Challenges	Solutions
• Ascertain AML diagnosis	• Required 1 inpatient or 2 outpatient claims (within 3 months) with AML primary diagnosis codes
• Define date of diagnosis	• Based on first inpatient or outpatient claim where AML primary diagnosis appeared
• AML not listed as primary diagnosis on allo HCT or chemo treatment date	• Reviewed secondary diagnosis codes to identify patients with AML
• Variation in pre-existing conditions and treatment follow-up timeframe	• Included claims 3 months before and 1 year after date of AML diagnosis
• Define the cohort of patients treated with chemo (No HCT) for AML • Define chemotherapy associated with AML - Lack of chemo drug codes (J codes or NDC) for inpatient claims	• Developed algorithm of code combinations to determine minimum criteria for inclusion - DRG, revenue, J code, NDC, Chemo administration, diagnosis codes
• Costs and outcomes vary by cell source - ICD-9 procedure codes for allo HCT do not differentiate cell source	• Limitation of dataset
Strengths	
• Administrative claims data from approximately 100 payers (large employers, health plans, government and public organizations)	
• Data includes 115 million covered lives which allows study of rare diseases/small populations	
• Data includes both inpatient and outpatient claims allows for service utilization across sites of care	
• Comprehensive data for patient's enrollment period allows for cross-sectional and longitudinal study designs	
• Cost data for adjudicated claims includes patient co-pay and co-insurance	

Figure 1. Challenges and strengths of MarketScan administrative data for HCT research

clinical knowledge but allow adjustment for data limitations to ensure valid results and accurate measures of quality, costs and resource utilization. A thorough understanding of strengths and weaknesses of claims data are necessary in order to minimize bias and to select a cohort that is most representative of the questions that are being addressed. Cohort selection is presently ongoing and additional challenges and solutions will be discussed.

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The Introduction of a Pre-Admission Psychosocial Assessment Process for Pediatric Allogeneic Stem Cell Transplant Patients and Families

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Background: Stem cell transplantation (SCT) is an incredibly stressful and demanding experience for pediatric patients, as well as their family members. Historically, families of pediatric patients undergoing SCT did not meet with the psychosocial team until after admission. As a result, the provision of psychoeducation regarding the manner in which the SCT may psychologically and financially impact the patient and family members is delayed. More specifically, individual, caregiver, or family-based interventions to address issues such as procedural anxiety, mood dysregulation associated with diagnosis and treatment, and significant stress related to treatment decision-making are unavailable to families prior to their inpatient admission.

Aim: This quality improvement project proposed the introduction of a standardized pre-admission psychosocial assessment for pediatric stem cell transplant families.

Goals: The psychosocial assessment process will be more efficient.

The SCT care team will acquire information about each family's individualized psychosocial needs earlier.

Emotional and resource related support will be available to patients and families earlier, which will allow for the provision of support around pre-admission stressors and more preparation for post-admission stressors.

Patient population: Allogeneic stem cell transplant patients referred from outside institutions.

Patients receiving stem cell transplantation for metabolic diseases.

Patients receiving gene therapy.

Interventions: Pediatric SCT clinicians and staff were surveyed on their thoughts towards pre-admission psychosocial assessments.

Project leaders met with SCT patient coordinators to define patient selection criteria and develop the scheduling process.

Psychosocial clinician started to attend weekly Patient Review Meeting.

Psychosocial evaluation added to Transplant Pre-Admission Checklist.

Conclusions: Met and exceeded the goal of evaluating 50% of the defined patient population.

Early psychosocial intervention is necessary and valuable.

Continued data gathering is warranted to further assess the effectiveness of the interventions.

Outcome measures are needed to determine the projects impact on patient care.

Next Steps: This project is ongoing at time of submission. The new process will be reviewed at six months and twelve months post implementation. Stakeholders will be resurveyed to determine the necessity and value of a pre-admission psychosocial assessment. Outcome measures will be developed to determine overall patient satisfaction. Monitoring of clinician and coordinator burden will continue. We are currently surveying other SCT programs on psychosocial services offered; we have contacted 89 centers and have a

17% response rate to date. By one year post implementation we hope to offer a pre-admission psychosocial evaluation to the entire pediatric SCT population.

