

Trust, Evidence, and the Next Era of Healthcare AI

Independent Research Study of InterSystems
IntelliCare at EMC Healthcare



“We didn’t want to adopt AI simply because the technology was available. We wanted to understand whether it could make a measurable difference to our clinicians and patients when built-in to the EHR.”

*Jusup Halimi, President
Director, EMC Healthcare*

Executive Summary

Healthcare is moving from an era of AI experimentation into an era of evidence. For health systems, the central question is no longer whether artificial intelligence can generate impressive demonstrations. The question is whether AI can measurably improve clinical work, reduce administrative burden, strengthen patient engagement, and earn clinician trust in routine practice.

Independent longitudinal research conducted at [Elang Medika Corpora \(EMC\) Healthcare](#) in Indonesia provides an early view into that transition. The study evaluated the impact of EMC’s deployment of InterSystems IntelliCare®, an AI-native electronic health record and hospital information system. Rather than assessing AI in isolation, the research examined how clinicians experienced AI from pre-deployment expectations through post-deployment adoption and sustained use.

The findings point to an important conclusion: successful healthcare AI is not defined by model capability alone. It is defined by workflow fit, clinician confidence, organisational readiness, governance, and evidence of measurable improvement.

Real-World Research for Evidence-Based Healthcare AI Adoption

Healthcare organisations have rapidly explored generative AI, ambient documentation, conversational assistants, and clinical copilots. Yet enterprise adoption requires a different standard than innovation pilots. Health systems need to know what AI changes in real clinical settings, how it affects clinician experience, and whether improvements persist beyond initial deployment.

The EMC Healthcare research is significant because it studied AI in the context where value must ultimately be proven: daily clinical practice. The work was led by [Angelica Marotta, Ph.D., Research Affiliate](#), Massachusetts Institute of Technology, Sloan School, Founder & Director, AM Academic Consulting, LLC. Dr. Marotta examined the implementation of InterSystems IntelliCare across EMC hospitals in Indonesia, in an ongoing phased research model.

The study focused on several aspects of user workflows: efficiency, clinical support, information retrieval, patient interaction, security and compliance, overall satisfaction, and Indonesian context. This broad framework is important because healthcare AI adoption is not only a technology consideration. It is also a clinical, operational, governance, and change-management decision.

EMC Healthcare operates a multi-hospital network in Indonesia and has pursued enterprise digital transformation through InterSystems technology. After establishing an integrated EHR foundation with InterSystems TrakCare®, EMC moved toward AI-native workflows with InterSystems IntelliCare.

InterSystems IntelliCare EHR embeds AI capabilities directly into clinical workflows, including clinical orchestration, documentation support, information retrieval, summarisation, and workflow assistance and suggested actions. This integrated approach is designed to reduce friction rather than add a separate layer of technology for clinicians to manage.

“The goal of my research was not simply to determine whether AI works, but to understand its real impact on clinical work. The most surprising finding was the invisible impact of AI.”

*Angelica Marotta, Ph.D.,
Research Affiliate,
Massachusetts Institute of
Technology, Sloan School,
Founder & Director, AM
Academic Consulting, LLC*

Study Design and Methodology

The research used a longitudinal mixed-methods design across implementation stages. It combined pre-deployment assessment, post-deployment evaluation, structured surveys, interviews, direct observation, and follow-up to understand how AI affected practice over time.

This methodology matters because early AI performance can look promising in demonstrations but behave differently in live clinical environments. By combining quantitative measures with qualitative feedback, the research captured both measurable outcomes and the lived experience of clinicians.

The evaluation considered seven broad domains: clinical efficiency, patient interaction quality, information management effectiveness, clinical decision support impact, system security and regulatory compliance, overall system value and satisfaction, and Indonesian contextual fit.

Key Findings

1. AI created value when it became almost invisible

One of the most important observations was that clinicians did not primarily describe AI in technical terms. They described changes in their work: less time searching for information, less time documenting, fewer interruptions, and more ability to focus on patients. In practical terms, the most successful AI became part of care delivery rather than another system demanding attention.

2. The largest gains were not only operational; they were cognitive

Operational measures such as documentation time, click reduction, and information retrieval speed remain essential. However, clinicians also described reduced cognitive burden. When routine tasks take less effort, clinicians can preserve attention for reasoning, judgement, and patient communication.

