

# Pharmacist care in hypertension management: systematic review of randomized controlled trials

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## Introduction

Hypertension management is a major public health challenge.

Recent hypertension guidelines (e.g. American ACC/AHA, CPSTF, European ESC/ESH) recommend the involvement of pharmacists for team-based care.

Choosing most effective interventions in a given healthcare setting and their implementation remains a challenge.

## Aims

To systematically review the evidence of the impact of pharmacist care alone or in collaboration with other healthcare professionals on blood pressure.

To assess the heterogeneity in the effects of pharmacist interventions to identify which ones work best in a given healthcare setting.

## Methods

Eligibility criteria:

- Study design: RCTs, cluster RCTs, cross-over RCTs
- Setting: community/ambulatory
- Participants: adult outpatients with a diagnosis of hypertension, treated or not treated

Interventions:

- Pharmacist-directed care
- Pharmacist-collaborative care

Comparators: Usual care

Outcome: change in BP, or BP at follow-up, or BP control

Databases: MEDLINE, Embase, CENTRAL, CINAHL, Web of Science, Joanna Briggs Institute, Tripdatabase, Grey Literature Report

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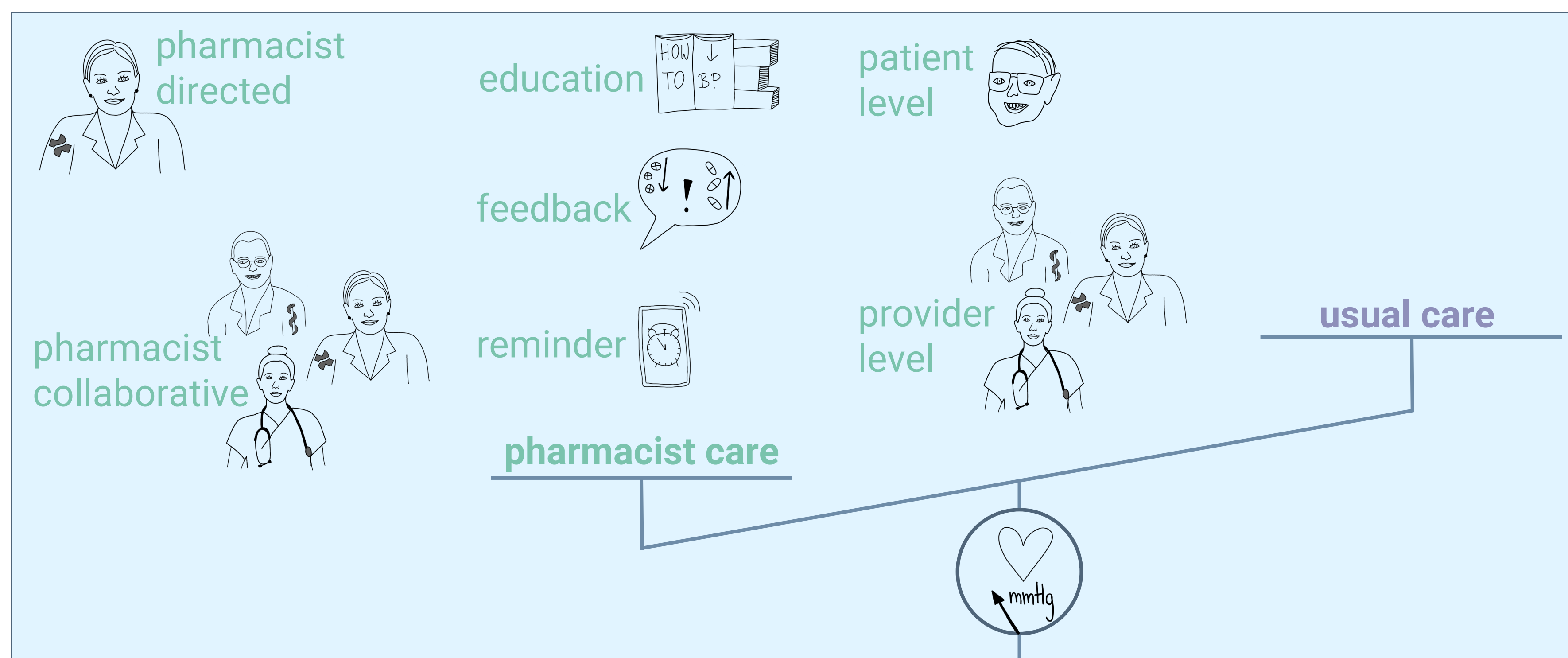
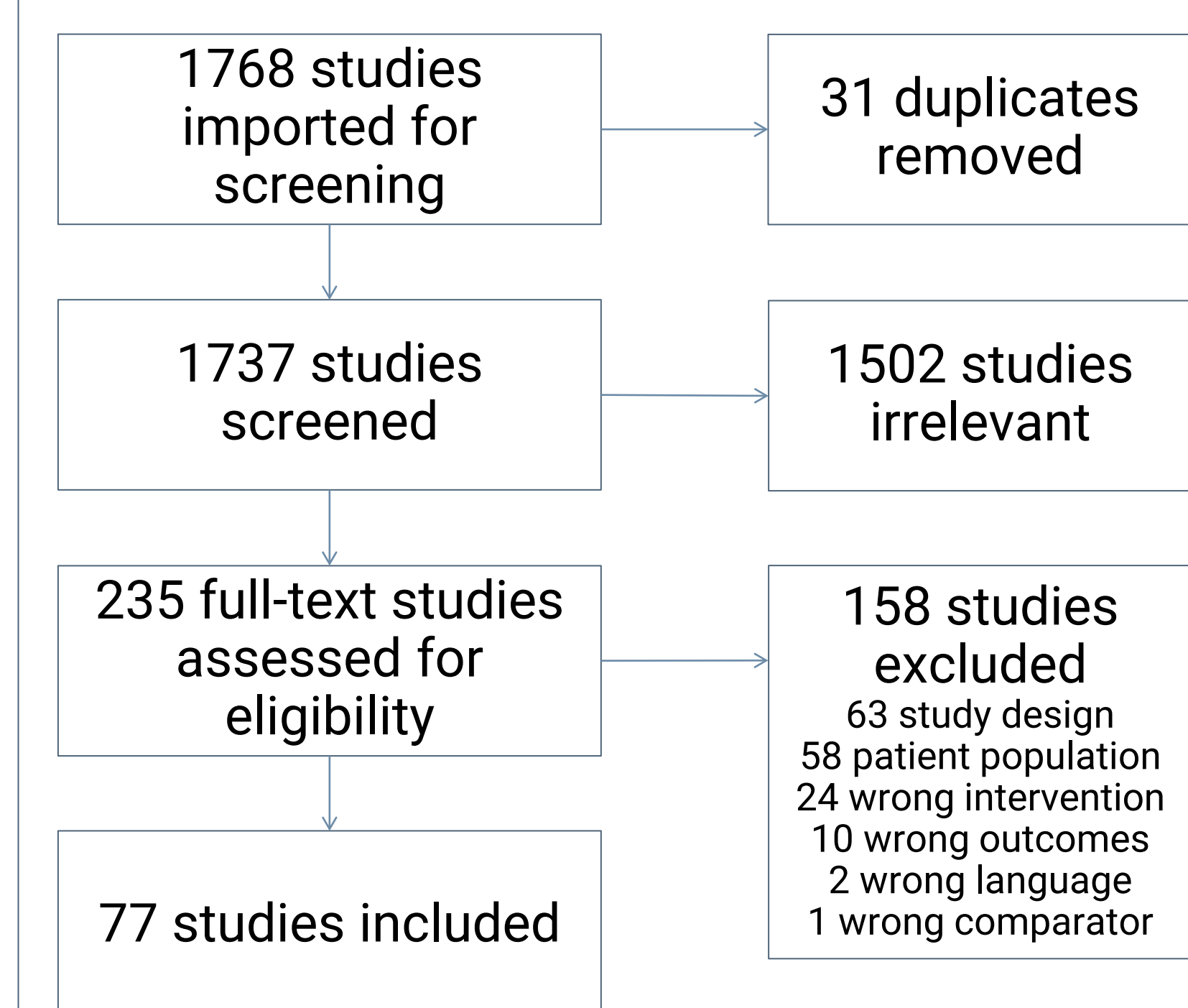


