



## How to achieve operational efficiency in the complex healthcare environment

A hospital room has many critical elements that make it possible for clinicians to provide life-saving treatment for patients. But mismanaged operations can cause any element of the hospital room to fail, compromising patient safety and experience.

Operations failures can be as simple as a food tray not being retrieved for many hours after it was delivered, leading to discomfort for the patient and their family. It can also be as serious as a clinical device such as an infusion pump not functioning correctly, bringing about delays in care and potentially harming patient safety.

Siloed, mismanaged operations not only harm patients, but causes stress for clinicians, who often must respond to the issues, taking time away from providing patient care. Additionally, it contributes to clinicians' administrative burden by creating additional paperwork and reporting. Finally, operations mismanagement leads to more costs for healthcare organizations by adding waste and resources to the system, which is especially concerning as hospitals face persistent financial constraints.

“Hospitals are realizing there’s not enough margin to continue operating the way they are accustomed to; they have to find ways to improve operational efficiency,” said Mike Luessi, General Manager of ServiceNow’s Healthcare and Life Sciences industry team.

## The current suboptimal state of operations management

Operations management is how hospitals and health systems avoid operations failures. Operations management oversees a healthcare institution’s day-to-day functions and activities that are critical to achieving its mission and strategic objectives.



**There’s a dire need to simplify operations to reduce the burden on clinicians.”**

**Mike Luessi**  
General Manager, Healthcare and Life Sciences, ServiceNow

Although most hospitals and health systems have implemented some form of operations management, it’s often not effective. In fact, operational failures, which are defined as circumstances where the clinician doesn’t have the supplies, information or personnel needed to complete a task, are [estimated](#) to waste at least 10% of caregivers’ time.

Operations failures occur for a variety of reasons, such as poor process design and siloed data integration. Widespread mergers and acquisition activity in healthcare has also exacerbated operational challenges as health systems struggle to integrate clinical devices, electronic health records and other assets.

## Roadmap to achieve optimal operational efficiency

When done right, operations management enables organizations to realize the quadruple aim of healthcare, which is defined as enhancing patient experience, improving population health, reducing costs and improving the experience of

clinicians and other employees.

To establish effective operations management, these three elements are critical:

1. Clinical device life cycle management
2. Optimization of the electronic medical record (EMR)
3. Leveraging generative artificial intelligence (gen AI)

This white paper will describe how operations can be drastically improved by implementing these three elements into an organization’s operations management framework and strategies to successfully implement them.

## Managing the life cycle of clinical devices

Clinical devices are essential to the operations of a hospital or health system, providing lifesaving treatment and vital support services.

But clinical devices also introduce challenges and risks for healthcare organizations due to the sheer volume under management: the [average](#) hospital room can contain as many as 15 to 20 medical devices, with a large hospital potentially facing as many as 85,000 devices. This makes it difficult for healthcare organizations to seamlessly track all the clinical devices in their network and know when they need to be repaired or replaced.

Inadequate management of clinical devices also leads to patient safety issues. In fact, more than [80,000 deaths and 1.7 million injuries](#) have been linked to medical devices in the past decade, “When clinical devices are not properly maintained, there’s a real-world impact on healthcare organizations and the people they are serving —those mistakes can lead to injuries or death,” Luessi said.

Given this, enhancing clinical device life cycle management is crucial to any organization’s operations management strategy. Clinical device life cycle management ensures a healthcare organization has a clear inventory of their devices while also properly managing and

maintaining them, leading to cost savings by reducing waste, improving efficiency and mitigating administrative burden on clinicians.

Clinical device life cycle management involves three main components:

- Investing in a comprehensive platform that consolidates clinical device needs.
- Adopting strategic, cloud-based solutions for data integration.
- Achieving buy-in from leadership to ensure long-term sustainability.

ServiceNow helps healthcare organizations achieve clinical device life cycle management through its digital platform, which tracks the inventory of all devices and their deployment, as well as installs workflows that are triggered when security threats occur and when maintenance or audit functions are needed.

ServiceNow breaks down these aspects of successful clinical device lifecycle management in a separate resource, which is available [here](#).

### **Optimizing the EMR and giving clinicians a voice**

While the EMR is a ubiquitous part of healthcare operations—storing vital patient records, initiating clinical workflows and enabling communication between clinicians and patients—it leads to notable issues.

Today's clinicians spend too much time on administrative tasks in the EMR, which contributes to the high levels of burnout reported among clinicians. In fact, [research shows](#) a correlation between more time spent charting in the EMR to higher levels of physician burnout. Burnout not only increases workforce turnover but is also shown to harm [patient safety and quality](#).

To achieve effective operations management, leaders must make efforts to improve the overall functionality of the EMR and the clinician experience with it.

"There's a dire need to simplify operations to reduce the burden on clinicians," Luessi said.

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More than **80,000 deaths** and **1.7 million injuries** have been linked to medical devices in the past decade.

Source: [International Consortium of Investigative Journalists](#)

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One solution is the ServiceNow EMR Help application, which improves the clinician experience with the EMR by creating a seamless protocol for clinicians to raise issues and submit requests.

EMR Help is integrated into EMRs such as Epic or Oracle Cerner and enables clinicians to easily report issues and submit requests, which are then sent automatically to the right teams to address. For instance, EMR Help allows clinicians to report any number of concerns, ranging from the TV in a patient's room not working or the need for specific workflow modifications within the system. Luessi said organizations that have implemented EMR Help see a spike in service requests from clinicians, demonstrating its promise for improving operational efficiency.

"EMR Help is giving clinicians a voice, when many times they feel unheard, and when they don't feel heard, they don't report the issues," he added.

### **Leveraging gen AI for improved operational efficiency**

Beyond focusing on clinical device management and EMR workflow optimization, there is great potential for AI to improve healthcare operations. Therefore, effective operations management should integrate some capabilities of gen AI.

Experts have identified several use cases where gen AI could be a helpful tool for operations. For example, gen AI can be used to answer patients' questions about their condition or care

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## Operational failures waste at least **10% of caregivers' time, delay care and contribute to safety issues.**

Source: [Harvard Business School](#)

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plan virtually or during a hospital stay, improving overall patient experience and reducing burden on clinicians.

"What I love about AI is you don't have to be an expert on everything, you just need to be an expert on knowing what your problem is," Luessi said.

ServiceNow [recently introduced](#) into its software platform Now Assist for Virtual Agent, a generative AI solution. With text creation and summarization features, as well as a chatbot interface, Now Assist allows workers to optimize workflows and harness intelligence by offering direct, relevant and conversational responses to questions.

By incorporating AI, organizations will be better positioned to improve operations management for the benefit of their workforce, patients and bottom line.

### **The importance of operations management going forward**

Operations management is a critical framework for every healthcare organization to invest in to achieve the quadruple aim.

The need for effective operations management will only be more pivotal in the years ahead as the need to solve for rising healthcare costs

intensifies. The future involves healthcare organizations managing clinicians and patients across more care settings and regions. Operations management will be essential to ensure high-quality care at a lower cost is achieved as this trend continues.

"The future of healthcare is healthcare without walls. And healthcare without walls is going to need a lot of support through workflow automation to accomplish that vision," Luessi said.

To gain a competitive edge as healthcare evolves, healthcare organizations must invest in operations management with a focus on those three primary elements: clinical device life cycle management, optimization of the EMR and leveraging the vast potential of AI.

ServiceNow partners with healthcare organizations to realize effective operations management. Learn more about ServiceNow's healthcare solutions [here](#).

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