

A pharmacist-led intervention to reduce opioid use before elective hip and knee replacement surgery is safe, feasible and effective.

Effect of a pharmacist-led opioid tapering intervention before arthroplasty: a pilot randomised clinical trial

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Background

Opioid use before total hip or knee arthroplasty (THA, TKA) is:

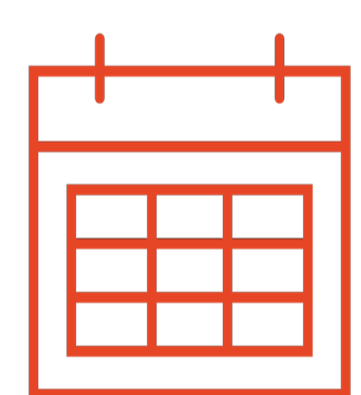
- Prevalent (>50%)
- Not recommended (harms > benefit)

No clinical trial has tested an intervention to reduce opioid use before surgery.

Objective

To establish the feasibility and efficacy of an intervention to reduce opioid use before THA or TKA.

Methods



Design: Pilot randomised controlled trial

Dates: 2021 – 2023

Sites: 7 hospitals



Participants: adults undergoing THA or TKA taking opioids



Intervention: pharmacist-led tele-health opioid tapering 3 months before surgery

Control: usual care

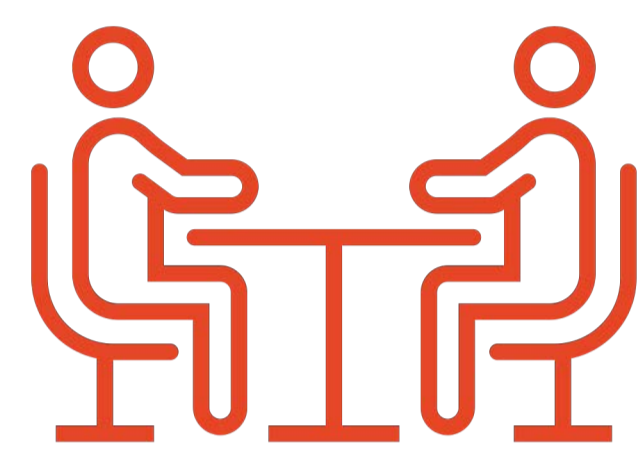


Primary outcomes:

- Feasibility
- Efficacy (Proportion who taper \geq 50% of baseline opioid dose)

