

### HONORHEALTH™

HonorHealth is a nonprofit, integrated, 6-hospital health system serving patients in the Scottsdale and Phoenix, Arizona metropolitan areas. As a growing system in a highly competitive market, HonorHealth needed to optimize system resources, streamline patient flow, and improve patient and care team experience.

#### Background:

- 6 acute care hospitals
- Primary and specialty clinics; cancer care network; research institute
- ~\$2.0 billion annual revenue
- 2,800 physicians; 12,800 employees; 3,100 volunteers
- Magnet recognized

#### Challenges:

- Accelerate systemness by optimizing system resources
- Improve patient flow and reduce excess days
- Reduce complexity of discharge process
- Simplify work environment for teams
- Enhance patient experience

#### EHR:

- Epic

#### Qventus Solutions:

- Inpatient
- Emergency Department
- Command Center

## Challenge: Optimize system resources and improve patient flow

When HonorHealth was formed through the merger of two legacy organizations, leadership recognized that the ability to operate as a true “system” would be a key competitive advantage. In order to provide the full continuum of care and use collective resources more effectively, leadership first developed a service line distribution plan to consolidate services and resources across the hospitals.

With a successful integration and efficiencies from the service line strategy, the newly-formed health system quickly built a strong reputation in the market for providing high quality care. But leadership saw new opportunities to improve operational reliability across the system.

For example, hospitals still operated in individual silos even though they are in close geographic proximity. One hospital would be at capacity while another a few miles away would have dozens of open beds. This often led to rejected or delayed transfers of patients into the system as well as leakage of patients who sought care at HonorHealth but went elsewhere due to capacity.

“In the past, we were paying lip service to systemness. We knew there were a lot of inefficiencies with our assets and resources across the system.”

**Kim Post, DNP, MBA, RN, NEA-BC**, EVP and Chief Operating Officer

Despite hospital leaders and teams' best efforts to improve patient flow, the complexity of the discharge process made it challenging to drive meaningful change that lasted over time. Frontline teams spent inordinate amounts of time manually managing the discharge process for each patient. Delays in care also detracted from the patient experience and impacted quality and safety metrics.

HonorHealth had recently implemented Epic across the system, but leadership knew that even maximizing EHR functionality would not provide them with tools that would help make smarter decisions in real-time – and ultimately solve their challenges. They needed new capabilities that would enable them to operate as a highly efficient enterprise – a real-time health system.

"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. And delays in care progression detracted from the overall patient experience."

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

## A strategic partner for real-time operations

As HonorHealth looked to address these challenges, they believed there was a new opportunity to leverage innovations in artificial intelligence, machine learning, and behavioral science. Leadership also knew this transformation would require more than just technology – the system would need to integrate processes and people. And to be successful, the initiative would require resources to drive change management at scale.

With this in mind, HonorHealth turned to Qventus as a strategic partner for real-time operations. Together, HonorHealth and Qventus then developed a strategy to deploy real-time operations in inpatient, emergency department, and command center settings across the system.

"From the onset, we've had a true partnership with Qventus. It's a partnership to really drive change."

**Kim Post, DNP, MBA, RN, NEA-BC**, EVP and Chief Operating Officer

## Hardwiring discharge planning best practices with Qventus Inpatient Solution

HonorHealth first focused on reducing length of stay to create more functional inpatient bed capacity by deploying the Qventus Inpatient Solution at three of its most complex hospitals. This would help relieve bottlenecks for patients admitting through emergency departments, perioperative settings, and via outside transfer. In parallel, HonorHealth launched the Qventus Emergency Department Solution at those facilities.

To get started, the Qventus Expert Services team conducted a current state assessment of their processes, performance, and culture to identify strengths and opportunities around discharge planning at each of the hospitals. Based on those findings, Qventus collaborated with various stakeholders – including nursing, case management, physicians, ancillary services, and system leadership – to design standard work that leveraged proven best practices and also fit the clinical models and cultural norms unique to HonorHealth.

With standard work defined for the system, the Qventus Expert Services team then coached HonorHealth frontline teams to use the Qventus Inpatient Solution software to reinforce these processes and make it easier to adhere to best practices for discharge planning.

