Combining clinical and financial data to identify significant cost reductions

The University of Mississippi Medical Center (UMMC – Jackson, Mississippi) uses Allscripts EPSi™ to find strategic opportunities to reduce cost and improve care. Using integrated clinical and financial analytics, the organization has identified ways to reduce unnecessary clinical lab testing and high-cost medication use. UMMC has the potential to save more than $1.3 million annually with these changes and plans to use EPSi to find more operational efficiencies.

Experience

UMMC is the only academic health science center in the State of Mississippi. UMMC includes six health schools: medicine, nursing, dentistry, health-related professions, graduate studies and pharmacy. Integral to its education and research missions, UMMC provides wide-ranging patient care programs through four specialized hospitals on campus.

To help provide better care at a lower cost, the organization has worked towards more strategic budgeting for the past several years. It recognized the need for tools with integrated financial and clinical analytics.

“When I came on board in 2006, UMMC did not have a cost accounting system,” Director of Decision Support, Finance Operations Bryan Clements said. “We selected Allscripts EPSi primarily for its Open architecture and SQL back end.”

Solutions

UMMC implemented EPSi modules at different times. “Implementation of Allscripts EPSi was done very, very well,” Clements said. “In fact when we purchased our most recent module, Productivity Manager, implementation only took about 45 minutes.”

UMMC uses EPSi for general ledger activities, including fund accounting, bi-weekly reports and budget analysis. “Our institution is getting away from the income-statement-budget mentality where you get a certain amount of money and use it all up by the end of the year,” Clements said. “With EPSi’s integrated medical and financial analytics, our budgeting process is becoming much more strategic.”

UMMC uses service line reporting and patient analytics to take a closer look at potential cost savings opportunities. Early areas of focus include reducing unnecessary lab testing and identifying efficient and effective uses for medications.

Overview

CLIENT PROFILE:
- Academic medical center
- Four specialized hospitals
- 9,100 full- and part-time employees
- 500 physicians in faculty group practice

SOLUTIONS:
- Allscripts EPSi™ modules:
  - Budget Manager
  - Cost Manager
  - Product Line Analyst
  - Management Dashboard
  - Strategic Product Budgeting
  - Productivity Manager

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Bryan Clements
Director of Decision Support, Finance Operations
UMMC
SAVING TIME WITH AN OPEN, FLEXIBLE PLATFORM

“Allscripts EPSi is a great off-the-shelf solution that we can customize in many different ways,” Clements said. “The Open architecture has given us a lot of operational efficiencies.”

The organization makes use of SQL Server Integration Services (SSIS) and SQL Server Reporting Services (SSRS) to streamline processes and make use of efficiencies these tools provide. For example, UMMC uses SSIS and SSRS to clean, format and reconcile the data load process. SSRS helps staff build custom reports for the organization.

Outcomes

UMMC uses EPSi to identify and quantify opportunities to reduce costs. “Meaningful healthcare projects start when financial and medical data are integrated,” UMMC Director of Clinical Pathology Brad Brimhall, MD, MPH said. “We can achieve positive project results when we can leverage that data, design and execute interventions, and measure results.”

REDUCING UNNECESSARY LAB TESTING

Certain laboratory tests have enough diagnostic accuracy to make other tests unnecessary. For example, when requesting tests for inflammation, a clinician does not need to conduct erythrocyte sedimentation rate (ESR) and C-reactive peptide (CRP) lab tests. The UMMC team used evidence-based guidelines to identify and evaluate 21 redundant testing scenarios.

EPSi helped UMMC isolate these lab tests and quantify the direct and indirect costs of conducting them. The project identified more than $680,000 in annual total costs for these scenarios. Thyroid testing represented the largest cost area. UMMC is now working with providers to communicate testing options which are better for the patient and for the financial health of the organization.

IDENTIFYING EFFECTIVE, EFFICIENT USE OF MEDICATIONS

With the help of Dr. Brad Brimhall, UMMC also focused on expensive antibiotics. A simple lab test can determine whether or not a patient will respond to high-cost drugs, or if a lower-cost prescription would be as effective. UMMC used EPSi along with other tools to find out how often the drugs were administered after lab test results showed patients were not receptive.

In a retrospective analysis of one year’s data, UMMC found 2,157 doses of high-cost drugs that could have been safely replaced by lower-cost medications. UMMC estimates the net savings at about $650,000.

WHAT’S NEXT FOR UMMC

UMMC will continue to combine clinical data with cost data from EPSi. “With a rich data set, we can fine-tune pathways and standard order sets for the clinical side,” Clements said. “These tools help better prioritize decisions for patient issues, like unnecessary lab testing, which are also often cost issues, too.”

OUTCOMES:

• Identified unnecessary clinical lab testing valued at $680,000 from one year’s data
• Identified high-cost drug savings of $650,000 from one year’s data

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Director of Clinical Pathology
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