Evaluation of Sickle Cell Day Program at Urban Tertiary Care Center

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Problem

- Vaso-occlusive crisis (VOC) is hallmark symptom of sickle cell disease (SCD) often managed in ED[1-2]
- ED care limitations exist[3-7] so day clinics have arisen to treat uncomplicated VOCs[8-10]

Care in ED[3-7]

- Treatment delays
- Delays in pain reassessment
- Stigma around opioid seeking
- Expensive

Care in Day Clinic[8-10]

- Faster care
- Decreased hospital admissions
- Decreased 30-day readmissions
- Decreased ED utilization
- Potentially save millions of dollars

Goal

- To evaluate the UChicago Medicine SCD Day Clinic Program provided through the Care Transitions Clinic

Strategy

- Data: Monthly updates (internal UCM databases)
  - Demographics, utilization data (ED re-visits, re-hospitalizations, etc)
- Analyses:
  - Chi-Square for bivariate analyses: e.g., network status, insurance vs. ED utilization, hospitalization, and length of stay pre/post day clinic implementation
  - Run charts to visualize day program utilization, ED utilization, and hospital admissions over time

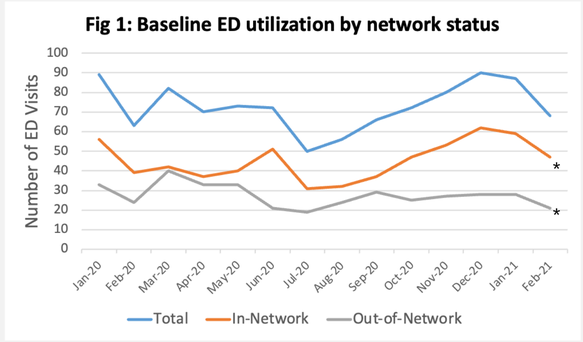
Monthly UCM Updates → Chi-Square Bivariate Analysis → Run Charts

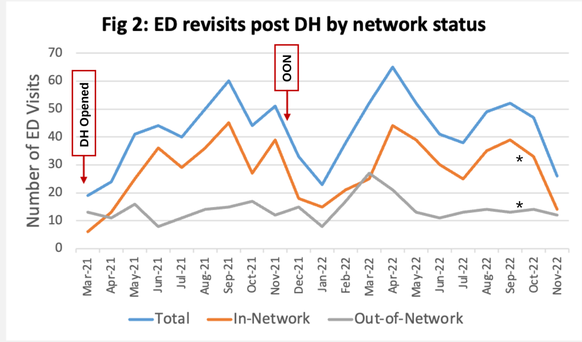
Results

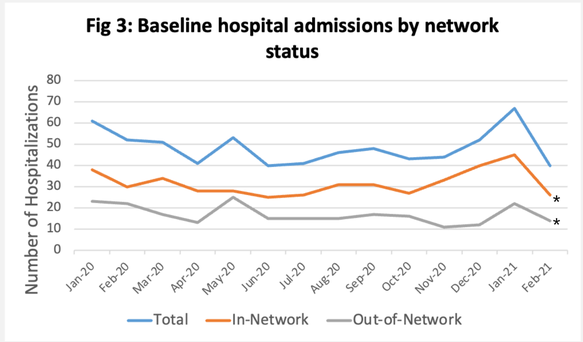
- Most patients seen in day clinic identified as Black (96%), female (65%), and were in-network (79%) **(Table 1)**
- Baseline average of 71 SCD ED visits per month (59% in-network, p<0.01) **(Figure 1)**
  - Post-DH ED revisits constant, average 42 ED visits/month
  - 67% in-network (p<0.01) **(Figure 2)**
- Baseline 49 SCD hospitalizations per month (65% in-network, p<0.01) **(Figure 3)**
  - 25 hospitalizations / month post DH
  - 73% in-network (p<0.01) **(Figure 4**)

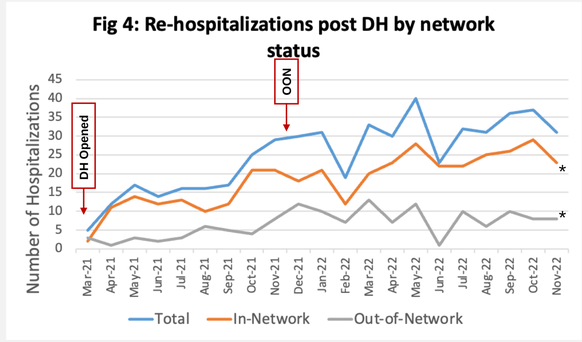
Table 1. Baseline Characteristics

Variable	Patients (N=137)
Age	34.4 (12.8)
Race	
Black	131 (95.6%)
White	3 (2.2%)
More than one Race	2 (1.5%)
Ethnicity	
Not Hispanic or Latino	136 (99.3%)
Gender	
Female	89 (65.0%)
Male	48 (35.0%)
Type of Insurance	
Medicaid	91 (66.4%)
Medicare	27 (19.7%)
Private Insurance	16 (11.7%)
Null	3 (2.2%)
Out-of-Network Status	
In-Network	108 (78.8%)
Out-of-Network	29 (21.2%)









Lessons Learned and Next Steps

- DH may decrease acute care utilization, as shown by decreased ED revisits and hospitalizations
- Baseline significant difference between in-network and out-of-network utilization with possible increased proportion of in-network utilization post DH visit, granting further investigation
- Next steps: Rates of reutilization of DH, PCP connection and follow up post DH visit

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References