professional-Patient Relations] explode all trees
#12.	((tele near/2 (heal* or medicine or care)) or tele-health or tele-medicine or tele-care or telehealth or telemedicine or telecare):ti,ab
#13.	(caregiver* or self-car* or self-manag* or self-help or self-administrat* or self-monitor* or self-medicat* or selfcar* or selfmanagement or selfhelp or selfadministrat* or selfmonitor* or selfmedicat*):ti,ab
#14.	(Self near/2 (car* or manag* or progam or programs or programme or programmes or help or admistrat* or monitor* or medicat*)):ti,ab
#15.	disease management:ti,ab
#16.	expert patient*:ti,ab
#17.	((management or rehab*) near/3 (programme or programmes or program or programs or course* or session* or group* or class* or scheme* or strateg* or initiative* or training)):ti,ab
#18.	((professional or clinician or peer) near/3 (programme or program or programs or programmes)):ti,ab
#19.	(painmanagement near/2 (program or programs or programmes or programme or rehab*)):ti,ab
#20.	(or #5-#19)
#21.	#4 and #20

## F.2 Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to a Chronic Pain population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase for health economics and economic modelling.

**Table 11: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling



Database	Dates searched	Search filter used
		studies
Embase	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling studies
Centre for Research and Dissemination (CRD)	HTA - Inception – 30 September 2019 NHSEED - Inception to March 2015	None

### Medline search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex Regional Pain Syndromes/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	fibromyalgia/
7.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	exp myofascial pain syndromes/
15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*).ti,ab.
24.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
25.	or/1-24
26.	letter/
27.	editorial/
28.	news/
29.	exp historical article/
30.	Anecdotes as Topic/
31.	comment/
32.	case report/

33.	(letter or comment*).ti.
34.	or/26-33
35.	randomized controlled trial/ or random*.ti,ab.
36.	34 not 35
37.	animals/ not humans/
38.	exp Animals, Laboratory/
39.	exp Animal Experimentation/
40.	exp Models, Animal/
41.	exp Rodentia/
42.	(rat or rats or mouse or mice).ti.
43.	or/36-42
44.	25 not 43
45.	Economics/
46.	Value of life/
47.	exp "Costs and Cost Analysis"/
48.	exp Economics, Hospital/
49.	exp Economics, Medical/
50.	Economics, Nursing/
51.	Economics, Pharmaceutical/
52.	exp "Fees and Charges"/
53.	exp Budgets/
54.	budget*.ti,ab.
55.	cost*.ti.
56.	(economic* or pharmaco?economic*).ti.
57.	(price* or pricing*).ti,ab.
58.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
59.	(financ* or fee or fees).ti,ab.
60.	(value adj2 (money or monetary)).ti,ab.
61.	or/45-60
62.	exp models, economic/
63.	*Models, Theoretical/
64.	*Models, Organizational/
65.	markov chains/
66.	monte carlo method/
67.	exp Decision Theory/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/62-70
72.	44 and (61 or 71)

### Embase (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or

	refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex regional pain syndrome/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
7.	fibromyalgia/
8.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
9.	vulvodynia/
10.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
11.	interstitial cystitis/
12.	(interstitial adj2 cystitis).ti,ab.
13.	algodystrophy/
14.	(algodystroph* or sudek or sudeck*).ti,ab.
15.	myofascial pain/
16.	noncardiac chest pain/
17.	cystalgia/
18.	Pelvis pain syndrome/
19.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
20.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
21.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
22.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
23.	(temporomandibular adj3 joint adj3 pain).ti,ab.
24.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
25.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
26.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*).ti,ab.
27.	or/1-26
28.	letter.pt. or letter/
29.	note.pt.
30.	editorial.pt.
31.	case report/ or case study/
32.	(letter or comment*).ti.
33.	or/28-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animal/ not human/
37.	nonhuman/
38.	exp Animal Experiment/
39.	exp Experimental Animal/
40.	animal model/
41.	exp Rodent/
42.	(rat or rats or mouse or mice).ti.
43.	or/35-42
44.	27 not 43

45.	health economics/
46.	exp economic evaluation/
47.	exp health care cost/
48.	exp fee/
49.	budget/
50.	funding/
51.	budget*.ti,ab.
52.	cost*.ti.
53.	(economic* or pharmaco?economic*).ti.
54.	(price* or pricing*).ti,ab.
55.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
56.	(financ* or fee or fees).ti,ab.
57.	(value adj2 (money or monetary)).ti,ab.
58.	or/45-57
59.	statistical model/
60.	exp economic aspect/
61.	59 and 60
62.	*theoretical model/
63.	*nonbiological model/
64.	stochastic model/
65.	decision theory/
66.	decision tree/
67.	monte carlo method/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/61-70
72.	44 and (58 or 71)

### NHS EED and HTA (CRD) search terms

#1.	MeSH DESCRIPTOR Chronic Pain EXPLODE ALL TREES
#2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*)
#3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain)
#4.	MeSH DESCRIPTOR Complex Regional Pain Syndromes EXPLODE ALL TREES
#5.	((complex regional pain syndrome* or CRPS or causalgia))
#6.	MeSH DESCRIPTOR Fibromyalgia EXPLODE ALL TREES
#7.	((reflex or sympathetic) adj2 dystroph*)
#8.	MeSH DESCRIPTOR Vulvodynia EXPLODE ALL TREES
#9.	((vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis))
#10.	MeSH DESCRIPTOR Cystitis, Interstitial EXPLODE ALL TREES
#11.	((interstitial adj2 cystitis))
#12.	MeSH DESCRIPTOR Reflex Sympathetic Dystrophy EXPLODE ALL TREES
#13.	((algodystroph* or sudek or sudeck*))

#14.	MeSH DESCRIPTOR Myofascial Pain Syndromes EXPLODE ALL TREES
#15.	((loin pain adj (haematuria or hematuria) adj syndrome*))
#16.	((LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS))
#17.	((((pelvic or pelvis) adj pain syndrome*))
#18.	((((non-cardiac or noncardiac) adj3 chest adj3 pain))
#19.	((temporomandibular adj3 joint adj3 pain))
#20.	((((prostate or vulv* or bladder or perineal) adj3 pain))
#21.	((functional pain syndrome* or non-cancer pain or noncancer pain))
#22.	((((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)))
#23.	((fibromyalgia* or fibrositis or myofascial pain syndrome))
#24.	(#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23)

## Appendix G: Search strategy 7

### Chronic pain search strategy 7

This literature search strategy was used for the following reviews:

- What is the clinical and cost effectiveness of psychological therapy for the management of chronic primary pain?

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual.<sup>1</sup>

For more information, please see the Methods Report published as part of the accompanying documents for this guideline.

### G.1 Clinical search literature search strategy

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 12: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2019 Issue 11 of 12 CENTRAL to 2019 Issue 11 of	None

Database	Dates searched	Search filter used
	12	
PsycINFO (ProQuest)	Inception – 30 September 2019	Exclusions

### Medline (Ovid) search terms

1.	Chronic pain/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp Complex Regional Pain Syndromes/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
6.	fibromyalgia/
7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	exp myofascial pain syndromes/
15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*).ti,ab.
24.	or/1-23
25.	letter/
26.	editorial/
27.	news/
28.	exp historical article/
29.	Anecdotes as Topic/
30.	comment/
31.	case report/
32.	(letter or comment*).ti.
33.	or/25-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animals/ not humans/
37.	exp Animals, Laboratory/
38.	exp Animal Experimentation/

39.	exp Models, Animal/
40.	exp Rodentia/
41.	(rat or rats or mouse or mice).ti.
42.	or/35-41
43.	24 not 42
44.	limit 43 to English language
45.	psychotherapy/ or behavior therapy/ or biofeedback, psychology/ or exp relaxation therapy/ or mind-body therapies/ or conditioning, operant/ or exp cognitive therapy/ or relaxation/ or reality therapy/ or hypnosis/
46.	(meditat* or psychotherap* or psycho dynamic or psycho analytic or group therapy or self-regulation training or coping skill or pain-related thought or "mind and body relaxation technique*" or mind-body relaxation technique* or operant conditioning or pain education or hypnosis).ti,ab.
47.	(biofeedback or mindfulness or "eye movement desensitisation and reprocessing").ti,ab.
48.	(CBASP or CBT or SFT or BSFT or ACT or EMDR).ti,ab.
49.	(acceptance based or commitment therapy or exposure therapy or implosive therapy or "acceptance and commitment" or psycho-education or psychoeducation or occupational therapy).ti,ab.
50.	((behavio#r* or cognitive or relax* or psycho* or respondent or compassion or solution) adj3 (technique* or therap* or treatment* or training or rehabilitat* or strateg*)).ti,ab.
51.	Patient Education as Topic/ or health education/ or information services/ or teaching/ or pamphlets/ or exp teaching materials/
52.	((professional or physician or doctor) adj2 patient adj2 (communication or interact* or relation*)).ti,ab.
53.	((educat* or information or advice) adj3 (patient* or consumer* or health*)).ti,ab.
54.	exp Sleep Wake Disorders/ or sleep hygiene/
55.	insomnia.ti,ab.
56.	(sleep adj3 (manag* or program* or regulat* or therap* or disorder* or deprivation or hygiene)).ti,ab.
57.	or/45-56
58.	randomized controlled trial.pt.
59.	controlled clinical trial.pt.
60.	randomi#ed.ti,ab.
61.	placebo.ab.
62.	randomly.ti,ab.
63.	Clinical Trials as topic.sh.
64.	trial.ti.
65.	or/58-64
66.	Meta-Analysis/
67.	exp Meta-Analysis as Topic/
68.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
69.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
70.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
71.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
72.	(search* adj4 literature).ab.
73.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.

74.	cochrane.jw.
75.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
76.	or/66-75
77.	44 and 57 and (65 or 76)

### Embase (Ovid) search terms

1.	Chronic pain/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp Complex regional pain syndrome/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
6.	fibromyalgia/
7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	myofascial pain/
15.	noncardiac chest pain/
16.	cystalgia/
17.	Pelvis pain syndrome/
18.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
19.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
20.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
21.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
22.	(temporomandibular adj3 joint adj3 pain).ti,ab.
23.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
24.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
25.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*).ti,ab.
26.	or/1-25
27.	letter.pt. or letter/
28.	note.pt.
29.	editorial.pt.
30.	case report/ or case study/
31.	(letter or comment*).ti.
32.	or/27-31
33.	randomized controlled trial/ or random*.ti,ab.
34.	32 not 33
35.	animal/ not human/
36.	nonhuman/



37.	exp Animal Experiment/
38.	exp Experimental Animal/
39.	animal model/
40.	exp Rodent/
41.	(rat or rats or mouse or mice).ti.
42.	or/34-41
43.	26 not 42
44.	limit 43 to English language
45.	exp psychotherapy/
46.	alternative medicine/
47.	instrumental conditioning/
48.	(meditat* or psychotherap* or psycho dynamic or psycho analytic or group therapy or self-regulation training or coping skill or pain-related thought or "mind and body relaxation technique*" or mind-body relaxation technique* or operant conditioning or pain education or hypnosis).ti,ab.
49.	(biofeedback or mindfulness or "eye movement desensitisation and reprocessing").ti,ab.
50.	(CBASP or CBT or SFT or BSFT or ACT or EMDR).ti,ab.
51.	(acceptance based or commitment therapy or exposure therapy or implosive therapy or "acceptance and commitment" or psycho-education or psychoeducation or occupational therapy).ti,ab.
52.	((behavio#r* or cognitive or relax* or psycho* or respondent or compassion or solution) adj3 (technique* or therap* or treatment* or training or rehabilitat* or strateg*)).ti,ab.
53.	patient education/
54.	health education/
55.	information service/
56.	teaching/
57.	publication/
58.	((professional or physician or doctor) adj2 patient adj2 (communication or interact* or relation*)).ti,ab.
59.	((educat* or information or advice) adj3 (patient* or consumer* or health*)).ti,ab.
60.	sleep disorder/ or insomnia/
61.	sleep hygiene/
62.	insomnia.ti,ab.
63.	(sleep adj3 (manag* or program* or regulat* or therap* or deprivation or disorder* or hygiene)).ti,ab.
64.	or/45-63
65.	random*.ti,ab.
66.	factorial*.ti,ab.
67.	(crossover* or cross over*).ti,ab.
68.	((doubl* or singl*) adj blind*).ti,ab.
69.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
70.	crossover procedure/
71.	single blind procedure/
72.	randomized controlled trial/
73.	double blind procedure/
74.	or/65-73
75.	systematic review/

76.	meta-analysis/
77.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
78.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
79.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
80.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
81.	(search* adj4 literature).ab.
82.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
83.	cochrane.jw.
84.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
85.	or/75-84
86.	44 and 64 and (74 or 85)

