

Spotlight on: Emory Healthcare's Work to Reduce HAIs



For Atlanta-based Emory Healthcare, providing high quality, safe, patient and family centered care is at the core of their mission. Like other topranked hospitals in the country, which treat the sickest patients, Emory is Georgia's "medical safety net" – the place where other hospitals send their patients with the most serious and complex health issues. Last year, Emory doctors were responsible for more than 3.6 million patient visits, representing a substantial portion of all healthcare in Atlanta.[1]

To provide the safest patient and family-centered care possible, Emory is constantly looking for ways to improve their care. "Emory is committed to eliminating preventable harm. We recognized that although some areas in our system had been successful in reducing certain healthcareassociated infections (HAIs), opportunity remained to ensure that these innovations were effectively delivered to patients across our system. We knew that system-wide success required a system-wide improvement strategy," explained Emory's Patient Safety Officer Dr. David J. Murphy.

According to the CDC, on any given day, about one in 31 hospital patients has at least one healthcare-associated infection. [2] That results in approximately 1.7 million HAIs in US hospitals each year. And some HAIs are linked to increased chances of dying in the hospital. For example, patients hospitalized for MRSA have longer hospital stays and are more likely to die than patients who do not have MRSA.[3]

Dr. Murphy leads patient safety efforts across the Emory Healthcare system including Emory's eleven Atlanta-area hospitals. "We created a hospital-acquired condition quality acceleration team (HAC QAT) which brings together a multidisciplinary team including front line clinicians, content experts, and leaders on the hospital and system levels to get broad buy-in. We examined what are we doing well and what do we need to improve across the system," said Dr. Murphy.

To reduce their rate of healthcare-associated infections, Emory focused on five areas, including:

- CLABSI
- MRSA
- CAUTI
- Cdiff
- SSIs (Surgical Site Infections)

To eliminate CLABSI and MRSA, line insertion and maintenance is critical. To address this, Emory improved their insertion and maintenance processes and expanded their vascular access team. Expansion of the team included hiring and assigning more people to help ensure highly reliable adherence to evidence-based practices for both line insertion and line maintenance.

To reduce CAUTI, Emory focused initially on improving diagnostic stewardship by implementing reflex testing. This required close collaboration with lab specialists and bedside clinicians. After assessing the appropriate thresholds, Emory integrated the order process into their electronic medical record (EMR). This resulted in 45% improvement in urine cultures and avoided 55 CAUTIs.

To reduce C. diff, Emory's HAC QAT team created a new algorithm for C. diff testing. Dr. Murphy explains, "We recognized that we were under recognizing patients with community-onset C. difficile infection or colonization and misattributing subsequent diarrhea to a hospital-acquired infection when it could be other causes. We created a "Diarrhea Decision Tree" to help guide clinical decision making, which resulted in a 28% decrease in Cdiff."

Finally, to reduce Surgical Site Infections, Emory initially focused on prophylactic perioperative antibiotic administration. Specifically, Emory © For personal and private use only. Reproduction must be permitted by the copyright holder. Email to copyright@mindbyte.eu. redesigned and simplified the antibiotic selection administration process. Additionally, the hospital provided OR team members with notification tools which alerted staff to missed antibiotics as well as weekly adherence emails.

Overall, Emory experienced a 40% decrease in all targeted healthcare-associated infections. The hospital estimates that over the past two years, their efforts have saved 16 lives and more than \$5.9 million from reducing this preventable harm.

"This change was driven by our front-line leaders. We are constantly seeking to identify our areas for improvement and working together to enable our teams to deliver the highest quality patient care possible. We succeeded by working closely giving our frontline leaders a seat at the table, listening and then working on the back end to make improvements in care possible. We continue working to make it simple and easy for our teams to do the right thing for every patient every day."

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