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## Background

Pharmacoepidemiologic studies suggest that large proportions of people with neuropathic pain (NP):

- Do not receive recommended medications for NP
- Do not adhere well to these medications
- Often discontinue their treatment

Identifying predictors for NP medication prescribing, adherence, and discontinuation can help:

- Inform strategies to increase the proportion of people with NP receiving appropriate, recommended medication
- Increase the proportion of people adhering to their NP medication
- Improve understanding as to why the majority of people with NP discontinue recommended medications
- Provide evidence as how to best address these issues

## Protocol

Protocol in PROSPERO:



## Analysis of results

We identified 60 eligible studies

Step 1: studies were divided into non-mutually exclusive categories

- 45 studies on prescribing
  - 9 subcategories based on medications investigated and style of analysis
- 14 studies on adherence
- 25 studies on discontinuation

Step 2: Potential predictors investigated in each category/subcategory of studies were listed

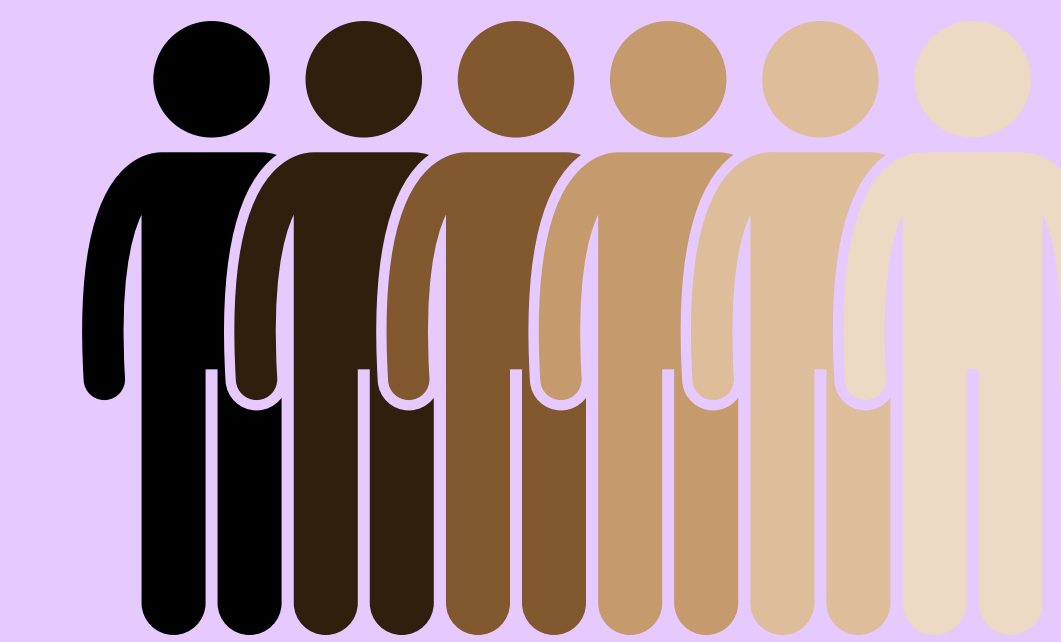
Step 3: Evidence for each potential predictor was assessed and summarised narratively

Step 4: The potential predictors were classed to have either:

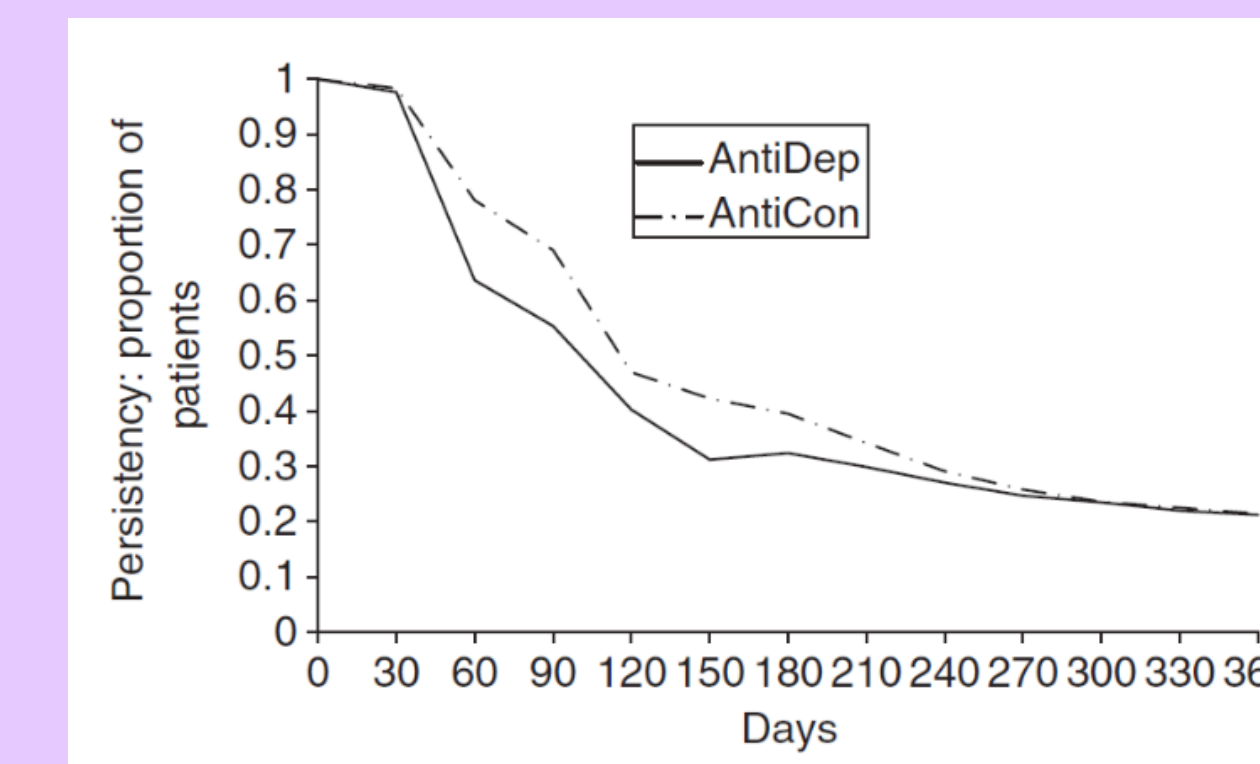
- 1) Significant association with the outcome
- 2) No association with the outcome
- 3) Unclear or inconsistent results

## Conclusions

There is a need to focus on improving NP medication prescribing for ethnic minorities and people with NP caused by aetiologies other than diabetes.



The included studies also demonstrate that the majority of people with NP discontinue treatment within half a year, but the reasons or predictors for this are not clear.



Gharibian, D., Polzin, J.K. and Rho, J.P., 2013. Compliance and persistence of antidepressants versus anticonvulsants in patients with neuropathic pain during the first year of therapy. *The Clinical journal of pain*, 29(5), pp.377-381.

Adherence and persistence with NP medications could be improved by using dose titration, prioritising prescribing of serotonin-norepinephrine reuptake inhibitors if indicated, and avoiding subtherapeutic dosing.



## Contacts

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## Predictors

Examples of predictors that had significant association with the outcomes

### Receiving recommended medication as 1st-line treatment

- White ethnicity
- Diabetic neuropathy
- Mental health disorders

### Receiving opioids as 1st-line treatment

- Neuropathic back pain
- Phantom limb pain

### Receiving opioids (at any point)

- Nephropathy
- Higher alcohol intake
- Smoking

### Receiving NSAIDs or paracetamol

- Male
- Mononeuropathy
- Postherpetic neuralgia

### Receiving any pain medication

- Female
- Younger age
- Higher pain intensity

### Adherence to NP medications

- Dose titration
- Medicine reminder
- >55 years old

### Discontinuation of NP medications

- Moderate/severe adverse events
- Postherpetic neuralgia vs diabetic neuropathy
- Subtherapeutic dose