### PsycINFO (ProQuest) search terms

1.	<p>((su.exact("Chronic Pain") OR ti,ab((chronic OR persist* OR idiopathic OR atypical OR a-typical) NEAR/3 pain) OR SU.EXACT.EXPLODE("Complex Regional Pain Syndrome (Type I)") OR ti,ab(complex regional pain syndrome* OR CRPS OR causalgia) OR ti,ab((reflex OR sympathetic) NEAR/2 dystroph*) OR su.exact("fibromyalgia") OR ti,ab(fibromyalgia OR fibrositis OR myofascial pain syndrome) OR su.exact("vulvodynia") OR ti,ab(vulvodynia OR vestibulodynia OR dyspareunia OR vulvar vestibulitis OR vulvitis) OR su.exact("interstitial cystitis") OR ti,ab(interstitial NEAR/2 cystitis) OR ti,ab(algodystop* OR sudek OR sudeck) OR SU.EXACT.EXPLODE("Myofascial Pain") OR ti,ab(loin pain NEAR/2 (haematuria OR hematuria) NEAR/2 syndrome*) OR ti,ab(lphs OR prostatodynia OR cpps OR atypic* odontalgia OR atypic* odontalgia OR burning mouth syndrom* OR phantom tooth pain OR neuropathic orofacial pain OR myofascial pain OR mps) OR ti,ab((pelvic OR pelvis) NEAR/2 pain syndrome*) OR ti,ab((non-cardiac OR noncardiac) NEAR/2 chest pain) OR ti,ab(temporomandibular NEAR/2 joint NEAR/2 pain) OR ti,ab((prostate OR vulv* OR bladder OR perineal) NEAR/2 pain) OR ti,ab(functional pain syndrome* OR non-cancer pain OR noncancer pain) OR ti,ab((pelvic OR pelvis OR abdominal) NEAR/2 pain NEAR/2 (unknown OR un-known OR idiopathic OR atypic* OR a-typic*)) NOT (su.exact.explode("rodents") OR su.exact.explode("mice") OR (su.exact("animals") NOT (su.exact("human males") OR su.exact("human females")))) OR ti(rat OR rats OR mouse OR mice))) AND (su.exact.explode("psychotherapy") OR su.exact.explode("behavior therapy") OR su.exact("cognitive therapy") OR su.exact("relaxation therapy") OR su.exact("operant conditioning") OR su.exact("hypnosis") OR su.exact("reality therapy") OR su.exact("biofeedback") OR su.exact(" psycholy, biofeedback") OR su.exact("biofeedback, psychology") OR ti,ab(meditat* OR psychotherap* OR psycho dynamic OR psycho analytic OR group therapy OR self-regulation training OR coping skill OR pain-related thought OR "mind and body relaxation technique*" OR mind-body relaxation technique* OR operant conditioning OR pain education OR hypnosis) OR ti,ab(biofeedback OR mindfulness OR "eye movement desensitisation and reprocessing") OR ti,ab(CBASP OR CBT OR SFT OR BSFT OR ACT OR EMDR) OR ti,ab(acceptance based OR commitment therapy OR exposure therapy OR implosive therapy OR "acceptance and commitment" OR psycho-education OR psychoeducation OR occupational therapy) OR ti,ab((behavior* OR beahviour* OR cognitive OR relax* OR psycho* OR respondent OR compassion OR solution) NEAR/2 (technique* OR therap* OR treatment* OR training OR rehabilitat* OR strateg*)) OR su.exact("patient education as topic") OR su.exact("health education") OR su.exact("information services") OR su.exact("teaching materials") OR su.exact("pamphlets") OR su.exact("sleep wake disorders") OR su.exact("sleep hygiene") OR su.exact("sleep deprivation") OR su.exact("sleep disorders") OR ti,ab((professional OR physician OR doctor) NEAR/2 patient NEAR/2 (communication OR interact* OR relation*)) OR ti,ab((educat* OR information OR advice) NEAR/2 (patient* OR consumer* OR health*)) OR ti,ab(insomnia) OR ti,ab(sleep NEAR/2 (manag* OR program* OR regulat* OR therap* OR disorder* OR</p>
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	deprivation OR hygiene)))
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### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Chronic Pain] explode all trees
#2.	((chronic or persist* or idiopathic or atypical or a-typical) near/4 pain):ti,ab
#3.	MeSH descriptor: [Complex Regional Pain Syndromes] explode all trees
#4.	(complex regional pain syndrome* or CRPS or causalgia):ti,ab
#5.	((reflex or sympathetic) near/2 dystroph*):ti,ab
#6.	MeSH descriptor: [Fibromyalgia] explode all trees
#7.	(fibromyalgia* or fibrositis or myofascial pain syndrome):ti,ab
#8.	MeSH descriptor: [Vulvodynia] explode all trees
#9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis):ti,ab
#10.	MeSH descriptor: [Cystitis, Interstitial] explode all trees
#11.	(interstitial near/2 cystitis):ti,ab
#12.	MeSH descriptor: [Reflex Sympathetic Dystrophy] explode all trees
#13.	(algodystroph* or sudek or sudeck*):ti,ab
#14.	MeSH descriptor: [Myofascial Pain Syndromes] explode all trees
#15.	(loin pain near (haematuria or hematuria) near syndrome*):ti,ab
#16.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS):ti,ab
#17.	((pelvic or pelvis) near pain syndrome*):ti,ab
#18.	((non-cardiac or noncardiac) near/3 chest near/3 pain):ti,ab
#19.	(temporomandibular near/3 joint near/3 pain):ti,ab
#20.	((prostate or vulv* or bladder or perineal) near/3 pain):ti,ab
#21.	(functional pain syndrome* or non-cancer pain or noncancer pain):ti,ab
#22.	((pelvic or pelvis or abdominal) near/3 pain near/3 (unknown or un-known or idiopathic or atypic* or a-typic*)):ti,ab
#23.	(or #1-#22)
#24.	MeSH descriptor: [Psychotherapy] explode all trees
#25.	MeSH descriptor: [Behavior Therapy] explode all trees
#26.	MeSH descriptor: [Cognitive Therapy] explode all trees
#27.	MeSH descriptor: [Biofeedback, Psychology] explode all trees
#28.	MeSH descriptor: [Relaxation Therapy] explode all trees
#29.	MeSH descriptor: [Reality Therapy] explode all trees
#30.	MeSH descriptor: [Hypnosis] explode all trees
#31.	MeSH descriptor: [Conditioning, Operant] explode all trees
#32.	MeSH descriptor: [Mind-Body Therapies] explode all trees
#33.	(meditat* or psychotherap* or psycho dynamic or psycho analytic or group therapy or self-regulation training or coping skill or pain-related thought or "mind and body relaxation technique*" or mind-body relaxation technique* or operant conditioning or pain education or hypnosis):ti,ab
#34.	(biofeedback or mindfulness or "eye movement desensitisation and reprocessing"):ti,ab
#35.	(CBASP or CBT or SFT or BSFT or ACT or EMDR):ti,ab
#36.	(acceptance based or commitment therapy or exposure therapy or implosive therapy or "acceptance and commitment" or psycho-education or psychoeducation or occupational

	therapy):ti,ab
#37.	((behavio?r* or cognitive or relax* or psycho* or respondent or compassion or solution) near/3 (technique* or therap* or treatment* or training or rehabilitat* or strateg*)):ti,ab
#38.	MeSH descriptor: [Patient Education as Topic] explode all trees
#39.	MeSH descriptor: [Health Education] explode all trees
#40.	MeSH descriptor: [Information Services] explode all trees
#41.	MeSH descriptor: [Teaching] explode all trees
#42.	MeSH descriptor: [Teaching Materials] explode all trees
#43.	MeSH descriptor: [Pamphlets] explode all trees
#44.	((professional or physician or doctor) near/2 patient near/2 (communication or interact* or relation*)):ti,ab
#45.	((educat* or information or advice) near/3 (patient* or consumer* or health*)):ti,ab
#46.	MeSH descriptor: [Sleep Wake Disorders] explode all trees
#47.	MeSH descriptor: [Sleep Hygiene] explode all trees
#48.	insomnia:ti,ab
#49.	(sleep near/3 (manag* or program* or regulat* or therap* or disorder* or deprivation or hygiene)):ti,ab
#50.	(or #24-#49)
#51.	#23 and #50

## G.2 Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to a Chronic Pain population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase for health economics and economic modelling.

**Table 13: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling studies
Embase	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling studies
Centre for Research and Dissemination (CRD)	HTA - Inception – 30 September 2019 NHSEED - Inception to March 2015	None

### Medline search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex Regional Pain Syndromes/

5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	fibromyalgia/
7.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	exp myofascial pain syndromes/
15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
24.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
25.	or/1-24
26.	letter/
27.	editorial/
28.	news/
29.	exp historical article/
30.	Anecdotes as Topic/
31.	comment/
32.	case report/
33.	(letter or comment*).ti.
34.	or/26-33
35.	randomized controlled trial/ or random*.ti,ab.
36.	34 not 35
37.	animals/ not humans/
38.	exp Animals, Laboratory/
39.	exp Animal Experimentation/
40.	exp Models, Animal/
41.	exp Rodentia/
42.	(rat or rats or mouse or mice).ti.
43.	or/36-42
44.	25 not 43
45.	Economics/
46.	Value of life/
47.	exp "Costs and Cost Analysis"/

48.	exp Economics, Hospital/
49.	exp Economics, Medical/
50.	Economics, Nursing/
51.	Economics, Pharmaceutical/
52.	exp "Fees and Charges"/
53.	exp Budgets/
54.	budget*.ti,ab.
55.	cost*.ti.
56.	(economic* or pharmaco?economic*).ti.
57.	(price* or pricing*).ti,ab.
58.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
59.	(financ* or fee or fees).ti,ab.
60.	(value adj2 (money or monetary)).ti,ab.
61.	or/45-60
62.	exp models, economic/
63.	*Models, Theoretical/
64.	*Models, Organizational/
65.	markov chains/
66.	monte carlo method/
67.	exp Decision Theory/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/62-70
72.	44 and (61 or 71)

### Embase (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex regional pain syndrome/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
7.	fibromyalgia/
8.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
9.	vulvodynia/
10.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
11.	interstitial cystitis/
12.	(interstitial adj2 cystitis).ti,ab.
13.	algodystrophy/
14.	(algodystroph* or sudek or sudeck*).ti,ab.
15.	myofascial pain/
16.	noncardiac chest pain/

17.	cystalgia/
18.	Pelvis pain syndrome/
19.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
20.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
21.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
22.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
23.	(temporomandibular adj3 joint adj3 pain).ti,ab.
24.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
25.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
26.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
27.	or/1-26
28.	letter.pt. or letter/
29.	note.pt.
30.	editorial.pt.
31.	case report/ or case study/
32.	(letter or comment*).ti.
33.	or/28-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animal/ not human/
37.	nonhuman/
38.	exp Animal Experiment/
39.	exp Experimental Animal/
40.	animal model/
41.	exp Rodent/
42.	(rat or rats or mouse or mice).ti.
43.	or/35-42
44.	27 not 43
45.	health economics/
46.	exp economic evaluation/
47.	exp health care cost/
48.	exp fee/
49.	budget/
50.	funding/
51.	budget*.ti,ab.
52.	cost*.ti.
53.	(economic* or pharmaco?economic*).ti.
54.	(price* or pricing*).ti,ab.
55.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
56.	(financ* or fee or fees).ti,ab.
57.	(value adj2 (money or monetary)).ti,ab.
58.	or/45-57
59.	statistical model/

60.	exp economic aspect/
61.	59 and 60
62.	*theoretical model/
63.	*nonbiological model/
64.	stochastic model/
65.	decision theory/
66.	decision tree/
67.	monte carlo method/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/61-70
72.	44 and (58 or 71)

### NHS EED and HTA (CRD) search terms

#1.	MeSH DESCRIPTOR Chronic Pain EXPLODE ALL TREES
#2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*))
#3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain))
#4.	MeSH DESCRIPTOR Complex Regional Pain Syndromes EXPLODE ALL TREES
#5.	((complex regional pain syndrome* or CRPS or causalgia))
#6.	MeSH DESCRIPTOR Fibromyalgia EXPLODE ALL TREES
#7.	((reflex or sympathetic) adj2 dystroph*)
#8.	MeSH DESCRIPTOR Vulvodynia EXPLODE ALL TREES
#9.	((vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis))
#10.	MeSH DESCRIPTOR Cystitis, Interstitial EXPLODE ALL TREES
#11.	((interstitial adj2 cystitis))
#12.	MeSH DESCRIPTOR Reflex Sympathetic Dystrophy EXPLODE ALL TREES
#13.	((algodystroph* or sudek or sudeck*))
#14.	MeSH DESCRIPTOR Myofascial Pain Syndromes EXPLODE ALL TREES
#15.	((loin pain adj (haematuria or hematuria) adj syndrome*))
#16.	((LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS))
#17.	((pelvic or pelvis) adj pain syndrome*))
#18.	((non-cardiac or noncardiac) adj3 chest adj3 pain))
#19.	((temporomandibular adj3 joint adj3 pain))
#20.	((prostate or vulv* or bladder or perineal) adj3 pain))
#21.	((functional pain syndrome* or non-cancer pain or noncancer pain))
#22.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*))
#23.	((fibromyalgia* or fibrositis or myofascial pain syndrome))
#24.	(#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23)



## Appendix H: Search strategy 8

### Chronic pain search strategy 8

This literature search strategy was used for the following reviews:

- A.1 What biological factors may be barriers to successfully managing chronic pain?
- A.2 What psychological factors may be barriers to successfully managing chronic pain?
- A.3 What social factors may be barriers to successfully managing chronic pain?

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual.<sup>1</sup>

For more information, please see the Methods Report published as part of the accompanying documents for this guideline.

### H.1 Clinical search literature search strategy for A.1

Searches were constructed using the following approach:

- Population AND Prognostic/risk factor terms AND Study filter(s)

**Table 14: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Observational studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Observational studies

#### **Medline (Ovid) search terms**

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter/
5.	editorial/
6.	news/
7.	exp historical article/
8.	Anecdotes as Topic/
9.	comment/
10.	case report/
11.	(letter or comment*).ti.
12.	or/4-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animals/ not humans/
16.	exp Animals, Laboratory/
17.	exp Animal Experimentation/
18.	exp Models, Animal/
19.	exp Rodentia/

20.	(rat or rats or mouse or mice).ti.
21.	or/14-20
22.	3 not 21
23.	limit 22 to English language
24.	Exercise/
25.	(physical* adj2 activit*).ti,ab.
26.	comorbidity/ or multimorbidity/
27.	(comorbid* or co-morbid* or multimorbid* or multi-morbid*).ti,ab.
28.	(multidisease# or multi-disease# or (multiple adj (ill* or disease? or condition? or syndrom* or disorder?))).ti,ab.
29.	((coocur* or co-ocur* or coexist* or co-exist* or multipl* or concord* or discord*) adj3 (disease? or ill* or condition? or disorder*).ti,ab.
30.	"pain* related disabilit*".ti,ab.
31.	(pain* adj2 (site* or multisite* or spot* or intensity or intense or severity or severe or level*).ti,ab.
32.	exp polypharmacy/
33.	(hyperpolypharmacy or polypharmacy).ti,ab.
34.	medication-related harm*.ti,ab.
35.	((medicat* or drug* or prescri*) adj2 (number* or multiple or excessive)).ti,ab.
36.	(pain* adj5 management).ti,ab.
37.	(barrier* or diagnosis*).ti,ab.
38.	36 and 37
39.	or/24-35,38
40.	Epidemiologic studies/
41.	Observational study/
42.	exp Cohort studies/
43.	(cohort adj (study or studies or analys* or data)).ti,ab.
44.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
45.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
46.	Controlled Before-After Studies/
47.	Historically Controlled Study/
48.	Interrupted Time Series Analysis/
49.	(before adj2 after adj2 (study or studies or data)).ti,ab.
50.	or/40-49
51.	exp case control study/
52.	case control*.ti,ab.
53.	or/51-52
54.	50 or 53
55.	Cross-sectional studies/
56.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
57.	or/55-56
58.	50 or 53 or 57
59.	23 and 39 and 58

### Embase (Ovid) search terms

1.	chronic pain/ or intractable pain/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter.pt. or letter/
5.	note.pt.
6.	editorial.pt.
7.	case report/ or case study/
8.	(letter or comment*).ti.
9.	or/4-8
10.	randomized controlled trial/ or random*.ti,ab.
11.	9 not 10
12.	animal/ not human/
13.	nonhuman/
14.	exp Animal Experiment/
15.	exp Experimental Animal/
16.	animal model/
17.	exp Rodent/
18.	(rat or rats or mouse or mice).ti.
19.	or/11-18
20.	3 not 19
21.	limit 20 to English language
22.	*exercise/
23.	(physical* adj2 activit*).ti,ab.
24.	comorbidity/ or multimorbidity/
25.	(comorbid* or co-morbid* or multimorbid* or multi-morbid*).ti,ab.
26.	(multidisease# or multi-disease# or (multiple adj (ill* or disease? or condition? or syndrom* or disorder?)))ti,ab.
27.	((coocur* or co-ocur* or coexist* or co-exist* or multipl* or concord* or discord*) adj3 (disease? or ill* or condition? or disorder*)).ti,ab.
28.	"pain* related disabilit*".ti,ab.
29.	(pain* adj2 (site* or multisite* or spot* or intensity or intense or severity or severe or level*)).ti,ab.
30.	exp polypharmacy/
31.	(hyperpolypharmacy or polypharmacy).ti,ab.
32.	medication-related harm*.ti,ab.
33.	((medicat* or drug* or prescri*) adj2 (number* or multiple or excessive)).ti,ab.
34.	(pain* adj5 management).ti,ab.
35.	(barrier* or diagnosis*).ti,ab.
36.	34 and 35
37.	or/22-33,36
38.	Epidemiologic studies/
39.	Observational study/
40.	exp Cohort studies/
41.	(cohort adj (study or studies or analys* or data)).ti,ab.

