




How Baptist Hospital drastically reduced infection prevention rates, saving more than \$1.2 million

 Baptist Hospital found the winning combination for infection prevention



Challenge

During their hospitalizations, one in 25 patients experience at least one Hospital Acquired Infection (HAI) and about 75,000 hospital patients die each year due to HAIs, according to a recent Center for Disease Control survey.¹

Baptist Hospital is among the more than 5,000² U.S. hospitals³ that report HAIs to the Centers for Medicare and Medicaid Services (CMS) as part of the Hospital Acquired Conditions (HAC) Reduction Program established by the Patient Protection and Affordable Care Act (ACA). Beginning in Fiscal Year 2015, the HAC Reduction Program required the Secretary of the Department of Health and Human Services to adjust payments to hospitals ranked in the worst-performing quartile of all subsection (d) non-Maryland hospitals with respect to risk-adjusted HAC quality measures. Hospitals with a Total HAC Score greater than the 75th percentile of all Total HAC Scores (i.e., the worst-performing quartile) were subject to a 1 percent payment reduction.⁴

In December 2015, Baptist Hospital was working to implement processes that allowed proactive interventions for HAIs like central-line associated bloodstream infections (CLABSI) and catheter-associated urinary tract infections (CAUTI). Even as the Quality department recognized opportunities to improve their patient-safety programs, they wanted to allocate more resources to work more closely with staff on prevention strategies. The knowledge, time and talent of their Infection Preventionists would be the answer, but their team's time was consumed with managing the required daily abstraction workload. As a result, the hospital experienced a high number of HAIs and subsequently was penalized by CMS.

¹ <https://www.cdc.gov/HAI/surveillance>

² <https://www.aha.org/statistics/fast-facts-us-hospitals>

³ Subsection (d) non-Maryland hospitals

⁴ <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Downloads/FY2018-HAC-Reduction-Program-Fact-Sheet.pdf>

Solution, top-line results

To engage clinical teams in improved patient-safety programs and reduce the number of HAIs, Baptist Hospital partnered with Q-Centrix. The Q-Centrix infection prevention solution offered technology and a team of industry-leading infection preventionists to alleviate the burden of data management. By 2017, the partnership resulted in:

- 20+ hours a month for the Baptist Hospital team to proactively impact infection prevention
- 45% reduction in CAUTI incidents
- 73% reduction in CLABSI incidents
- \$1,206,914 savings in penalties and costs for the hospital⁵

➤ **Engaging the Q-Centrix infection prevention solution, Baptist Hospital eliminated their CMS penalties for HAIs and positioned their organization as a leader in the infection prevention space.**

Background

Baptist Hospital

Baptist Hospital is a 492-bed, acute care facility located in Pensacola, Florida. Opening in 1951, Baptist Hospital is the largest facility in the Baptist Health Care network. The Baptist Health Care network is a system of caring, committed to improving the quality of life for people and communities in northwest Florida and south Alabama. The network is comprised of 3 hospitals, 22 physician groups, 2 ambulatory surgery centers, 7 imaging centers, and 7 urgent care clinics.

Lisa Lavoie, MPH, RN, CIC

Lisa is the Corporate Director of Clinical Quality and Patient Safety within the Corporate Quality Division of Baptist Health Care.

⁵ Based on estimated cost per HAI from <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/1733452> (Data Sheet.pdf)

Hospital acquired infections

A hospital-acquired infection, also known as a nosocomial infection, is an infection that is acquired in a hospital or other health care facility. Hospital-acquired infections are caused by viral, bacterial, and fungal pathogens; the most common types are central line-associated bloodstream infection (CLABSI), pneumonia (VAP), catheter-associated urinary tract infection (CAUTI), and surgical site infection (SSI).

HAIs are a serious threat, not only to patients, but also to health care providers' reputations and finances. In addition to the potential CMS penalty, the average cost of treating an HAI patient is \$15,000⁶. HAIs can also contribute to additional complications and increase readmissions, ultimately putting hospitals at greater risk for multimillion-dollar malpractice awards. The total HAI costs incurred by the U.S. health care system exceed \$30 billion annually.⁷

Q-Centrix

Q-Centrix is committed to transforming data with the clinical expertise, technology, information, and insights to enable better patient outcomes across the enterprise using its market-leading platform, Q-Apps[®]. The platform is supported by a qualified team of more than 1,000 clinical data experts who provide the critical thinking and guidance to make clinical data meaningful. Processing in excess of 3 million data transactions annually, Q-Centrix partners with more than 1,000 hospitals, providing visibility into outcomes such as mortality, readmissions, complications, hospital-acquired infections and sepsis to define a clear path to improved processes and better patient outcomes.

