



Carlsmed aprevo® Lumbar 2-year Data Published in Global Spine Journal

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CARLSBAD, Calif., Jan. 06, 2026 (GLOBE NEWSWIRE) -- Carlsmed, Inc. (Nasdaq: CARL) ("Carlsmed" or the "Company"), today announced the publication of a new retrospective cohort study in *Global Spine Journal* demonstrating that 3D preoperative planning combined with patient-specific, anatomically designed interbody implants significantly reduces mechanical complication-related reoperations in complex adult spinal deformity (ASD) surgery.

The study compared 2-year revision rates among ASD patients receiving Carlsmed's aprevo® personalized interbody implants with revision data from a similar patient cohort receiving conventional stock implants. The comparator cohort was drawn from the multicenter dataset of the International Spine Study Group, which is comprised of senior spine surgeons dedicated to advancing the treatment of adult spinal deformity. Patients treated with aprevo® experienced significantly fewer revisions due to mechanical complications, showing a revision rate of 4.3% (n=115) compared with 16.6% (n=997) using stock devices (p<0.001), representing a 74% relative reduction.

"In complex deformity cases where alignment accuracy is critical, translating preoperative goals into postoperative outcomes remains a persistent challenge," said Justin Smith, MD, PhD, Department of Neurosurgery, University of Virginia and the article's lead author. "When paired with 3D preoperative planning, patient-specific interbody implants can facilitate a more harmonious and precise restoration of distal lumbar lordosis, which has been shown to decrease the risk of developing proximal junctional kyphosis, a significant and potentially devastating mechanical complication in ASD surgery."

"Previously published clinical data has demonstrated that 3D surgical planning combined with patient-specific interbody implants help surgeons achieve the personalized alignment goals and endplate fit that are unique to each patient," said Mike Cordonnier, Chief Executive Officer of Carlsmed. "These new findings further validate the clinical value of personalization in spine surgery, improving outcomes, improving quality of life, reducing reoperations and lowering the overall economic burden associated with revision procedures."

Sigurd Berven, MD, Department of Orthopedic Surgery, University of California San Francisco and study author added, "The revision rates in the comparator cohort are already relatively low, as these patients were treated by highly experienced and renowned surgeons. Across four published studies noted in the paper, the average 2-year revision rate due to mechanical complications is 24.9%, which makes the improvement achieved with aprevo® even more meaningful."

The peer-reviewed article "Personalized Spine Surgery in Adult Deformity: Reoperation Rates and Mechanical Complications Following Customized Planning and Interbody Implant Use," is available online at *Global Spine Journal*: <https://journals.sagepub.com/doi/10.1177/21925682251409696>.

Carlsmed's aprevo® Technology Platform combines AI-enabled preoperative planning with patient-specific interbody implants to enable predictable alignment tailored to individual patient anatomy and pathology, addressing alignment challenges and overcoming clinical and economic limitations inherent to traditional, stock implants.

About Carlsmed

Carlsmed is a medical technology company pioneering AI-enabled personalized spine surgery solutions with a mission to improve outcomes and decrease the cost of healthcare for spine surgery and beyond.

Forward-Looking Statements

Any statements in this press release about future expectations, plans and prospects, including statements about the potential of the Company's products, the ability of the Company's products to improve patient outcomes, and other statements containing the words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "likely," "will," "would," "could," "should," "continue," and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including such important factors as are set forth under the caption "Risk Factors" in Carlsmed's Registration Statement on Form S-1 on file with the U.S. Securities and Exchange Commission. The forward-looking statements included in this press release represent Carlsmed's views as of the date of this press release. Carlsmed anticipates that subsequent events and developments will cause its views to change. However, while Carlsmed may elect to update these forward-looking statements at some point in the future, it specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing Carlsmed's views as of any date subsequent to the date of this press release.

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