

Optimising Healthcare Performance with Real-Time Location Systems (RTLS)



Healthcare facilities face persistent challenges when striving to optimise performance. The landscape is troubled by staffing shortages, financial disruptions, clinician burnout, and insufficient resources. A recent survey highlights that frontline workers are particularly stressed by a lack of resources and the growing clinical documentation demands. This reflects a larger issue within the healthcare industry: operational inefficiencies are impacting both patient care and the well-being of healthcare professionals. Solutions are urgently needed, and one emerging technology, Real-Time Location Systems (RTLS), is proving to be a transformative tool in streamlining workflows, alleviating staff burdens, and enhancing patient care experiences.

Streamlining Workflows with RTLS for Enhanced Clinician Efficiency

In response to operational challenges, healthcare professionals have recommended streamlining workflows and automating manual processes as critical strategies. Physicians spend only 66% of their time with patients and have to dedicate the remaining to documentation and administrative tasks. This time allocation must be adjusted to improve patient outcomes and reduce clinician burnout. Digital solutions, like RTLS, offer a promising approach to shift these percentages by automating non-clinical aspects of workflows.

RTLS operates with IoT-enabled asset tags and staff badges, providing real-time enterprise visibility. This technology reduces the time spent on locating equipment, managing patient data, and coordinating staff, which in turn increases the amount of time clinicians can spend with patients. For example, healthcare workers reported losing over an hour per shift searching for data or devices. Automating these tasks through RTLS cloud-based solutions means clinicians can work at the top of their licenses and focus on their core responsibility: patient care. Additionally, built-in patient flow reports offer real-time insights into patient volume, wait times, and length of stay, streamlining daily workflow management and ultimately leading to a more efficient and connected care environment.

RTLS also promotes a stronger human connection in healthcare settings. The technology supports operational efficiencies and the patient experience, providing value and peace of mind for both caregivers and those receiving care.

Growing Demand for a Digital-First Patient Experience

Modern patients are tech-savvy and increasingly expect their healthcare journey to be as digitally integrated as other aspects of their lives. According to a Healthcare Information and Management Systems Society (HIMSS) study, 84% of healthcare decision-makers acknowledge that patients demand a personalised, holistic digital experience. Furthermore, 75% of these leaders agree that their organisations embrace a more digital-first culture. Such trends highlight the intersection of healthcare consumerism and clinician burnout, suggesting that technology can bridge the gap between efficient operations and patient satisfaction.

Healthcare facilities can enhance patient experience through digital innovations, beginning even before a patient's appointment. For instance, RTLS integrated with electronic medical records (EMRs) can provide patients with automated appointment reminders, custom navigation for accessible pathways, and facility wayfinding. These solutions address common issues like missed appointments due to navigational confusion, improving overall facility efficiency. With technologies like Bluetooth Low Energy (BLE), GPS, and Wi-Fi, RTLS facilitates a seamless and intuitive experience throughout a patient's visit, reducing stress and enhancing transparency and communication between caregivers and families.

By leveraging RTLS, healthcare organisations can align their operations with patient expectations while simultaneously relieving administrative burdens on clinicians and enhancing patient and staff satisfaction.

Financial Benefits of RTLS for Healthcare Facilities

Beyond operational and experiential improvements, RTLS brings significant financial benefits to healthcare facilities. A McKinsey survey noted that healthcare staff spend around 6% of a 12-hour shift hunting for key assets. This inefficiency can be substantially reduced with RTLS, which provides real-time asset management through detailed room- and bay-level mapping. By knowing exactly where essential equipment is located, staff can spend less time searching, leading to improved efficiency, faster patient care response, and reduced costs.

Real-world examples demonstrate the financial impact of RTLS. Mission Hospital implemented RTLS to manage equipment location and maintenance, resulting in a marked decrease in lost devices, an annual savings of \$200,000, and a significant increase in nurse satisfaction. Another health system in Fort Worth, Texas, used RTLS in conjunction with a next-generation wireless system to automate non-clinical tasks and improve operational workflows. This initiative led to a 90% improvement in employee engagement and satisfaction, as well as \$1 million in first-year savings.

Strategic application of RTLS not only enhances operational efficiency and patient care but also drives meaningful cost savings for healthcare facilities, illustrating the broad-ranging benefits of adopting this technology.

Organisations need to adopt innovative solutions like RTLS to navigate the challenges of modern healthcare effectively. By enhancing operational workflows, supporting patient-centric care, and offering substantial financial returns, RTLS proves to be a valuable asset for healthcare facilities. Partnering with strategic RTLS providers allows healthcare leaders to maximise their investment, with continued support and training ensuring that the benefits of these systems are fully realised. With its ability to streamline processes, reduce clinician burnout, and enhance patient experiences, RTLS is a critical tool for optimising healthcare performance and building the future of care delivery.

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