

A photograph of three healthcare professionals—a man and two women—collaborating in a clinical setting. They are gathered around a tablet computer, which the woman on the right is pointing at. The man on the left and the woman in the center (wearing glasses and a lab coat) are looking intently at the screen. The entire image is overlaid with a semi-transparent teal color. A white wavy graphic element is at the bottom.

LEQUEST

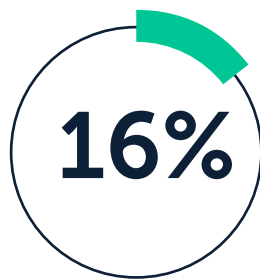
# Online simulation training

A better approach to patient safety, staff competency,  
and institutional efficiency



# The technological revolution's impact on healthcare

Medical technology advances at an unprecedented pace, introducing increasingly sophisticated devices that promise improved patient outcomes. The complexity of these innovations, however, creates a hidden vulnerability in healthcare delivery. For instance, equipment-related challenges directly impact surgical performance, with 16% of operations experiencing technology-related incidents that can cause significant time delays and potential patient risks<sup>1</sup>.



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More generally, healthcare systems worldwide are experiencing a knowledge erosion triggered by rapid staff turnover, evolving clinical workflows, and accelerating technological change — and traditional training models struggle to keep pace, largely due to the lack of time among healthcare professionals. Classroom-based instruction and manual-driven learning fail to provide the depth of understanding required to operate advanced medical technologies confidently and safely.

The consequences extend beyond individual skill gaps: Inadequate device proficiency can lead to operational inefficiencies, increased risk of medical errors, unnecessary downtime due to system malfunctions, and potential patient safety compromises. Hospitals face mounting pressure to develop training approaches that are

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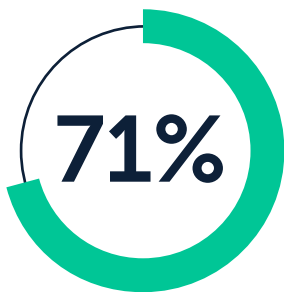
1. Usability issues in the operating room – Towards contextual design guidelines for medical device design. (2021). Applied Ergonomics, 90, 103221. <https://doi.org/10.1016/j.apergo.2020.103221>

both comprehensive and adaptable, capable of addressing the dynamic landscape of medical technology.

Modern healthcare demands a transformative, agile approach to professional development — one that transcends geographical limitations, accommodates varying learning styles, and provides measurable competency validation. Interactive, technology-driven simulation training has emerged as a promising solution, offering immersive learning experiences that mirror real-world clinical environments and improves the intrinsic motivation of medical staff to be trained.

## The time for adaptation is now

Healthcare institutions stand at an intersection of technological advancement and operational complexity. With 71% of healthcare professionals recognizing that continuous device training is fundamental to maintaining high standards of patient care, the rapidly evolving landscape of medical technology also revolutionizes educational opportunities.<sup>2</sup>



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Staff shortages and intense time constraints make traditional training models increasingly impractical. Hospitals must now balance two competing demands: keeping healthcare professionals fully trained on multiple devices while maintaining

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2. How to integrate simulation to enhance the medical device design process - Medical Devices & Pharmaceuticals. (2022, March). Medical Devices & Pharmaceuticals.





uninterrupted operational capabilities. The financial and operational risks of inadequate training are substantial.

The economics of medical device training present a complex equation. Each hour a healthcare professional spends in training represents lost operational time. Simultaneously, devices left unused during training represent substantial monetary investments not generating returns. Moreover, the potential consequences of insufficient training extend far beyond immediate financial considerations to also include factors like retention, as medical staff view training as investments in their personal development.

Regulatory bodies are responding by enforcing more stringent compliance requirements. Hospitals must now demonstrate comprehensive staff competency across increasingly sophisticated medical technologies.

**Achieving certification and operational excellence now requires precise, documented training outcomes. However, hospitals are struggling to stay current with evolving regulations and continuously update their training programs to meet the latest standards.**

The emergence of digital learning technologies mitigates such risks and challenges: Advances in digitization and connectivity are enabling blended learning approaches that can integrate seamlessly with existing learning management systems (LMS). These technologies bridge the gap between rigorous training requirements and operational efficiency.

Digital simulation training is a fundamental shift in how healthcare professionals acquire and maintain technological proficiency. These advanced educational solutions allow healthcare workers to engage with complex medical devices through immersive, risk-free environments. Professionals can now practice intricate procedures, explore device functionalities, and refine their skills without compromising patient safety or disrupting hospital operations.

Sophisticated simulation technologies offer unprecedented flexibility. Healthcare professionals can now access training modules from any location, breaking down traditional barriers of time and physical space. In practice, a surgeon in a rural hospital can receive the same high-quality device training as a specialist in a metropolitan medical center, standardizing knowledge across diverse healthcare environments.

Furthermore, advanced simulation training solutions can be tailored to specific institutional needs, accounting for variations in equipment, procedural protocols, and regulatory requirements.

Moreover, through digital platforms, documentation and compliance become streamlined. Automated tracking of training progress, competency assessments, and certification provide hospitals with comprehensive insights into staff readiness. Plus, regulatory bodies can now access transparent, verifiable records of medical professional preparedness.

The economic argument for digital simulation training is compelling: Reduced travel costs, minimal operational disruption, and the ability to train multiple staff members simultaneously create significant financial advantages. Healthcare institutions can now transform training from a potential operational burden into a strategic asset for continuous improvement and risk management.

## **LeQuest: Next-generation online simulation training for hospitals**

LeQuest stands at the forefront of medical device training innovation, offering a transformative approach to professional development in healthcare. The company's online simulation platform addresses the complex challenges of medical technology training through a meticulously designed, comprehensive solution.





At its core, LeQuest provides interactive, device-specific training that enables healthcare professionals to master complex medical equipment with unprecedented efficiency. The platform's unique approach allows professionals to engage in hands-on learning without risking patient safety, creating a risk-free environment for skill development.

With LeQuest, healthcare professionals can access training modules from anywhere, at any time, supporting intermittent learning that integrates seamlessly with existing work schedules while progress is being saved. This notably reduces the time and logistical challenges associated with traditional training programs.

Furthermore, multilingual capabilities distinguish LeQuest's platform, supporting training across multiple languages with medically certified translations. The system adapts to regional healthcare differences, ensuring that training remains relevant and precise across diverse medical environments.

On the regulatory front, it's by providing documented proof of training and staff competency that LeQuest helps hospitals meet stringent compliance requirements while simultaneously enhancing operational efficiency and patient safety.

That's to say that, with LeQuest's aim to standardize medical technology training, hospitals can adopt a better approach to patient safety, staff competency, and institutional efficiency.

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