

No Effects of Extended Oral Tranexamic Acid following Total Knee Arthroplasty on Postoperative Pain and Range of Motion: A Randomized Controlled Trial

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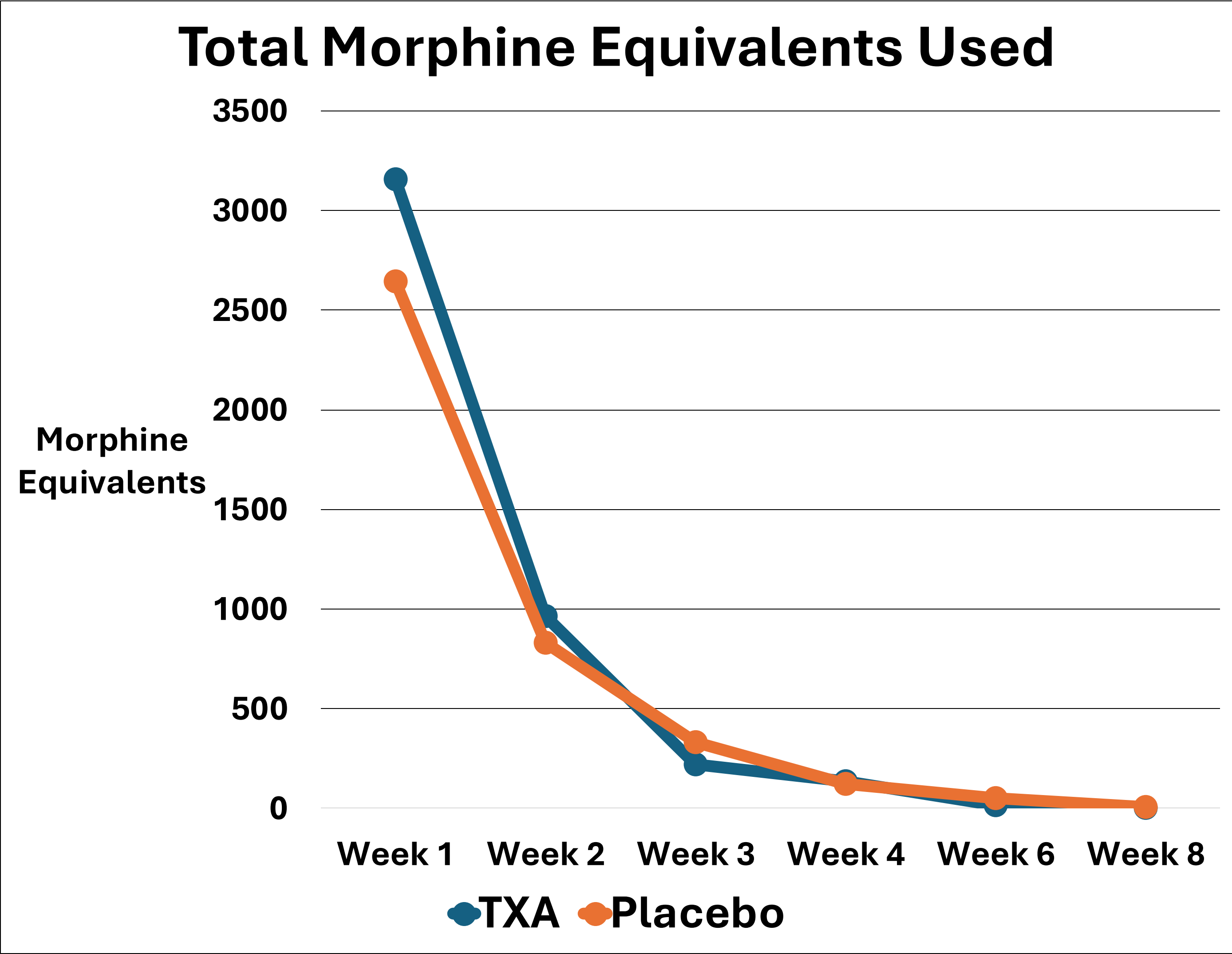
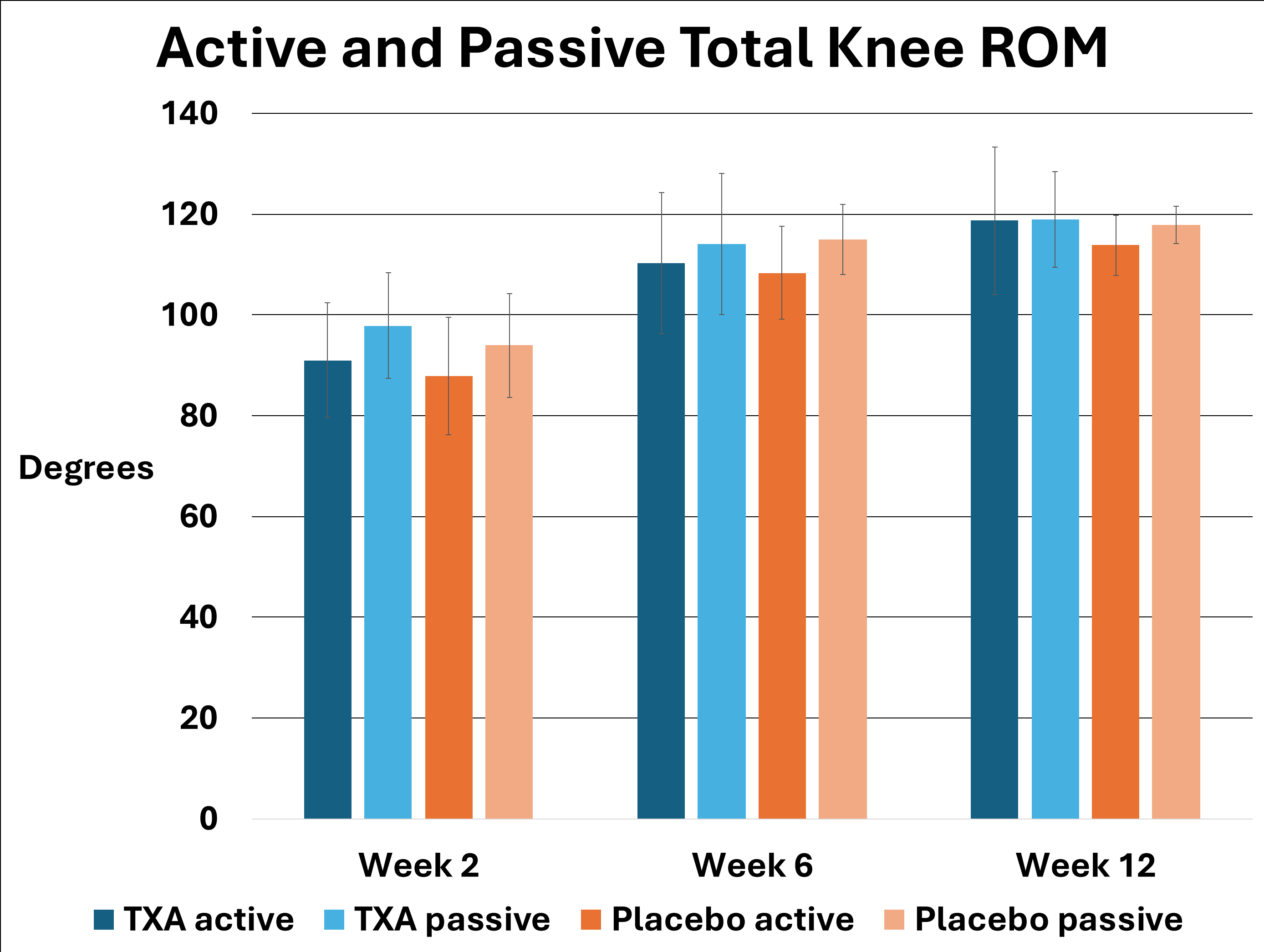
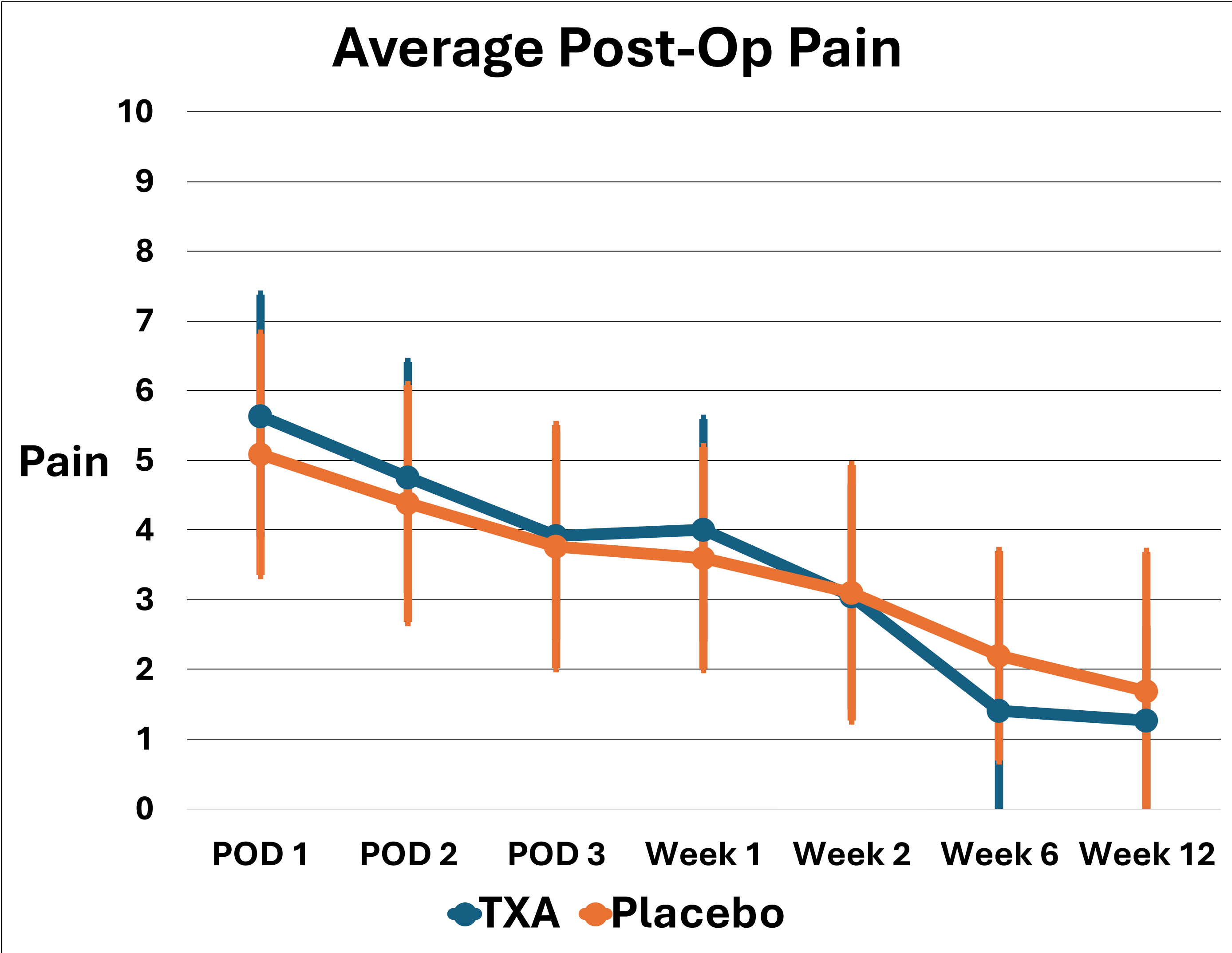
Introduction

