Reducing Readmissions through Analytics and Performance Improvement

CTC Enterprise Ventures Corporation
consulting@evc.ctc.com
100 CTC Drive
Johnstown, PA 15904-1935
http://evc.ctc.com
The Challenge

A widely acknowledged New England Journal of Medicine study from April 2, 2009 estimated that re-hospitalizations cost $17.4 billion in Medicare and Medicaid payments in 2004. Hospitals have made little progress in lowering those costs since, according to researchers from the Dartmouth Institute for Health Policy and Clinical Practice.

The report further states about 40% of re-hospitalizations can be prevented, representing nearly one million unnecessary readmissions. So why has so little progress been made in this area? Some would argue there was never a business case for improvement and therefore it was not a priority for hospital administrators. That business case has now been made. As of October 2012 certain Medicare payments are now performance-based with hospitals losing up to 1% of reimbursements as a result of unnecessary re-hospitalizations.

The Financial Implications

The performance-based payments are based on benchmarked data from 2008 to 2011 and will be compared to the hospital’s 30-day readmission rates. If they exceed a specified threshold, their reimbursements could be cut by up to 1%. The initial measures currently benchmark heart attack, heart failure and pneumonia readmissions. By October 2014 the pay cuts could be as much as 3% and could include procedures and conditions such as vascular surgeries, chronic obstructive pulmonary disease and coronary artery bypass surgery. For many hospitals this represents hundreds of thousands of dollars in potentially lost Medicare payments.

According to a Thompson Reuters research brief from August 2010, a hospital with 250 heart patients and a readmission rate greater than the accepted Centers for Medicare and Medicaid Services (CMS) standard would lose up to $250,000 in Medicare pay each year. A 500-bed acute care hospital would lose anywhere from $1 million to $30 million in payments, depending on where CMS sets the readmission rate standard. With so much at stake, hospitals are starting to take notice and have embarked on some successful initiatives to address readmission rates.

The Successes

Select states and organizations have made some promising progress in reducing the readmission rate.

- **Project BOOST (Better Outcomes for Older adults through Safe Transitions)** is sponsored by the Society of Hospital Medicine and has enlisted over 100 hospitals to participate in programs to encourage the hospital, the patient, and the outpatient and inpatient providers to work together in a coordinated fashion to ensure the patient gets the quality of care required to prevent a
readmission. The Patient Preparation to Address Situations (after discharge) Successfully (PASS) worksheet came out of this project; it is a customizable, single-sheet transition record with information on the patient’s condition, medical contacts, appointment schedule, issues to discuss with providers, and how to respond to symptoms.

- **The STAAR Initiative (STate Action on Avoidable Rehospitalizations)** is a four-state project with over 150 participating hospitals. The fundamental objectives of the program are to ensure that patients understand how to care for themselves when they leave the hospital and to make sure they receive timely follow-up medical attention for their conditions.
- Some hospitals provide patients with tip sheets and **Discharge Planning Guides** that include basic information such as expected discharge date, follow-up appointment time frames, medication lists, required medical equipment, symptoms to look for and how to respond.
- Other hospitals are proactively conducting **Risk Stratification** exercises to identify patients at high risk for readmission and following up with telephone calls shortly after discharge to make sure the patients have scheduled and will attend necessary physician appointments, recognize their symptoms, understand their medications, and are aware of and following their own care regimens.
- Hospitals are also improving the **Medication Reconciliation** process at the front end when people are initially admitted to the hospital and on the back end when patients are discharged. Nearly two-thirds of readmissions are related to the patient’s medication; most of these are preventable.

### The EVC Total Optimization Solution

EVC’s Total Optimization solution consists of Analytics technologies and Performance Improvement methodologies, overlaid with a comprehensive project management approach to ensure our solutions are data driven, results-oriented and sustainable.

1. Identify your specific **Readmission Rates** for particular conditions. We will help conduct a risk stratification exercise which will help you gather, analyze relevant data to determine the top 30-day readmission conditions in your particular hospital. We will then work with you to prioritize the areas which present the best opportunities for improvement.

