REDUCING OXYCODONE PRESCRIPTION AND USE IN ORTHOPEDIC PATIENTS AFTER HIP OR KNEE ARTHROPLASTY: A PRE-POST INTERVENTION STUDY

M.M. Phaff[1], R.E. Geuze[2], B. Maat[3*]
*b.maat@etz.nl [1]Department of Pharmacoepidemiology and Clinical Pharmacology, Utrecht University, Utrecht, The Netherlands. [2]Departmentof Orthopaedic Surgery, Elisabeth-Tweesteden Hospital, Tilburg, The Netherlands [3]Department of Hospital Pharmacy,Elisabeth-Tweesteden Hospital, Tilburg, The Netherlands.

4CPS-053

Relevance

Surgical procedures such as total knee arthroplasty (TKA) and total hip arthroplasty (THA) are associated with risks of long-term opioid use. Implementing interventions that effectively reduce these risks remains a challenge.

Aim

To assess the effect of a multifaceted intervention (at prescriber-, nurse- and patient-level) on the prescription and use of oxycodone after discharge in postoperative TKA and THA patients.

Methods

Prospective pre-post intervention study. Elisabeth-Tweesteden hospital, Netherlands.

Inclusion criteria:

- Age ≥18 years
- Scheduled for THA or TKA between 17/03/2025-04/04/2025 (pre-intervention) and 06/05/2025-23/05/2025 (post-intervention)

Multifaceted intervention:

- **Intensifying patient education on opiates by pharmacy**
- **Extending postoperative pain assessment by nurses**
- **Tailoring oxycodone prescribing by physicians**

Outcomes:

- **Primary:** postoperative opioid prescribing and -use (% of patients discharged with an oxycodone prescription and % of patients using oxycodone on the day of discharge, and on day 1-3-7-14 post-discharge)
- **Secondary:** postoperative pain (Numeric Rating Scale pain scores) on the prespecified days, prescription/refill requests, and leftover medication after discharge.

Data analysis:
Unpaired t-test (continuous data) or chi square test (categorial data).
Mixed Repeated Measures Anova (changes in pain scores).

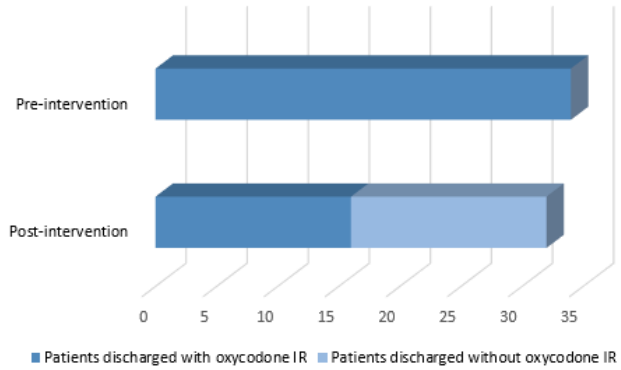
Results

Patients:

- Pre-intervention: 34 patients (21 THA,13 TKA) Mean age: 69.5 years
- Post-intervention: 32 patients (17 THA,15 TKA) Mean age: 69.9 years

Primary outcomes:

- **A 50% reduction in oxycodone IR prescription (p<0.0001)**



- No significant reduction in opioid use after discharge was observed among those patients discharged with oxycodone.

Secondary outcomes:

- Pain scores did not significantly differ between the pre- and post-intervention groups
- Among patients who were not discharged with oxycodone IR, only one requested a prescription, which was ultimately not used.
- **Pre-intervention, 28/34 (82.4%) patients had surplus oxycodone tablets, post-intervention less, but still 14/34 (41.2%) patients had oxycodone tablets left.**

Conclusions

The multifaceted intervention significantly reduced the proportion of THA and TKA patients postoperatively discharged with oxycodone IR without increasing postoperative pain after discharge.

Post-intervention, 40% of patients had excess oxycodone tablets, indicating room for further decrease of the availability of oxycodone and consequent risks of long-term use.