

## Exaggerated Pre-Operative Patient Reported Visual Analog Pain Scale, A Retrospective review of 201 consecutive surgical patients

Kevin Martin, DO, Laura Dawson, DO, Kenneth Cameron, PhD, Jeffrey Van Buren, DO

**Category:** Patient Reported Outcomes

**Keywords:** visual analog scale, pain score, patient reported

**Introduction/Purpose:** The visual analog scale (VAS) is a reliable and validated measure of patient reported acute pain. The clinical implications of the VAS in patients with chronic pain or postoperative pain is less clear. As patient reported outcome measures are becoming the standard of care throughout the orthopaedic community, interpretation and clinical applications are still under investigation. The aim of the current study was to evaluate preoperative patient reported VAS score reported to nursing staff as compared to the surgeon at the same clinical visit. Our hypothesis was that there would be no difference in the scores reported by a single patient to two different healthcare providers during the same clinic visit.

**Methods:** The current study was a retrospective cohort of 201 consecutive foot and ankle patients treated by a single surgeon. The patients were asked by the nursing staff to rate their pain intensity using a standard horizontal VAS 0-10, from “no pain” to the “worst possible pain”. At the same office visit the patients were asked by the treating surgeon to rate their pain using the same VAS. Dependent t-tests were calculated to evaluate mean differences in VAS pain reported by each patient to two different healthcare professionals. All data were analyzed using STATA v10.1 with an alpha level of  $p < 0.05$ .

**Results:** The results demonstrate that patients reported higher pain scores to the surgeon within 81% of the encounters, nursing staff 8% and equal 11%. On average the VAS score reported to the surgeon ( $6.17 \pm 2.12$ ) was significantly higher than that reported to the nursing staff ( $3.30 \pm 2.26$ ), respectively. The mean difference between the scores was  $2.87 \pm 2.46$  ( $p < 0.001$ ).

**Conclusion:** The current study demonstrates a clear and significant difference in patient reported pain scores between that given to nursing staff versus the treating surgeon. The cause for the exaggerated pain scores is unclear, but does lead surgeons to consider patients may have a predetermined desire for surgery. The findings of this study may also have implications for comparing patient reported outcome measures prior to surgery to post-surgical outcomes depending on who administers the instrument.

---

Foot & Ankle Orthopaedics, 2(3)  
DOI: 10.1177/2473011417S000283  
©The Author(s) 2017