42.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
43.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
44.	Controlled Before-After Studies/
45.	Historically Controlled Study/
46.	Interrupted Time Series Analysis/
47.	(before adj2 after adj2 (study or studies or data)).ti,ab.
48.	or/38-47
49.	exp case control study/
50.	case control*.ti,ab.
51.	or/49-50
52.	48 or 51
53.	Cross-sectional studies/
54.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
55.	or/53-54
56.	48 or 51 or 55
57.	21 and 37 and 56

## H.2 Clinical search literature search strategy for A.2

Searches were constructed using the following approach:

- Population AND Prognostic/risk factor terms AND Study filter(s)

**Table 15: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Systematic review studies Observational studies Prognostic studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Systematic review studies Observational studies Prognostic studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2019 Issue 11 of 12	None
PsycINFO (ProQuest)	Inception – 30 September 2019	Observational studies

### Medline (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter/
5.	editorial/
6.	news/
7.	exp historical article/

8.	Anecdotes as Topic/
9.	comment/
10.	case report/
11.	(letter or comment*).ti.
12.	or/4-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animals/ not humans/
16.	exp Animals, Laboratory/
17.	exp Animal Experimentation/
18.	exp Models, Animal/
19.	exp Rodentia/
20.	(rat or rats or mouse or mice).ti.
21.	or/14-20
22.	3 not 21
23.	limit 22 to English language
24.	exp mental disorders/
25.	((mind or anxi* or mood or neurocognitive or cognition or neurodevelopmental or neurotic or personality or sleep wake or substance or trauma* or stress or depressive or depression or communicat* or learning) adj3 disorder*).ti,ab.
26.	((axis I or axis II or axis 1 or axis 2) adj disorder*).ti,ab.
27.	((psychiatric or psychological* or mental*) adj3 (illness or ill or disorder* or factor*)).ti,ab.
28.	((development* or intellectual*) adj3 disab*).ti,ab.
29.	((substance or drug*) adj3 (abuse or misuse or addiction or dependence)).ti,ab.
30.	((adverse or negative or trauma* or abusive or abuse* or neglect*) adj2 child* adj2 (event* or experience* or life)).ti,ab.
31.	*life change events/
32.	(pain adj3 (intensity or severe or severity*)).ti,ab.
33.	(McGill adj2 pain*).ti,ab.
34.	(coping adj3 (method* or style* or strateg* or active or passive)).ti,ab.
35.	or/24-33
36.	23 and 35
37.	Meta-Analysis/
38.	exp Meta-Analysis as Topic/
39.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
40.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
41.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
42.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
43.	(search* adj4 literature).ab.
44.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
45.	cochrane.jw.
46.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
47.	or/37-46
48.	Epidemiologic studies/

49.	Observational study/
50.	exp Cohort studies/
51.	(cohort adj (study or studies or analys* or data)).ti,ab.
52.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
53.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
54.	Controlled Before-After Studies/
55.	Historically Controlled Study/
56.	Interrupted Time Series Analysis/
57.	(before adj2 after adj2 (study or studies or data)).ti,ab.
58.	or/48-57
59.	exp case control study/
60.	case control*.ti,ab.
61.	or/59-60
62.	58 or 61
63.	Cross-sectional studies/
64.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
65.	or/63-64
66.	58 or 61 or 65
67.	36 and (47 or 66)
68.	Anxiety/
69.	Depression/
70.	(anxi* or anxious or depression or low mood).ti,ab.
71.	or/68-70
72.	prognosis/
73.	(predict* or prognos*).ti,ab.
74.	Logistic models/
75.	Disease progression/
76.	or/72-75
77.	71 and 76
78.	23 and 77
79.	67 or 78

### Embase (Ovid) search terms

1.	chronic pain/ or intractable pain/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter.pt. or letter/
5.	note.pt.
6.	editorial.pt.
7.	case report/ or case study/
8.	(letter or comment*).ti.
9.	or/4-8

10.	randomized controlled trial/ or random*.ti,ab.
11.	9 not 10
12.	animal/ not human/
13.	nonhuman/
14.	exp Animal Experiment/
15.	exp Experimental Animal/
16.	animal model/
17.	exp Rodent/
18.	(rat or rats or mouse or mice).ti.
19.	or/11-18
20.	3 not 19
21.	limit 20 to English language
22.	exp *mental disease/
23.	((mind or anxi* or mood or neurocognitive or cognition or neurodevelopmental or neurotic or personality or sleep wake or substance or trauma* or stress or depressive or depression or communicat* or learning) adj3 disorder*).ti,ab.
24.	((axis I or axis II or axis 1 or axis 2) adj disorder*).ti,ab.
25.	((psychiatric or psychological* or mental*) adj3 (illness or ill or disorder* or factor*).ti,ab.
26.	((development* or intellectual*) adj3 disab*).ti,ab.
27.	((substance or drug*) adj3 (abuse or misuse or addiction or dependence)).ti,ab.
28.	((adverse or negative or trauma* or abusive or abuse* or neglect*) adj2 child* adj2 (event* or experience* or life)).ti,ab.
29.	*life event/
30.	(pain adj3 (intensity or severe or severity*).ti,ab.
31.	(McGill adj2 pain*).ti,ab.
32.	(coping adj3 (method* or style* or strateg* or active or passive)).ti,ab.
33.	or/22-32
34.	*anxiety/
35.	*Depression/
36.	(anxi* or anxious or depression or low mood).ti,ab.
37.	or/34-36
38.	exp prognosis/
39.	prognostic assessment/
40.	(predict* or prognos*).ti,ab.
41.	disease course/
42.	statistical model/
43.	or/38-42
44.	systematic review/
45.	meta-analysis/
46.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
47.	((systematic* or evidence*) adj3 (review* or overview*).ti,ab.
48.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
49.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
50.	(search* adj4 literature).ab.
51.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or

	cinahl or science citation index or bids or cancerlit).ab.
52.	cochrane.jw.
53.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
54.	or/44-53
55.	Clinical study/
56.	Observational study/
57.	family study/
58.	longitudinal study/
59.	retrospective study/
60.	prospective study/
61.	cohort analysis/
62.	follow-up/
63.	cohort*.ti,ab.
64.	62 and 63
65.	(cohort adj (study or studies or analys* or data)).ti,ab.
66.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
67.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
68.	(before adj2 after adj2 (study or studies or data)).ti,ab.
69.	or/55-61,64-68
70.	exp case control study/
71.	case control*.ti,ab.
72.	or/70-71
73.	69 or 72
74.	cross-sectional study/
75.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
76.	or/74-75
77.	69 or 76
78.	69 or 72 or 76
79.	21 and 33
80.	79 and (54 or 78)
81.	37 and 43
82.	21 and 81
83.	80 or 82

#### PsycINFO (Proquest) search terms

1.	((MAINSUBJECT.EXACT.EXPLODE("Chronic Pain") OR TI,AB((persist* OR intract* OR chronic OR longstanding OR "long standing" OR longterm OR "long term" OR refractory OR prolong* OR "long last*" OR sustain* OR linger* OR syndrome*) NEAR/3 pain*)) AND (MAINSUBJECT.EXACT.EXPLODE("Mental Disorders") OR (ti,ab((mind OR mood OR anxi* OR neurocognitive OR cognition OR neurodevelopmental OR neurotic OR personality OR substance OR trauma* OR stress OR depressive OR communicat* OR learning) NEAR/3 disorder*) OR ti,ab(axis NEAR/1 disorder*) OR ti,ab((psychiatric or psychological* or mental*) near/3 (illness or ill or disorder* or factor*)) OR ti,ab((development* or intellectual*) near/3 disab*) OR ti,ab((substance or drug*) near3 (abuse or misuse or addiction or dependence)) OR ti,ab((substance OR drug*) NEAR/3 (abuse OR misuse OR addiction OR dependence)) OR ti,ab((adverse or negative or trauma* or abusive or abuse* or neglect*) near/2 child* near/2 (event* or experience* or life)) OR ti,ab(pain NEAR/3 (intensity OR severe OR severity*)) OR
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	ti,ab(McGill near/2 pain*) OR ti,ab(coping near/3 (method* or style* or strateg* or active or passive)))) AND (su.exact.explode("longitudinal studies") or su.exact.explode("followup studies") or su.exact("time series") or su.exact("cohort analysis") or ti,ab(cohort near/1 (study or studies or analys* or data)) or ti,ab((follow-up or observational or uncontrolled or non-randomi?ed or nonrandomi?ed or epidemiologic*) near/1 (study or studies or data)) or ti,ab((longitudinal or retrospective or prospective) and (study or studies or review or analys* or cohort* or data)) or ti,ab(before near/2 after near/2 (study or studies or data)) or ti,ab(cross-sectional and (study or studies or review or analys* or cohort* or data)) or ti,ab(case-control*))
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### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Chronic Pain] explode all trees
#2.	MeSH descriptor: [Pain, Intractable] explode all trees
#3.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) near/3 pain*):ti,ab
#4.	(or #1-#3)
#5.	MeSH descriptor: [Mental Disorders] explode all trees
#6.	((mind or anxi* or mood or neurocognitive or cognition or neurodevelopmental or neurotic or personality or sleep wake or substance or trauma* or stress or depressive or depression or communicat* or learning) near/3 disorder*):ti,ab
#7.	((axis I or axis II or axis 1 or axis 2) near disorder*):ti,ab
#8.	((psychiatric or psychological* or mental*) near/3 (illness or ill or disorder* or factor*)):ti,ab
#9.	((development* or intellectual*) near/3 disab*):ti,ab
#10.	((substance or drug*) near/3 (abuse or misuse or addiction or dependence)):ti,ab
#11.	((adverse or negative or trauma* or abusive or abuse* or neglect*) near/2 child* near/2 (event* or experience* or life)):ti,ab
#12.	MeSH descriptor: [Life Change Events] explode all trees
#13.	(pain near/3 (intensity or severe or severity*)):ti,ab
#14.	(McGill near/2 pain*):ti,ab
#15.	(coping near/3 (method* or style* or strateg* or active or passive)):ti,ab
#16.	(or #5-#15)
#17.	#4 and #16
#18.	MeSH descriptor: [Depression] explode all trees
#19.	MeSH descriptor: [Anxiety] explode all trees
#20.	(anxiet* or anxious or depression or low mood):ti,ab
#21.	(or #18-#20)
#22.	#4 and #21
#23.	#17 or #22

## H.3 Clinical search literature search strategy for A.3

Searches were constructed using the following approach:

- Population AND Prognostic/risk factor terms AND Study filter(s)

**Table 16: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Observational studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Observational studies
Assia (Proquest)	Inception – 30 September 2019	None
SPP (Ovid)	Inception – 30 September 2019	None
King's Fund	Inception – 30 September 2019	None

**Medline (Ovid) search terms**

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter/
5.	editorial/
6.	news/
7.	exp historical article/
8.	Anecdotes as Topic/
9.	comment/
10.	case report/
11.	(letter or comment*).ti.
12.	or/4-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animals/ not humans/
16.	exp Animals, Laboratory/
17.	exp Animal Experimentation/
18.	exp Models, Animal/
19.	exp Rodentia/
20.	(rat or rats or mouse or mice).ti.
21.	or/14-20
22.	3 not 21
23.	limit 22 to English language
24.	exp Rehabilitation, Vocational/
25.	employment, supported/ or unemployment/ or employment/
26.	return to work/
27.	(occupation* adj2 (return* or retrain* or support* or rehabilitat*)).ti,ab.
28.	(employ* adj2 (return* or retrain* or support* or rehabilitat* or secur*)).ti,ab.
29.	(vocation* adj2 (return* or retrain* or support* or rehabilitat*)).ti,ab.
30.	(job* adj2 (return* or retrain* or support* or rehabilitat* or secur*)).ti,ab.
31.	(work* adj2 (return* or retrain* or support* or rehabilitat* or secur*)).ti,ab.
32.	(work* adj2 (sheltered or permitted or voluntary)).ti,ab.
33.	unemploy*.ti,ab.
34.	Social Isolation/

35.	(social adj2 (barrier* or isolate* or isolation or separat* or contact or lonely or loneliness)).ti,ab.
36.	social support/ or social work/ or social welfare/
37.	((social or work*) adj2 (participat* or circumstance* or activit* or relation*)).ti,ab.
38.	(social adj2 (wellbeing or distress or consequence* or role* or concern* or vulnerab*)).ti,ab.
39.	caregivers/
40.	(carer* or caregiver*).ti,ab.
41.	(spouse* or wife or wives or husband* or significant other* or partner* or family or families).ti,ab.
42.	(caring adj3 (dependen* or responsib*)).ti,ab.
43.	Poverty/
44.	((financ* or money or income) adj3 (unstable or instability or concern* or vulnerab* or precarious or precarity)).ti,ab.
45.	(poverty or low income or deprived or deprivation).ti,ab.
46.	((litigat* or compensat* or legal) adj3 claim*).ti,ab.
47.	or/24-46
48.	Epidemiologic studies/
49.	Observational study/
50.	exp Cohort studies/
51.	(cohort adj (study or studies or analys* or data)).ti,ab.
52.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
53.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
54.	Controlled Before-After Studies/
55.	Historically Controlled Study/
56.	Interrupted Time Series Analysis/
57.	(before adj2 after adj2 (study or studies or data)).ti,ab.
58.	or/48-57
59.	exp case control study/
60.	case control*.ti,ab.
61.	or/59-60
62.	58 or 61
63.	Cross-sectional studies/
64.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
65.	or/63-64
66.	58 or 61 or 65
67.	23 and 47 and 66