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Instituting the Very Immunocompromised Alert (VIP) Protocol in a Community Hospital for a New Blood and Marrow Program

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Timely administration of antibiotics in highly immunocompromised patients presenting to the emergency room with neutropenic fever reduces hospital stays, mortality due to sepsis, and costs. Current guidelines recommend that hemodynamically unstable patients receive broad-spectrum antibiotics within 30 minutes of arrival to the Emergency Department. For hemodynamically stable patients, this interval increases to one hour. As a community hospital launching a new blood and marrow transplant program, it was imperative that the Emergency Department and Oncology staff follow best practice in managing neutropenic fever.

The transplant team, the Emergency Department, and nurse educators were enlisted to ensure that the ED physicians, ED triage nurses, hospitalists, critical care physicians and ICU nurses, and the new BMT/Oncology unit nurses recognized the unique concerns related to managing complex hematologic malignancy and blood and marrow transplant patients. The Very Immune Compromised Patient Alert (VIP) protocol was implemented. The VIP Program consists of patient and family education, a VIP card that is presented at the ED, ED staff education, and a rapid triage and intervention protocol. Departments impacted by the new protocol, including Laboratory, Microbiology and Radiology received additional training. The protocol for high-risk patients presenting to the Emergency Department with neutropenic fever was set into place in December 2013 two months before the first patient scheduled for transplant.

Post-implementation data for 23 patients demonstrated a median door to antibiotic time of 52 minutes (range 27–107 minutes).

Next steps: Continue to investigate barriers to rapid deployment of this protocol in febrile neutropenic patients.

Develop and implement strategies for improvement in diagnosis and first dose of empirical therapy.

Continue to track data with each VIP patient presenting to the ED and report to Cancer Committee and Quality Council quarterly.

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30 Day Readmissions Rate- How Many Ways Can We Calculate Thee?

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Purpose: To create a process/method for monitoring the 30 day readmission rate for BMT patients. Our program has been active in attempting to reduce the 30 day readmission rate since 2011. Initial reported metrics were available at the Cancer Center level. Initiatives were undertaken to drill down to only BMT readmissions enabling us to ascertain a relevant rate for our program.

Methods: Data from 2009 & 2010 were analyzed to determine the 30 day readmission base rate. Data was categorized according to autologous, allogeneic inpatient and allogeneic outpatient transplants. Only readmissions occurring after index transplant hospitalization were included. Also included were readmissions to other services (ICU, leukemia unit etc.). 30 day readmission numbers (numerator) were easily obtained through a hospital quality outcomes database; however, determining the denominator necessitated a manual analysis from 2 years' worth of weekly meeting minutes. Readmission rates were monitored monthly at the BMT Quality Assurance meeting. We have experienced many limitations in calculating and maintaining readmission rates including:

Data pulled from the BMT database for monthly reporting proved prohibitive due to time needed to clean up data.

Different reporting platforms at the hospital level for both discharges and readmissions.

Time lag in data availability for discharged patients from the hospital database.

Gaps in data posting to hospital database, results in multiple data pulls.

Necessity to reconcile/double check data monthly.

There are many variables to consider when determining which readmissions/discharges to include (small changes in either category can reflect a large change in rate):

Pre transplant admit/discharge within 30 days of transplant admission (eg, BMT admit within 30 days of discharge after leukemia induction therapy).

Hospital metrics are unit based and may not include BMT patients cared for outside the BMT unit.

ED admits.

Admissions for Observation only.

Admission/discharge from an outside hospital.

Weighing the difference between the hospital calculated readmission rate and that which is beneficial from a BMT quality/patient safety perspective.

Fields analyzed monthly include: number of days between admissions, readmission length of stay (LOS), index admission LOS; readmission reason, comorbidity score, location admitted from etc., we are always attempting to identify a focal point to direct efforts to reduce the readmission rate.

Conclusion: Determine which calculation factors are most meaningful for your BMT program. Develop a system which is easy to maintain on a routine basis and in as real-time as possible. Engage as many disciplines within your program to contribute input for readmission impact projects. Resolve the fact that it may be necessary to sustain a hospital metric and a BMT metric.

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A Network Approach to Creation and Maintenance of Standardized Standard Operating Procedures

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