2022 NEHS Annual Meeting Abstract Submission

COMPLETE

NEHS Vice President, Daniel Mastella, M.D., is currently accepting abstract submissions for presentation at our Annual Meeting on December 2, 2022.

This meeting will be held at the Sturbridge Host Hotel in Sturbridge, MA.

Therapists, NPs, and PAs are also encouraged to submit.

THE DEADLINE FOR SUBMISSION IS OCTOBER 15, 2022

RESIDENTS AND FELLOWS ONLY. Please indicate if you want your paper to be considered for the prestigious H.Kirk Watson, M.D. Founder's Award. The abstracts for award consideration will be presented in the morning and the award will be presented in the afternoon.

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*** ABSTRACT TITLE**

Postoperative Pain Course Following Primary and Secondary Targeted Muscle Reinnervation - a Temporal Description Of Pain Outcomes

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*** Name of who will present abstract at NEHS meeting on December 2, 2022 Please note that the same person cannot present more than one abstract at the meeting.**

Floris Raasveld

*** Please indicate if the presenter is:**

Not currently a resident or fellow

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* ABSTRACT - should include background information and a description of methods, programs, or practices.

Introduction: Targeted muscle reinnervation (TMR) is an effective surgical modality for neuropathic pain in amputees. Insufficient data has been presented regarding the postoperative pain course for patients undergoing primary (<14 days since amputation) or secondary (≥14 days) TMR surgery. This study aims to outline the postoperative pain course to aid in managing amputees' postoperative expectations.

Methods: A retrospective review of amputees, treated with primary or secondary TMR, prospectively enrolled between 2018 and 2022, was performed. Pain scores with VAS/NRS instruments and patient reported outcome measurements (PROMs) of pain interference and intensity were collected throughout six months postoperatively. Locally weighted scatterplot smoothing (LOWESS) curves were utilized for pain course visualization. Mean pain scores and PROMs were compared between primary and secondary TMR cohorts.

Results: A total of 77 amputees were included, 64% being male and 57% being secondary TMR patients. The median follow-up was 153 days (IQR 62-281). Early postoperatively, Primary and Secondary TMR patients show a decline in pain scores, PROMs pain interference and intensity, which stabilizes at decreased levels.(see Figure 1 and Figure 2 respectively). At 1-month, 3-months and 6-months postoperatively, primary TMR patients reported mean pain scores of 5.3, 2.9, and 2.6 versus 6.2(P=0.28), 4.0(P=0.28) and 4.0(P=0.42) for Secondary TMR patients respectively. For PROM pain interference this was 58.6, 53.2 and 55.5, versus 67.8(P=0.004), 61.3(P=0.08) and 61.2(P=0.50), and 54.8, 47.5 and 48.4, versus 57.7(P=0.30), 50.2(P=0.47) and 47.3(P=0.90) respectively for pain intensity.

Conclusion: Primary TMR patients illustrated rapid postoperative decrease in pain score and PROM pain interference, stabilizing at decreased levels showing mild pain. Secondary TMR patients show similar courses with higher scores. PROM pain intensity shows a stabilization at the primary TMR level. The 6-month mark shows a non-significant mean pain score difference of 1.4. These trends may assist in counseling patients in pain expectations and pain management.

Please attach files with diagrams and/or photos to support your abstract (10 MB limit)

