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Medtronic Advances First Clinical Cases with Stealth AXiS™ Surgical System, Demonstrating the Power of Connected Smart Ecosystems Across Neurosurgery

GALWAY, Ireland, April 29, 2026 /PRNewswire/ – a global leader in healthcare technology, today announced the successful completion of its first clinical cases using the Stealth AXiS™ Surgical System following recent U.S. Food and Drug Administration (FDA) clearances in February and March. These early cases mark a key milestone as the Stealth AXiS™ system moves from clearance into real-world clinical use, reinforcing Medtronic's leadership in delivering connected, insight-driven technologies across neurosurgical care.

The Stealth AXiS™ system integrates AI-driven surgical planning, advanced navigation, and robotic guidance into a single platform, supporting procedures where precision, anatomical context, and workflow efficiency are critical. As part of Medtronic's AiBLE™ smart ecosystem, the system enables a more continuous flow of information before, during, and beyond surgery, helping translate preoperative planning into confident intraoperative execution.

Surgeons involved in the first cases are already highlighting the impact of a more connected, insight-rich surgical experience in the operating room.

"In spine surgery, having real-time visibility into alignment and motion changes how you execute," said Dr. Jeffrey L. Gum, orthopedic spine surgeon at Norton Healthcare. "With this system, I can stay aligned to my plan without disrupting workflow. That level of intraoperative insight is something we have been looking for."

Early experience also underscores the value of integrating multiple layers of anatomical and procedural data into a unified workflow, particularly in cases requiring precise navigation around critical structures.

"What excites me most about this platform is its ability to unify preoperative planning with real-time intraoperative intelligence. The integration of AI-driven tools, combined with dynamic motion detection through LiveAlign, marks a significant step forward in how we approach precision and adaptability in spine surgery," said Dr. Joseph Osorio, MD, PhD, chief of spine surgery in the Department of Neurological Surgery at UC San Diego Health.

Beyond individual procedures, the Stealth AXiS™ system exemplifies Medtronic's broader strategy to design

connected smart ecosystems that improve how data, technology, and clinical insight come together across care pathways. Through AiBLE™, Medtronic is advancing a more consistent and connected surgical experience, linking planning, execution, and post-operative insight across a wide range of neurosurgical applications.

“These first clinical cases demonstrate how a connected platform can support surgeons with greater insight and predictability in the operating room,” said Michael Carter, Senior Vice President and President of Medtronic Cranial & Spinal Technologies. “The Stealth AXiS™ system reflects how we are scaling innovation through smart ecosystems, supporting procedures that demand both broad anatomical understanding and highly targeted precision, and building a strong foundation for continued advancement across neurosurgery.”

Medtronic will showcase the Stealth AXiS™ Surgical System at the upcoming American Association of Neurological Surgeons (AANS) Annual Scientific Meeting in San Antonio, TX, where attendees can experience the technology firsthand and learn more about its early clinical use.

For more information about the Stealth AXiS™ Surgical System and the AiBLE™ smart ecosystem, visit www.medtronic.com/stealthaxis.com

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