



Quality Reporting Micro Case Study

Chronic Care: Managing the Diabetes Population by Giving Your Clinical Repository a Medical Degree

The Situation

To keep chronic patient populations in good health with long-term diseases like diabetes, asthma, and CAD (Coronary Artery Disease), evidence-based care guidelines have been established to support consistent quality of care for patients. However, physicians face an ongoing challenge to keep up with the needs of their chronic care patients, even though they are directed and given incentives to follow evidence-based protocols supported by specific pay-for-performance (P4P) measures.

The Challenge

A number of issues make it challenging to achieve high performance for evidence-based guidelines. Primary Care Physicians (PCPs) have become overloaded with large patient panels that mix both chronic care and non-chronic patients. Care has become primarily reactive to the patients who take charge to schedule visits and respond actively to guidance. On the other hand, passive patients, who do not follow the guidelines, are often difficult to track and engage. In addition, diabetes care is complex, so visibility into these patients requires information from multiple sources, including laboratory tests (HbA1C and LDL) and specialty visits such as ophthalmology exams. Data is difficult to compile, since multiple systems and organizations track the various components of care. Claims data available to payers is insufficient and not timely to support interventions such as letter campaigns. Because data required to improve care is visible only when a patient is at a provider visit, as a rule, at-risk patients do not receive sufficient outreach.

As a result, the average provider organization has P4P numbers at risk for their diabetic population, including routine care activities including annual lab tests, control levels of HbA1C, and ophthalmology exams. Not only is money at risk, but patients are as well. There is the additional potential of care disparities driven from P4P: Between 30 percent to 40 percent of diabetic patients are not covered through standard insurers and therefore are not included in P4P measures. To adequately provide for consistent payer-blind quality improvement, all patients should be tracked and monitored equally.

How can hospitals and academic medical centers improve their compliance with evidence-based medicine to enhance the quality of care for their entire diabetic population and meet their chronic care P4P metrics?

The Solution

Recombinant has developed a quality reporting utility that uses clinical EHR (electronic health record) data combined with laboratory results, billing, and payer claims data to provide effective, practical, and realistic ways for physicians, practices, and providers to view and manage their diabetic populations.

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Recombinant had to overcome many challenges in using disparate data for population-based reporting. One challenge was identifying patients who have diabetes. Since EHR data can be ambiguous and/or incomplete (i.e., the illness is not documented), Recombinant applied multiple algorithms to assign diabetes to a patient. These algorithms included logic such as tracking diabetes medication prescriptions and elevated HbA1C levels, and collecting diagnosis information from multiple sources. Another challenge was mapping patients to both their primary care provider and the practice so their care provider could administer interventions. Lastly, data for lab tests and foot and eye exams, and other EHR data needed to be uniformly coded regardless of the source from which it was collected to allow different types of high-quality reports to be generated to improve and support the quality of care.

Once Recombinant ensured the integrity of the data, it then, in effect, gave the quality data repository a medical degree in diabetes care. It codified how diabetics should be tracked based on content from doctors to create a population-based clinical decision support framework around the condition. This reporting system comprises a suite of reports that supply the clinical intelligence healthcare providers need to better manage their diabetic populations and ultimately provide higher-quality care:

Detailed Risk Views: An algorithm for assigning risk to each patient allows clinics to review not only one care item but also the combination of care for each patient, so at-risk patients can be efficiently prioritized by need to receive proactive care. Elements of the risk algorithm include whether certain tests have been completed within recommended intervals, whether the medication profile is aligned with the patient's current test results, and the degree of elevation of the patient's lab results. The report includes detailed patient information including demographics and a wide range of care items with dates and results. It also links to the patient's full medical record so clinicians can review any physician notes not available in the report. Based on this report, a practice specialist can focus on scheduling each at-risk patient for a visit, a lab test, or nutritional counseling, or on restructuring medications to bring their condition under control.

Patient Letter Campaigns: Administrators at practices can generate patient lists to create letter campaigns. Based on the clinical data available in the data repository, the letters include information about the patient's current care and areas the patient should focus on to improve their health.

Peer-to-Peer View: This set of reports helps individual physicians and groups of physicians understand their overall performance regarding their diabetic patient population and how they are performing relative to one another. One report, for example, shows the average HbA1C level for patients by physician within the practice. By showing which physician has the highest and the lowest levels, the medical director has a quick and easy way to engage providers in discussions to understand why individual performance leads or lags group performance and goals. In competitive groups, the comparative scorecards provide a mechanism for recognition of individual excellence within the group.

Pay-for-Performance View: This report tracks an organization's current position relative to its pay-for-performance goals in a concise scorecard for the group. For example, the report can show the percentage of patients who have had their LDL test for the current pay period. By monitoring progress, the medical management team can determine whether the team is falling behind on metrics before it is too late to recover within a measurement period. If performance is lagging, proactive outreach through the detailed risk views can be established to reach patients and drive achievement of P4P targets.

Recombinant is taking the use of clinical data beyond analysis to workflows that focus on actionable intervention opportunities. By instituting a high-quality data repository around chronic care and establishing multiple uses of the data, providers are driving to increase patient safety as well as influence P4P achievement.

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