(ODI) in patients with LSS not surgically treated and derive their Minimal Clinically Important Difference (MCID) values.
STUDY DESIGN/SETTING: Secondary analysis from a randomized clinical trial of nonsurgical interventions for patients with LSS.
PATIENT SAMPLE: A total of 180 patients with complete data for the SPWT, SSS, and ODI at baseline, 2- and 6-month followups were analyzed.
OUTCOME MEASURES: Responsiveness analyzes included the SPWT, SSS, ODI and Patient Global Index of Change (PGIC).
METHODS: The SPWT, SSS, and ODI responsiveness were investigated by distribution- and anchor-based methods at 2- and 6-month followup. The distribution-based responsiveness was assessed using standardized effect sizes, and standardized response means. The anchor-based responsiveness used the PGIC as the external anchor to distinguish responders and non-responders. A 7-point scale was used at 2 and 6 months, ranging from 'very much worse' to 'very much improved.' First, Spearman correlation coefficients (Rho) were calculated between the mean change in each outcome measure and the PGIC scores. Next, based on the anchor, we defined the 'minimal improvement' subgroup, including patients rating their overall status at least as 'minimal improved,' and the 'moderate improvement' subgroup, including patients rating theirs overall status at least as 'much improved.' Then, we calculated Areas Under the Curve and MCIDs for each outcome in both subgroups.
RESULTS: The following values represent indices of responsiveness at 2 and 6 months for each outcome measure: (a) standard effect sizes were 0.48 and 0.50 for SPWT, -0.42 and -0.36 for SSS, -0.29 and -0.25 for ODI; (b) standard response means were 0.44 and 0.37 for SPWT, -0.45 and -0.34 for SSS, -0.33 and -0.27 for ODI; (c) Spearman's correlation coefficients between the PGIC and outcome measures were 0.44 and 0.39 for SPWT, -0.53 and -0.55 for SSS, -0.46 and -0.54 for ODI; (d) in the 'minimal improvement' subgroup, MCIDs were 376 and 319 meters for SPWT, -5.3 and -5.8 points for SSS, -9.3 and -10.8 points for ODI; (e) AUCs were 0.76 and 0.68 for SPWT, 0.78 and 0.76 for SSS, 0.76 and 0.76 for ODI; (f) in the 'moderate improvement' subgroup, MCIDs were 344.2 and 538.2 meters for SPWT, -5.5 and -7.5 points for SSS, -9.1 and -13.6 points for ODI; (g) AUCs were 0.71 and 0.74 for SPWT, 0.77 and 0.82 for SSS, 0.73 and 0.81 for ODI.
CONCLUSIONS: The SPWT, SSS, and ODI are similarly responsive outcome measures to assess and monitor changes in walking capacity, physical function, and disability over time in nonsurgical patients with LSS. Based on this finding, clinicians may use the MCIDs to assess patients' clinical progress, treatment effectiveness, and support shared decision-making. Also, researchers may use the MCIDs and effect sizes as references to inform future studies in the field.
FDA DEVICE/DRUG STATUS: This abstract does not discuss or include any applicable devices or drugs.

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ePosters: Injections/Interventions

P63. Assessing the effects of prehabilitation protocols on postoperative outcomes in adult cervical deformity surgery: does early optimization lead to optimal clinical outcomes?

Peter Tretiakov, BS[1], Rachel Joujon-Roche, BS[1], Bailey Imbo, BA[1], Oscar Krol, BA[2], Tyler Williamson, MSc[1], Lara Passfall, BS[2], Jordan Lebovic, BA[3], Bassel G. Diebo, MD[4], Shaleen N. Vira, MD[5], Muhammad Burhan Janjua, MD, FICS[6], Justin S. Smith, MD, PhD[7], Peter G Passias, MD[8]; [1] *New York, NY, US;* [2] *Department of Orthopedic Surgery, NYU Langone Orthopedic Hospital, NYU Langone Health, New York City, NY, US;* [3] *Scarsdale, NY, US;* [4] *Department of Orthopaedic Surgery, SUNY Downstate Medical Center, Brooklyn, NY, US;* [5] *Department of Orthopaedic Surgery, UT Southwestern Medical Center, Dallas, TX, US;* [6] *Washington University School of Medicine, Saint Louis, MO, US;* [7] *UVA Health System, Charlottesville, VA, US;* [8] *NY Spine Institute, NYU Langone Health, New York, NY, US*