Path to success

Before partnering with Q-Centrix, Lisa and her team struggled to balance time on the floor with time needed to work on the patient safety data her facility was reporting. Abstracting, reviewing then reporting cultures took the predominant amount of her team members' time, so it was challenging to:

- Develop improvement plans from the data.
- Frequently or consistently educate clinical staff on infection prevention.
- Influence staff behavior on the floor.
- Foster a culture of clinical accountability with the bed-side team members.

⁶ <http://khn.org/news/758-hospitals-penalized-for-patient-safety-in-2016-data-table/>

⁷ <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Hospital-Value-Based-Purchasing-.html>

As with all infection prevention partnerships, Q-Centrix began its engagement with Baptist Hospital by assembling a team of highly skilled infection preventionists (IPs). Most Q-Centrix IPs have more than 10 years of infection prevention experience; 75% of the team are certified in infection control; and all team members are required to stay current on any regulatory or relevant changes and updates.

The Q-Centrix team was then given access to facility-specific information systems facilitating their ability to act as an extension of the Baptist Hospital team. After an organized onboarding process, the Q-Centrix team began abstracting cultures for review using the CDC's National Healthcare Safety Network (NSHN) logic built into the Q-Centrix information platform.

Initially Lisa was concerned about delays. Her team needed timely reporting and feedback so they could follow-up on trends quickly. Lisa gave the Q-Centrix team only Surgical Site Infection (SSI) and Ventilator-Associated Pneumonia (VAP) cultures to start and asked her onsite team to do the same work to compare performance.

Lisa then expanded Q-Centrix's responsibilities to include urine (CAUTI) and blood (CLABSI) cultures in addition to the SSI and VAP cultures. The Q-Centrix team communicated feedback to the Baptist Hospital team whenever an exception, insight or HAI was found. All documentation was sent to Lisa's team for review before submission to CMS.

“What we found was that there was no time difference between the two teams. We were able to get the cultures reviewed just as timely with the external [Q-Centrix] team as we'd done with our internal team.”

Lisa estimated that her team regained at least 20 more hours a month to dedicate to process improvement. Now that they no longer abstracted, reviewed and reported cultures all day, her team became more proactive and effective in their approach to infection prevention. They were out on the floor, rounding, educating, and training on-the-spot infection prevention. They successfully implemented a hand hygiene program. To reduce CLABSIs, her team developed education that reinforced the importance of disinfecting connection ports for IVs.

To reduce CAUTIs, her team implemented a program that empowers nurses to reconsider the appropriateness of a catheter and remove the catheter using a nurse-driven protocol.

In 2017, Baptist Hospital's Total HAC Score ranked within the top three quartiles of the country and did not receive a penalty from CMS.

Lisa and her team are completely satisfied with the insight, expertise, and partnership they receive from Q-Centrix. While their goal for developing a new infection prevention program at Baptist Hospital was to improve patient care, the financial implications of their success cannot be ignored. In addition to avoiding the 1% penalty, the facility also avoided the costs associated with treating HAIs.

Prior to this effort, members of the Baptist Hospital finance team had conducted a study to estimate the facility's annual costs in treating HAIs. The hospital findings aligned with published industry averages. Using these average costs, the Baptist Hospital partnership with Q-Centrix equated to a \$1,206,914 savings in penalties and costs for the hospital.

“We are very proud of this accomplishment and the Q-Centrix team helped us to devote more time to infection prevention strategies and spend less time on abstraction. [We’ve documented a] 45% decrease in CAUTI and 73% decrease in CLABSI.”

What's next?

Baptist Hospital continues to partner with Q-Centrix for infection prevention along with other clinical data solutions within the Q-Centrix portfolio to deliver safe, consistent quality health care for its community.

About Q-Centrix

Q-Centrix® aims to improve the quality of patient care in the U.S. through the use of its market-leading technology platform, Q-Apps®, the industry's largest team of clinical quality data experts and its information and analytics assets. Processing in excess of 2 million data transactions annually, Q Centrix partners with hundreds of health care providers offering enterprise clinical quality data solutions, including quality data capture, surveillance, measure calculations, analysis, reporting, and consulting solutions. Q-Centrix's growth equity partner is TPG Growth, a premier, global private equity growth firm. For more information about Q Centrix, visit www.q-centrix.com.



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