



Siemens 2011 Inspired Healthcare Outcomes Challenge—Most Inspired

United Health Services  
Reducing Hospital Readmissions Using LACE Score

Decision Support Solutions

Challenge

Readmissions impact both financial performance and patient care. Each readmission currently costs United Health Services (UHS) an average of \$7,200. Annually, this approaches \$10 million. UHS decided to focus on reducing readmissions by prospectively determining, among the currently admitted patients, which ones were most at risk for a subsequent readmission. Once patients were identified as risk for readmissions, the challenge was to intervene to reduce that probability.

Solution

UHS used Decision Support Solutions (DSS) from Siemens to calculate a LACE score. The LACE score has been proven by research to accurately predict readmissions to the hospital. LACE uses 4 factors to create a risk score: Length of Stay, Acuity, Co-morbid Conditions, and previous Emergency Department visits. DSS tools, such as stored procedures and integration services, were used to calculate a LACE score for each patient and publish reports. The higher the LACE score, the higher the risk of readmission. Care managers on the nursing units then focused additional attention on the high-risk patients to ensure they received education, post-discharge instructions, and medication management instructions. This allowed the case managers to manage their resources toward high-risk patients and help reduce potential readmissions to the hospital. UHS also created readmission key performance indicators for pneumonia, heart failure, AMI, and chronic obstructive pulmonary disorder and published them on the internal scoreboard for the senior management team to monitor.

Outcomes

The quantifiable outcomes UHS achieved were a reduction in the volume of overall readmissions and the top 4 high-risk DRGs. UHS began tracking readmission rates in 2009 and, at the time, had an almost nine percent readmission rate. By April 2011, the rate had decreased to six percent. UHS also started seeing increased patient satisfaction results. At the present time, UHS is focused on reducing chronic heart failure readmissions.

*“The LACE tool has been key in facilitating care management of patients especially with respect to our readmissions and clinical Core Measures. The LACE score identifies patients at increased risk for readmission so care managers and nursing staff can spend additional time with the patients to educate them and minimize risk of readmission.”*

Kim Pilarchik  
Special Projects Director  
United Health Services Hospitals

Year	Month	Visits	Readmissions	Percentage Readmissions
2009	January	2158	191	8.85%
	February	1945	157	8.07%
	March	2245	193	8.60%
	April	2221	188	8.46%
2010	January	2131	178	8.35%
	February	2070	191	9.23%
	March	2210	185	8.37%
	April	2168	185	8.53%
2011	January	2082	162	7.78%
	February	1881	181	9.62%
	March	2098	166	7.91%
	April	2051	126	6.14%

The outcomes achieved by the Siemens customers described herein were achieved in each customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption), there can be no guarantee that others will achieve the same results.

Answers for life.