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Healthcare AI, Radiology solutions

MaxQ AI's ACCIPIO Intracranial Hemorrhage (ICH) and Stroke Platform with INSIGHT

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Healthcare faces unprecedented pressure—with less money available, more patients, and a care provider shortage. MaxQ AI is addressing these pressures by leveraging AI and machine learning. Its ACCIPIO ICH and Stroke Platform improves care delivery and outcomes by improving intracranial hemorrhage ICH detection and potentially reducing missed ICH. MaxQ AI's FDA-cleared ACCIPIO Ix solution is available for review on Nuance's AI Marketplace for Diagnostic Imaging, and will be integrated with Nuance's PowerScribe One reporting platform and PowerShare Network connecting 7,000+ healthcare facilities, including stroke centers.

Randy Rohmer, Director Commercial Operations of MaxQ AI®, shares his insights about how MaxQ AI-driven algorithms aim to meaningfully help reduce misdiagnosis and healthcare costs by making artificial intelligence intrinsic to the diagnostic process for time-sensitive and life-threatening conditions.

MaxQ AI is at the forefront of Medical Diagnostic AI. The company is transforming healthcare by empowering physicians to provide "smarter care" through intelligent imaging with AI-driven actionable insights. Based in Tel Aviv, Israel and Andover, MA, USA, MaxQ AI's team of deep learning and machine vision experts develop innovative software that uses AI to interpret medical images and surrounding patient data. Working with world-class clinical and industry partners, the company's software enables physicians to make faster, more accurate decisions when diagnosing stroke, traumatic brain injury, head trauma, and other serious conditions.

Q&A

Jonathon Dreyer: Tell us about your business—when and how you started and your development journey

Randy Rohmer: MaxQ AI is at the cutting-edge of innovative medical diagnostic artificial intelligence. We aspire to make a meaningful impact on stroke, head trauma, and traumatic brain injury (TBI) treatment, driven by the question "What is the cost of a missed intracranial hemorrhage (ICH)?" The potential is massive—if our solutions are able to divert only one patient per year in the US/EU acute hospitals from stroke care to wellness care, that would represent billions in savings in the first year alone, and a lifetime of difference to the patient and family (ncbi.nlm.nih.gov/pubmed/8784113).

MaxQ AI is ushering in empowered care—the partnership between AI and the skilled care providers to extend expertise to every patient. Aspiring to improve a physician's ability to make a faster and more confident diagnosis, our solutions hold significant potential to improve the quality of care in acute care settings in rural and community hospitals across the globe.

Our first platform of medical devices, ACCIPIO®, which means "to learn" in Latin, uses artificial intelligence in review of non-contrast CT to enhance intracranial hemorrhage (ICH) detection. We envision revolutionizing acute care and treatment in collaboration with our world-class clinical partners and state-of-the-art technology. MaxQ AI is globally influencing the new era of AI-empowered care, one that will provide access to expert-level insights across the diagnosis, prognosis, and therapeutic pathway, to make an important difference in patients' and physicians' lives. When minutes matter, ACCIPIO, plus the skilled care provider, are better together.

JD: What AI models do you have, and what do they do?

RR: MaxQ AI has developed a full ecosystem of AI models providing a comprehensive workflow solution designed to benefit the patient, care provider, and facility. Our ACCIPIO ICH and Stroke Platform with INSIGHT™ supports the radiology department, emergency room, and neuroradiology teams with a fully automated solution, designed to empower healthcare decisions in acute care settings.

- ACCIPIO Ix™ (FDA-cleared, CE Marked, IMOH Approved, TGA Approved)—Provides automatic identification/detection, notification, acceleration and prioritization of suspected ICH.

As future regulatory approvals are garnered, and the range of technologies work interactively, the ACCIPIO ecosystem will gain more traction in acute care settings across the globe.

JD: What's the big "Aha" moment when you first show users what your AI model(s) can do for them?

RR: Our users have embraced the fact that ACCIPIO is a comprehensive workflow solution for ICH, stroke, and head trauma, not just another algorithm looking for a nail. Comprehensive, seamless, and secure. For our customers, a comprehensive solution that has seamless integration into workflow is key—clinicians and radiologists in acute care settings need answers, not more analysis. That's why we've integrated AbsoluteZero™ with all of our solutions. Zero clicks to ACCIPIO results. Zero need to leave workflow. Zero stored PHI. Zero change to original series. No on-site IT integration required. Seamless from the Start™.

JD: What challenges or needs did you see that drove you to focus on this?

RR: MaxQ is an aeronautic term that actually means 'maximum pressure,' which is typically the point where failure will occur. Today's healthcare system is this breaking point with an urgent need for solutions that will bring relief and open patient care capacity. Instead of more data and analysis, adding to the decision-making burden, care providers need solutions that provide answers while seamlessly integrating into their current workflow.

MaxQ AI's platform of medical diagnostic AI solutions do just that, which holds great promise for healthcare through significant quality, clinical, and economic advancement in the empowerment of the talented care providers having to make the "minutes matter" call. Lives will be changed, both for patients and care providers alike.

