

New Published Study: Innovative Products Create Value for Shoulder Arthroplasty Patients

Landmark study analyzed data from Exactech's large Equinoxe® shoulder multi-center clinical database and studied outcomes using Exactech Active Intelligence® smart technologies

GAINESVILLE, Fla. (January 31, 2023) – [Exactech](#), a developer and producer of innovative implants, instrumentation, and smart technologies for joint replacement surgery, announces publication of a landmark new clinical study¹ which demonstrates the value creation associated with the rapid adoption of novel shoulder arthroplasty technologies.

A longitudinal analysis of 1,518 primary anatomic total shoulder arthroplasty and 3,450 reverse shoulder arthroplasty patients from six different clinical sites in the United States and Europe, which have continuously enrolled patients in our multi-center study over the past 15 years, has been published in the [Journal of Shoulder and Elbow Surgery](#).

This new study reported that Equinoxe® Platform Shoulder System patients have good clinical and radiographic outcomes that have been sustained at a high level over the 15-year period of analysis, with excellent results achieved regardless of year of implantation for each prosthesis type. Additionally, this large-scale longitudinal study quantified a rapid rate of adoption of new shoulder arthroplasty technologies, like augmented glenoids, hybrid glenoids, 3D printed stemless humeral components, plasma coated short humeral stems, and CT-based planning and intraoperative surgical navigation. It demonstrated that patients receiving these newer technologies were associated with significant improvements in clinical and radiographic outcomes, including more range of motion, better outcome scores, less glenoid radiolucent lines, and a lower occurrence of scapular notching. By providing these innovations without increasing cost, value (measured by the ratio of outcomes and cost) was documented to increase over the 15-year period of analysis for most patient-focused measures, at both short-term and mid-term follow-up.

“2023 marks the 20th anniversary that Thomas Wright, Pierre-Henri Flurin and I began to collaborate together with Exactech,” said Joseph Zuckerman, MD (NYU Langone Orthopedic Hospital; New York, N.Y.). “This important new clinical study objectively demonstrates the cumulative positive impact new product development can have on improving the treatment and clinical outcomes of patients receiving shoulder arthroplasty.”

Pierre-Henri Flurin, MD (Bordeaux-Merignac Sport Clinic; Bordeaux, France), added, “We have developed nearly 30 shoulder arthroplasty products with Exactech, and we started every project with the goal of solving an unmet clinical need. Since 2003, we have worked with the engineering and product management teams to invent differentiated features that seek to mitigate complications, increase range of motion, and also improve usability and operative efficiency. The results of this new 15-year study truly validate those efforts.”

“Most encouraging is the documented improvements in clinical and radiographic outcomes that have occurred from adoption of the new technologies without increasing cost. That is the definition of value,” said Thomas Wright, MD (University of Florida; Gainesville, Fla.). “This new study is important because it is one of the few in the orthopedic literature to actually document how new product development, including the collaboration between orthopedic surgeons and industry, can improve value and clinical outcomes over time.”

“Exactech is committed to innovation and new product development, but equally committed to conducting high-quality, multi-center clinical research, as evidenced by this new long-term clinical study,” added Chris Roche, Sr. Vice President of Extremities at Exactech. “The intended benefits of new product development can only be demonstrated with clinical follow-up and rigorous statistical analysis. We are proud of the clinical evidence documented in this study and of the long-term collaboration we have had with so many skilled orthopedic surgeons as well as the study coordinators who manage each clinical site. We thank each for their tireless effort diligently following Equinoxe patients and documenting their outcomes. This clinical evidence will guide future product development efforts, facilitating continuous improvement of our shoulder products and help us to create value in new areas of clinical need.”

Drs. Zuckerman, Flurin, and Wright receive financial compensation from Exactech as design surgeons for the Equinoxe arthroplasty system, which includes royalties for the sale of Exactech shoulder arthroplasty products to institutions other than NYU (Zuckerman), Bordeaux-Merignac Sport Clinic (Flurin), and the University of Florida (Wright). These interests are managed in accordance with NYU, UF, & France policies and procedures.

Learn more about the Equinoxe System at exac.com/extremities.

¹Roche CP, Jones R, Routman H, Marczuk Y, Flurin PH, Wright TW, Zuckerman JD. Longitudinal Analysis of Shoulder Arthroplasty Utilization, Clinical Outcomes, and Value: a Comparative Assessment of Changes in Improvement Over 15 Years with a Single Platform Shoulder Prosthesis. J Shoulder Elbow Surg. 2023 Jan 18:S1058-2746(23)00027-7. doi: 10.1016/j.jse.2022.12.018.

About Exactech

Exactech is a global medical device company that develops and markets orthopaedic implant devices, related surgical instruments and the Active Intelligence® platform of smart technologies to hospitals and physicians. Headquartered in Gainesville, Fla., Exactech markets its products in the United States, in addition to more than 30 markets in Europe, Latin America, Asia and the Pacific. Visit www.exac.com for more information and connect with us on LinkedIn, Vumedi, YouTube, Instagram and Twitter.

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