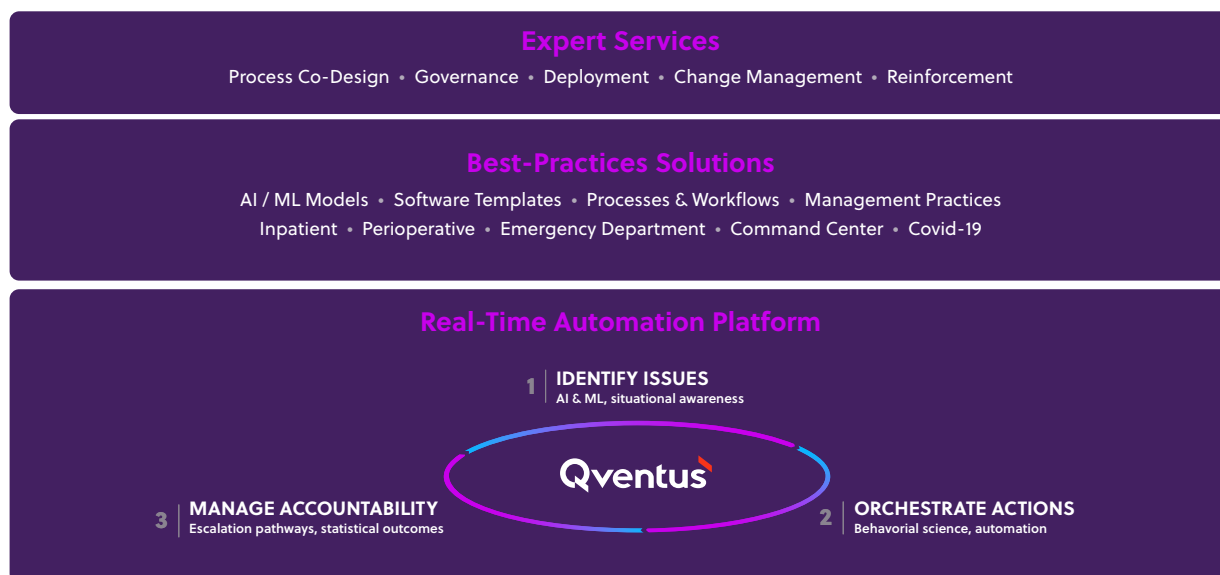## The Next Frontier of Healthcare Automation

Operational waste is a massive problem for hospitals today. Nearly 22% of hospital days are excess days, a third of operating room time is unused, and a quarter of the time in the emergency department is spent waiting for care. This waste not only hurts patient outcomes and burdens care teams, but also costs a single hospital tens of millions of dollars annually.

To address these challenges, leading health systems are increasingly turning to automation. After initial success automating back-office operations, leaders are now extending automation to transform care operations — all operations involved in the delivery of acute care, including management of discharge planning, OR access, system-wide patient flow, and more, as well as processes that connect patient care beyond the hospital.

The benefits are profound. Leaders can unlock capacity to care for more patients, improve staff and resource efficiency, and reduce frontline workload — all of which lead to a new competitive advantage in their markets.

Qventus: A Complete System for Automating Care Operations

Qventus is a strategic partner for health systems. It provides a complete system for automating care operations — everything necessary to deliver and sustain outcomes. This includes a real-time automation platform, best-practice solutions for key operational challenges, and expert services for operationalizing the technology.

Expert Services
Process Co-Design • Governance • Deployment • Change Management • Reinforcement

Best-Practices Solutions
AI / ML Models • Software Templates • Processes & Workflows • Management Practices
Inpatient • Perioperative • Emergency Department • Command Center • Covid-19

Real-Time Automation Platform

1 | **IDENTIFY ISSUES**
AI & ML, situational awareness

Qventus

3 | **MANAGE ACCOUNTABILITY**
Escalation pathways, statistical outcomes

2 | **ORCHESTRATE ACTIONS**
Behavorial science, automation

"We needed a partner who has the credibility of **understanding operational challenges** and **a track record of driving impact**. That's why we partnered with Qventus."

Sameer Badlani, MD, FACP Chief Information Officer, M Health Fairview

Real-Time Automation Platform

The Qventus Platform provides a comprehensive set of technologies for driving continuous improvement. It integrates with and complements your EHR and applies AI, machine learning, and behavioral science to create a closed-loop "system of action" for automating care operations.

The automation platform allows you to:

1. **Identify operational issues** in the past, present, and future, predicting them before they occur. Technology includes real-time integration with EHRs and other systems, sophisticated data analytics, AI and ML for real-time prediction, and real-time situational awareness.

2. **Orchestrate actions** among frontline and ancillary services teams so they can proactively address the issues, which reduces cognitive burden and decreases variability. Technology includes real-time communication and collaboration with other departments, prioritized task lists, and full process automation. Additionally, behavioral science-based habit formation techniques like nudges and rewards help ensure new processes stick.