- TXA reduces perioperative blood loss and transfusion rates in total knee arthroplasty (TKA)
- **The role of extended oral TXA (EOTXA) after standard IV dosing remains unclear**
- Prior data suggest possible early improvements in pain and function with post-op oral TXA.
- **Objective: Evaluate the effect of 3-day EOTXA on postoperative pain, range of motion (ROM), opioid use, and ambulation after primary TKA**

Methods

- **Design:** Double-blind randomized controlled trial
- **Participants:** 48 patients undergoing primary TKA
- **Intervention:**
 - All received **1 g IV TXA** pre-incision and in PACU
 - **EOTXA group (n=24):** additional 1.95 g oral TXA daily on POD1–3
 - **Placebo group (n=24):** identical capsules, same schedule
- **Exclusions:** History of VTE or active malignancy
- **Outcomes:**
 - **Primary:** Visual Analog Scale (VAS) pain scores (POD1–12 weeks).
 - **Secondary:** Knee ROM, opioid use, and ambulatory status

Results



Results Continued

Ambulatory Status

Timepoint	Group	Cane	Walker	No Assist	p-value
Week 2	TXA	14	3	3	0.56
	Placebo	8	5	3	
Week 6	TXA	6	—	13	0.63
	Placebo	3	—	12	
Week 12	TXA	1	0	21	0.44
	Placebo	3	1	16	

Ambulation data were analyzed excluding unknown entries (<10% missing across timepoints).

Conclusion

- In largest RCT to date – No difference observed in pain scores, opioid consumption, or functional outcomes after EOTXA following primary TKA compared to placebo

Key Takeaway:

- **Based on these results, broad utilization of oral TXA after primary TKA may not be warranted**

References

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