Decreasing 30-day Readmission Rates in High-Risk Diabetes Patients Using a Transitional Care Program from Inpatient to Outpatient

Quality Improvement Patient Safety 2015

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Problem Statement: Patients with diabetes are known to have higher 30 day readmission rates (14.4-21.0%) compared to the general inpatient population in the U.S. (8.5-13.5%). Weill Cornell Medicine does not have a standardized transitional care program in place for high-risk diabetes patients.

Objective/Aim Statement: To test the feasibility of an evidence-based transitional care program to improve the patient experience and health of the population and reduce costs by lowering readmission rates to NewYork-Presbyterian Hospital.

Design/Methods:

Plan: To develop a mechanism for providing several key strategies during transition of care from inpatient to outpatient.

Do:

- Identify *high-risk* diabetes patients (A1c >9%) in collaboration with care coordinators.
- Provide inpatient diabetes self-management education.
- Obtain discharge prescriptions in advance for reconciliation of insurance coverage.
- Deliver "Med to Bed" prescriptions to bedside prior to discharge.
- Receive 3 day follow-up phone call from outpatient provider
- Attend 7 day follow-up outpatient visit

Study: 36 patients were enrolled from June to December, 2015. Four key strategies known to reduce risk of readmission were provided when possible and results were analyzed.

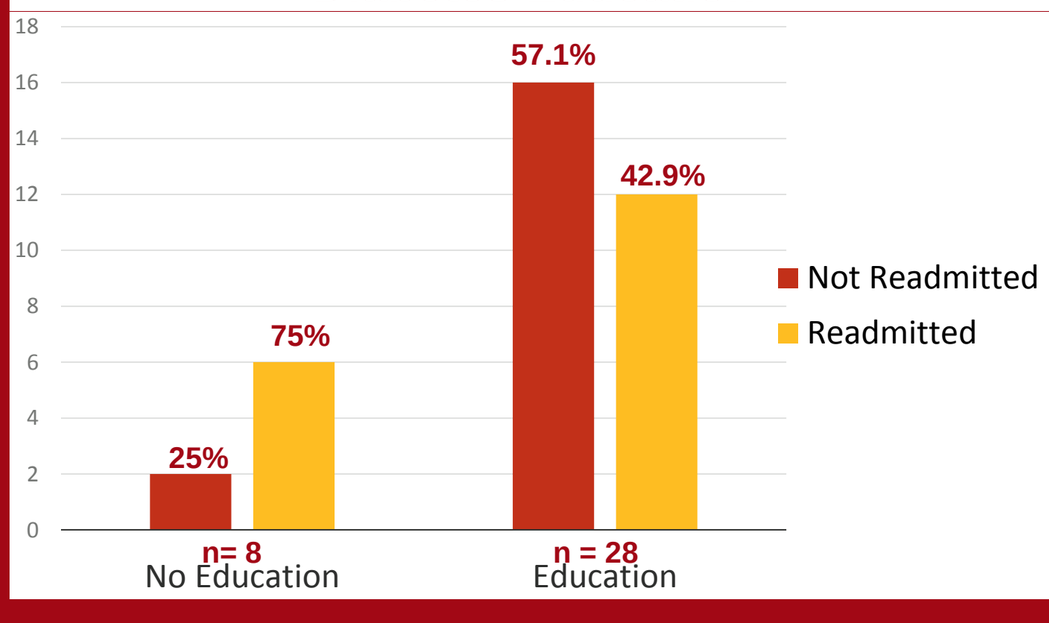
Act: Improve the delivery of the top two strategies that were found to be both feasible and effective.

- **65% (n=22) of the 34 eligible patients prior to the study period December 2014 to May 2015, medicine units only) were readmitted to NYP/WCM within 30 days.**
- **56% (n=24) of the 43 eligible patients during the study period (June through Dec 2015, medicine units only) were readmitted to NYP/WCM.**
- **50% (n=18) of all 36 enrolled patients were readmitted to NYP/WCM within 30 days.**

Diabetes Education

+ Med-to-Bed → 3-Day Phone Call → 7-Day Outpatient Visit

Readmission of Patients with and without Diabetes Education



Results: Total of 36 patients enrolled.