#### Embase (Ovid) search terms

1.	chronic pain/ or intractable pain/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter.pt. or letter/

5.	note.pt.
6.	editorial.pt.
7.	case report/ or case study/
8.	(letter or comment*).ti.
9.	or/4-8
10.	randomized controlled trial/ or random*.ti,ab.
11.	9 not 10
12.	animal/ not human/
13.	nonhuman/
14.	exp Animal Experiment/
15.	exp Experimental Animal/
16.	animal model/
17.	exp Rodent/
18.	(rat or rats or mouse or mice).ti.
19.	or/11-18
20.	3 not 19
21.	limit 20 to English language
22.	exp Rehabilitation, Vocational/
23.	Return to Work/
24.	*employment/ or employment, supported/ or *unemployment/
25.	(occupation* adj2 (return* or retrain* or support* or rehabilitat*)).ti,ab.
26.	(employ* adj2 (return* or retrain* or support* or rehabilitat* or insecur*)).ti,ab.
27.	(vocation* adj2 (return* or retrain* or support* or rehabilitat*)).ti,ab.
28.	(job* adj2 (return* or retrain* or support* or rehabilitat* or insecur*)).ti,ab.
29.	(work* adj2 (return* or retrain* or support* or rehabilitat* or insecur*)).ti,ab.
30.	(work* adj2 (sheltered or permitted or voluntary)).ti,ab.
31.	unemploy*.ti,ab.
32.	social isolation/
33.	(social adj2 (barrier* or isolate* or isolation or separat* or contact or lonely or loneliness)).ti,ab.
34.	social support/ or *social work/ or *social welfare/
35.	((social or work*) adj2 (participat* or circumstance* or activit* or relation*)).ti,ab.
36.	(social adj2 (wellbeing or distress or consequence* or role* or concern* or vulnerab*)).ti,ab.
37.	*caregiver/
38.	(carer* or caregiver*).ti,ab.
39.	(spouse* or wife or wives or husband* or significant other* or partner* or family or families).ti,ab.
40.	(caring adj3 (dependen* or responsib*)).ti,ab.
41.	poverty/
42.	((financ* or money or income) adj3 (unstable or instability or concern* or vulnerab* or precarious or precarity)).ti,ab.
43.	(poverty or low income or deprived or deprivation).ti,ab.
44.	((litigat* or compensat* or legal) adj3 claim*).ti,ab.
45.	or/22-44
46.	Epidemiologic studies/
47.	Observational study/

48.	exp Cohort studies/
49.	(cohort adj (study or studies or analys* or data)).ti,ab.
50.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
51.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
52.	Controlled Before-After Studies/
53.	Historically Controlled Study/
54.	Interrupted Time Series Analysis/
55.	(before adj2 after adj2 (study or studies or data)).ti,ab.
56.	or/46-55
57.	exp case control study/
58.	case control*.ti,ab.
59.	or/57-58
60.	56 or 59
61.	Cross-sectional studies/
62.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
63.	or/61-62
64.	56 or 59 or 63
65.	21 and 45 and 64

#### ASSIA (ProQuest) search terms

1.	(MAINSUBJECT.EXACT.EXPLODE("Chronic pain") OR ti,ab((persist* OR intract* OR chronic OR longstanding OR longterm OR refractory OR prolong* OR sustain* OR linger* OR syndrome*) NEAR/3 pain*)) AND (MAINSUBJECT.EXACT("Vocational rehabilitation") OR MAINSUBJECT.EXACT("Unemployment") OR (MAINSUBJECT.EXACT("Supported employment") OR MAINSUBJECT.EXACT("Employment")) OR MAINSUBJECT.EXACT("Return to work") OR ti,ab((occupation* OR employ* OR vocation* OR job* OR work*) NEAR/2 (return* OR retrain* OR support* OR rehabilitat*)) OR ti,ab(work* NEAR/2 (sheltered OR permitted OR voluntary)) OR unemployment OR ti.unemployment OR ti:unemployment OR ti(unemploy*)) OR MAINSUBJECT.EXACT("Isolation") OR ti,ab(social NEAR/2 (barrier* OR isolate* OR isolation OR separat* OR contact OR lonely OR loneliness)) OR (MAINSUBJECT.EXACT("Social support") OR MAINSUBJECT.EXACT("Social welfare")) OR ti,ab((social OR work*) NEAR/2 (participat* OR circumstance* OR activit* OR relation*)) OR ti,ab(social NEAR/2 (wellbeing OR distress OR consequence* OR role* OR concern* OR vulnerab*)) OR ti,ab(carer* OR caregiver*) OR ti,ab(spouse* OR wife OR wives OR husband* OR "significant other*" OR partner* OR family OR families) OR ti,ab(caring near/3 (dependen* or responsib*)) OR MAINSUBJECT.EXACT("Poverty") OR ti,ab((financ* or money or income) near/3 (unstable or instability or concern* or vulnerab* or precarious or precarity)) OR ti,ab(poverty OR low income OR deprived OR deprivation) OR ti,ab((litigat* or compensat* or legal) near/3 claim*))
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#### SPP (Ovid) search terms

1.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
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#### King's Fund search terms

1.	'chronic pain'
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# Appendix I: Search strategy 9

## Chronic pain search strategy 9

This literature search strategy was used for the following reviews:

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

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual.<sup>1</sup>

For more information, please see the Methods Report published as part of the accompanying documents for this guideline.

## I.1 Clinical search literature search strategy

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 17: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2019 Issue 11 of 12 CENTRAL to 2019 Issue 11 of 12	None
ASSIA (ProQuest)	Inception -30 September 2019	None
SPP (Ovid)	Inception -30 September 2019	None
CINAHL (EBSCO)	Inception -30 September 2019	None
King's Fund	Inception -30 September 2019	None

### Medline (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter/
5.	editorial/
6.	news/
7.	exp historical article/
8.	Anecdotes as Topic/
9.	comment/
10.	case report/

11.	(letter or comment*).ti.
12.	or/4-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animals/ not humans/
16.	exp Animals, Laboratory/
17.	exp Animal Experimentation/
18.	exp Models, Animal/
19.	exp Rodentia/
20.	(rat or rats or mouse or mice).ti.
21.	or/14-20
22.	3 not 21
23.	limit 22 to English language
24.	social support/ or social work/ or social welfare/
25.	patient advocacy/
26.	((social or communit* or cultural or non-medical or non-clinical) adj3 (commission* or prescrib* or prescrip* or refer* or service* or reactivat* or integrat* or support* or work* or welfare or organisation* or referral or engag* or intervention)).ti,ab.
27.	((well-being adj2 program*) or (wellbeing adj2 program*) or (cultural adj2 commission*)).ti,ab.
28.	((job* or work or employment) adj3 (support* or rehab*)).ti,ab.
29.	(library visit* or ping pong or (vocational adj2 rehabilitation) or befriend* or creative activities or advocacy or link work*).ti,ab.
30.	((cook* or garden* or art or walking) adj3 (club* or class* or lesson* or group*)).ti,ab.
31.	(care adj2 (navigation or coordination)).ti,ab.
32.	Employment, Supported/
33.	Rehabilitation, Vocational/
34.	((occupation* or employ* or vocation* or job* or work*) adj2 (return* or retrain* or support* or rehabilitat*)).ti,ab.
35.	Case Management/
36.	(Case adj2 manag*).ti,ab.
37.	or/24-36
38.	randomized controlled trial.pt.
39.	controlled clinical trial.pt.
40.	randomi#ed.ti,ab.
41.	placebo.ab.
42.	randomly.ti,ab.
43.	Clinical Trials as topic.sh.
44.	trial.ti.
45.	or/38-44
46.	Meta-Analysis/
47.	exp Meta-Analysis as Topic/
48.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
49.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
50.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
51.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.

52.	(search* adj4 literature).ab.
53.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
54.	cochrane.jw.
55.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
56.	or/46-55
57.	23 and 37 and (45 or 56)

#### Embase (Ovid) search terms

1.	chronic pain/ or intractable pain/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter.pt. or letter/
5.	note.pt.
6.	editorial.pt.
7.	case report/ or case study/
8.	(letter or comment*).ti.
9.	or/4-8
10.	randomized controlled trial/ or random*.ti,ab.
11.	9 not 10
12.	animal/ not human/
13.	nonhuman/
14.	exp Animal Experiment/
15.	exp Experimental Animal/
16.	animal model/
17.	exp Rodent/
18.	(rat or rats or mouse or mice).ti.
19.	or/11-18
20.	3 not 19
21.	limit 20 to English language
22.	Social support/ or *social work/ or *social welfare/
23.	patient advocacy/
24.	((social or communit* or cultural or non-medical or non-clinical) adj3 (commission* or prescrib* or prescrip* or refer* or service* or reactivat* or integrat* or support* or work* or welfare or organisation* or referral or engag* or intervention)).ti,ab.
25.	((well-being adj2 program*) or (wellbeing adj2 program*) or (cultural adj2 commission*)).ti,ab.
26.	((job* or work or employment) adj3 (support* or rehab*)).ti,ab.
27.	(library visit* or ping pong or (vocational adj2 rehabilitation) or befriend* or creative activities or advocacy or link work*).ti,ab.
28.	((cook* or garden* or art or walking) adj3 (club* or class* or lesson* or group*)).ti,ab.
29.	(care adj2 (navigation or coordination)).ti,ab.
30.	supported employment/
31.	vocational rehabilitation/
32.	((occupation* or employ* or vocation* or job* or work*) adj2 (return* or retrain* or support* or rehabilitat*)).ti,ab.
33.	case management/



34.	(Case adj2 manag*).ti,ab.
35.	or/22-34
36.	random*.ti,ab.
37.	factorial*.ti,ab.
38.	(crossover* or cross over*).ti,ab.
39.	((doubl* or singl*) adj blind*).ti,ab.
40.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
41.	crossover procedure/
42.	single blind procedure/
43.	randomized controlled trial/
44.	double blind procedure/
45.	or/36-44
46.	systematic review/
47.	meta-analysis/
48.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
49.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
50.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
51.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
52.	(search* adj4 literature).ab.
53.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
54.	cochrane.jw.
55.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
56.	or/46-55
57.	21 and 35 and (45 or 56)

#### ASSIA (ProQuest) search terms

1.	((mainsubject(social support) OR mainsubject(social work) OR mainsubject(patient advocacy) OR TI,AB((social OR communit* OR cultural OR non-medical OR non-clinical) NEAR/3 (commission* OR prescrib* OR prescrip* OR refer* OR service* OR reactivat* OR integrat* OR support* OR work* OR welfare OR organisation* OR referral OR engag* OR intervention)) OR TI,AB((well-being NEAR/2 program*) OR (wellbeing NEAR/2 program*) OR (cultural NEAR/2 commission*)) OR TI,AB((job* OR work OR employment) NEAR/3 (support* OR rehab*)) OR TI,AB(library visit* OR ping pong OR (vocational NEAR/2 rehabilitation) OR befriend* OR creative activities OR advocacy OR link work*) OR TI,AB((cook* or garden* or art or walking) near/3 (club* or class* or lesson* or group*)) OR TI,AB(care near/2 (navigation or coordination)) OR mainsubject(vocational rehabilitation) OR TI,AB((occupation* OR employ* OR vocation* OR job* OR work*) NEAR/2 (return* OR retrain* OR support* OR rehabilitat*))) AND (chronic pain)) AND ((mainsubject(social support) OR mainsubject(social work) OR mainsubject(patient advocacy) OR TI,AB((social OR communit* OR cultural OR non-medical OR non-clinical) NEAR/3 (commission* OR prescrib* OR prescrip* OR refer* OR service* OR reactivat* OR integrat* OR support* OR work* OR welfare OR organisation* OR referral OR engag* OR intervention)) OR TI,AB((well-being NEAR/2 program*) OR (wellbeing NEAR/2 program*) OR (cultural NEAR/2 commission*)) OR TI,AB((job* OR work OR employment) NEAR/3 (support* OR rehab*)) OR TI,AB(library visit* OR ping pong OR (vocational NEAR/2 rehabilitation) OR befriend* OR creative activities OR advocacy OR link work*) OR TI,AB((cook* or garden* or art or walking) near/3 (club* or class* or lesson* or group*)) OR TI,AB(care near/2 (navigation or coordination)) OR mainsubject(vocational rehabilitation) OR TI,AB((occupation* OR employ* OR vocation* OR job* OR work*) NEAR/2 (return* OR retrain* OR support* OR rehabilitat*))) AND su(chronic pain))
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### SPP (Ovid) search terms

1.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
2.	((social or communit* or cultural or non-medical or non-clinical) adj3 (commission* or prescrib* or prescrip* or refer* or service* or reactivat* or integrat* or support* or work* or welfare or organisation* or referral or engag* or intervention)).ti,ab.
3.	((well-being adj2 program*) or (wellbeing adj2 program*) or (cultural adj2 commission*)).ti,ab.
4.	((job* or work or employment) adj3 (support* or rehab*)).ti,ab.
5.	(library visit* or ping pong or (vocational adj2 rehabilitation) or befriend* or creative activities or advocacy or link work*).ti,ab.
6.	((cook* or garden* or art or walking) adj3 (club* or class* or lesson* or group*)).ti,ab.
7.	(care adj2 (navigation or coordination)).ti,ab.
8.	((occupation* or employ* or vocation* or job* or work*) adj2 (return* or retrain* or support* or rehabilitat*)).ti,ab.
9.	(Case adj2 manag*).ti,ab.
10.	or/2-9
11.	1 and 10

### CINAHL (EBSCO) search terms

S1.	(MH "Chronic Pain")
S2	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) n3 pain*)
S3	S1 OR S2
S4	MH social work
S5	MH patient advocacy
S6	((social or communit* or cultural or non-medical or non-clinical) n3 (commission* or prescrib* or prescrip* or refer* or service* or reactivat* or integrat* or support* or work* or welfare or organisation* or referral or engag* or intervention))
S7	((well-being n2 program*) or (wellbeing n2 program*) or (cultural n2 commission*))
S8.	((job* or work or employment) n3 (support* or rehab*))
S9	(library visit* or ping pong or (vocational n2 rehabilitation) or befriend* or creative activities or advocacy or link work*)
S10	((cook* or garden* or art or walking) n3 (club* or class* or lesson* or group*))
S11	(care n2 (navigation or coordination))
S12	MH vocational rehabilitation
S13	((occupation* or employ* or vocation* or job* or work*) n2 (return* or retrain* or support* or rehabilitat*))
S14	S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13
S15	s3 and s14

### King's Fund search terms

1.	'Chronic pain'
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### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Chronic Pain] explode all trees
#2.	MeSH descriptor: [Pain, Intractable] explode all trees
#3.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) near/3 pain*):ti,ab
#4.	(or #1-#3)

#5.	MeSH descriptor: [Social Support] explode all trees
#6.	MeSH descriptor: [Social Work] explode all trees
#7.	MeSH descriptor: [Patient Advocacy] explode all trees
#8.	((social or communit* or cultural or non-medical or non-clinical) near/3 (commission* or prescrib* or prescrip* or refer* or service* or reactivat* or integrat* or support* or work* or welfare or organisation* or referral or engag* or intervention)):ti,ab
#9.	((well-being near/2 program*) or (wellbeing near/2 program*) or (cultural near/2 commission*)):ti,ab
#10.	((job* or work or employment) near/3 (support* or rehab*)):ti,ab
#11.	(library visit* or ping pong or (vocational near/2 rehabilitation) or befriend* or creative activities or advocacy or link work*):ti,ab
#12.	((cook* or garden* or art or walking) near/3 (club* or class* or lesson* or group*)):ti,ab
#13.	(care near/2 (navigation or coordination)):ti,ab
#14.	MeSH descriptor: [Rehabilitation, Vocational] explode all trees
#15.	((occupation* or employ* or vocation* or job* or work*) near/2 (return* or retrain* or support* or rehabilitat*)):ti,ab
#16.	(or #5-#15)
#17.	#4 and #16

## I.2 Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to a Chronic Pain population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase for health economics and economic modelling.

