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Anticipatory prescribing of injectable medications for adults at the end of life in the community: A systematic review

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School for Primary Care Research

The National Institute for Health Research School for Primary Care Research (NIHR SPCR) is a partnership between the Universities of Bristol, Cambridge, Keele, Manchester, Newcastle, Nottingham, Oxford, Southampton and University College London.

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Background

Anticipatory prescribing is the prescription and dispensing of injectable medications to a named patient, in advance of clinical need, for administration by suitably trained individuals if symptoms arise in the final days of life.

Injectable medications are typically prescribed for four common symptoms: pain, nausea and vomiting, agitation and respiratory secretions.

Anticipatory prescribing for patients at their end of life is NICE recommended practice. (1)

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Review questions

With regard to anticipatory prescribing of injectable medications for adults in the community approaching the end of their lives:

1. What is current practice?
2. What are the attitudes of patients?
3. What are the attitudes of family carers?
4. What are the attitudes of community healthcare professionals?
5. What is its impact on patient comfort and symptom control?
6. Is it cost-effective?

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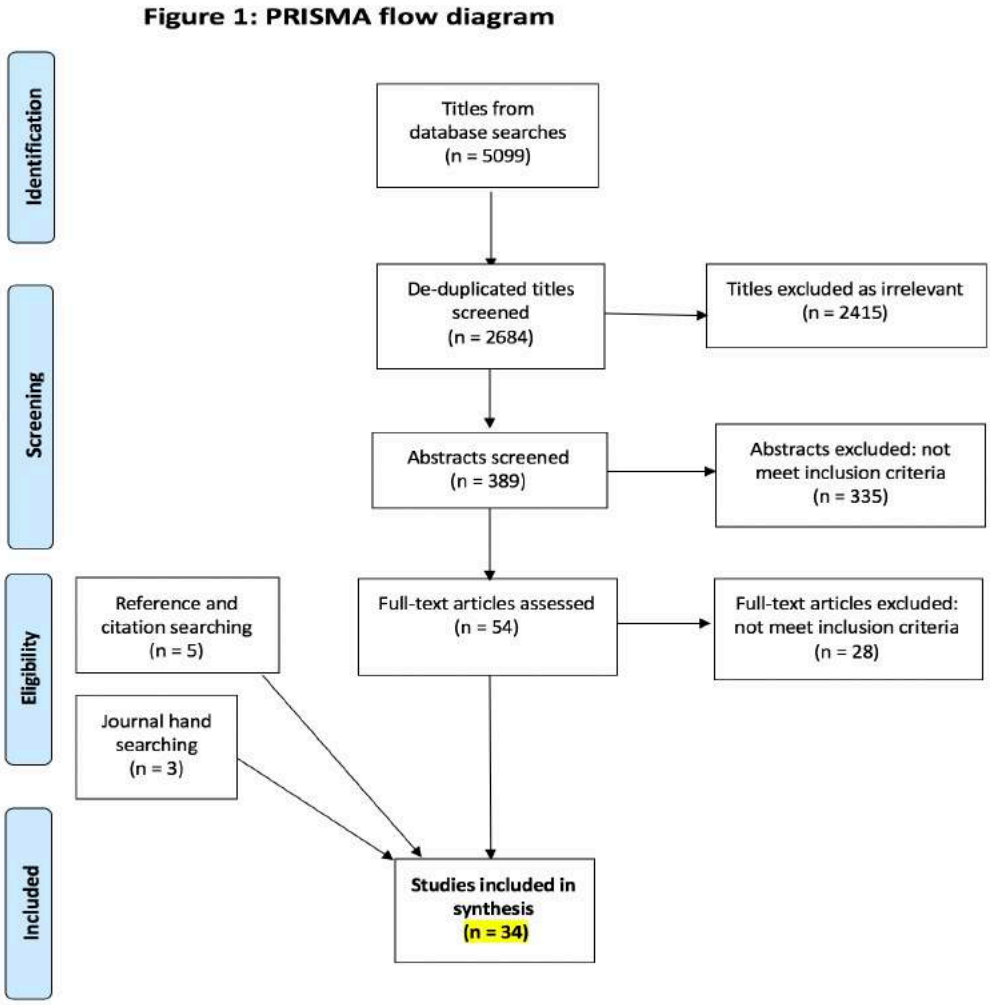
Methods



- **2684** titles were screened by BB
- **389** abstracts were independently screened by two reviewers
- Papers were included if they presented empirical research for adults receiving care at home in the community
- The quality of the included studies were independently appraised by two reviewers using Gough's 'Weight of Evidence' Framework (2)
- **Data synthesis used a narrative approach** (3)

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Results

Thirty four papers, reporting on 31 studies, were included in the synthesis: 24 research papers and 10 conference abstracts.