Results

89% Tapered opioids with a pharmacist



- Shared decision making
- Non-pharmacological pain management

VS

14% Usual care

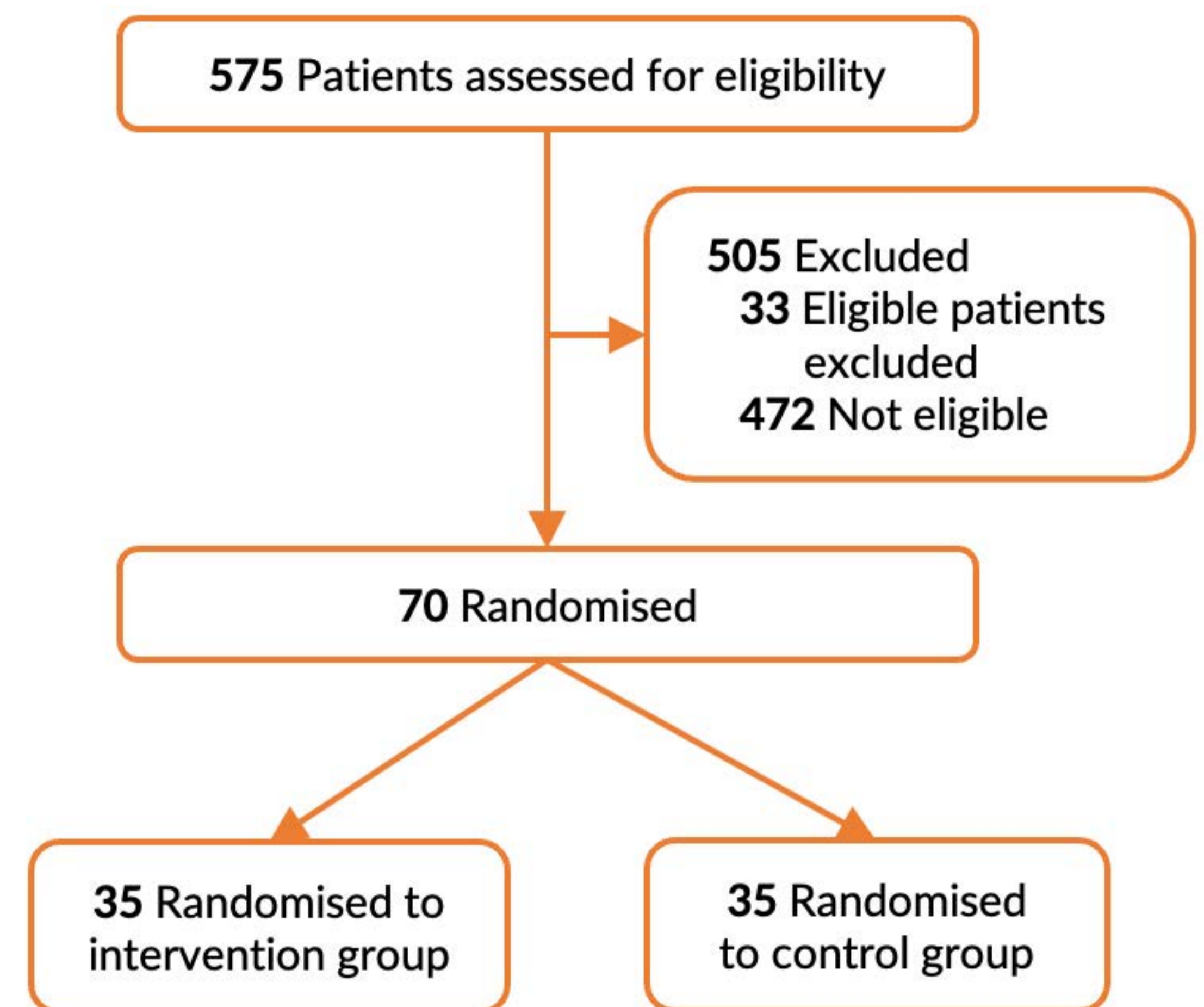


Figure 1. Study flow diagram

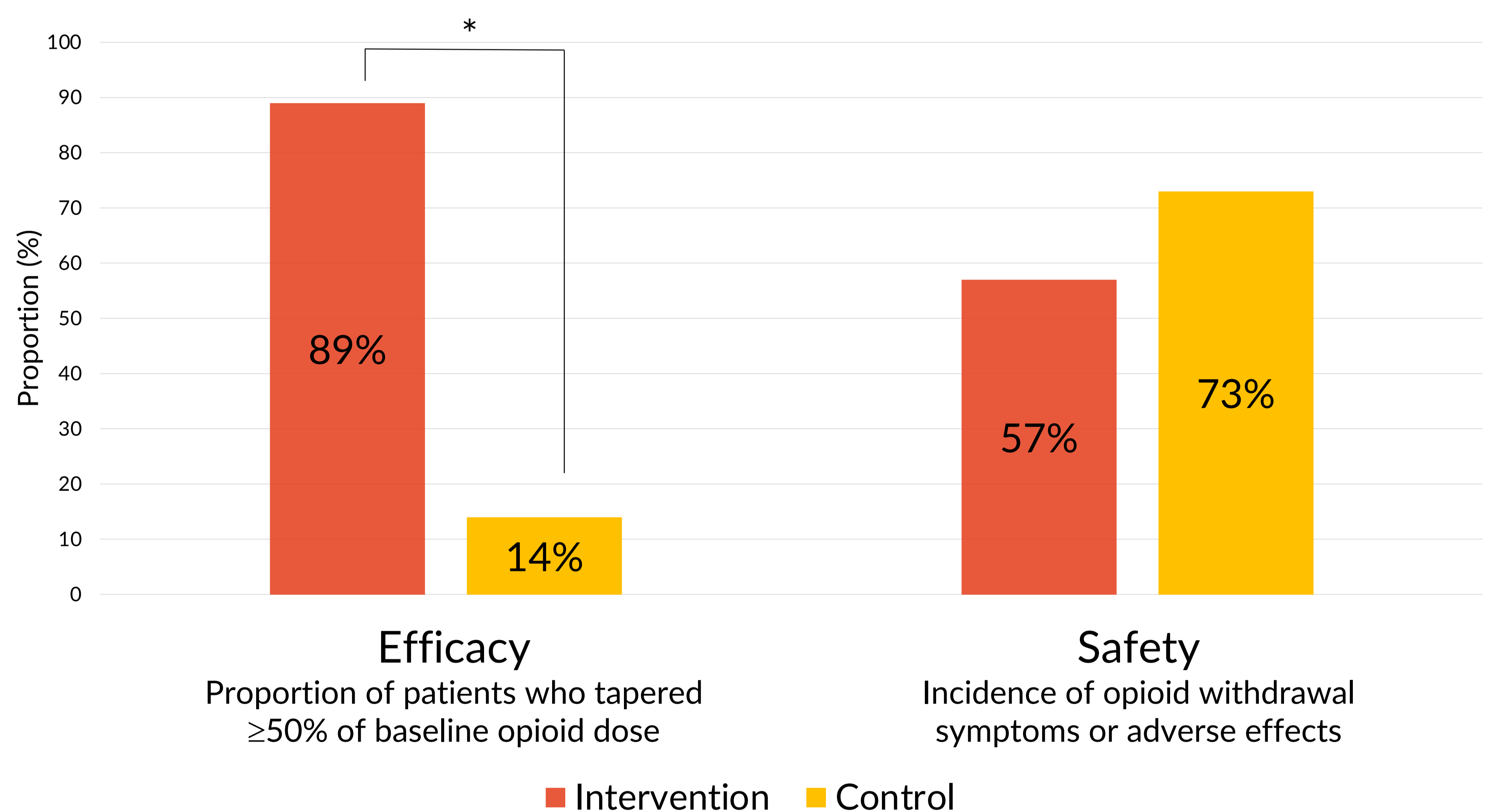


Figure 2. Efficacy and safety outcomes, * $p < 0.01$

	Intervention (n = 35)	Control (n = 35)
Age, years	62.6 (10)	63.7 (11)
Sex, female	24 (69%)	22 (63%)
Planned surgery		
THA	16 (46%)	18 (51%)
TKA	19 (54%)	17 (49%)
Opioid dose, daily MME	15 (2-90)	8 (2-106)

Table 1. Baseline characteristics

Data expressed as number (%), mean (SD) or median (range)
MME; oral morphine milligram equivalents, THA; total hip arthroplasty, TKA; total knee arthroplasty.

Conclusion

This pilot trial supports the safety, feasibility, and efficacy of a pharmacist-led opioid tapering intervention to reduce opioid use before elective hip or knee arthroplasty.



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This trial was funded by the AVANT Foundation and the International Pharmaceutical Federation Hospital Pharmacy Section.