3. **Manage accountability** to drive continuous improvement, with escalation pathways that surface critical issues to managers, as well as a review structure for analyzing performance. Technology includes sophisticated statistical analytics and automated real-time escalations.

> "Qventus is really something **very different from the EHR** with predictive analytics, machine learning, the closed-loop system, and resources that would **help us drive change**."
>
> **Kim Post, DNP, MBA, RN, NEA-BC** EVP and Chief Operating Officer, HonorHealth

Best-Practice Solutions

Qventus Solutions are predefined bundles of software, best practice processes, and change management practices that address the most important operational issues within hospitals and health systems.

The Inpatient Solution hardwires discharge planning best practices, resulting in significant reductions to length of stay and excess days. It helps care teams anticipate issues upstream by using AI and machine learning to predict discharge date, disposition, and barriers to discharge early in the patient's stay. The solution drives automated workflows and uses AI to resolve barriers, such as prioritizing orders for ancillary services teams. To sustain changes, Qventus uses statistical analytics and automated escalations to measure and track process fidelity so that leaders can effectively manage accountability and reinforce best practice behaviors.

- Reduce excess days by 30-50%
- Decrease length of stay by up to 1 day
- Reduce rounding time by 60% & clicks by 80%
- Increase effective capacity

> "Qventus helps our frontline teams **work at the top of their license by simplifying discharge workflows**. That means **less phone calls, less chasing down orders**, and **less chaos** on the day of discharge."
>
> **Ashleigh Gerhardt, MBA, BSN, RN, NEA-BC** VP of Network Operations & Emergency Services, HonorHealth

The Perioperative Solution transforms access and growth of the surgical enterprise by predicting and releasing unused blocks, engaging surgeons to strategically fill available times, and providing insights to drive continuous improvement. With greater lead time and capacity, Qventus intelligently offers open slots to strategically aligned surgeons and simplifies workflows for adding cases. Furthermore, Qventus surfaces actionable opportunities for OR leaders and surgeons to improve performance and accelerate growth.

- Add 2+ cases per OR per month
- Increase scheduling lead time by 7+ days
- Reduce scheduling workload
- Improve OR access for surgeons & patients

The Emergency Department Solution enables EDs to dynamically manage variation and flex for unpredictable demand. The solution uses machine learning to predict crowding events hours in advance so that teams can activate surge plans and proactively reduce crowding impact. Furthermore, Qventus creates real-time visibility into key ED process steps, automatically detects delays, and orchestrates teams to take targeted actions in real time.

- Reduce ED length of stay
- Decrease LWBS rates
- Improve staff satisfaction

The Command Center Solution helps health systems drive systemness and optimize care operations across the enterprise. As hospitals focus on streamlining operations within their individual sites, the Command Center Solution provides real-time situational awareness across the health system, enables load-balancing across facilities, and allows for effective prioritization of resource needs. Building from the Inpatient Solution, command centers can strategically manage post-acute placements across the system and proactively deploy resources to help units meet discharge targets.

- Improve patient velocity
- Reduce care progression delays
- Improve care access & patient experience
- Optimize enterprise resource utilization

Expert Services

The Qventus Expert Services team partners with health systems to deploy best-practice solutions and deliver sustained outcomes. Its team of physician, nursing, and performance improvement leaders works hand in hand with partners to design processes, establish governance, deploy software, and drive change management.

Co-designed processes
based on leading best practices, tailored to clinical models & cultural norms

Proven methodology
that ensures implementation fidelity and enables rapid speed to value

Sustained partnership
to reinforce behavioral change and drive continued organizational alignment

"Technology absent change management is often a wasted investment. With Qventus, we particularly liked **their pathway to get people to effectively engage with the technology and change behaviors**."

Alastair Bell, MD, MBA   Chief Operating Officer, Boston Medical Center Health System

With hundreds of deployments across large health systems, community hospitals, and academic medical centers, Qventus delivers proven outcomes, including:

30-50%
Reduction in excess days

Up to 1 day
Decrease in inpatient length of stay

2+ cases
Added per OR per month

80%
Fewer clicks during MDRs

60%
Reduction in rounding time

7+ days
Surgical scheduling lead time added

"We've now seen a **significant reduction in the number of messages** that go to physicians. That helps them **stay focused**, keep their work moving, and they're **not getting all of those interruptions** throughout the day."

Debe Gash SVP & Chief Digital Officer, Saint Luke's Health System

"With improved scheduling lead time and streamlined case scheduling, we've **rapidly added hundreds of new cases, increasing our capacity** to care for more patients. The solution has also been **a huge satisfier** with our OR teams, surgeons, and schedulers."

Tammy Jones, Ph.D., RN, NE-BC Chief Perioperative Officer, University of Arkansas for Medical Sciences Health (UAMS)

Leading health systems partner with Qventus