3 were rated high quality, 22 medium quality and 9 low quality using Gough's 'Weight of Evidence' Framework.

Papers reported on practice in the **UK (n=28)**, Australia (n=5), and Canada (n=1).

Published papers' methods included:

- Qualitative interviews with healthcare professionals (n=15)
- Qualitative interviews with family carers (n=2),
- Retrospective patient notes reviews (n=7)
- Staff or family carers questionnaires (n=6)
- Clinical audits (n=4).

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What is current practice?

Current practice varies both across countries and within the UK.
In the UK, anticipatory prescribing appears to be widespread. (8-13)

There is no reliable data on how often drugs are prescribed or subsequently used in the community.

There is wide variation in the timing of anticipatory prescribing prior to death, ranging from a few days (14, 5) to several weeks. (4, 6, 7)

Practice varies in relation to community setting, proximity of prescriptions to death, patient populations (e.g cancer diagnosis or SPC involvement) and frequency of administration. (8-15)

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What are the attitudes of patients?

No studies have investigated patients' experience of or views towards anticipatory prescribing.

One audit (7), rated as medium quality, and one service evaluation (16), rated as low quality, report anticipatory prescribing to be well received by patients.

Both studies were based on practitioner interpretations of patient views rather than patient self-reports.

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What are the attitudes of family carers?

No studies have investigated family carers' views and experiences of standard UK practice.

Studies of family carers' attitudes have been limited to five medium to low quality evaluations of family carer administration of injectable medications. (17-21)

Although family carers appreciate being able to provide symptom relief, (17-21) some struggle with the responsibility of assessing patient needs and administering medications. (18, 19)

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What are the attitudes of community healthcare professionals?

Twenty one studies focuses on the attitudes and experience of HCPs.

GPs and nurses believe anticipatory prescribing offers reassurance to patients, family carers and healthcare professionals, provides timely and effective symptom control, and helps prevent crisis hospital admissions. (6, 16-16, 22-26)

The one exception is in terminal haemorrhage - specialist palliative care doctors and nurses believe drugs have limited value, as patients often die before medication can be given or take effect. (27-29)

In addition to broadly positive professional experience, GPs and nurses also express safety concerns about the potential for drug errors or misuse. (4, 23, 24, 30)

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What is its impact on patient comfort and symptom control?

Robust evidence of clinical effectiveness is absent as no intervention trial has been undertaken.

Evidence of the impact of anticipatory prescribing on comfort and symptom control is limited to three observational audits and surveys of low to medium quality, none of which used symptom assessment scales.

Observations from surveys with nurses (31, 32) and a small scale (n=5) retrospective audit (20) suggest it may contribute to symptom relief.

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Is it cost-effective?

Robust evidence of cost-effectiveness is absent, although it is a low-cost intervention.

The typical cost of supplying two to three days' worth of medication in the UK is between £22.12 (14) and £30.26 per patient. (30)

Seven studies of low to medium quality have examined the relationship between anticipatory prescribing and service use.

Two small scale audits (7, 21) and one service evaluation (16) identified that most patients with an anticipatory medication prescription were not admitted to hospital for symptom control at the end of life. These studies do not report the outcomes for patients not prescribed anticipatory medications.

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Conclusions

1. Current anticipatory prescribing practice and policy is based on an inadequate evidence-base.

2. The views and experiences of patients and their family carers towards anticipatory prescribing needs urgent investigation.

3. Further research is needed to investigate the impact of anticipatory prescribing on patients' symptoms and comfort, patient safety, and hospital admissions.

This review has been published in Palliative Medicine

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Thank you.

Questions…..

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