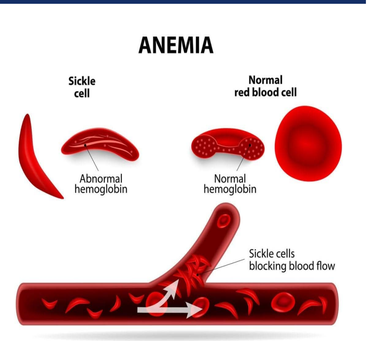
IMPLEMENTING AN ENHANCED DISCHARGE TEACHING PROTOCOL TO REDUCE 30-DAY READMISSION RATES IN ADULTS DIAGNOSED WITH SICKLE CELL DISEASE

Jean Thorpe-Williams, DNP(c),CRNP, CCRN, CCM; Sharon Kozachik, PhD, RN, FAAN; Joanne Jarboe-Costello, DNP, RN-BC, CPN

JOHNS HOPKINS SCHOOL of NURSING

BACKGROUND AND SIGNIFICANCE

Sickle Cell Disease (SCD) is a genetic disorder affecting 1-in-365 African-American births. It is characterized by **abnormal hemoglobin** that causes **painful vaso-occlusive crises** (VOC). VOC requires frequent hospitalizations. **SCD-related 30-day readmission rates were 38.24% at our institution compared to 12.5% for non-SCD readmissions nationwide.**



Improving the discharge process may reduce readmission rates. The **Re-engineered Discharge (Project RED)** protocol is an evidenced-based intervention that can **improve the discharge process** and further **reduce readmission rates**.

PURPOSE AND AIMS

To examine the effectiveness of a **nurse-led evidence-based discharge teaching intervention** on nurses' adherence to the intervention and 30-day readmissions for persons with SCD.

The **aims** of this quality improvement project are:

1. To achieve at least 80% in nurses' adherence to the enhanced discharge teaching protocol
2. Reduce 30-day readmission rates by 25% in persons admitted with VOC over 12 weeks post-implementation

METHODS

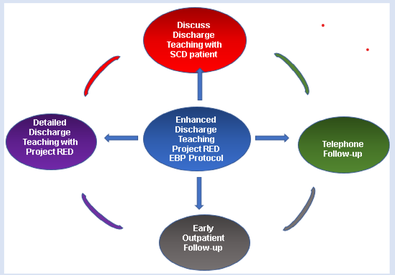
- **Design:** Pre/Post intervention conducted on a hematology/oncology unit in a Mid-Atlantic hospital
- **Participants**:
  1. **RN:** all nurses providing bedside care
  2. **Patients:** ages 18+ admitted with SCD, ready for discharge over the 12-week time-frame (10/2019 - 12/ 2019)
- **Measures:**
  1. Checklist indicating nurses' adherence rate to protocol
  2. 30-day readmission rates for 12-week period compared to hematology/oncology unit readmission rates in 2017
- **Analyses:** Descriptive statistics; Frequency counts of discharges and adherence to the discharge teaching protocol; Fisher's exact test for readmission rates

INTERVENTION: PROJECT RED TEACHING PROTOCOL

11 Components of Project RED

- ✓ Patient education
- ✓ Medication reconciliation
- ✓ Follow-up appointments
- ❑ Follow-up of pending tests or labs
- ❑ Post discharge services and medical equipment.
- ❑ Reconcile the discharge plan with national guidelines.
- ✓ Written discharge plan the patient understand.
- ✓ What to do if a problem arises.
- ✓ Assess patient understanding
- ❑ Discharge summary to primary care provider.
- ✓ Telephone reinforcement of the discharge plan.

PROJECT RED Re-Engineered Discharge



SAMPLE

Nurse Demographics	(N = 10)	Patient Demographics	(N = 10)
Age, mean (SD)	32.3 (5.3)	Age, mean (SD)	31.1(4.3)
Gender, n (%)		Gender, n (%)	
Male	1 (10.0)	Male	2 (20.0)
Female	9 (90.0)	Female	8 (80.0)
Education, n (%)		Education, n (%)	
Associate	4 (40.0)	High School	4 (40.0)
Bachelor's	5 (50.0)	Some College	2 (20.0)
Master's	1 (10.0)	Missing	4 (40.0)
Employment, n (%)		Employment, n (%)	
Full-time	10 (100)	None	6 (60.0)
Race, n (%)		Full-time	2(20.0)
White	2(20.0)	Missing	2(20.0)
Hispanic	1(10.0)	Race, n (%)	1(10.0)
Black/African Am.	7(70.0	Black/African Am.	10(100)

RESULTS

Aim 1: Ten of the 14 nurses trained provided discharge teaching to 10 patients (including two who were readmitted) over the 12-week period. It is not known how many other patients with SCD were eligible and did not receive the intervention. Therefore, nurse adherence to the protocol cannot be determined.

Aim 2: Primary outcome results indicated no statistical association between readmission rates and discharge teaching with a prevalence of 20% (2/10), compared to 38.24% (65/170) readmission rate for 2017

DISCUSSION

Results showed 48% reduction in 30-day readmission rates pre/post intervention.

Positive impact on improving the discharge process and patient compliance with early follow-up.

Limitations:

- Small sample
- Disrupted workflow; nurses had to complete discharge in EMR and on paper
- Competing priorities for nurses who also care for oncology patients

Strengths:

- Focused on the pressing and unmet needs of SCD patients
- Continued support and resource of advanced practice nurse
- Nurse champions to aid in sustainability of the project

CONCLUSION

Enhanced Discharge intervention can:

- Be a practical solution in lowering 30-day readmission rates
- Increase patient readiness for discharge

Project RED discharge teaching is an effective strategy for nurses to incorporate to improve quality of care for persons with SCD.

REFERENCES

Adams, C., Stephens, K, Whiteman, K., Kersteen, H., Katruska, J. (2014). Implementation of there-engineered discharge (RED) toolkit to decrease all-cause readmission rates at a rural community hospital. *Q Manage Health Care*. 24 (3). 169-177.

Agency for Healthcare Research and Quality (AHRQ). (2019). Re-engineered Discharge (RED) Toolkit. Retrieved from www.ahrq.gov/professionals/systems/hospital/red/toolkit/index.html.

Brodsky, M., Rodeghier, M., Sanger, M., Byrd, J., McClain, B., Covert, B., Roberts, D., Wilkerson, K., DeBaun, M., Adetola, K. (2017). Risk Factors for 30-Day Readmission in Adults with Sickle Cell Disease. *The American Journal of Medicine*. 130, 601.e9-e.15.

Mitchell, S., Martin, J., Holmes, S., van Deusen Lukas, C., Cancino, R., Paasche-Orlow, M .,…(2016) How Hospitals Reengineer Their Discharge Processes to Reduce Readmissions. *Journal for healthcare quality: official publication of the NationalAssociation for Healthcare Quality*, *38*(2), 116–126.