

Title: Risk Factors for High or Prolonged Opioid Usage in Patients with Low Back Pain in the Civilian and Military Population

Abstract Body:

Study Design: Observational study, including a cross-sectional assessment of self-report measures of Department of Defense beneficiaries being seen at Madigan Army Medical Center.

Purpose: Low back pain (LBP) is one of the most common conditions causing patients to seek medical care with many of these visits resulting in an opiate prescription. As the number of opioid prescriptions increased at an alarming rate in the past decade, the risk of opioid use disorder and overdose also increased. The objective of this study is to investigate and identify which, if any, comorbidities place patients at a greater risk of high (>6 prescriptions) or prolonged opioid usage (still using at one-year post-index) during an episode of LBP.

Number of Subjects: 709

Methods: 709 subjects participating in a self-management class for LBP were observed via data collected at Madigan Army Medical Center over a period of two years (one-year prior and one-year post of index date). Patient characteristics and comorbidities were analyzed using t-tests and chi square analyses. Participants were then grouped according to high users (top 25%) to demonstrate the odds ratio of specific comorbidity and high or prolonged opiate usage. A binary logistic regression was used to identify significant prognostic variables.

Results: All 709 subjects were included for analysis. Subjects were 69% male with an average age of 34.8 years, reporting LBP for an average of 24.3 months. The comorbidities statistically significant for high opioid usage at index date were insomnia, obesity, and chronic pain. Those statistically significant for prolonged opioid use were high blood pressure (HBP), chronic pain, and arthropathy.

Conclusion: Patients with medical history involving specific comorbidities may be at increased risk of high or prolonged opioid usage, increasing propensity to negative treatment outcomes, opioid hyperalgesia, and potentially death due to misuse of medication.

Clinical Relevance: Patients and providers are often unaware of the risk factors of opioid usage for LBP as well as the predisposing factors for high or prolonged opioid usage. This research identifies comorbidities placing patients at greater risk for opioid misuse with the intention to decrease the number of opioid prescriptions for LBP in these populations. The benefit of this information can help to more appropriately treat patients with LBP and potentially decrease the contribution to the opioid epidemic.