Figure 1. Reviewing the impact of pharmacist care interventions (classified by Cochrane EPOC taxonomy of health systems interventions) vs usual care on hypertension control.

## Results



## Conclusions

We have included 77 studies for analysis with a total of 29 451 participants (14 092 intervention, 15 350 control).

Most interventions were performed in outpatient clinics (69%) and by a pharmacist-directed healthcare team (70%). 52% of the studies were conducted in the Pan-American region (USA 33, CAN 5, BRA 2). Patient education (86%) and healthcare provider feedback (52%) were most frequent.

Analysis is ongoing. Assessment of the heterogeneity of effects may improve the effectiveness and implementation of pharmacist interventions in hypertension management.

Table 1. Study and pharmacist intervention characteristics of the included RCTs (N=77).

Characteristic	N (%)
<b>Region</b>	
- Pan-American	40 (52)
- European	14 (18)
- Western Pacific	9 (12)
- South-East Asian	8 (10)
- Eastern Mediterranean	5 (6)
- African	1 (1)
<b>Setting</b>	
- Outpatient clinics	53 (69)
- Community pharmacies	24 (31)
<b>Healthcare team</b>	
- Pharmacist-directed	54 (70)
- Pharmacist-collaborative	23 (30)
<b>Intervention (EPOC)</b>	
<i>Patient level</i>	
- Education	66 (86)
- Reminder	17 (22)
<i>Healthcare provider level</i>	
- Education	11 (14)
- Feedback	40 (52)
- Reminder	1 (1)

## References

Santschi, et al. "Improving blood pressure control through pharmacist interventions: a meta-analysis of randomized controlled trials." Journal of the American Heart Association 3.2 (2014): e000718.

Gastens, et al. "Pharmacist interventions to improve hypertension management: protocol for a systematic review of randomised controlled trials." BMJ Open 12.5 (2022): e059399.

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