JD: What's the number one benefit you offer?

RR: The ACCIPIO platform will provide tools for identification & prioritization (Ix)[1]. The ACCIPIO solution for head trauma and stroke promises to:

- Increase ICH detection and reduce missed ICHs through near real-time triage, because every

minute matters for TBI, trauma, and stroke patients.

- Potentially enhance clinical confidence, including mobilization of ischemic stroke and neurosurgery teams.
- Help physicians provide "smarter care" with artificial intelligence-based clinical insights, resulting in potential diagnostic improvements, which lead to potentially better patient outcomes and lower healthcare costs.
- Provide AI models capable of extending expertise into rural and remote areas.
- Deliver outcomes, insight, accuracy, seamless, and secure integration to workflow.
- Deliver solutions that do not compromise data integrity, with industry-leading cybersecurity certifications.

JD: *Are there any stories you can share about how your AI model(s) drove measurable patient care outcomes?*

RR: A typical acute hospital in the Northeast US, Capital Health, is seamlessly using MaxQ AI's ACCIPIO Ix ICH (intracranial hemorrhage) solution, to automatically identify and prioritize non-contrast CT head images with suspected ICH. Capital Health leverages the solution to process over 1,000 non-contrast head CT scans each month, including upwards of 30 stroke cases per week. Capital Health's quality process includes overreading a subset of cases that were read by a third-party remote radiology service overnight. One of these cases included a head trauma patient who was non-responsive when brought into the ED. The original interpretation by the night service failed to identify the presence of a suspected ICH. As part of a larger assessment of the ACCIPIO solution in retrospective cases, ACCIPIO Ix correctly identified a suspected ICH, in this case confirming that there was a missed ICH on the initial interpretation.

What had taken hours later to find by the second read the following day, ACCIPIO could have done in minutes. Capital Health is rolling out ACCIPIO across the enterprise.

JD: *What benefits does Nuance and its AI Marketplace for Diagnostic Imaging bring to your users? What problems does the marketplace and integration into Nuance's workflow solve?*

RR: Our partnership through the Nuance AI Marketplace for Diagnostic Imaging will expand access to our revolutionary AI-powered ICH, stroke, and head trauma solutions to radiologists and connected healthcare facilities across the globe, who trust Nuance as a valued partner to deliver quality solutions. We view this as a powerful collaboration that will bridge the technology divide to enable more and more hospitals and healthcare organizations to seamlessly integrate our ACCIPIO platform.

Through Nuance's cloud-based marketplace and connected PowerShare Network, we will drive potential diagnostic improvements and, in turn, improve patient out-comes and lower healthcare costs. This will fuel the best possible care in all market segments by bringing near real-time clinical confidence to the radiologist or reader.

JD: *What has your experience been working with the Nuance team?*

RR: The entire Nuance team has been collaborative, supportive, and excited to bring our AI models and solutions to the AI Marketplace. Our organizations are committed to innovation—driving new solutions that will make a difference to healthcare and patients.

JD: *What is your vision for how your solution(s) will evolve over the next 5 years?*

RR: MaxQ AI is focused on the area of time-sensitive, life-threatening conditions that have profound clinical and economic impact and an opportunity to help empower physicians make more accurate decisions. For our immediate product roadmap, we will continue to focus on that area, and we anticipate additional regulatory approvals that will further extend our ACCIPIO ICH, stroke, and head trauma platform.

Long-term, we aspire to leverage our commercially seamless adoption approach through Nuance's intuitive and streamlined user experience to optimize the power of our medical diagnostic AI-powered solutions and provide new acute disease indications.

JD: *In one sentence, tell us what you think the future of medicine will look like.*

RR: We see AI as ushering in a new era of augmented healthcare through AI-powered medical diagnostic solutions, in partnership with care providers, to empower physicians around the world to better prioritize and identify life-threatening conditions in acute care settings, which will improve the quality of care, and lower system costs—all while improving the lives of the physicians themselves.

Learn more

To learn more about MaxQ AI, visit www.maxq.ai or follow us on Twitter and LinkedIn.

[1]ACCIPIO Ix: FDA Cleared, CE Marked, IMOH Approved, TGA Approved.

Tags: AI Marketplace, Radiology partner, Future of medicine

More Information

Unlock the power of AI

Learn more about Nuance AI Marketplace for Diagnostic Imaging

Learn more

About Jonathon Dreyer

Jonathon Dreyer is the vice president of solutions marketing for Nuance where he is driving a physician-first approach to medicine by bringing cloud-based speech recognition and clinical language understanding technology to a worldwide community of healthcare IT developers and provider organizations. Prior to his current role, Jon worked as the solutions marketing manager for Diagnostic Imaging at Nuance and previously headed up marketing at Commissure Inc., a provider of clinical documentation and healthcare communication solutions. Jon graduated with Summa Cum Laude honors at Wayne State University where he earned a B.S business administration.

View all posts by Jonathon Dreyer