Patient-reported outcome tool developed for lumbar spine Sx

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(HealthDay)—A patient-reported outcome (PRO) tool has been developed and validated to predict response after lumbar spine surgery, according to a study published online March 7 in *JAMA Surgery*.

Sarah Khor, from the University of Washington in Seattle, and colleagues collected clinical and PRO data from adult candidates for lumbar surgery preoperatively and postoperatively between 2012 and 2016. Prediction models were derived for PRO improvement one year after lumbar fusion surgeries on a random sample of 85 percent of the data; the models were validated in the remaining 15 percent. Overall, 1,965 adult lumbar surgical candidates completed baseline surveys before surgery and at least one postoperative survey within three years.

The researchers found that at 12 months, 58, 68.5, and 76.5 percent of surgical patients whose baseline scores indicated moderate-to-severe symptoms reported improvements in function, back pain, and leg pain, respectively. Among nonoperative patients, improvements were reported by 43.8, 53.4, and 63.9 percent, respectively. The final prediction models included age, sex, race, insurance status, American Society of Anesthesiologists score, smoking status, diagnoses, prior surgery, prescription opioid use, asthma, and baseline PRO scores. In the validation cohort, the models had good predictive performance (concordance statistic, 0.66 to 0.79) and were incorporated into a web-based interactive tool.

"The PRO response prediction tool, informed by population-level data,

explained most of the variability in pain reduction and functional improvement after surgery," the authors write.

Several authors disclosed financial ties to the medical device industry.

 More information: Abstract/Full Text
Editorial

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