Diabetes Self-Management Education: 77.8% (n=28) received education prior to discharge.

Med-to-Bed: 61.1% (n=22) received medication reconciled and delivered to the bedside

3 day call: 25.0% (n=9) answered the 3 day phone call

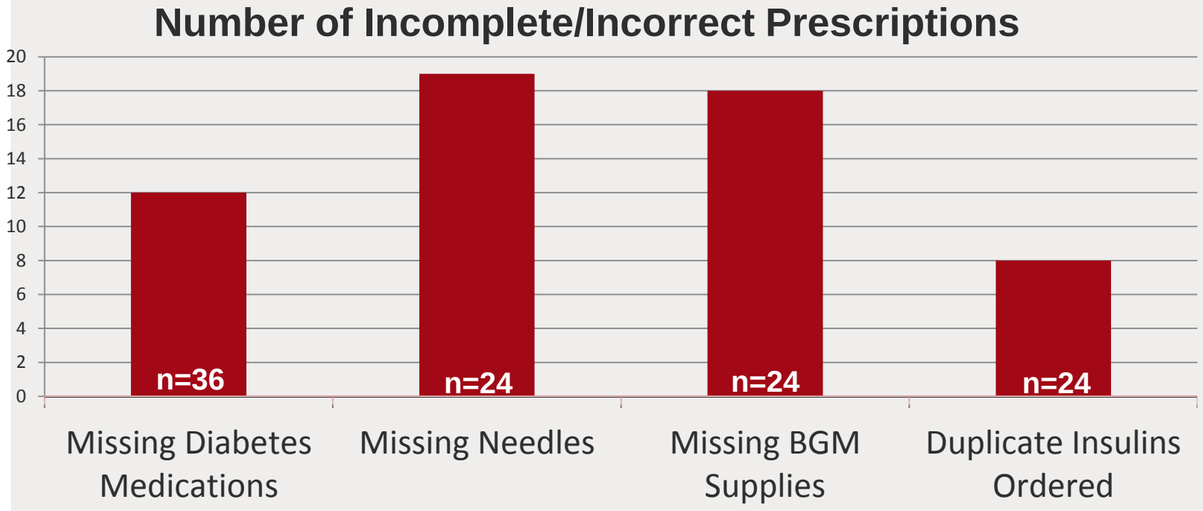
7 day visit: 13.8% (n= 5) attended the follow-up visit within 7 days

→ Diabetes self-management education appeared to be an effective strategy; 75% of the 8 patients who did not have documented diabetes education in the electronic medical record were readmitted within 30 days, compared to 42.9% of the 28 patients who did have documented diabetes education.

→ Of those who received diabetes education, 60.7% was provided by the diabetes nurse educator. Although these results did not reach significance possibly due to the small sample size, it reinforces the work of others that have shown the advantages of diabetes education prior to discharge in preventing readmission.

→ One barrier in particular was the lack of prescriptions for needles in 78.3% of the 95.9% that had prescriptions for insulin. In addition, only 25% (n=6) of patients who received prescriptions (n=24) for supplies to monitor their blood glucose at home.

Number of Incomplete/Incorrect Prescriptions



Conclusions/Lessons Learned: A large number of patients did not benefit from receiving the extra support of a follow-up call or visit; additionally, the majority of patients did not receive supplies to perform diabetes self-care management. A major barrier was a lack of prescriptions for needles and blood glucose monitoring supplies. Medication data revealed significant barriers to reconciliation of discharge prescriptions and procurement of the "right" medications for home use which could have facilitated self-management behaviors.

Next Steps: Recommend a standardized transitional care program for high-risk diabetes patients at NYP/WC that includes:

- Educating clinicians on writing RXs for insulin and diabetes supplies
- Medication reconciliation of discharge prescriptions and insurance coverage prior to leaving hospital
- Med-to-Bed and Diabetes Self-Management Education as standards of care

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