3M Health Information Systems

Case study:

Community hospital reduces length of stay*

Location:
Northeastern United States

Type:
Not-for profit community hospital and sole provider of acute and general hospital services to approximately 80,000 people

Staff details:
More than 95 percent of physicians on staff are board-certified in at least one specialty

Challenge:
$1.9 million in excess LOS

insights by **verily**

*Because of client confidentiality, this case study has substituted "community hospital" for the actual organization's name. The snapshot description is accurate, and the facts and figures reported as results are true to 3M findings; only the institution's name has been altered for privacy reasons.

Their challenge: Prioritize focus on sustainable outcomes

Through value-based contracts with commercial payers, this community hospital is incentivized to drive efficiency while maintaining the high quality of care and clinical excellence the facility is known for. The challenge: Secure sophisticated, well-focused analytics that could contribute to an organizational action plan. Specifically, the hospital leadership needed insights that would appeal to the hospital's clinicians, address critical performance inefficiencies in patient throughput and alleviate the corresponding revenue pain points.

While the hospital's leadership was aware of opportunities to reduce length of stay (LOS) across the organization, they were uncertain about where to focus their efforts and resources.

"It was very beneficial to have 3M come in, and look at those [opportunities] and say, yes they validated that your data supports it, you have some opportunities to decrease your length of stay in regard to a specific diagnosis or a specific disease process," the vice president of quality and risk management said. "So that helped to narrow down the area we were going to focus on and what type of project we were going to embark on together."

The solution: Prioritized opportunities from the data insights

The hospital's leadership recognized they required a deep and highly specific understanding of their organizational performance before they could tackle the LOS opportunities. They selected 3M's performance improvement platform as the solution to assist in the process.

The 3M performance improvement platform combines decades of coding and risk-adjustment methodology and experience with the data processing power of Verily, a subsidiary of Alphabet Inc. (formerly Google Life Sciences).

The opportunity: $1.9 million in excess LOS

3M looked at the hospital across multiple performance measures simultaneously and prioritized them, ultimately identifying $1.9 million in excess LOS across multiple service lines.

The orthopedic surgery and infectious disease departments were then identified as the highest priority service lines, where 20 and 55 percent of discharged patients were staying longer than expected. The 3M performance improvement teams began identifying critical opportunities for the hospital to build a roadmap to improve the LOS numbers.

The team began by focusing on improving the discharge process by reducing the time to discharge window and introducing a new rounding protocol that improved communications between clinical care team lines and post-acute care facilities. This resulted in the prevention of patient deconditioning, a known contributor to extensive LOS.

Next, the team focused on improving and expediting workflows, empowering nurses and clinicians in key workflows such as computerized physician order entry (CPOE). The team also addressed gaps in current policies and procedures that led to accelerated care for infectious disease patients.

In both departments, analytics-driven focus areas included hip and knee joint replacement with severity levels of two and three; sepsis; ICU stays; and high severity of illness (SOI).The organization also aimed to reduce the delays seen when admitting patients from the emergency department.

The results: Increased efficiency and throughput

The organization and 3M improved the discharge process and implemented a new rapid response infectious disease protocol, improving patient throughput to align with national best practices and reduce excess LOS.

After 11 months, the orthopedic surgery team improved discharge planning and coordination between hospitalists and orthopedics, resulting in a 12.1 percent (86 days) improvement in LOS. The department is currently running at -3.2 percent below best-practice benchmarks, where previously they were 8.91 percent above the benchmark.

The 3M and client clinical teams introduced a prechecked bowel regimen on all physician admission orders and empowered their staff to initiate bowel care. The department also focused on earlier identification of sepsis diagnoses to expedite care and improve patient outcomes. The result was a reduction in LOS of 5.75 percent, or 126 days. Infectious disease is currently running at -0.84 percent below industry best-practice benchmarks, compared to their 4.91 percent above the benchmark prior to intervention.

"With 3M, we were able to achieve a perspective that we may not have been able to get by evaluating ourselves."

—vice president, quality and risk management

Real results

In orthopedic surgery:

- Reduction of 12.1 percent (86 days) in LOS
- Improvement in best-practice benchmark from 8.91 percent above to -3.2 percent below
- Reduced time to discharge window
- Improved communication between hospital staff and post-acute care facilities
- More accurate coding and charge capture for hip and knee replacement surgeries
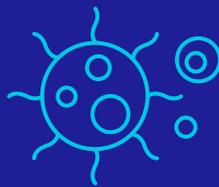
In infectious disease:

- Reduction of 5.75 percent (126 days) in LOS
- Improvement in best-practice benchmark from 4.91 percent above to -0.84 percent below
- Initiation of a new, prechecked bowel treatment regimen and a new infectious disease protocol
- Accelerated patient care

In overall hospital operations and patient throughput:

- Streamlined admissions for patients moving to an inpatient service line from the ED
- Improved discharge processes
- Expedited workflows, including CPOE

A culture of trust with the 3M™ Performance Matrix Platform

The changes that the hospital and 3M implemented were no small feat. The entire process required buy-in from key stakeholders across the organization and the re-tooling of many processes. By transparently communicating across groups and sharing information, the teams achieved long-term, sustainable performance improvement outcomes.

As the community hospital's vice president of quality and risk management said, "3M has always been honest. They may not have told us what we wanted to hear, but they told us what we needed to hear to move ahead."

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For more information on how 3M software and services can assist your organization, contact your 3M sales representative, call us toll-free at **800-367-2447**, or visit us online at **www.3m.com/his**.

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