

# Prolonged Use of Narcotic following Lumbar Spine Surgery: Predictive Factors and Outcome Analysis

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### Introduction

Opioid crisis has recently been declared as a public health emergency in the United States. Patients underwent lumbar spine surgery often receive narcotic to control acute postoperative. In our study, we aim to study whether prolonged use of postoperative narcotic affect surgical outcome.

#### **Methods**

A retrospective review of prospectively maintained institutional lumbar spine database was conducted. Basic demographic and outcome data at 3 months and 12 months postop were obtained. We defined prolonged use of narcotic as more than 2 weeks of its usage. Multivariate analysis was utilized in this study.

## **Learning Objectives**

To demonstrate prolonged use of narcotic is associated with worse surgical outcome.

### **Results**

A total of 328 patients were included in our analysis. Of these 29% (n=94) had prolonged use of narcotic postoperatively. There were no major differences in basic demographic characteristics (age, sex, ethnicity, insurance)between 2 groups. Those who received prolonged narcotic medications tend to consume narcotic preoperatively (60.6% vs 48.3%, p=0.043) and underwent spinal fusion (70.2% vs 48.7%, p=0.001). In regards to discharge disposition, there were high rate discharges to home with home health setting (14.9% vs 7.7%)in those receiving prolonged course of narcotic , but interestingly low rate of discharge to post acute care setting (8.5% vs 11.1%). Undoubtedly, there were higher readmission rate at 30days (7.4% vs 4.7%, p=0.008)and 3 months postop (8.5% vs 4.3%, p=0.037).

#### **Conclusions**

We concluded that prolonged use of narcotic was associated with worse clinical outcome following surgery. A solution to reduce narcotic dependence post lumbar spine surgery is desperately needed.