BACKGROUND CONTEXT: Previous studies have demonstrated that preoperative rehabilitation (prehab) may be beneficial in adult cervical deformity surgery. Though protocols vary widely, general overlap exists in terms of inclusion of mental and physical modalities in order to optimize patient outcomes. However, there remains a paucity of literature in regards to assessing outcomes in a controlled setting.
PURPOSE: To assess the effects of prehabilitation on peri- and postoperative outcomes in adult cervical deformity surgery.
STUDY DESIGN/SETTING: Retrospective review of prospective CD database.
PATIENT SAMPLE: A total of 290 CD patients.
OUTCOME MEASURES: Peri- and postoperative complication rates; medication usage; HRQLs.
METHODS: Operative CD patients 18yrs with complete pre-(BL) and 2-year(2Y) postop radiographic/HRQL data were stratified by enrollment in prehabilitation protocols beginning in 2019, consisting of physical therapy, nutritional counseling and/or psychological counseling. Patients were stratified as having underwent prehabilitation (Prehab+), versus those who did not (Prehab-). Differences in demographics, clinical outcomes, radiographic alignment targets, perioperative factors and complication rates were assessed via means comparison analysis. Costs were calculated using PearlDiver database estimates from Medicare pay-scales. QALY was calculated via NDI mapped to SF6D using validated methods.
RESULTS: A total of 115 patients were included (56.37±8.90 years, 38% female, 29.84±6.19 kg/m2). Of these patients, 57 (49.6%) were classified as Prehab+. At baseline, groups were comparable in age, gender, BMI, CCI and frailty. In terms of BL HRQLs, Prehab+ significantly lower mJOA scores (p=.047), though were equivalent in NDI and EQ5D scores (both p>.05). Baseline opioid usage was comparable prior to prehab enrollment (p=.093). Surgically, Prehab+ were able to undergo longer procedures (p=.017) with equivalent EBL (p=.627), and shorter SICU stay (p.05) and QALYs gained by 2Y (.43 vs .40, p>.05).
CONCLUSIONS: This study demonstrates that introducing prehabilitation protocols in adult cervical deformity surgery may aid in improving patient physiological status, enabling them to undergo longer surgeries with lessened risk of peri- and postoperative complications. Though cost-effectiveness of such programs should be further assessed, prehabilitation should be considered for eligible patients to assist in optimizing recovery and reducing complications or reoperations.
FDA DEVICE/DRUG STATUS: This abstract does not discuss or include any applicable devices or drugs.

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P64. Intradiscal injection of autologous bone marrow aspirate concentrate improves low back pain at one year

Fenil Bhatt, BS[1], Lindsay Orosz, PA-C[2], Alexandra Thomson, MD, MPH[1], Julia Grigorian, BA[2], Samuel Namian, BS[3], Niteesh Bharara, MD[1], Ehsan Jazini, MD[1], Christopher R. Good, MD, FACS[4], Thomas C. Schuler, MD, FACS[1], Colin M Haines, MD[1]; [1] *Virginia Spine Institute, Reston, VA, US;* [2] *The National Spine Health Foundation, Reston, VA, US;* [3] *Reston, Virginia, US;* [4] *Virginia Spine Institute, Great Falls, VA, US*

BACKGROUND CONTEXT: Chronic low back pain is one of the leading causes of disability and poor quality of life in the US and worldwide. A common cause of chronic low back pain is degenerative disc disease. Current nonsurgical treatments for degenerative disc disease-associated low back pain are typically effective. However, for patients who fail these treatments, surgical fusion is often used as last line treatment. Surgical treatment is associated with higher health care expenditures and a more invasive procedure. As such, there is growing interest in the field of regenerative medicine and stem cell therapy as a less invasive treatment for low back pain.