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* Please attach the abstract presenter's CV

curriculum_vitae_floris_raasveld.pdf

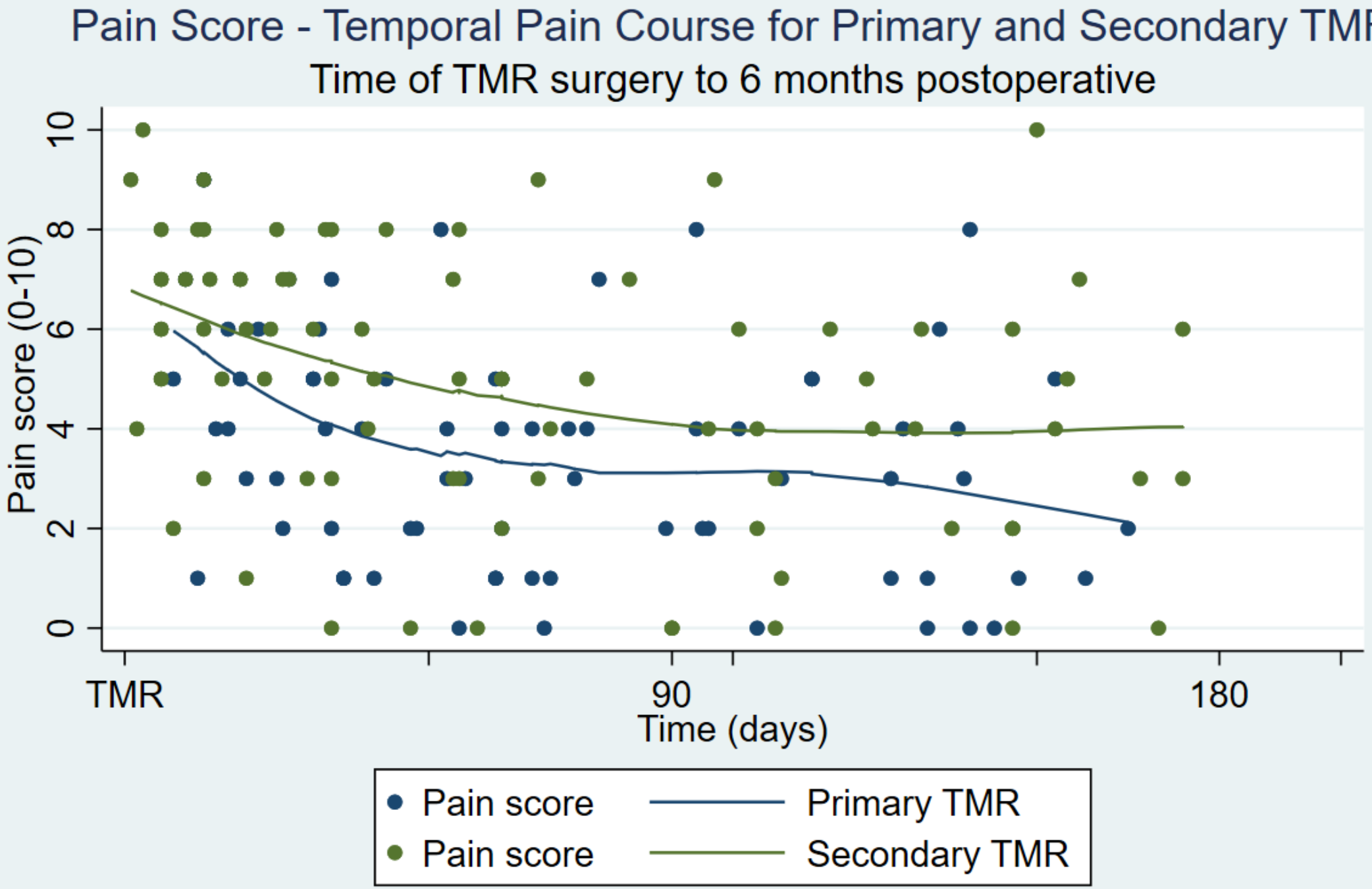

Figure 1. LOWESS smoothing curve for the temporal course of pain scores of primary and secondary TMR from TMR surgery to 6 months postoperative

