

# Interventions to improve adherence to medications for chronic non-malignant pain: a systematic review

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Interventions to improve adherence to medications for chronic non-malignant pain: a  
systematic review

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### Review question

This systematic review aims to review the nature, process, and outcomes of interventions to improve adherence in patients prescribed with medicines for chronic non-malignant pain (CNMP). The secondary aims are to systematically review reduction in pain severity, anxiety and depression, improvement of quality of life and to review the use of theories/theoretical frameworks in the design, implementation and evaluation of interventions for medication adherence in patients with CNMP.

### Searches

The following databases will be searched from 2000 to the present: MEDLINE, EMBASE, CINAHL. Searches will be restricted to English language.

### Search strategy

[https://www.crd.york.ac.uk/PROSPEROFILES/111569\\_STRATEGY\\_20181004.pdf](https://www.crd.york.ac.uk/PROSPEROFILES/111569_STRATEGY_20181004.pdf)

### Types of study to be included

Interventions published peer reviewed studies that aim to improve medication adherence in adult with CNMP.

### Condition or domain being studied

Adherence is the extent to which a person's behaviour agrees with the health providers' medical directions. Approximately only 50% of patients with CNMP are adherent to their medications. Patients have various reasons for not adhering to their medication and this could be intentional and non-intentional. Therefore, the interventions used to improve medication adherence should be developed according to the patient's specific reasons for non-adherence. This systematic review will review the nature, process, and outcomes of interventions to improve adherence in patients prescribed medicines for CNMP.

### Participants/population

Only adults (aged 18 or over) with chronic non-malignant pain using pain medication for more than three months will be included in this study.

### Intervention(s), exposure(s)

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1. Educational: all educational interventions that have been provided to patients by any health care professionals and aim to enhance patient medication adherence, such as information about the medication, the disease or, the importance of adhering to the medication regimen whether face to face, by phone, with written material, visual aids or mailed instructions.
2. Behavioural: any behavioural intervention such as motivational interview that aims to modify patients' behaviour toward their medication adherence.
3. Technological: any intervention for medication adherence that uses technology such as automated phone calls, simplification of the dose regimen or dose time, follow-up, etc.
4. Screen test: any test used to measure the patient's adherence to the dose regimen.

5. Economic: interventions that apply penalties or awards according to the patient's adherence to their medication, adherence.

### Comparator(s)/control

Usual care where no intervention provided or comparing two different interventions

### Context

Inclusion criteria:

CNMP is defined as pain that persists regardless of normal tissue healing and persists for 3 months or more. Therefore, only adults (aged 18 or over) with chronic non-malignant pain using pain medication for more than three month will be included in this study.

Exclusion criteria:

Patients who will be institutionalized or are otherwise not involved with administering their own medications will be excluded. Intervention that targets the healthcare provider not the patients, such as education for healthcare professionals, will be excluded. Non-original article or studies reported in a non-English language will be excluded. The effect of dosage forms on patient's adherence to medication.

### Main outcome(s)

Medication adherence.

### Additional outcome(s)

Pain relief, quality of life.

The theoretical framework used in the interventions.

### Data extraction (selection and coding)

Summary of the study: study title, authors, year, study setting, country and funding. Study characteristics: methodological aspects of research: study design, duration of study, type of the study, study population arms included, number of patients, random vs. non-random assignment blinding, control group, condition, age, definition of adherence/non adherence and their methods of measurement, typologies used to define nonadherence (intentional/nonintentional), nature of intervention, personnel involved in the delivery of the intervention, method by which the intervention was delivered, length of intervention, how the follow up of participants was conducted and by whom, how many times and how was adherence/non adherence measured in the study, tools used to measure adherence and non-adherence outcome and adherence rates. Improvement in level of adherence, quality of life and severity of pain, reduction in anxiety and depression will also be extracted including the tools used to gather these data.

### Risk of bias (quality) assessment

Risk of bias will be assessed using Cochrane risk of bias tool for the randomised controlled trials. For the rest of the study designs, CASP quality assessment tool for prospective, retrospective, case-control studies, longitudinal and cohort study will be undertaken. Independent assessment of risk of bias and quality assessment will be undertaken.

### Strategy for data synthesis

The findings will be presented using narrative synthesis. Where possible, meta-analysis will be undertaken.

### Analysis of subgroups or subsets

No subgroup or subset will be analysis in this review, only adherence interventions that targeted adult with any CNMP condition will be included.

### Contact details for further information

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**PROSPERO**  
International prospective register of systematic reviews

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**Organisational affiliation of the review**

University of Birmingham

<https://www.birmingham.ac.uk/>**Review team members and their organisational affiliations**

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**Anticipated completion date**

31 December 2018

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**Conflicts of interest****Language**

English

**Country**

England

**Stage of review**

Review\_Ongoing

**Subject index terms status**

Subject indexing assigned by CRD

**Subject index terms**

Chronic Pain; Humans; Medication Adherence

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19 October 2018

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19 October 2018

**Details of any existing review of the same topic by the same authors****Stage of review at time of this submission**

<b>Stage</b>	<b>Started</b>	<b>Completed</b>
Preliminary searches	Yes	Yes
Piloting of the study selection process	Yes	Yes
Formal screening of search results against eligibility criteria	Yes	Yes
Data extraction	No	No
Risk of bias (quality) assessment	No	No
Data analysis	No	No

## Versions

19 October 2018

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