



Artificial Intelligence and Nursing: Enhancing Care, Not Replacing It

Artificial Intelligence (AI) has transitioned from a theoretical-futuristic concept to a practical technology in modern healthcare delivery. From predictive analytics to virtual assistants and workflow automation, AI has the potential to transform how care is delivered, how nurses work, and how patients experience the healthcare system. However, the extent to which AI enhances nursing practice may be the most critical determinant of its successful implementation in healthcare settings.

Nursing has always been a profession at the intersection of science, technology, and human compassion. Over the last century, nurses adapted to everything from digital intravenous pumps to Electronic Health Records (EHRs). Each technological advancement required learning new tools and competencies, often without decreasing the underlying demands of patient care. Unlike earlier technologies that increased administrative burden, AI has the potential to automate routine workflows and reduce both cognitive load and time demands on nursing professionals. For instance, “Nurses spend as much as 30-40% of their shift on documentation, time that could be returned to direct patient care through AI enabled technology” [1].

Some early real-world case studies illustrate this shift to AI adoption in healthcare. Mayo Clinic piloted AI-driven triage in its emergency department, using AI algorithms to assess vital signs and patient histories in real time to improve throughput and patient outcomes [2].

Cedars-Sinai tested an AI-virtual nurse assistant to answer common patient questions, reducing interruptions for nursing staff while improving patient satisfaction [3]. Several health systems are also piloting natural language nurse call systems, with early results showing faster response times, reduced alarm fatigue, and measurable gains in HCAHPS responsiveness scores.

Layering Intelligence and Automation on Top of a Life Safety Backbone

While AI has the potential to revolutionize many aspects of care, it is important to recognize that it will not replace them outright. As an essential life safety alerting and communication system between patients and staff, nurse call systems will not be replaced by AI, but stand to benefit by enhanced automated alerting and notification functionality.

AI inherently requires internet connection servers to function which are not guaranteed to be available 100% of the time. In contrast, as a hardened life-safety system, nurse call's core life-safety and alerting functionality must be available 24/7 without relying on servers, networks, and the internet. In emergencies, nurse call ensures rapid mobilization with a single button press that immediately alerts multiple caregivers or teams (e.g., a Code Blue), ensuring a fail-safe escalation pathway.