3. Trust grew through experience, not mandate

The research reinforces a critical distinction between compliance and trust. Regulatory alignment can establish a foundation for responsible adoption, but clinician trust develops through transparency, education, verification, governance, and repeated experience with useful outputs. Trust is therefore an implementation outcome, not simply a product attribute.

4. Human oversight remained central

The research did not point toward autonomous care. It pointed toward augmented practice. Clinicians remained accountable for patient care while AI supported information retrieval, documentation, summarisation, and clinical reasoning. This model preserves professional judgement while reducing administrative friction.

5. Organisational readiness shaped adoption

AI adoption depended on more than feature availability. Clinical champions, ongoing training, phased implementation, and willingness to refine workflows all contributed to clinician confidence. Healthcare AI implementation should therefore be treated as a change-management programme, not only a one-time technology launch.

Summary Research Results

Outcome Area	Reported Finding	Clinical Relevance
Information retrieval	AI-assisted retrieval reduced time spent finding patient information.	AI-native EHR workflows can reduce search burden and improve access to relevant clinical context.
Documentation burden	Research materials report reductions in manual documentation effort and automation of routine documentation tasks.	Documentation support should be evaluated both as time savings and as reduction in administrative interruption.
Patient interaction	A majority of clinicians reported improved eye contact during consultations when hands-free documentation supported the encounter.	AI can help restore clinician attention to the patient when technology is embedded into workflow.
Workflow navigation	Materials describe fewer clicks and less navigation required for common information retrieval tasks.	Reducing workflow friction may be as strategically important as adding new AI features.
Governance and trust	Clinicians continued to verify and review AI outputs, reinforcing human accountability.	Responsible AI adoption depends on transparent governance and human-in-the-loop practice.

Table 1. Summary of Research Findings

Implications for Healthcare Leaders

Evaluate AI as a clinical operating model, not a feature set

Healthcare organisations should assess AI based on how it changes work, not only on what the model can produce. AI evaluations should focus on workflow integration, clinician adoption, measurable burden reduction, governance, and sustained use.

Build trust through governance and transparency

Trustworthy AI requires more than compliance language. Leaders should define how AI outputs are reviewed, how clinicians are trained, how risks are escalated, and how performance is monitored over time. Governance should enable safe adoption without creating additional administrative drag.

Measure cognitive burden alongside efficiency

Traditional metrics remain important, but the EMC research suggests that healthcare organisations should also examine cognitive relief, consultation quality, clinician confidence, and attention returned to the patient. These factors can influence adoption, satisfaction, and long-term value.

Plan for continuous improvement

AI implementation should be iterative. Local language needs, specialty-specific workflows, prompt refinement, and clinician feedback loops can all shape value. The most successful organisations will treat AI as an evolving capability embedded in clinical operations.

“Ultimately, success must be measured not by what AI can do, but by the outcomes it delivers for clinicians and patients.”

Dimitri Fane, Head of EHR Business, InterSystems

Why an AI-Native EHR Matters

Embedding AI inside the EHR matters because clinicians should not have to leave a preferred workflow to gain the benefit of intelligence. AI that is integrated into documentation, information retrieval, summarisation, and decision support can reduce workload fragmentation and make adoption more natural.

The EMC Healthcare research provides an evidence-led example of how AI-native InterSystems IntelliCare can support measurable improvements in clinical and operational practice. It helps reduce burden, improve access to information, support patient interaction, and strengthen confidence when deployed with governance and organisational commitment.

Conclusion

The next phase of healthcare AI will be led by organisations that can combine innovation with evidence. Technology will continue to advance, but sustainable adoption will depend on whether clinicians trust AI, whether workflows improve, whether governance is credible, and whether outcomes can be measured in practice.

The EMC Healthcare research suggests that the future is not autonomous healthcare. It is augmented healthcare: clinicians and AI working together, with human judgement preserved and administrative friction reduced.

For healthcare leaders, the lesson is clear. AI strategy should begin with clinical work, be guided by evidence, and be governed for trust. When those elements come together, AI becomes less visible as technology and more valuable as part of care delivery.

To learn more visit www.InterSystems.com or [InterSystems IntelliCare](#)

Products and services are subject to InterSystems terms and conditions. Information is provided for general informational purposes, may change without notice, and is provided without warranty. Product availability, functionality, and regulatory status may vary by offering, jurisdiction, and intended use.

For information regarding specific offerings, including availability and regulatory status, please contact your InterSystems Representative.

For information regarding InterSystems approach to AI, visit [InterSystems AI Guidelines](#).

