How Aetna can help hospitals and physicians improve care

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A data warehouse and two programs

- Data warehouse: 8 terabytes, all medical, Rx and other claims, demographics

- Program for Hospitals:
  - Identify potentially life-threatening complications during or after admission

- Program for Physician offices:
  - Identify situations of patient noncompliance, substance abuse or errors of omission and commission in care
Aetna’s Hospital Quality Review

- Unexpected but important clinical events during admission or after discharge for which there are widely accepted preventive clinical strategies

- Feedback to hospital details of cases to determine if and what type of improvements are possible

- Starting point for data-driven medical staff CME and for data-driven QI activities required by JCAHO
“Outcome” Measures

- *Outcome* measures include potentially preventable and potentially fatal adverse events
  - Peri/post-operative myocardial infarction
  - Deep vein thrombosis - pulmonary embolism
  - Clostridium difficile infections
- We look for evidence of these events *both during the hospitalization and post-discharge*
“Process” Measures

- Process measures include the use of two classes of drugs known to prolong the lives of most patients with congestive heart failure
  - ACE Inhibitors/Angiotensin II Receptor Blockers on or after discharge
  - Beta Blockers on or after discharge
Description

- Profiles care in the hospital treatment setting
  - Inpatient
  - Ambulatory

- Measure development
  - accepted clinical guidelines
  - standards of care

- Minimum participation criteria
  - for meaningful measurement hospitals must treat enough patients for us to recognize trends
Longitudinal Design

Post-discharge markers of quality

- Integrated data warehouse allows for more extensive and comprehensive acquisition of data.
  - Re-admissions, admissions to other hospitals, activity in physician offices, pharmacy and lab data
- Provides information otherwise unavailable to hospitals
  - Preadmission and post discharge information
  - Comparative information
Case Mix Adjustment

- Expected rate calculation
  - Adjusted for patient demographics (i.e. age) and relevant clinical factors (i.e. severity of DRG-Diagnosis Related Group)
Patient List(s)

- Identify specific cases with unexpected outcomes:
  - deep vein thrombosis/pulmonary embolism
  - acute myocardial infarction/inpatient surgery
  - acute myocardial infarction/ambulatory surgery
  - CHF with no ACEI/ARB or beta blocker

- Facilitates retrospective analysis and data driven Quality Improvement (QI) for JCAHO accreditation
“Keep the report coming! Please send our patient lists!”
  - Hospital QI Officer

“This is great information. Nobody else is doing anything like this.”
  - Hospital CEO
Patient Safety Alerts and Warnings

Omission and Commission

Patient Compliance

Substance Abuse
Are Patients Managed Well? Are Patients Compliant?

- Diagnosis and treatment history from medical, pharmacy, provider and laboratory claims
- Identify standards of care for common diseases
- Compare treatment of patients with these diseases with standard of care
- Identify and list discrepant situations, including substance abuse/doctor shopping and noncompliance with chronic medications
Medical errors and poor quality health care: overuse, underuse and misuse (Institute of Medicine)

Aetna data suggests which patients have which diseases and what treatments they’ve had

Aetna identifies more than 100,000 patients every month where treatment review may be indicated

Every one of these situations has been brought to the attention of the patient’s PCP or managing specialist

Exploring email and web delivery of this information to doctors
Summary

- Large data warehouse facilitates:
  - Identification of unexpected outcomes
  - Identification of process of care issues
  - Feedback to hospitals and doctors with specific, actionable information
  - Actions should improve process and outcomes of care in New Jersey