Model predicts likelihood of persistent high-dose opioid use after knee surgery

3 February 2021

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A new study published in *Arthritis Care & Research* has identified 10 readily available clinical factors that may predict which patients will persistently use high doses of opioids in the year following knee replacement surgery.

In the study of 142,089 Medicare patients with osteoarthritis who underwent total knee replacement surgery and had no history of high-dose opioid use, 10.6% became persistent users of high-dose opioids after surgery.

Certain preoperative characteristics including demographics (age, sex, and race), history of substance abuse (opioids, alcohol, and tobacco), and medication use (benzodiazepines, anxiolytics, antidepressants, anticonvulsants, and nonsteroidal anti-inflammatory drugs) were predictors of persistent use of high-dose opioids after surgery.

"We believe that our prediction model may help identify patients at high risk of future adverse outcomes from persistent opioid use and dependence after total knee replacement surgery," said senior author Seoyoung C. Kim, MD, ScD, MSCE, of Brigham and Women's Hospital and Harvard Medical School.

More information: Chandrasekar Gopalakrishnan et al, Development of a Medicare Claims?Based Model to Predict Persistent High?Dose Opioid Use After Total Knee Replacement, *Arthritis Care & Research* (2021). DOI: 10.1002/acr.24559

Provided by Wiley