**Table 18: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling studies
Embase	2014 – 30 September 2019	Exclusions Health economics studies Health economics modelling studies
Centre for Research and Dissemination (CRD)	HTA - Inception – 30 September 2019 NHSEED - Inception to March 2015	None

### Medline search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or

	refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex Regional Pain Syndromes/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	fibromyalgia/
7.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
8.	vulvodinia/
9.	(vulvodinia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	exp myofascial pain syndromes/
15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
24.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
25.	or/1-24
26.	letter/
27.	editorial/
28.	news/
29.	exp historical article/
30.	Anecdotes as Topic/
31.	comment/
32.	case report/
33.	(letter or comment*).ti.
34.	or/26-33
35.	randomized controlled trial/ or random*.ti,ab.
36.	34 not 35
37.	animals/ not humans/
38.	exp Animals, Laboratory/
39.	exp Animal Experimentation/
40.	exp Models, Animal/
41.	exp Rodentia/
42.	(rat or rats or mouse or mice).ti.
43.	or/36-42
44.	25 not 43

45.	Economics/
46.	Value of life/
47.	exp "Costs and Cost Analysis"/
48.	exp Economics, Hospital/
49.	exp Economics, Medical/
50.	Economics, Nursing/
51.	Economics, Pharmaceutical/
52.	exp "Fees and Charges"/
53.	exp Budgets/
54.	budget*.ti,ab.
55.	cost*.ti.
56.	(economic* or pharmaco?economic*).ti.
57.	(price* or pricing*).ti,ab.
58.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
59.	(financ* or fee or fees).ti,ab.
60.	(value adj2 (money or monetary)).ti,ab.
61.	or/45-60
62.	exp models, economic/
63.	*Models, Theoretical/
64.	*Models, Organizational/
65.	markov chains/
66.	monte carlo method/
67.	exp Decision Theory/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/62-70
72.	44 and (61 or 71)

#### Embase (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
4.	exp Complex regional pain syndrome/
5.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
6.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
7.	fibromyalgia/
8.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
9.	vulvodynia/
10.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
11.	interstitial cystitis/
12.	(interstitial adj2 cystitis).ti,ab.
13.	algodystrophy/
14.	(algodystroph* or sudek or sudeck*).ti,ab.
15.	myofascial pain/

16.	noncardiac chest pain/
17.	cystalgia/
18.	Pelvis pain syndrome/
19.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
20.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
21.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
22.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
23.	(temporomandibular adj3 joint adj3 pain).ti,ab.
24.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
25.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
26.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*).ti,ab.
27.	or/1-26
28.	letter.pt. or letter/
29.	note.pt.
30.	editorial.pt.
31.	case report/ or case study/
32.	(letter or comment*).ti.
33.	or/28-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animal/ not human/
37.	nonhuman/
38.	exp Animal Experiment/
39.	exp Experimental Animal/
40.	animal model/
41.	exp Rodent/
42.	(rat or rats or mouse or mice).ti.
43.	or/35-42
44.	27 not 43
45.	health economics/
46.	exp economic evaluation/
47.	exp health care cost/
48.	exp fee/
49.	budget/
50.	funding/
51.	budget*.ti,ab.
52.	cost*.ti.
53.	(economic* or pharmaco?economic*).ti.
54.	(price* or pricing*).ti,ab.
55.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
56.	(financ* or fee or fees).ti,ab.
57.	(value adj2 (money or monetary)).ti,ab.
58.	or/45-57

59.	statistical model/
60.	exp economic aspect/
61.	59 and 60
62.	*theoretical model/
63.	*nonbiological model/
64.	stochastic model/
65.	decision theory/
66.	decision tree/
67.	monte carlo method/
68.	(markov* or monte carlo).ti,ab.
69.	econom* model*.ti,ab.
70.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
71.	or/61-70
72.	44 and (58 or 71)

#### NHS EED and HTA (CRD) search terms

#1.	MeSH DESCRIPTOR Chronic Pain EXPLODE ALL TREES
#2.	(((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*))
#3.	(((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain))
#4.	MeSH DESCRIPTOR Complex Regional Pain Syndromes EXPLODE ALL TREES
#5.	((complex regional pain syndrome* or CRPS or causalgia))
#6.	MeSH DESCRIPTOR Fibromyalgia EXPLODE ALL TREES
#7.	(((reflex or sympathetic) adj2 dystroph*))
#8.	MeSH DESCRIPTOR Vulvodynia EXPLODE ALL TREES
#9.	((vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis))
#10.	MeSH DESCRIPTOR Cystitis, Interstitial EXPLODE ALL TREES
#11.	((interstitial adj2 cystitis))
#12.	MeSH DESCRIPTOR Reflex Sympathetic Dystrophy EXPLODE ALL TREES
#13.	((algodystroph* or sudek or sudeck*))
#14.	MeSH DESCRIPTOR Myofascial Pain Syndromes EXPLODE ALL TREES
#15.	((loin pain adj (haematuria or hematuria) adj syndrome*))
#16.	((LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS))
#17.	(((pelvic or pelvis) adj pain syndrome*))
#18.	(((non-cardiac or noncardiac) adj3 chest adj3 pain))
#19.	((temporomandibular adj3 joint adj3 pain))
#20.	(((prostate or vulv* or bladder or perineal) adj3 pain))
#21.	((functional pain syndrome* or non-cancer pain or noncancer pain))
#22.	(((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)))
#23.	((fibromyalgia* or fibrositis or myofascial pain syndrome))
#24.	(#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23)

## Appendix J: Search strategy 10

### Chronic pain search strategy 10

This literature search strategy was used for the following reviews:

- A.1 What is the clinical and cost effectiveness of pharmacological interventions for chronic primary pain?
- A.2 What is the long-term safety of gabapentinoids for the management of chronic pain?
- A.3 What is the long-term safety of opioids for the management of chronic pain?

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual.<sup>1</sup>

For more information, please see the Methods Report published as part of the accompanying documents for this guideline.

### J.1 Clinical search literature search strategy for A.1

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 19: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2019 Issue 11 of 12 CENTRAL to 2019 Issue 11 of 12	None

#### Medline (Ovid) search terms

1.	Chronic pain/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp Complex Regional Pain Syndromes/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
6.	fibromyalgia/
7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudeck or sudeck*).ti,ab.



14.	exp myofascial pain syndromes/
15.	cystitis, interstitial/
16.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
17.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
18.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
19.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
20.	(temporomandibular adj3 joint adj3 pain).ti,ab.
21.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
22.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
23.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
24.	or/1-23
25.	letter/
26.	editorial/
27.	news/
28.	exp historical article/
29.	Anecdotes as Topic/
30.	comment/
31.	case report/
32.	(letter or comment*).ti.
33.	or/25-32
34.	randomized controlled trial/ or random*.ti,ab.
35.	33 not 34
36.	animals/ not humans/
37.	exp Animals, Laboratory/
38.	exp Animal Experimentation/
39.	exp Models, Animal/
40.	exp Rodentia/
41.	(rat or rats or mouse or mice).ti.
42.	or/35-41
43.	24 not 42
44.	limit 43 to English language
45.	exp *paracetamol/
46.	(acetaminophen or paracetamol).ti,ab.
47.	exp analgesics, opioid/
48.	(non-steroid* or non-narcotic* or analgesic* or pharmacolog*).ti,ab.
49.	exp *nonsteroid antiinflammatory agent/ or exp *analgesic agent/
50.	(NSAID* or ibuprofen or aspirin or naproxen or fenoprofen or flurbiprofen or ketoprofen or dexketoprofen or dexibuprofen or tiaprofenic acid or diclofenac or aceclofenac or indometacin or mefenamic acid or meloxicam or nabumetone or phenylbutazone or piroxicam or sulindac or tenoxicam or tolfenamic acid or ketorolac or celecoxib or etoricoxib or aceclofenac or acetaminacin or diclofenac or etodolac).ti,ab.
51.	(Opioid* or Opiate*).ti,ab.
52.	(morphine or Astramorph or avinza or depodur or duramorph or embeda or infumorph or kadian or m-eslon or morcap or morphia or ms contin or msir or mst or nepenthe or oramorph

	or rescudose or rms or roxanol or sevredol or statex or zomorph).ti,ab.
53.	exp morphinans/
54.	(opium or omnopon or pantopon or papaveretum).ti,ab.
55.	(Hydromorphone or dihydromorphinone or dilaudid or dimorphone or exalgo or hydmrphn or hydromorph* or hydrostat or hymorphan or laudicon or novolauden or palladone).ti,ab.
56.	(oxycodone or Dazidox or dihydrohydroxycodone or dihydrone or dinarkon or endocodone or eth-oxydose or eucodal or hydroxycodone or m-oxy or oxiconum or oxycdn or oxycone or oxycontin or oxyfast or oxyir or pancodine or percocet or percolone or remoxy or roxicodone or theocodin).ti,ab.
57.	(Dihydrocodeine or contugesic or dhc mundipharma or dicodin or dihydcn or paracodin or paramol or parzone or rikodeine or tiamon or tosidrin or tuscodin).ti,ab.
58.	(Diamorphine or acetomorphine or diacetylmorphine or diagesil or diamorf or heroin or min-i-jet morphine sulfate or skag).ti,ab.
59.	(Codeine or ardinex or galcodine or isocodeine or methyl morphine or rx 336m or stanley-linctus or stanley-syrup).ti,ab.
60.	Ketobemidone.ti,ab.
61.	(Pethidine or demerol or dolantin or dolargan or dolcontral or dolosal or dolsin or isonipecain or isonipecaine hydrochloride or lydol or meperidine or operidine epj or pethilorfan).ti,ab.
62.	(Fentanyl or abstral or actiq or duragesic or fentanest or fentora or fentyl or ionsys or matrifen or nasalfent or onsolis or oralet or phentanyl or sublimaze).ti,ab.
63.	Dextromoramide.ti,ab.
64.	(Piritramide or Dipidolor or dipydolor or Piridolan or Pirium).ti,ab.
65.	(Dextropropoxyphene or darvon or dolene or doloxene or levopropoxyphene or pp-cap or propoxyphene or proxyphen).ti,ab.
66.	(Bezitramide or Burgodin).ti,ab.
67.	(methadone or adanon or althose or amidines or amidone or biodone or diskets or dolophine or Heptadon or metadol or metasedin or methaddict or metharose or Methadose or methdn or methex or phy or phymet or physeptone or pinadone or symoron).ti,ab.
68.	exp *pentazocine lactate/ or exp *pentazocine/ or exp *paracetamol plus pentazocine/ or exp *naloxone plus pentazocine/
69.	(Pentazocine or Fortral or Fortwin or lexir or Talacen or talwin).ti,ab.
70.	exp *phenazocine/
71.	(Phenazocine or Prinadol or Narphen).ti,ab.
72.	Oripavine.ti,ab.
73.	(Buprenorphine or '6029-m' or buprenex or buprex or prefin or Suboxone or subutex or temgesic).ti,ab.
74.	(Etorphine or Immobilon or M99).ti,ab.
75.	exp *butorphanol tartrate/ or exp *butorphanol/
76.	(Butorphanol or 'bc2627' or beforal or dolorex or moradol or stadol or torbugesic).ti,ab.
77.	(Tilidine or tilidate or Valoron or Valtran or Tilidin).ti,ab.
78.	exp *tramadol/ or exp *paracetamol plus tramadol/
79.	(Tramadol or 'k-315' or ralivia or ryzolt or tramahexal or tramake insts or tramal* or tramedo or ultram or zamadol or zydol).ti,ab.
80.	(Dezocine or Dalgan or 'WY-16225').ti,ab.
81.	targinact.ti,ab.
82.	exp *meptazinol/
83.	(Meptazinol or Meptid).ti,ab.
84.	(Tapentadol or cg5503 or nucynta).ti,ab.