"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

The Qventus Inpatient Solution streamlines and standardizes care progression by using artificial intelligence (AI) to identify potential issues days in advance of discharge, behavioral science techniques to orchestrate processes and collaborate with ancillaries, and statistical engines to manage accountability and drive continuous improvement across teams. It includes:

- **Care Progression Manager** that helps care teams effectively plan for discharge and is specifically designed to reinforce best practices and simplify workflows. At HonorHealth, care managers use this to drive the discharge planning process and multidisciplinary rounds. Intelligence features, such as machine learning-generated predictions for estimated dates of discharge and disposition, help get the care team on the same page and ensure barriers are identified as early as possible.
- **Priority Queue and Nudges** that then take orders confirmed in the Care Progression Manager and automatically launch orchestration workflows with ancillaries to resolve these barriers, based on prioritization of discharge. Nudges via mobile devices provide real-time patient prioritization insights for ancillary teams constantly on the go. For example, HonorHealth physical therapy teams start their shift using a priority queue for orders based on estimated date of discharge. Then, they receive mobile nudges throughout the day for outstanding patients orders that are closer to the discharge date or for last-minute evaluation needs. This makes it easier for all teams to stay on the same page to discharge patients as planned and without delay.
- **Performance Improvement Automation** that gives leadership visibility into team performance compared to best practices, so managers know where to focus improvement efforts and where to offer praise. Nudges also automatically escalate discharge issues to leaders so that they can take timely action to resolve them.

Together, these modules of the Qventus Inpatient Solution help HonorHealth teams better manage the discharge process and improve patient flow.

“You always need accountability for innovation and change. The beauty with Qventus is that accountability and transparency is embedded throughout the system.”

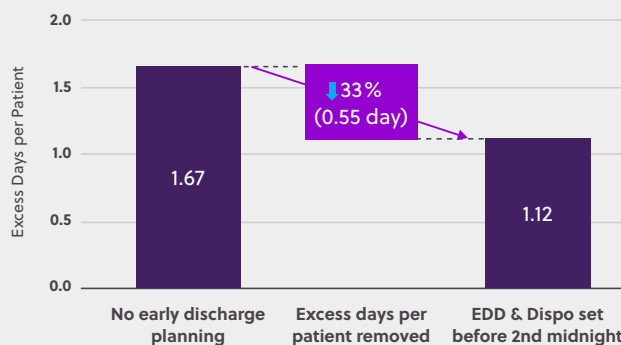
**Kim Post, DNP, MBA, RN, NEA-BC**, EVP and Chief Operating Officer

## Impact: Reduced excess days and improved standardization of care

With real-time operations, HonorHealth now has greater standardization for discharge planning and care progression across its facilities.

For example, at HonorHealth Deer Valley Medical Center, a 204-bed acute care hospital that typically operates at 90-95% capacity, Qventus helped reduce excess days by 33%, or 0.55 excess days per patient, where estimated date of discharge and disposition were set before the second midnight of the patient stay. This created significant new functional capacity to care for patients.

**Example Impact: HonorHealth Deer Valley Medical Center (Feb. 2020 to Jan. 2021)**



What's more, this reduction was observed even as HonorHealth hospitals experienced unprecedented capacity pressure due to Covid-19 admissions. In fact, HonorHealth never transferred patients out of the system during Covid-19 surges, because the hospitals were able to maintain bed capacity.

With more streamlined discharge planning, frontline teams also have clearer insight into actions required for discharge, and teams stay on the same page – decreasing the complexity and manual follow-ups required in the past.

"Now, we feel much more confident in our ability to consistently deliver the highest level of experience and quality for our patients."

**Kim Post, DNP, MBA, RN, NEA-BC**, EVP and Chief Operating Officer

Ultimately, by optimizing existing resources and creating more functional capacity, HonorHealth has also strengthened its financial margins. HonorHealth can accommodate more patient volume and better meet the needs of the community without having to create overflow beds, build new facilities, or hire more staff.

## Unlocking system efficiencies with Qventus Command Center

To achieve greater systemness, HonorHealth is now launching the Qventus Command Center Solution that will power its centralized network operations center.

By building on the foundational processes and data from the Qventus Inpatient Solution, the Qventus Command Center will bring entirely new capabilities to how HonorHealth manages system flow and capacity, including:

- **Capacity Intelligence** that will help teams predict and manage bottlenecks and surges before they occur. Inpatient discharge planning data paired with Qventus machine learning can predict four hours to seven days in advance to provide visibility to incoming demand.
- **Care Progression** that will provide real-time visibility into discharge barriers and automatically escalate issues from units to the system when additional intervention is needed. This will help ensure that teams have help to resolve discharge barriers.
- **Intelligent Demand Distribution** that will help load balance patients across HonorHealth's six hospitals, unlocking new system-wide efficiencies beyond single facility optimization. Qventus machine learning will also help identify opportunities for intra-system transfers to reduce boarding time, decrease diversions, and expand patient access.

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## A new competitive advantage from real-time operations

Today, HonorHealth is significantly further along in its journey to becoming a real-time health system. 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 HonorHealth recruit and retain the best care team members so they can continue to deliver on their mission.

Looking ahead, as HonorHealth builds on this foundation and continues to deploy real-time operations in new areas, the health system is poised to further enhance its reputation as a premier destination for care in the region.

"This is a core part of our transformation across the system. By maximizing our assets and resources, we can operate in a way that puts us above the competition."

**Kim Post, DNP, MBA, RN, NEA-BC**, EVP and Chief Operating Officer