AngelEye Health Unveils AIVision: Elevating Neonatal and Pediatric Care through AI and Computer Vision

AIVision combines advanced machine learning with bedside cameras to enable intelligent clinical insights

Nashville, TN – April 29, 2025 – AngelEye Health proudly announces *AIVision*, a groundbreaking enhancement of its platform that integrates artificial intelligence (AI) and computer vision into the neonatal intensive care unit (NICU) and pediatric unit setting. By embedding advanced algorithms into bedside cameras, AIVision aims to deliver proactive, data-driven insights that empower clinical teams and improve care delivery. AIVision represents a significant step forward in AngelEye's mission to transform pediatric inpatient units of today into an intelligent, connected environment optimized for care, efficiency, and family empowerment.

"Over the past year, we've moved from vision to execution," said Christopher Rand, CEO of AngelEye Health. "With AIVision, we have been actively conducting clinical research and developing AI models designed to integrate into our bedside cameras, transforming these cameras from passive viewing tools into intelligent clinical assets. This innovation positions AngelEye as a pioneer in AI-powered pediatric care."

AIVision: From Concept to Reality

AngelEye has begun testing its motion analysis algorithms integrated within its existing camera infrastructure, laying the foundation for a suite of screening and decision-support applications. A key catalyst for this effort was the strategic acquisition of the **Early Detection Neuromotor Assessment (EDNA)** platform in 2024, enabling the training of video models that will assist in identifying neuromotor risk factors, supporting earlier interventions— (pending appropriate regulatory clearance).

At Synova's NICU Leadership Forum, CEO Christopher Rand presented several additional areas under active development within AIVision, including:

- **Video EEG Synchronization** – Pairing video with EEG data to enrich clinical interpretation
- **Respiratory Status Monitoring** – AI-powered analysis of camera and sensor data to detect early signs of respiratory distress, apnea events, and subtle desaturations, supporting timely intervention and escalation of care
- **Crash/Coding Event Recording** – Supporting clinical training and quality improvement initiatives

- AI-Assisted Pain and Sedation Insights – Supporting clinical evaluation of neonatal pain, agitation, and sedation
- **Emerging Concepts** – Including skin integrity monitoring, tube dislodgement detection, digital bedrails, and general movement and positioning indices

While many of these technologies are still under research and development and may require FDA clearance before clinical deployment, they represent the company's broader vision and investment in a connected, intelligent NICU environment of the future, providing a richer understanding of pediatric health patterns over time.

With nearly **10,000 bedside cameras deployed across 300+ hospitals**, AngelEye has a unique infrastructure, allowing for swift development and efficient deployment of its AI models. This reach ensures AIVision can evolve through real-world scenarios, delivering value at scale.

Empowering the Pediatric Units of Tomorrow

The applicability of AI extends beyond AIVision on the CameraSystem as ambient intelligence is applied to the entire AngelEye Platform including both MilkTracker and NICU2Home.

"By connecting our CameraSystem, feeding management software, and discharge coordination tools through a unified intelligence layer, we're building the most comprehensive neonatal and pediatric AI platform in the industry," said Patrick Tinsley, PhD, AngelEye's Manager of Medical Technology. "We're not just capturing moments—we're interpreting them for action."

Planned AI functionalities include:

- Personalized care planning, education, and journey mapping
- Identification of risk factors for patients and families
- AI-assisted documentation to automate documentation and workflows
- Predictive analytics for nutrition and discharge optimization
- Automated alerts for environmental and clinical risks

Clinical Collaboration and Strategic Partnerships

AngelEye is already working alongside several talented partners to make the vision of the intelligent pediatric unit a reality. AngelEye Health is actively engaged in a research and data collection project with **Nationwide Children's Hospital**, layering machine learning over longitudinal patient data, multimodal sensor data, including video, all within the clinical pediatric setting.

Additionally, AngelEye has entered a strategic partnership with **NeuroBell**, a novel neonatal EEG technology company, to enhance bedside neurological monitoring with synchronized video.

> *"Leveraging AngelEye's installed base and strong hospital partnerships will allow us to rapidly deploy our critically important neonatal EEG monitor into the market, complete with integrated video capabilities,"* said **Mark O'Sullivan**, CEO of NeuroBell. *"Together, we are enabling a new standard of neurodiagnostics in the NICU."*

Looking Ahead

AngelEye Health invites researchers, clinicians, and health systems to collaborate on next-generation tools and studies that will validate and expand the clinical utility of AI in pediatric units. These partnerships are key to ensuring ethical, evidence-based deployment of machine learning.

If you are interested in accelerating the pediatric unit of the future together, please reach out to research@angeleyehealth.com

About AngelEye Health

AngelEye Health is the leading provider of innovative technology solutions dedicated to transforming neonatal and pediatric care. Trusted by over 300 hospitals globally, AngelEye equips care teams with AI-driven tools designed to streamline workflows, reduce length of stay, minimize errors, and optimize resource allocation. Its comprehensive suite, including CameraSystem for family engagement, MilkTracker for precise feeding management, NICU2Home for efficient discharge planning, and EDNA for proactive risk identification, supports care teams and families at every step of the NICU journey. With a commitment to continuous innovation, AngelEye Health is shaping the NICU of the future, empowering families, enhancing clinical efficiency, and delivering measurable improvements in patient outcomes. To learn more, visit angeleyehealth.com.

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