85.	(Remifentanil or 'gi 87084b' or remifentanyl or ultiva).ti,ab.
86.	exp *penicillin G sodium plus procaine penicillin/ or exp *procaine/ or exp *adrenalin plus procaine/ or exp *penicillin G sodium plus procaine penicillin plus streptomycin sulfate/ or exp *penicillin G potassium plus procaine penicillin plus streptomycin sulfate/ or exp *procaine penicillin/ or exp *penicillin G potassium plus procaine penicillin/ or exp *benzathine penicillin plus procaine penicillin/ or exp *procaine penicillin plus streptomycin sulfate/
87.	(Procaine or allocaine or anuject or gerokit or mericaine or novocaine or procaina serra).ti,ab.
88.	alfentanil.ti,ab.
89.	(Alfenta or alfentanyl or fanaxal or limifen or rapifen).ti,ab.
90.	(Dipipanone or co-dydramol or co-codamaol).ti,ab.
91.	naltrexone/ or naloxone plus oxycodone/
92.	naltrexone.ti,ab.
93.	ketamine/
94.	(ketamine or inducmina or ketalar or ketanest or calypso or narkamon or keta or velonarcon or ketmin or ketava or ketalin or ketina or brevinaze or keta-hameln).ti,ab.
95.	((topical or intravenous or intra-venous or IV) adj3 (an?esthe* or lidocain* or lignocain* or tetracain* or amethocain* or benzocain* or butamben or dibucain* or pramoxin* or prilocain* or etidocian)).ti,ab.
96.	(emla* or eutectic mixture of local an?esthe* or tetracaine?adrenaline?cocain* or tetracaine?epinephrine?cocain* or lidocaine?adrenaline?tetracain* or lidocaine?epinephrine?tetracain*).ti,ab.
97.	exp anticonvulsive agent/
98.	(carbamazepine or clobazam or clonazepam or ethosuximide or gabapentin or lacosamide or lamotrigine or levetiracetam or oxcarbazepine or phenytoin or pregabalin or rufinamide or topiramate or valproate or vigabatrin or zonisamide).ti,ab.
99.	(antidepress* or anti-depress*).ti,ab.
100.	serotonin norepinephrine reuptake inhibitor*.ti,ab.
101.	selective serotonin reuptake inhibitor*.ti,ab.
102.	(SSRI or SNRI).ti,ab.
103.	(amoxapine or bupropion or citalopram or fluoxetine or fluvoxamine or maprotiline or mianserin or paroxetine or quipazine or ritanserin or sulpiride or trazodone or tryptophan or viloxazine or amitriptyline or clomipramine or desipramine or dothiepin or doxepin or imipramine or iprindole or lofepramine or nortriptyline or opipramol or protriptyline or trimipramine or nortriptyline or duloxetine or mirtazapine or venlafaxine).ti,ab.
104.	(cannabis or hemp or marijuana or ganja or hashish or marihuana or bhang or cannininoid or cannabinoids or marinol or dronabinol or nabilone or cesamet or dexanabinol or sativex or tetrahydrocannabinol or nabixamols oromucosal spray).ti,ab.
105.	(neurolept* or antipsychotic*).ti,ab.
106.	neuroleptanalgesia/
107.	exp neuroleptic agent/
108.	(diazepam or oxazepam or lorazepam or temazepam or nitrazepam or cloazepam).ti,ab.
109.	or/45-108
110.	44 and 109
111.	randomized controlled trial.pt.
112.	controlled clinical trial.pt.
113.	randomi#ed.ti,ab.
114.	placebo.ab.
115.	randomly.ti,ab.
116.	Clinical Trials as topic.sh.

117.	trial.ti.
118.	or/111-117
119.	Meta-Analysis/
120.	exp Meta-Analysis as Topic/
121.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
122.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
123.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
124.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
125.	(search* adj4 literature).ab.
126.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
127.	cochrane.jw.
128.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
129.	or/119-128
130.	110 and (118 or 129)

#### Embase (Ovid) search terms

1.	Chronic pain/
2.	((chronic or persist* or idiopathic or atypical or a-typical) adj4 pain).ti,ab.
3.	exp Complex regional pain syndrome/
4.	(complex regional pain syndrome* or CRPS or causalgia).ti,ab.
5.	((reflex or sympathetic) adj2 dystroph*).ti,ab.
6.	fibromyalgia/
7.	(fibromyalgia* or fibrositis or myofascial pain syndrome).ti,ab.
8.	vulvodynia/
9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis).ti,ab.
10.	interstitial cystitis/
11.	(interstitial adj2 cystitis).ti,ab.
12.	algodystrophy/
13.	(algodystroph* or sudek or sudeck*).ti,ab.
14.	myofascial pain/
15.	noncardiac chest pain/
16.	cystalgia/
17.	Pelvis pain syndrome/
18.	(loin pain adj (haematuria or hematuria) adj syndrome*).ti,ab.
19.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS).ti,ab.
20.	((pelvic or pelvis) adj pain syndrome*).ti,ab.
21.	((non-cardiac or noncardiac) adj3 chest adj3 pain).ti,ab.
22.	(temporomandibular adj3 joint adj3 pain).ti,ab.
23.	((prostate or vulv* or bladder or perineal) adj3 pain).ti,ab.
24.	(functional pain syndrome* or non-cancer pain or noncancer pain).ti,ab.
25.	((pelvic or pelvis or abdominal) adj3 pain adj3 (unknown or un-known or idiopathic or atypic* or a-typic*)).ti,ab.
26.	or/1-25

27.	letter.pt. or letter/
28.	note.pt.
29.	editorial.pt.
30.	case report/ or case study/
31.	(letter or comment*).ti.
32.	or/27-31
33.	randomized controlled trial/ or random*.ti,ab.
34.	32 not 33
35.	animal/ not human/
36.	nonhuman/
37.	exp Animal Experiment/
38.	exp Experimental Animal/
39.	animal model/
40.	exp Rodent/
41.	(rat or rats or mouse or mice).ti.
42.	or/34-41
43.	26 not 42
44.	limit 43 to English language
45.	exp *paracetamol/
46.	(acetaminophen or paracetamol).ti,ab.
47.	exp *narcotic analgesic agent/
48.	(non-steroid* or non-narcotic* or analgesic* or pharmacolog*).ti,ab.
49.	exp *nonsteroid antiinflammatory agent/ or exp *analgesic agent/
50.	(NSAID* or ibuprofen or aspirin or naproxen or fenoprofen or flurbiprofen or ketoprofen or dexketoprofen or dexibuprofen or tiaprofenic acid or diclofenac or aceclofenac or indometacin or mefenamic acid or meloxicam or nabumetone or phenylbutazone or piroxicam or sulindac or tenoxicam or tolfenamic acid or ketorolac or celecoxib or etoricoxib or aceclofenac or acemetacin or diclofenac or etodolac).ti,ab.
51.	(Opioid* or Opiate*).ti,ab.
52.	(morphine or Astramorph or avinza or depodur or duramorph or embeda or infumorph or kadian or m-eslon or morcap or morphia or ms contin or msir or mst or nepenthe or oramorph or rescudose or rms or roxanol or sevredol or statex or zomorph).ti,ab.
53.	morphine/
54.	*opiate/
55.	(opium or omnopon or pantopon or papaveretum).ti,ab.
56.	(Hydromorphone or dihydromorphinone or dilaudid or dimorphone or exalgo or hydmrphn or hydromorph* or hydrostat or hymorphan or laudicon or novolauden or palladone).ti,ab.
57.	(oxycodone or Dazidox or dihydrohydroxycodone or dihydrone or dinarkon or endocodone or eth-oxydose or eucodal or hydroxycodone or m-oxy or oxiconum or oxycdn or oxycone or oxycontin or oxyfast or oxyir or pancodine or percocet or percolone or remoxy or roxicodone or theocodin).ti,ab.
58.	(Dihydrocodeine or contugesic or dhc mundipharma or dicodin or dihydcdn or paracodin or paramol or parzone or rikodeine or tiamon or tosidrin or tuscodin).ti,ab.
59.	(Diamorphine or acetomorphine or diacetylmorphine or diagesil or diamorf or heroin or min-i-jet morphine sulfate or skag).ti,ab.
60.	(Codeine or ardinex or galcodine or isocodeine or methyl morphine or rx 336m or stanley-linctus or stanley-syrup).ti,ab.
61.	Ketobemidone.ti,ab.

62.	(Pethidine or demerol or dolantin or dolargan or dolcontral or dolosal or dolsin or isonipeccain or isonipeccaine hydrochloride or lydol or meperidine or operidine epj or pethilorfan).ti,ab.
63.	(Fentanyl or abstral or actiq or duragesic or fentanest or fentora or fentyl or ionsys or matrifen or nasalfent or onsolis or oralet or phentanyl or sublimaze).ti,ab.
64.	Dextromoramide.ti,ab.
65.	(Piritramide or Dipidolor or dipydolor or Piridolan or Pirium).ti,ab.
66.	(Dextropropoxyphene or darvon or dolene or doloxene or levopropoxyphene or pp-cap or propoxyphene or proxyphen).ti,ab.
67.	(Bezitramide or Burgodin).ti,ab.
68.	(methadone or adanon or althose or amidines or amidone or biodone or diskets or dolophine or Heptadon or metadol or metasedin or methaddict or metharose or Methadose or methdn or methex or phy or phymet or physeptone or pinadone or symoron).ti,ab.
69.	exp *benzomorphan derivative/
70.	exp *pentazocine lactate/ or exp *pentazocine/ or exp *paracetamol plus pentazocine/ or exp *naloxone plus pentazocine/
71.	(Pentazocine or Fortral or Fortwin or lexir or Talacen or talwin).ti,ab.
72.	exp *phenazocine/
73.	(Phenazocine or Prinadol or Narphen).ti,ab.
74.	Oripavine.ti,ab.
75.	(Buprenorphine or '6029-m' or buprenex or buprex or prefin or Suboxone or subutex or temgesic).ti,ab.
76.	(Etorphine or Immobilon or M99).ti,ab.
77.	exp *morphinan derivative/
78.	exp *butorphanol tartrate/ or exp *butorphanol/
79.	(Butorphanol or 'bc2627' or beforal or dolorex or moradol or stadol or torbugesic).ti,ab.
80.	(Tilidine or tilidate or Valoron or Valtran or Tilidin).ti,ab.
81.	exp *tramadol/ or exp *paracetamol plus tramadol/
82.	(Tramadol or 'k-315' or ralivia or ryzolt or tramahexal or tramake insts or tramal* or tramedo or ultram or zamadol or zydol).ti,ab.
83.	(Dezocine or Dalgan or 'WY-16225').ti,ab.
84.	targinact.ti,ab.
85.	exp *meptazinol/
86.	(Meptazinol or Meptid).ti,ab.
87.	(Tapentadol or cg5503 or nucynta).ti,ab.
88.	(Remifentanil or 'gi 87084b' or remifentanyl or ultiva).ti,ab.
89.	exp *penicillin G sodium plus procaine penicillin/ or exp *procaine/ or exp *adrenalin plus procaine/ or exp *penicillin G sodium plus procaine penicillin plus streptomycin sulfate/ or exp *penicillin G potassium plus procaine penicillin plus streptomycin sulfate/ or exp *procaine penicillin/ or exp *penicillin G potassium plus procaine penicillin/ or exp *benzathine penicillin plus procaine penicillin/ or exp *procaine penicillin plus streptomycin sulfate/
90.	(Procaine or allocaine or anuject or gerokit or mericaine or novocaine or procaina serra).ti,ab.
91.	exp *cocodamol/
92.	alfentanil.ti,ab.
93.	(Alfenta or alfentanyl or fanaxal or limifen or rapifen).ti,ab.
94.	(Dipipanone or co-dydramol or co-codamaol).ti,ab.
95.	naltrexone/ or naloxone plus oxycodone/
96.	naltrexone.ti,ab.
97.	ketamine/

98.	(ketamine or inducmina or ketalar or ketanest or calypso or narkamon or keta or velonarcon or ketmin or ketava or ketalin or ketina or brevinaze or keta-hameln).ti,ab.
99.	((topical or intravenous or intra-venous or IV) adj3 (an?esthe* or lidocain* or lignocain* or tetracain* or amethocain* or benzocain* or butamben or dibucain* or pramoxin* or prilocain* or etidocian)).ti,ab.
100.	(emla* or eutectic mixture of local an?esthe* or tetracaine?adrenaline?cocain* or tetracaine?epinephrine?cocain* or lidocaine?adrenaline?tetracain* or lidocaine?epinephrine?tetracain*).ti,ab.
101.	exp anticonvulsive agent/
102.	(carbamazepine or clobazam or clonazepam or ethosuximide or gabapentin or lacosamide or lamotrigine or levetiracetam or oxcarbazepine or phenytoin or pregabalin or rufinamide or topiramate or valproate or vigabatrin or zonisamide).ti,ab.
103.	exp *antidepressant agent/
104.	(antidepress* or anti-depress*).ti,ab.
105.	serotonin norepinephrine reuptake inhibitor*.ti,ab.
106.	selective serotonin reuptake inhibitor*.ti,ab.
107.	(SSRI or SNRI).ti,ab.
108.	(amoxapine or bupropion or citalopram or fluoxetine or fluvoxamine or maprotiline or mianserin or paroxetine or quipazine or ritanserin or sulpiride or trazodone or tryptophan or viloxazine or amitriptyline or clomipramine or desipramine or dothiepin or doxepin or imipramine or iprindole or lofepramine or nortriptyline or opipramol or protriptyline or trimipramine or nortriptyline or duloxetine or mirtazapine or venlafaxine).ti,ab.
109.	(cannabis or hemp or marijuana or ganja or hashish or marihuana or bhang or canninoid or cannabinoids or marinol or dronabinol or nabilone or cesamet or dexanabinol or sativex or tetrahydrocannabinolor or nabixamols oromucosal spray).ti,ab.
110.	(neurolept* or antipsychotic*).ti,ab.
111.	neuroleptanalgesia/
112.	exp neuroleptic agent/
113.	exp benzodiazepine derivative/
114.	(diazepam or oxazepam or lorazepam or temazepam or nitrazepam or cloazepam).ti,ab.
115.	or/45-114
116.	44 and 115
117.	random*.ti,ab.
118.	factorial*.ti,ab.
119.	(crossover* or cross over*).ti,ab.
120.	((doubl* or singl*) adj blind*).ti,ab.
121.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
122.	crossover procedure/
123.	single blind procedure/
124.	randomized controlled trial/
125.	double blind procedure/
126.	or/117-125
127.	systematic review/
128.	meta-analysis/
129.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
130.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
131.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
132.	(search strategy or search criteria or systematic search or study selection or data

	extraction).ab.
133.	(search* adj4 literature).ab.
134.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
135.	cochrane.jw.
136.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
137.	or/127-136
138.	116 and (126 or 137)

### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Chronic Pain] explode all trees
#2.	((chronic or persist* or idiopathic or atypical or a-typical) near/4 pain):ti,ab
#3.	MeSH descriptor: [Complex Regional Pain Syndromes] explode all trees
#4.	(complex regional pain syndrome* or CRPS or causalgia):ti,ab
#5.	((reflex or sympathetic) near/2 dystroph*):ti,ab
#6.	MeSH descriptor: [Fibromyalgia] explode all trees
#7.	(fibromyalgia* or fibrositis or myofascial pain syndrome):ti,ab
#8.	MeSH descriptor: [Vulvodynia] explode all trees
#9.	(vulvodynia or vestibulodynia or dyspareunia or vulvar vestibulitis or vulvitis):ti,ab
#10.	MeSH descriptor: [Cystitis, Interstitial] explode all trees
#11.	(interstitial near/2 cystitis):ti,ab
#12.	MeSH descriptor: [Reflex Sympathetic Dystrophy] explode all trees
#13.	(algodystroph* or sudek or sudeck*):ti,ab
#14.	MeSH descriptor: [Myofascial Pain Syndromes] explode all trees
#15.	(loin pain near (haematuria or hematuria) near syndrome*):ti,ab
#16.	(LPHS or prostatodynia or CPPS or atypic* odontalgia or a-typic* odontalgia or burning mouth syndrome* or phantom tooth pain or neuropathic orofacial pain or "myofascial pain" or MPS):ti,ab
#17.	((pelvic or pelvis) near pain syndrome*):ti,ab
#18.	((non-cardiac or noncardiac) near/3 chest near/3 pain):ti,ab
#19.	(temporomandibular near/3 joint near/3 pain):ti,ab
#20.	((prostate or vulv* or bladder or perineal) near/3 pain):ti,ab
#21.	(functional pain syndrome* or non-cancer pain or noncancer pain):ti,ab
#22.	((pelvic or pelvis or abdominal) near/3 pain near/3 (unknown or un-known or idiopathic or atypic* or a-typic*)):ti,ab
#23.	(or #1-#22)
#24.	MeSH descriptor: [Acetaminophen] explode all trees
#25.	(acetaminophen or paracetamol):ti,ab
#26.	MeSH descriptor: [Analgesics, Opioid] explode all trees
#27.	(non-steroid* or non-narcotic* or analgesic* or pharmacolog*):ti,ab
#28.	MeSH descriptor: [Anti-Inflammatory Agents, Non-Steroidal] explode all trees
#29.	MeSH descriptor: [Analgesics] explode all trees
#30.	(NSAID* or ibuprofen or aspirin or naproxen or fenoprofen or flurbiprofen or ketoprofen or dexketoprofen or dexibuprofen or tiaprofenic acid or diclofenac or aceclofenac or indometacin or mefenamic acid or meloxicam or nabumetone or phenylbutazone or piroxicam or sulindac or tenoxicam or tolfenamic acid or ketorolac or celecoxib or etoricoxib or aceclofenac or acemetacin or diclofenac or etodolac):ti,ab



#31.	(Opioid* or Opiate*):ti,ab
#32.	(morphine or Astramorph or avinza or depodur or duramorph or embeda or infumorph or kadian or m-eslon or morcap or morphia or ms contin or msir or mst or nepenthe or oramorph or rescudose or rms or roxanol or sevredol or statex or zomorph):ti,ab
#33.	MeSH descriptor: [Morphinans] explode all trees
#34.	(opium or omnopon or pantopon or papaveretum):ti,ab
#35.	(Hydromorphone or dihydromorphinone or dilaudid or dimorphone or exalgo or hydmrphn or hydromorph* or hydrostat or hymorphan or laudicon or novolauden or palladone):ti,ab
#36.	(oxycodone or Dazidox or dihydrohydroxycodone or dihydrone or dinarkon or endocodone or eth-oxydose or eucodal or hydroxycodone or m-oxy or oxiconum or oxycdn or oxycone or oxycontin or oxyfast or oxyir or pancodine or percocet or percolone or remoxy or roxicodone or theocodin):ti,ab
#37.	(Dihydrocodeine or contugesic or dhc mundipharma or dicodin or dihydcn or paracodin or paramol or parzone or rikodeine or tiamon or tosidrin or tuscodin):ti,ab
#38.	(Diamorphine or acetomorphine or diacetylmorphine or diagesil or diamorf or heroin or min-i-jet morphine sulfate or skag):ti,ab
#39.	(Codeine or ardinex or galcodine or isocodeine or methyl morphine or rx 336m or stanley-linctus or stanley-syrup):ti,ab
#40.	Ketobemidone:ti,ab
#41.	(Pethidine or demerol or dolantin or dolargan or dolcontral or dolosal or dolsin or isonipecain or isonipecaine hydrochloride or lydol or meperidine or operidine epj or pethilorfan):ti,ab
#42.	(Fentanyl or abstral or actiq or duragesic or fentanest or fentora or fentyl or ionsys or matrifen or nasalfent or onsolis or oralet or phentanyl or sublimaze):ti,ab
#43.	Dextromoramide:ti,ab
#44.	(Piritramide or Dipidolor or dipydolor or Piridolan or Pirium):ti,ab
#45.	(Dextropropoxyphene or darvon or dolene or doloxene or levopropoxyphene or pp-cap or propoxyphene or proxyphen):ti,ab
#46.	(Bezitramide or Burgodin):ti,ab
#47.	(methadone or adanon or althose or amidines or amidone or biodone or diskets or dolophine or Heptadon or metadol or metasedin or methaddict or metharose or Methadose or methdn or methex or phy or phymet or physeptone or pinadone or symoron):ti,ab
#48.	MeSH descriptor: [Pentazocine] explode all trees
#49.	MeSH descriptor: [Naloxone] explode all trees
#50.	(Pentazocine or Fortral or Fortwin or lexir or Talacen or talwin):ti,ab
#51.	MeSH descriptor: [Phenazocine] explode all trees
#52.	(Phenazocine or Prinadol or Narphen):ti,ab
#53.	Oripavine:ti,ab
#54.	(Buprenorphine or '6029-m' or buprenex or buprex or prefin or Suboxone or subutex or temgesic):ti,ab
#55.	(Etorphine or Immobilon or M99):ti,ab
#56.	MeSH descriptor: [Butorphanol] explode all trees
#57.	(Butorphanol or 'bc2627' or beforal or dolorex or moradol or stadol or torbugesic):ti,ab
#58.	(Tilidine or tilidate or Valoron or Valtran or Tilidin):ti,ab
#59.	MeSH descriptor: [Tramadol] explode all trees
#60.	(Tramadol or 'k-315' or ralivia or ryzolt or tramahexal or tramake insts or tramal* or tramedo or ultram or zamadol or zydol):ti,ab
#61.	(Dezocine or Dalgan or 'WY-16225'):ti,ab
#62.	targinact:ti,ab
#63.	MeSH descriptor: [Meptazinol] explode all trees

#64.	(Meptazinol or Meptid):ti,ab
#65.	(Tapentadol or cg5503 or nucynta):ti,ab
#66.	(Remifentanil or 'gi 87084b' or remifentanyl or ultiva):ti,ab
#67.	MeSH descriptor: [Penicillin G Procaine] explode all trees
#68.	MeSH descriptor: [Procaine] explode all trees
#69.	MeSH descriptor: [Penicillin G] explode all trees
#70.	MeSH descriptor: [Streptomycin] explode all trees
#71.	(Procaine or allocaine or anuject or gerokit or mericaine or novocaine or procaina serra):ti,ab
#72.	alfentanil:ti,ab
#73.	(Alfenta or alfentanyl or fanaxal or limifen or rapifen):ti,ab
#74.	(Dipipanone or co-dydramol or co-codamaol):ti,ab
#75.	MeSH descriptor: [Naltrexone] explode all trees
#76.	naltrexone:ti,ab
#77.	MeSH descriptor: [Ketamine] explode all trees
#78.	(ketamine or inducmina or ketalar or ketanest or calypso or narkamon or keta or velonarcon or ketmin or ketava or ketalin or ketina or brevinaze or keta-hameln):ti,ab
#79.	((topical or intravenous or intra-venous or IV) near/3 (an?esthe* or lidocain* or lignocain* or tetracain* or amethocain* or benzocain* or butamben or dibucain* or pramoxin* or prilocain* or etidocian)):ti,ab
#80.	(emla* or eutectic mixture of local an?esthe* or tetracaine?adrenaline?cocain* or tetracaine?epinephrine?cocain* or lidocaine?adrenaline?tetracain* or lidocaine?epinephrine?tetracain*):ti,ab
#81.	MeSH descriptor: [Anticonvulsants] explode all trees
#82.	(carbamazepine or clobazam or clonazepam or ethosuximide or gabapentin or lacosamide or lamotrigine or levetiracetam or oxcarbazepine or phenytoin or pregabalin or rufinamide or topiramate or valproate or vigabatrin or zonisamide):ti,ab
#83.	(antidepress* or anti-depress*):ti,ab
#84.	serotonin norepinephrine reuptake inhibitor*:ti,ab
#85.	selective serotonin reuptake inhibitor*:ti,ab
#86.	(SSRI or SNRI):ti,ab
#87.	(amoxapine or bupropion or citalopram or fluoxetine or fluvoxamine or maprotiline or mianserin or paroxetine or quipazine or ritanserin or sulpiride or trazodone or tryptophan or viloxazine or amitriptyline or clomipramine or desipramine or dothiepin or doxepin or imipramine or iprindole or lofepramine or nortriptyline or opipramol or protriptyline or trimipramine or nortriptyline or duloxetine or mirtazapine or venlafaxine):ti,ab
#88.	(cannabis or hemp or marijuana or ganja or hashish or marihuana or bhang or cannininoid or cannabinoids or marinol or dronabinol or nabilone or cesamet or dexanabinol or sativex or tetrahydrocannabinolor or nabixamols oromucosal spray):ti,ab
#89.	(neurolept* or antipsychotic*):ti,ab
#90.	MeSH descriptor: [Neuroleptanalgesia] explode all trees
#91.	MeSH descriptor: [Antipsychotic Agents] explode all trees
#92.	(diazepam or oxazepam or lorazepam or temazepam or nitrazepam or cloazepam):ti,ab
#93.	(or #24-#92)
#94.	#23 and #93

## J.2 Clinical search literature search strategy for A.2

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 20: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies Observational studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies Observational studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2019 Issue 11 of 12 CENTRAL to 2019 Issue 11 of 12	None

### Medline (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter/
5.	editorial/
6.	news/
7.	exp historical article/
8.	Anecdotes as Topic/
9.	comment/
10.	case report/
11.	(letter or comment*).ti.
12.	or/4-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animals/ not humans/
16.	exp Animals, Laboratory/
17.	exp Animal Experimentation/
18.	exp Models, Animal/
19.	exp Rodentia/
20.	(rat or rats or mouse or mice).ti.
21.	or/14-20
22.	3 not 21
23.	limit 22 to English language
24.	Pregabalin/

25.	(gabapentin* or 1 aminomethyl cyclohexaneacetic acid or neurontin or neurotonin or nupentin or gabagamma or gaba-gamma or gralise or horizant or phenibut or anvifen or fenibut or noofen or ci 945 or ci945 or dineurin or gabalept or gabaliquid geriasan or gabatin or go 3450 or go3450 or goe 3450 or goe3450 or kaptin or keneil or pregabalin or lyrica or 3 aminomethyl 5 methylhexanoic acid or 3 isobutyl 4 aminobutyric acid or 3 isobutyl GABA or 3 isobutylgaba or 4 amino 3 isobutylbutyric acid or ci 1008 or ci1008 or pd 144723 or pd144723).ti,ab.
26.	(mirogabalin or atagabalin or 4-methylpregabalin or pd 200390 or pd200390 or ds 5565 or ds5565 or pd 217014 or pd217014).ti,ab.
27.	or/24-26
28.	randomized controlled trial.pt.
29.	controlled clinical trial.pt.
30.	randomi#ed.ti,ab.
31.	placebo.ab.
32.	randomly.ti,ab.
33.	Clinical Trials as topic.sh.
34.	trial.ti.
35.	or/28-34
36.	Meta-Analysis/
37.	exp Meta-Analysis as Topic/
38.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
39.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
40.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
41.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
42.	(search* adj4 literature).ab.
43.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
44.	cochrane.jw.
45.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
46.	or/36-45
47.	Epidemiologic studies/
48.	Observational study/
49.	exp Cohort studies/
50.	(cohort adj (study or studies or analys* or data)).ti,ab.
51.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
52.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
53.	Controlled Before-After Studies/
54.	Historically Controlled Study/
55.	Interrupted Time Series Analysis/
56.	(before adj2 after adj2 (study or studies or data)).ti,ab.
57.	or/47-56
58.	exp case control study/
59.	case control*.ti,ab.
60.	or/58-59

61.	57 or 60
62.	Cross-sectional studies/
63.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
64.	or/62-63
65.	57 or 64
66.	57 or 60 or 64
67.	23 and 27 and (35 or 46 or 66)

#### Embase (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter.pt. or letter/
5.	note.pt.
6.	editorial.pt.
7.	case report/ or case study/
8.	(letter or comment*).ti.
9.	or/4-8
10.	randomized controlled trial/ or random*.ti,ab.
11.	9 not 10
12.	animal/ not human/
13.	nonhuman/
14.	exp Animal Experiment/
15.	exp Experimental Animal/
16.	animal model/
17.	exp Rodent/
18.	(rat or rats or mouse or mice).ti.
19.	or/11-18
20.	3 not 19
21.	limit 20 to English language
22.	pregabalin/ or gabapentin enacarbil/ or gabapentin/
23.	(gabapentin* or 1 aminomethyl cyclohexaneacetic acid or neurontin or neurotonin or nupentin or gabagamma or gaba-gamma or gralise or horizant or phenibut or anvifen or fenibut or noofen or ci 945 or ci945 or dineurin or gabalept or gabaliquid geriasan or gabatin or go 3450 or go3450 or goe 3450 or goe3450 or kaptin or keneil or pregabalin or lyrica or 3 aminomethyl 5 methylhexanoic acid or 3 isobutyl 4 aminobutyric acid or 3 isobutyl GABA or 3 isobutylgaba or 4 amino 3 isobutylbutyric acid or ci 1008 or ci1008 or pd 144723 or pd144723).ti,ab.
24.	(mirogabalin or atagabalin or 4-methylpregabalin or pd 200390 or pd200390 or ds 5565 or ds5565 or pd 217014 or pd217014).ti,ab.
25.	or/22-24
26.	random*.ti,ab.
27.	factorial*.ti,ab.
28.	(crossover* or cross over*).ti,ab.
29.	((doubl* or singl*) adj blind*).ti,ab.
30.	(assign* or allocat* or volunteer* or placebo*).ti,ab.

