QVENTUS | Real-Time Systemness at Scale: \$62M Savings Realized Automating Discharge Planning; OR Access Increased 79% YoY

HONOR HEALTH

HonorHealth, a non-profit, integrated health system in Arizona, selected Qventus as their care operations AI partner to optimize system resources, enhance OR access and utilization, streamline patient flow, and improve the care team experience while

maintaining their ICARE values of providing the best experiences and care for its patients. This partnership has evolved from an initial focus on reducing LOS with the Qventus Inpatient Solution to later expanding with the Perioperative Solution to bring strategic cases to their ORs.

"We have been able to do such wonderful things for throughput with Qventus. Qventus was really something very different 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



2021: Initial Implementation – Inpatient Solution

Challenges: Optimize System Resources and Improve Patient Flow

HonorHealth needed to address inefficiencies in their patient flow, especially in discharge planning, to reduce length of stay (LOS), and create more inpatient bed capacity. Despite using built-in EHR functionality, the leadership team realized they needed new capabilities to enable them to operate as a highly-efficient enterprise with real-time system operations.

"We weren't optimally utilizing our assets, and decisions were hard to make in real-time. Our staff lacked the resources they needed to properly care for patients, which further contributed to burnout. In addition, delays in care progression detracted from the overall patient experience."

~ Ashleigh Gerhardt, MBA, BSN, RN, NEA-BC VP of Network Operations and Emergency Services

Proven Concept Period

In 2021, HonorHealth implemented the Qventus Inpatient Solution across all six of their hospitals. The Qventus team assessed their processes, performance, and culture, identifying opportunities to improve discharge planning and care progression with technology. Utilizing the Inpatient Solution's embedded AI, automation, and behavioral science functions, key stakeholders designed standard work and processes to automate care coordination steps. The statistical engines provide powerful analytics to manage accountability and drive continuous improvement across teams.

The solution included a library of automations to remove the repetitive manual tasks around discharge planning:

- **EDD/ Disposition Intelligence & Automation:** Localized machine learning models that autopopulate EDD and Dispositions on the first morning after admission and identify opportunities for earlier and lower level of care discharges as the patient's stay progresses.
- **Care Progression Manager:** The primary tool where care teams leverage and interact with the Qventus EDD and Disposition intelligence to drive effective discharge planning and multidisciplinary discharge round best practices.
- **Insights Suite:** Analytics tool for leadership to manage accountability, analyze outcomes and ROI impact, and identify targeted improvement opportunities.

*Since go live

Impact: Reduced Excess Days and Improved Standardization of Care

The implementation led to significant improvements (2021 - 1st Qtr. 2024):

Results **Since 2023						
Engagement	Outcomes			Care Team Burden Fi		inancial Gains
86% Patients Received Early Discharge Plans (72% EDP Increase)	0.65* Days Average Reduced LOS per Patient	50,673* Days Saved by Reducing Excess Days	84** Equivalent Beds Created (Avg)	62,549* EDDs Autopopulated (133,704 clicks saved for early EDD planning)	38,173* Dispositions autopopulated (127,184 clicks saved for early disposition plann	Dollars Saved by Reducing Excess Days
Automated & Al A	Assisted Discl	narge Planning		Pre	dictive Sequen	cing of Barriers
1,826 Days Saved through Earlier EDDs from AI suggestions (Annualized)		660 Patients Discharged to lower level of care from AI suggestions (Annualized)		2.5X Increase in High Priority MRI Turnarounds Completed		1.5X Increase in High Priority PT Completions

"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 for our patients and our staff."

~ Ashleigh Gerhardt, MBA, BSN, RN, NEA-BC VP of Network Operations and Emergency Services

In 2024, Honor recently implemented the new Qventus Flow Prioritization solution that uses machine learning to analyze patient and census data to determine the optimal sequence in which to complete orders that would best promote patient flow. Since launch, the team has seen a 7% increase in the completion of high-priority orders (orders for patients nearing discharge and new therapy evaluations) on average across ancillary teams, which correlates with 1 fewer excess day.

Visit <u>qventus.com/Inpatient</u>

2024: Expansion - Perioperative Solution

Based on their successful results and high adoption at their six facilities, HonorHealth sought to bring strategic surgical case volume to fill their newly created capacity from the Inpatient Solution. They needed better standardization around block management, utilization, and resource alignment to improve OR scheduling and efficiency. In 2024, HonorHealth deployed the Qventus Perioperative Solution.

"While we have a great problem of growth, we needed an automated, holistic solution to further drive engagement with physician offices, and a vertical schedule to minimize gaps and drive OR utilization and resource management. Additionally, deeper accuracy around requested vs. actual procedure time and management of partially used blocks in a manner that allows backfill opportunities will promote OR efficiencies, patient, staff, and physician engagement."

~ Riana Kielly, MSN, BSN, RN, NE-BC VP/Hospital Administrator HonorHealth Shea Medical Center, Network Perioperative Services

The goal was to have an OR schedule that aligned with surgeons and resource partners efficiently so that all were positively impacted. HonorHealth was working towards an OR schedule that was vertical, with very little gaps in the scheduling, rather than horizontal with several ORs scheduled for a single surgery. The Periop Solution technology allowed surgeon schedulers to easily see openings in the schedule and fill in unused block time, weeks before surgery. They could better align with their partners, e.g. anesthesiologists, and manage high-dollar robotic assets.

Implementation

HonorHealth assigned a key individual to run point with Qventus as this was a large-scale installation and would be done in waves. Qventus teams engaged with the offices throughout, collaborating to fully understand the objectives and ensuring the best opportunity of adoption in all the offices.

Utilization & Efficiency 97% **9%** 79% 141+ Year-over-Year Hours of Block of OR requests Year-over-Year **Released Early** through Qventus Increase in Hours of Improvement per Month Accepted Block Released Early in Case Minutes Performed within Released Block **Strategic Growth Financial Gains** Growth +4% **9.6X** 3.3 168+132 Additional Increase in **Robotic Cases Incremental Cases** Additional ROI Cases per OR **Case Volume** per Month Annualized per Month Contribution

Results (4 Months Post Go-Live)

A New Competitive Advantage From Real-Time Operations

By partnering with Qventus, HonorHealth has much stronger operational reliability. That gives the health system a key new differentiator and advantage in the local market to attract patients who seek highly efficient, quality care. And it also helps recruit and retain the best care team members so they can continue to deliver on their mission.

Margin

What's Next?

As one of the Qventus Innovation Cohort partners, HonorHealth is focused on transitioning to the next-generation Inpatient 3.0 Solution, that's fully embedded into EHR workflows and other upcoming Generative AI Innovation work.