2. Implement or leverage EVC’s **Advanced Analytics** solutions to determine the root cause of specific readmissions across the continuum of care from admission to discharge to community follow-up. We will integrate data from your various information systems, both electronic and manual,
and using Advanced Analytics tools gain insight into specific causes for the most significant readmission conditions. This data-based methodology will provide you verifiable conditions, either clinical or process-related, on which to focus improvement efforts.

3. Use **Lean Six Sigma (LSS)** tools to identify inefficient and ineffective processes which affect readmission. This means closely examining processes such as medication reconciliation, admissions, case management, discharge planning and transitional care, among others. By mapping the processes and value streams which may impact readmissions, you will be able to identify process bottlenecks, system constraints, and error-prone areas of the organization. This will help you to further focus on problematic processes and sub-processes. Additional LSS tools, both quantitative and qualitative, will be used to further measure and evaluate how processes affect readmission.

4. Implement a comprehensive **Improvement Plan** to reduce specific readmissions, complete with customized, easy-to-use templates for use by patients, hospital staff, and external providers. An improvement plan with specific method changes, a roll-out schedule for each proposed change, and associated tools and templates will be developed with your staff, which will be trained in the use of relevant tools and templates. To improve compliance, we can integrate the tools, templates and metrics into existing technology systems or implement new solutions such as Intelligent Business Process Management (iBPM) solutions.

5. Leverage **Enterprise Data Warehouse (EDW)** and **Business Intelligence (BI)** technologies to construct meaningful management reports and dashboards. BI will assist you in measuring and managing an organization’s readmissions, complete with metrics that track in-process activities and outcomes. Measuring what you manage is critical. Reports that update the process metrics on a regular basis will ensure your team stays on top of any readmission issues.

6. Provide you with a **Change Management and Sustainability Plan** to ensure gains are maintained and continually improved. The plan will detail which processes to measure and monitor, a sampling plan, data repositories, and staff responsibilities. In addition, we will make sure that the appropriate knowledge and skills transfer occurs to ensure sustainability. Our process ensures sustainable results and therefore EVC provides periodic maintenance audits to make sure you are the organization is still on a growth path to achieving further success.

**The EVC Guarantee**

EVC has completed a number of clinical and non-clinical analytics driven, process improvement initiatives with healthcare providers across North America. Our success rate in achieving our goals and cost savings has always exceeded our client’s expectations. EVC is so confident that we can help you achieve results that we **GUARANTEE**¹ that any performance improvement project you engage us in will, at a minimum, be cost neutral to you by the end of the first year. If we cannot show at least a cost neutral financial position after the first year, we will refund the difference to you. Our track record shows most of our projects return a greater than one to one Return on Investment (ROI).

In addition, your organization will reap the benefits of improved processes associated with readmissions, learn from and gain valuable experience from the EVC team’s talented consulting group.

¹ Some conditions apply
EVC's Experience

EVC has worked on numerous projects in all areas of management and operations to reduce waste, introduce efficiencies and realize both qualitative and quantitative savings. Some of the areas we have worked on include:

- Aerospace
- Telecommunications
- Manufacturing
- Healthcare

We have managed and implemented many multi-stakeholder Lean/Six Sigma, Process Optimization projects to enhance aspects of the business from back office operations such as HR, Accounting and Finance to front line process improvements that drive key business production and service processes to drive bottom line revenue growth and cost reduction.

EVC delivers results and not just reports. Our team is committed to working on the ground with your staff to drive bottom line improvements. We’re so confident that we can help your organization that we’ll share the risk with you! Contact us to find out how we can help your organization attain operational excellence today!

About CTC Enterprise Ventures Corporation

A wholly owned affiliate of Concurrent Technologies Corporation (CTC), Enterprise Ventures Corporation (EVC) provides Production, Professional Services and Consulting services to government and private sector clients. Together, CTC and EVC have over 1,300 staff spread across 50 locations. Our mission is to transfer advanced technologies to the industrial base and deliver technology products and services of the highest quality to our clients.

For more information on our Lean/ Six Sigma or other solutions, contact us at consulting@evc.ctc.com.

For more information on EVC, please visit http://evc.ctc.com.
For more information on CTC, please visit http://www.ctc.com.