31.	crossover procedure/
32.	single blind procedure/
33.	randomized controlled trial/
34.	double blind procedure/
35.	or/26-34
36.	systematic review/
37.	meta-analysis/
38.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
39.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
40.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
41.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
42.	(search* adj4 literature).ab.
43.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
44.	cochrane.jw.
45.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
46.	or/36-45
47.	Clinical study/
48.	Observational study/
49.	family study/
50.	longitudinal study/
51.	retrospective study/
52.	prospective study/
53.	cohort analysis/
54.	follow-up/
55.	cohort*.ti,ab.
56.	54 and 55
57.	(cohort adj (study or studies or analys* or data)).ti,ab.
58.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
59.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
60.	(before adj2 after adj2 (study or studies or data)).ti,ab.
61.	or/47-53,56-60
62.	exp case control study/
63.	case control*.ti,ab.
64.	or/62-63
65.	61 or 64
66.	cross-sectional study/
67.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
68.	or/66-67
69.	61 or 68
70.	61 or 64 or 68
71.	21 and 25 and (35 or 46 or 70)

### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Chronic Pain] explode all trees
#2.	MeSH descriptor: [Pain, Intractable] explode all trees
#3.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) near/3 pain*):ti,ab
#4.	(or #1-#3)
#5.	MeSH descriptor: [Pregabalin] explode all trees
#6.	(gabapentin* or 1 aminomethyl cyclohexaneacetic acid or neurontin or neurotonin or nupentin or gabagamma or gaba-gamma or gralise or horizant or phenibut or anvifen or fenibut or noofen or ci 945 or ci945 or dineurin or gabalept or gabaliquid geriasan or gabatin or go 3450 or go3450 or goe 3450 or goe3450 or kaptin or keneil or pregabalin or lyrica or 3 aminomethyl 5 methylhexanoic acid or 3 isobutyl 4 aminobutyric acid or 3 isobutyl GABA or 3 isobutylgaba or 4 amino 3 isobutylbutyric acid or ci 1008 or ci1008 or pd 144723 or pd144723):ti,ab
#7.	(mirogabalin or atagabalin or 4-methylpregabalin or pd 200390 or pd200390 or ds 5565 or ds5565 or pd 217014 or pd217014):ti,ab
#8.	(or #6-#7)
#9.	#4 and #8

## J.3 Clinical search literature search strategy for A.3

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 21: Database date parameters and filters used**

Database	Dates searched	Search filter used
Medline (OVID)	1946 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies Observational studies
Embase (OVID)	1974 – 30 September 2019	Exclusions Randomised controlled trials Systematic review studies Observational studies
The Cochrane Library (Wiley)	Cochrane Reviews to 2019 Issue 11 of 12 CENTRAL to 2019 Issue 11 of 12	None

### Medline (Ovid) search terms

1.	chronic pain/ or pain, intractable/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter/
5.	editorial/
6.	news/
7.	exp historical article/

8.	Anecdotes as Topic/
9.	comment/
10.	case report/
11.	(letter or comment*).ti.
12.	or/4-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animals/ not humans/
16.	exp Animals, Laboratory/
17.	exp Animal Experimentation/
18.	exp Models, Animal/
19.	exp Rodentia/
20.	(rat or rats or mouse or mice).ti.
21.	or/14-20
22.	3 not 21
23.	limit 22 to English language
24.	exp Analgesics, Opioid/
25.	exp NARCOTICS/
26.	exp Opiate Alkaloids/
27.	(opiate* or opioid*).ti,ab.
28.	(morphine or Astramorph or avinza or depodur or duramorph or embeda or infumorph or kadian or m-eslon or morcap or morphia or ms contin or msir or mst or nepenthe or oramorph or rescudose or rms or roxanol or sevredol or statex or zomorph).ti,ab.
29.	exp morphinans/
30.	(opium or omnopon or pantopon or papaveretum).ti,ab.
31.	(Hydromorphone or dihydromorphinone or dilaudid or dimorphone or exalgo or hydmrphn or hydromorph* or hydrostat or hymorphan or laudicon or novolauden or palladone).ti,ab.
32.	(oxycodone or Dazidox or dihydrohydroxycodone or dihydrone or dinarkon or endocodone or eth-oxydose or eucodal or hydroxycodone or m-oxy or oxiconum or oxycdn or oxycone or oxycontin or oxyfast or oxyir or pancodine or percocet or percolone or remoxy or roxicodone or theocodin).ti,ab.
33.	(Buprenorphine or '6029-m' or buprenex or buprex or prefin or Suboxone or subutex or temgesic).ti,ab.
34.	(Fentanyl or abstral or actiq or duragesic or fentanest or fentora or fentyl or ionsys or matrifan or nasalfent or onsolis or oralet or phentanyl or sublimaze).ti,ab.
35.	(methadone or adanon or althose or amidines or amidone or biodone or diskets or dolophine or Heptadon or metadol or metasedin or methaddict or metharose or Methadose or methdn or methex or phy or phymet or physeptone or pinadone or symoron).ti,ab.
36.	exp *meptazinol/
37.	(Meptazinol or Meptid).ti,ab.
38.	(Tapentadol or cg5503 or nucynta).ti,ab.
39.	(Tramadol or 'k-315' or ralivia or ryzolt or tramahexal or tramake insts or tramal* or tramedo or ultram or zamadol or zydol).ti,ab.
40.	targinact.ti,ab.
41.	(Codeine or ardinex or galcodine or isocodeine or methyl morphine or rx 336m or stanley-linctus or stanley-syrup).ti,ab.
42.	(Dihydrocodeine or contugesic or dhc mundipharma or dicodin or dihydcn or paracodin or paramol or parzone or rikodeine or tiamon or tosidrin or tuscodin).ti,ab.



43.	exp *tramadol/
44.	(Pethidine or demerol or dolantin or dolargan or dolcontral or dolosal or dolsin or isonipeccain or isonipeccaine hydrochloride or lydol or meperidine or operidine epj or pethilorfan).ti,ab.
45.	(Dipipanone or co-dydramol or co-codamaol).ti,ab.
46.	or/24-45
47.	randomized controlled trial.pt.
48.	controlled clinical trial.pt.
49.	randomi#ed.ti,ab.
50.	placebo.ab.
51.	randomly.ti,ab.
52.	Clinical Trials as topic.sh.
53.	trial.ti.
54.	or/47-53
55.	Meta-Analysis/
56.	exp Meta-Analysis as Topic/
57.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
58.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
59.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
60.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
61.	(search* adj4 literature).ab.
62.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
63.	cochrane.jw.
64.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
65.	or/55-64
66.	Epidemiologic studies/
67.	Observational study/
68.	exp Cohort studies/
69.	(cohort adj (study or studies or analys* or data)).ti,ab.
70.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
71.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
72.	Controlled Before-After Studies/
73.	Historically Controlled Study/
74.	Interrupted Time Series Analysis/
75.	(before adj2 after adj2 (study or studies or data)).ti,ab.
76.	or/66-75
77.	exp case control study/
78.	case control*.ti,ab.
79.	or/77-78
80.	76 or 79
81.	Cross-sectional studies/
82.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
83.	or/81-82

84.	76 or 83
85.	76 or 79 or 83
86.	23 and 46 and (54 or 65 or 85)

### Embase (Ovid) search terms

1.	chronic pain/ or intractable pain/
2.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) adj3 pain*).ti,ab.
3.	or/1-2
4.	letter.pt. or letter/
5.	note.pt.
6.	editorial.pt.
7.	case report/ or case study/
8.	(letter or comment*).ti.
9.	or/4-8
10.	randomized controlled trial/ or random*.ti,ab.
11.	9 not 10
12.	animal/ not human/
13.	nonhuman/
14.	exp Animal Experiment/
15.	exp Experimental Animal/
16.	animal model/
17.	exp Rodent/
18.	(rat or rats or mouse or mice).ti.
19.	or/11-18
20.	3 not 19
21.	limit 20 to English language
22.	exp narcotic analgesic agent/
23.	exp narcotic agent/
24.	exp opiate/
25.	(Opioid* or Opiate*).ti,ab.
26.	(morphine or Astramorph or avinza or depodur or duramorph or embeda or infumorph or kadian or m-eslon or morcap or morphia or ms contin or msir or mst or nepenthe or oramorph or rescudose or rms or roxanol or sevredol or statex or zomorph).ti,ab.
27.	morphine/
28.	(opium or omnopon or pantopon or papaveretum).ti,ab.
29.	(Hydromorphone or dihydromorphinone or dilaudid or dimorphone or exalgo or hydmrphn or hydromorph* or hydrostat or hymorphan or laudicon or novolauden or palladone).ti,ab.
30.	(oxycodone or Dazidox or dihydrohydroxycodone or dihydrone or dinarkon or endocodone or eth-oxydose or eucodal or hydroxycodone or m-oxy or oxiconum or oxycdn or oxycone or oxycontin or oxyfast or oxyir or pancodine or percocet or percolone or remoxy or roxicodone or theocodin).ti,ab.
31.	(Buprenorphine or '6029-m' or buprenex or buprex or prefin or Suboxone or subutex or temgesic).ti,ab.
32.	(Fentanyl or abstral or actiq or duragesic or fentanest or fentora or fentyl or ionsys or matrifen or nasalfent or onsolis or oralet or phentanyl or sublimaze).ti,ab.
33.	(methadone or adanon or althose or amidines or amidone or biodone or diskets or dolophine or Heptadon or metadol or metasedin or methaddict or metharose or Methadose or methdn

	or methex or phy or phymet or physeptone or pinadone or symoron).ti,ab.
34.	exp *meptazinol/
35.	(Meptazinol or Meptid).ti,ab.
36.	(Tapentadol or cg5503 or nucynta).ti,ab.
37.	targinact.ti,ab.
38.	(Codeine or ardinex or galcodine or isocodeine or methyl morphine or rx 336m or stanley-linctus or stanley-syrup).ti,ab.
39.	(Dihydrocodeine or contugesic or dhc mundipharma or dicodin or dihydcdn or paracodin or paramol or parzone or rikodeine or tiamon or tosidrin or tuscodin).ti,ab.
40.	exp *tramadol/ or exp *paracetamol plus tramadol/
41.	(Tramadol or 'k-315' or ralivia or ryzolt or tramahexal or tramake insts or tramal* or tramedo or ultram or zamadol or zydol).ti,ab.
42.	(Pethidine or demerol or dolantin or dolargan or dolcontral or dolosal or dolsin or isonipecain or isonipecaine hydrochloride or lydol or meperidine or operidine epj or pethilorfan).ti,ab.
43.	(Dipipanone or co-dydramol or co-codamaol).ti,ab.
44.	or/22-43
45.	random*.ti,ab.
46.	factorial*.ti,ab.
47.	(crossover* or cross over*).ti,ab.
48.	((doubl* or singl*) adj blind*).ti,ab.
49.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
50.	crossover procedure/
51.	single blind procedure/
52.	randomized controlled trial/
53.	double blind procedure/
54.	or/45-53
55.	systematic review/
56.	meta-analysis/
57.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
58.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
59.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
60.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
61.	(search* adj4 literature).ab.
62.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
63.	cochrane.jw.
64.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
65.	or/55-64
66.	Clinical study/
67.	Observational study/
68.	family study/
69.	longitudinal study/
70.	retrospective study/
71.	prospective study/
72.	cohort analysis/

73.	follow-up/
74.	cohort*.ti,ab.
75.	73 and 74
76.	(cohort adj (study or studies or analys* or data)).ti,ab.
77.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
78.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
79.	(before adj2 after adj2 (study or studies or data)).ti,ab.
80.	or/66-72,75-79
81.	exp case control study/
82.	case control*.ti,ab.
83.	or/81-82
84.	80 or 83
85.	cross-sectional study/
86.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
87.	or/85-86
88.	80 or 87
89.	80 or 83 or 87
90.	21 and 44 and (54 or 65 or 89)

#### Cochrane Library (Wiley) search terms

1.	MeSH descriptor: [Chronic Pain] this term only
2.	MeSH descriptor: [Pain, Intractable] this term only
3.	((persist* or intract* or chronic or longstanding or long standing or longterm or long term or refractory or prolong* or long last* or sustain* or linger* or syndrome*) near/3 pain*):ti,ab
4.	(or #1-#3)
5.	MeSH descriptor: [Analgesics, Opioid] explode all trees
6.	MeSH descriptor: [Narcotics] explode all trees
7.	MeSH descriptor: [Opiate Alkaloids] explode all trees
8.	(Opioid* or Opiate*):ti,ab
9.	(morphine or Astramorph or avinza or depodur or duramorph or embeda or infumorph or kadian or m-eslon or morcap or morphia or ms contin or msir or mst or nepenthe or oramorph or rescudose or rms or roxanol or sevredol or statex or zomorph):ti,ab
10.	MeSH descriptor: [Morphinans] explode all trees
11.	(opium or omnopon or pantopon or papaveretum):ti,ab
12.	(Hydromorphone or dihydromorphinone or dilaudid or dimorphone or exalgo or hydmrphn or hydromorph* or hydrostat or hymorphan or laudicon or novolauden or palladone):ti,ab
13.	(oxycodone or Dazidox or dihydrohydroxycodone or dihydrone or dinarkon or endocodone or eth-oxydose or eucodal or hydroxycodone or m-oxy or oxiconum or oxycdn or oxycone or oxycontin or oxyfast or oxyir or pancodine or percocet or percolone or remoxy or roxicodone or theocodin):ti,ab
14.	(Buprenorphine or '6029-m' or buprenex or buprex or prefin or Suboxone or subutex or temgesic):ti,ab
15.	(Fentanyl or abstral or actiq or duragesic or fentanest or fentora or fentyl or ionsys or matrifen or nasalgent or onsolis or oralet or phentanyl or sublimaze):ti,ab
16.	(methadone or adanon or althorse or amidines or amidone or biodone or diskets or dolophine or Heptadon or metadol or metasedin or methaddict or metharose or Methadose or methdn

	or methex or phy or phymet or physeptone or pinadone or symoron):ti,ab
17.	MeSH descriptor: [Meptazinol] explode all trees
18.	(Meptazinol or Meptid):ti,ab
19.	(Tapentadol or cg5503 or nucynta):ti,ab
20.	targinact:ti,ab
21.	(Codeine or ardinex or galcodine or isocodeine or methyl morphine or rx 336m or stanley-linctus or stanley-syrup):ti,ab
22.	(Dihydrocodeine or contugesic or dhc mundipharma or dicodin or dihydcdn or paracodin or paramol or parzone or rikodeine or tiamon or tosidrin or tuscodin):ti,ab
23.	MeSH descriptor: [Tramadol] explode all trees
24.	(Tramadol or 'k-315' or ralivia or ryzolt or tramahexal or tramake insts or tramal* or tramedo or ultram or zamadol or zydol):ti,ab
25.	(Pethidine or demerol or dolantin or dolargan or dolcontral or dolosal or dolsin or isonipeccain or isonipeccaine hydrochloride or lydol or meperidine or operidine epj or pethilorfan):ti,ab
26.	(Dipipanone or co-dydramol or co-codamaol):ti,ab
27.	(or #5-#26)
28.	#4 and #27

1. National Institute for Health and Care Excellence. Developing NICE guidelines: the manual [updated October 2018]. London. National Institute for Health and Care Excellence, 2014. Available from:  
<http://www.nice.org.uk/article/PMG20/chapter/1%20Introduction%20and%20overview>