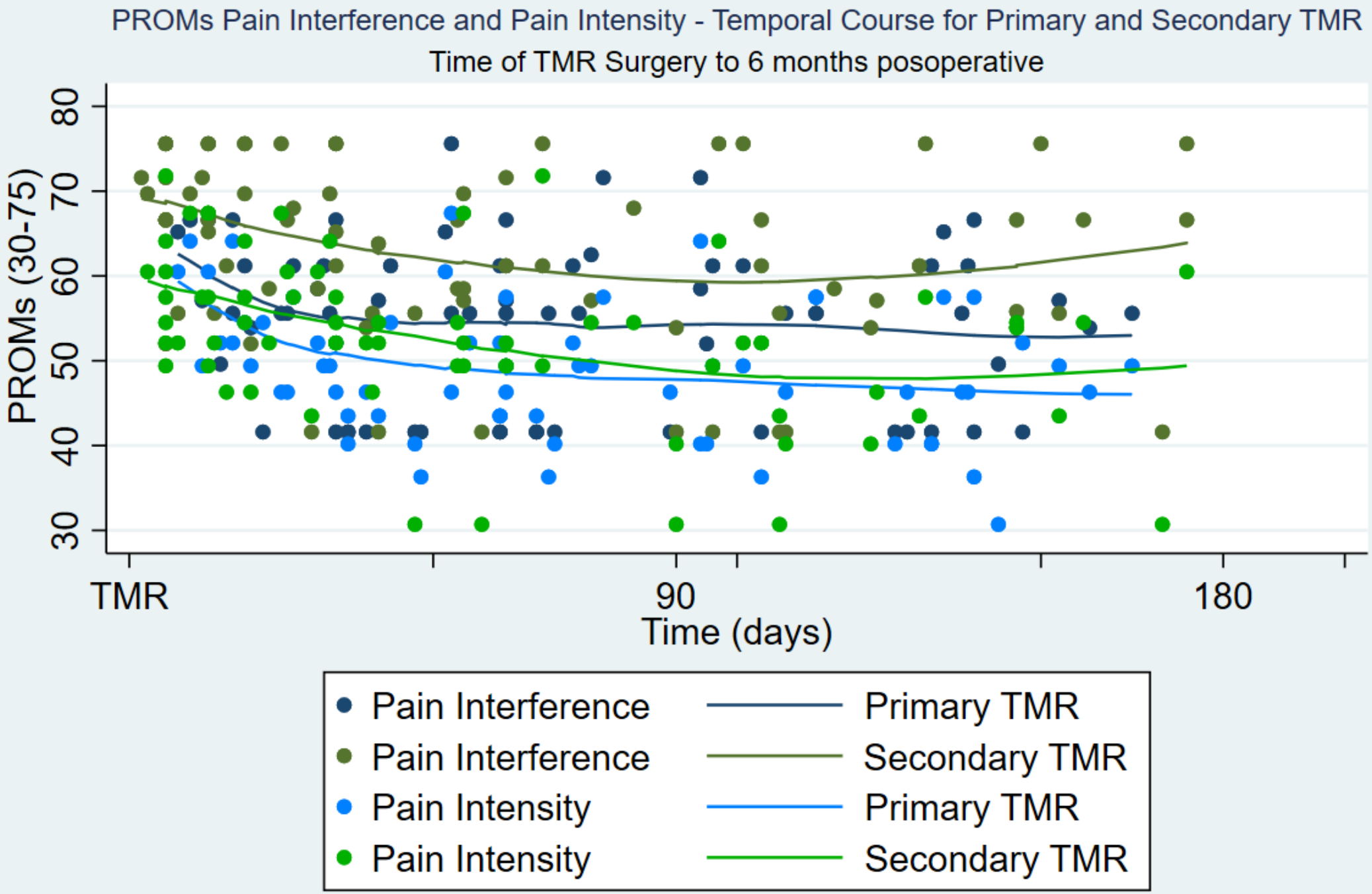

Figure 2. LOWESS smoothing curve for the temporal course of PROMs Pain Interference and Pain Intensity of Primary and Secondary TMR, from TMR surgery to 6 months postoperative