

Improving hospital quality and utilization

Spotlight on four organizations that transformed operations through data insight

Driving positive change through data insights

Improving hospital quality and utilization is crucial for better health care outcomes. By enhancing care quality, optimizing resource use and leveraging data insights, hospitals can improve patient satisfaction, reduce costs and enhance population health.

Optum has successfully helped organizations nationwide achieve these goals through data-driven initiatives. These case studies offer valuable insights into strategies for positive change in health care delivery.

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01 Standardized sepsis reporting drives improved patient outcomes

CommonSpirit Health (Mountain Region): 20-hospital region in KS and UT

Sepsis has been a longstanding focus for CommonSpirit Health's hospitals in Colorado, Kansas and Utah. Across the past several years they have partnered closely with Optum to improve reporting and benchmarking for their sepsis population.

Unlocking new insights

Using advanced analytics from Optum, the organization was able to develop customized reporting to track risk-adjusted outcomes-based measures for their sepsis population. This data provided valuable insight into the impact of improved bundle compliance on lives saved and cost savings and allows then to continually evaluate progress over time. Leveraging the data and analytics from Optum, they will have the ability to track bundle compliance and outcomes all in one platform.

The success of this initiative was driven by several key steps:



Identifying reporting gaps

Through conversations with leadership, the organization recognized the need for risk-adjusted sepsis outcomes. While data was previously pulled as needed, there was no standardized outcomes report for the entire system.



Collaborating with system leaders

Hospital quality and physician leaders worked closely with Optum to define the parameters for the report, ensuring it met the needs of all stakeholders. This included supporting Joint Commission surveys and evaluating system-level trends.



Developing custom reports

A customized sepsis outcomes dashboard was created, providing facility-level quality leaders with valuable data to drive engagement and improvement efforts.

Impact

26%

reduction in sepsis mortality rate (87 avoided sepsis mortalities)*

6.3%

reduction in sepsis length of stay*

$1.37M

in direct cost savings*

* All numbers based on mutually agreed on ROI between the client and Optum.

02 Updated order sets decrease unnecessary drug utilization, improve outcomes

Hospital: 50-bed, located in the Midwest

At this hospital in the Midwest, all patients diagnosed with severe sepsis and septic shock were historically treated with Levaquin and Vancomycin. Realizing the drawbacks these drugs can have, such as an increased risk of multidrug resistant organisms, cardiac side effects and a higher risk of clostridium difficile (C. diff) infection, the Quality and Antimicrobial Stewardship team set out to make a change.

Custom dashboards make the case for positive change

By utilizing custom dashboards and data analysis, the Quality and Antimicrobial Stewardship team made an informed decision to reduce the usage of Levaquin and Vancomycin. They updated the order sets for patients with sepsis, removing the preselection of these drugs and replacing them with more suitable alternatives.

As a result of these changes, not only was there a decrease in the use of Levaquin and Vancomycin, but there was also a reduced risk of antimicrobial fluroquinolone resistance and a lower incidence of side effects like cardiac arrhythmias and C. diff infection.

Evaluate current practices

Previously, severe sepsis and septic shock patients received Zosyn, Levaquin and Vancomycin. Vancomycin was usually continued until blood cultures confirmed absence of gram-positive organisms, often taking days.

Engage hospitalists and pharmacy

The Antimicrobial Stewardship gained support by educating hospitalists and the pharmacy about the current recommended practices and the upcoming changes to the order sets.

Process updates

The hospitalist team improved sepsis management by ordering MRSA swabs and requesting a rapid blood culture analyzer. They also removed automatic Levaquin selection for sepsis patients.

Measure progress and impact

The team created a specialized analytics dashboard to monitor the usage and financial impact over time. This report revealed that approximately 950 doses were saved throughout the year.

Impact

542
Doses of Vancomycin avoided in one year

407
Doses of Levaquin avoided in one year

$16K
Total additional cost of Levaquin and Vancomycin doses saved

03 Weekly case review drives significant reduction in length of stay

Regional system: 40+ facilities, located in GA

In 2021, considering the impact of the pandemic, this organization made reducing length of stay a strategic priority. This was driven by the urgency to discharge non-COVID-19 patients that were eligible to be discharged as quickly as possible.

Comprehensive approach reduced length of stay

The health system implemented a comprehensive approach to reduce length of stay, which included the following strategic actions:

Identified length of stay opportunities

- Used Optum analytic data to gain a better understanding of the specific factors contributing to high length of stay.
- Focused on addressing the needs of Medicare Advantage and Medicaid patients with a length of stay exceeding 10 days.

Tracked patient encounters with analytics

- Developed multiple reports that specifically focused on Medicare Advantage and Medicaid patients.
- Highlighted outcomes within different length of stay ranges, such as 4–10 days versus 10+ days.

Held weekly case management meetings

- Regularly convened a committee to review overall trends in length of stay.
- Conducted in-depth reviews of outlier cases to identify areas for improvement.

Impact

1,868

days reduced*

$934K

cost savings associated with reduced LOS*

* All numbers based on mutually agreed on ROI between the client and Optum.

04 Hospital drives down readmissions through consistent, strategic focus

Hospital: 500-bed, located in the Northeast

With the goal of achieving consistent reductions in hospital-wide readmissions each year, this organization focused on identifying key conditions and drivers that would make a significant impact. Their aim was to achieve both short-term success and contribute to long-term improvement trends.

Remaining committed to the goal

The organization utilized inpatient analytics from Optum and internal data sources to identify the most impactful drivers of readmissions and track long-term improvement trends. To succeed, the team:

1. **Assembled a diverse group,** consisting of hospital leadership, providers, nursing, care coordination, respiratory specialists, diabetes specialists and community home care partners.
2. **Encouraged regular collaboration** among team members to review outcomes; analyze detailed data; and discuss barriers, opportunities and successes.
3. **Identified readmission drivers** by analyzing both data and case study reviews of recent admissions, with a focus on challenging cases for continuous learning and strategy development.
4. **Expanded the scope of interventions** to include targeted approaches for specific discharge dispositions, such as skilled nursing facilities and home health, based on successful outcomes.

Impact

5%

reduction in readmission rate in one year*

66

readmissions avoided in one year*

$553K

approximate cost savings from avoided readmissions*

* Data from January 2021-December 2022, all physicians. All numbers based on mutually agreed on ROI between the client and Optum.

Learn more about how Optum can help your organization transform hospital quality and utilization through data

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