



CLINICAL INTELLIGENCE PLATFORMS IN MODERN CRITICAL CARE

Intensive care units generate an extraordinary volume of physiologic data every minute. Bedside monitors, ventilators, infusion pumps, laboratory systems and electronic health records each contribute streams of information that must be interpreted under time constraints. Hospital executives evaluating clinical intelligence platforms are not looking for additional dashboards. They are addressing variability in care, preventable complications and rising ICU costs driven by longer stays, readmissions and prolonged mechanical ventilation. The central question is whether technology can convert physiologic complexity into earlier, more confident clinical action without adding workflow friction.

A capable and credible platform must move beyond simple aggregation. Hospitals require a system that normalizes high-resolution data from disparate devices into a coherent physiologic narrative clinicians can trust. Fragmented signals and alarm fatigue undermine adoption. A unified data model, continuous streaming and time alignment of inputs are essential if care teams are to see meaningful trends rather than isolated numbers. Tight integration into the electronic health record through single sign-on is equally important. Clinicians will not adopt tools that force them to leave established workflows or duplicate documentation.

Hospitals also need measurable impact on outcomes that drive both quality metrics and financial performance. Reductions in ICU length of stay, unplanned readmissions and mechanical ventilation time translate directly into improved throughput and cost control. In this context, platforms must demonstrate that analytics and pathway automation are not theoretical. They should show how trending risk indicators prompt earlier interventions, how protocol adherence is supported across shifts and how care variation is reduced. Evidence that automation contributes to shorter vasoactive infusion duration or more timely spontaneous breathing trials signals that intelligence is influencing behavior at the bedside rather than being passive.

Predictive analytics require particular scrutiny. Executives must evaluate whether algorithms are validated, transparent and grounded in real physiologic data already captured in the ICU. Systems that rely on opaque assumptions or introduce excessive alerts risk clinician resistance. The more compelling approach visualizes trajectories and contextualizes risk over time, enabling physicians and nurses to interpret patterns while retaining decision authority. Demonstrated regulatory clearances, peer-reviewed studies and deployment across diverse ICU populations provide reassurance that performance extends beyond a pilot environment.

Scalability and configurability also matter. Large health systems operate neonatal, pediatric and adult ICUs with different protocols and patient populations. A platform must support hospital-defined pathways such as ventilation weaning or cardiogenic shock management, while maintaining consistency across sites. Backend flexibility, structured implementation support and the ability to align with local quality initiatives determine whether the system becomes embedded in long-term improvement efforts or remains a short-term project.

Etiometry aligns closely with these expectations. It integrates monitors, ventilators, pumps, laboratory feeds and EHR data into a single physiologic framework, presenting time-aligned risk trajectories within existing workflows. Its FDA-cleared analytics, developed from tens of thousands of ICU cases, support earlier recognition of deterioration while preserving clinician judgment. Reported outcomes include meaningful reductions in ICU length of stay, readmissions, ventilation duration and vasoactive infusion time. The platform's pathway automation, including automated identification of patients ready for spontaneous breathing trials, illustrates how intelligence translates into bedside action. Deployment across more than 150 ICUs and thousands of beds, supported by peer-reviewed evidence and a dedicated quality improvement application, positions **Etiometry** as a disciplined, scalable solution for health systems intent on standardizing critical care and achieving sustained clinical and financial gains. **HT**



Shane Cooke,
President and Chief Executive Officer

Etiometry

Powering the Next Era of Clinical Intelligence

Hospitals today are under significant pressure due to staffing shortages, rising care complexity and increasing costs. This pressure is most visible in ICUs, where clinical decisions must account for rapidly changing patient risk over time. Care teams often rely on fragmented data and momentary alerts, making it difficult to recognize emerging physiologic deterioration. Etiometry addresses this gap by enabling clinicians to see risks earlier and make more confident decisions.

A pioneer in delivering real-time clinical intelligence for the ICU, Etiometry moves beyond isolated readings and momentary alerts to provide a continuous, longitudinal view of patient risk. By redefining what clinical intelligence means in modern critical care, the platform serves as an operational layer that helps teams align decisions across shifts, roles and levels of experience without replacing clinical judgment.

“Etiometry isn’t just supporting clinicians, it’s elevating the standard of care by turning physiologic complexity into clear, timely and actionable intelligence,” says Shane Cooke, president and chief executive officer.

Timely clinical decisions and actions improve patient outcomes while reducing costs. Reported results include up to 36 percent reduction in ICU length of stay, 41 percent decrease in unplanned ICU readmissions, 30 percent reduction in mechanical ventilation time and 29 percent decrease in vasoactive infusion duration.

The platform integrates directly with hospital systems and bedside devices, including monitors, ventilators, infusion

pumps and laboratory systems. Seamless EHR integration with single sign-on delivers real-time insights within existing workflows, extending EHR capabilities beyond documentation without adding complexity.

Its unified data model normalizes and time-aligns hundreds of signals per patient per minute into a continuous physiologic view. Rather than simply aggregating or displaying information, the Etiometry platform evaluates evolving patterns to surface risk trajectories, allowing clinicians to recognize early signs of deterioration sooner.

The platform’s risk analytics are FDA-cleared and trained on tens of thousands of ICU cases across diverse patient populations, evaluating patterns over time to reduce false positives. These risk indicators have been associated with measurable reductions in mortality, complications and resource intensity.

Automation reinforces consistency by continuously monitoring deviation from expected recovery paths and surfacing risk thresholds. This reduces subjective bias and helps less experienced clinicians achieve the same physiologic clarity as seasoned staff.

In neonatal and cardiac ICUs, clinicians cite clearer prioritization and improved handoffs across shifts as subtle physiologic changes become visible through trend visualization rather than manual chart review.

“The novelty of this work is that it lays the foundation for hospitals to harness high-fidelity data sets to better understand how vital signs, care practices, decision-making and outcomes are interrelated. It enables ICUs to continuously and automatically evaluate

clinical practices and refine them based on real-world data,” says Dr. Daniel Hames, Boston Children’s Hospital and assistant professor of pediatrics at Harvard Medical School.

Implemented across 3,500 beds in more than 150 ICUs and over 50 hospital systems, The Etiometry Quality Improvement Application (QI App) has supported more than 150 quality improvement initiatives and research projects, demonstrating the platform’s role in enhancing healthcare delivery. This evidence base has supported adoption across hospitals seeking clinically validated approaches to AI-enabled care.

Etiometry drives product evolution through co-development with customers around quality initiatives. For example, working with many ICUs, it identified challenges in consistently recognizing readiness for spontaneous breathing trials (SBT). The platform now continuously scans patients for SBT readiness and summarizes relevant physiologic data.

Etiometry also functions as a value-based care enabler, with hospitals reporting impact across clinical, operational and financial dimensions. Hospitals have reported savings of over \$20,000 per ICU bed annually, with net savings exceeding \$1.7 million after platform costs and a first-year ROI above 200 percent.

88 percent of nurses report that Etiometry makes their jobs easier, and 100 percent of neonatologists say they would recommend the platform to a colleague. Its recognition as the Top Clinical Intelligence Platform acknowledges its evidence-driven approach that has demonstrated measurable value for hospitals. **HT**

Certificate

Etiometry



This award is in recognition of **Etiometry’s** stellar reputation and trust among customers and industry peers, evident in the numerous nominations we received from our subscribers. **Etiometry** emerged as the **Top Clinical Intelligence Platform 2026** after an exhaustive evaluation by an expert panel of C-level executives, industry thought leaders, and our editorial board.

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