

## AB124. The effect of opioid dependence on postoperative urinary retention, length of stay and non-routine hospital discharges following lumbar fusion surgery

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**Background:** A rising opioid dependence rate places a burden on patient health and healthcare services. Our aim was to identify the impact of opioid dependence on postoperative urinary retention (PUR) in patients following lumbar fusion surgery as well as its impact on length of stay (LOS) and non-routine discharges (NRD). Other predictors were also investigated.

**Methods:** Patients undergoing elective lumbar fusion were identified in the State Inpatient Databases from Florida, Kentucky and New York from 2013–2015. Non-opioid and opioid dependent groups were established and matched using 3:1 propensity score matching yielding a 2,850:950

grouping. Patients with PUR, those with a LOS in the upper quartile and those with a non-home discharge were flagged. Multivariate logistic regression was used to examine the impact of opioid use on the above outcomes and Wald chi-squared tests determined the top predictors for these outcomes.

**Results:** Opioid dependence was significant for PUR ( $P=0.047$ ) and prolonged LOS ( $P=0.001$ ), but not for NRD ( $P=0.31$ ). Top predictors were all those with  $P<0.05$  and are as follows. PUR: deficiency anaemias, hypothyroidism, alcohol abuse and opioid dependence. Prolonged LOS: electrolyte disorders, deficiency anaemias, US State, coagulopathies, opioid dependency, congestive heart failure, paralysis, liver disease, hypertension, alcohol abuse and drug abuse. NRD: electrolyte disorder, hypertension, hyperthyroidism, paralysis, neurological disorders, renal failure, deficiency anaemias and congestive heart failure.

**Conclusions:** Opioid dependence has an impact on PUR and LOS, but not on NRD. Other factors were identified as predictors. This knowledge enables us to identify sources of pressure for healthcare services and approach them through increased awareness.

**Keywords:** Hospital discharge; length of stay; lumbar fusion; opioid dependence; urinary retention

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