

An Emergency Department "Surge" Program

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Problem

- Emergency Department (ED) crowding is well known issue linked to not only longer wait times and poor patient satisfaction but also poorer outcomes, increased adverse events and increased mortality
- ED crowding also affects different population groups disproportionately
- UCMC has implemented a wide variety of outpatient programs to help assist the ED and reduce crowding, however ED crowding continues to be an issue
- One method of reducing crowding is to identify patients who, after being triaged in the ED, could continue to receive care in lower acuity settings

Goal

We aim to characterize the impact of our ED "Surge" program by:

- Evaluating which patients we are most likely to see
- Identifying patients that may be better served in the ED

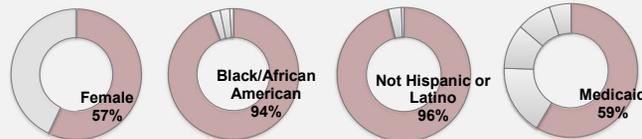
Innovation

- The Care Transitions Clinic (CTC) was established in 2020 and aims to reduce ED crowding through a variety of clinical programs that focus on providing urgent, acute care to patients who do not require ED level care
- The ED "Surge" Program was created out of a collaboration between the CTC and the ED leadership to implement the previously established method of identifying lower acuity patients and triaging them to lower acuity setting
- The ED "Surge" Program is one of the newest of these programs and began in March 2021 within the CTC
- Eligible patients in the ED were screened by advanced practice nurses based on their acuity and reason for visit and then, after medical screening exam in the ED, transferred to the CTC to be seen for their concerns in an ambulatory setting
- Demographic data to describe our patient population was collected
- Data was also collected on ED visits, hospitalizations that occurred after the ED "Surge" Program visit but within the study period, the severity of visit, and diagnosis to help evaluate our impact and safety

Impact

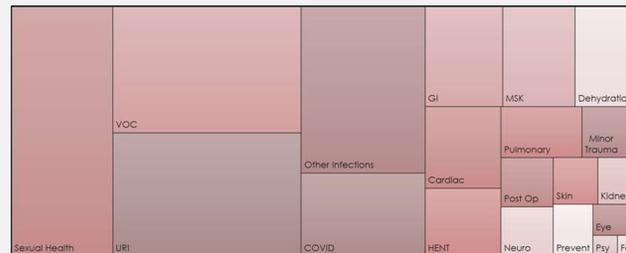
Between March 2021 and March 2022, the ED Surge Program saw:

- 343 scheduled visits with 246 completed
- 301 unique patients with below characteristics



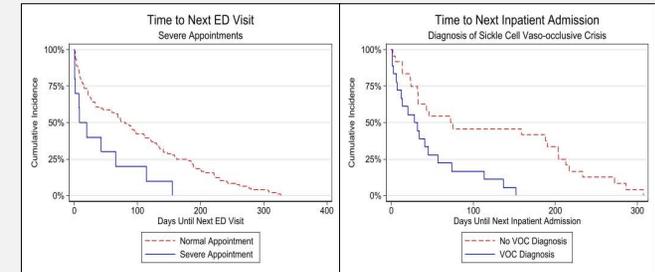
Demographic Characteristics of ED Surge Program Patients

- Of completed visits, 29 (11.78%) were considered severe
 - 7 (<0.01%) sent back to the ED for further evaluation
 - 22 (0.09%) were directly admitted
- Of the unique patients, 19 (0.06%) were considered high healthcare utilizers (>2 ED visits and 1+ hospitalizations following their ED Surge visit) and accounted for 39 (11.37%) of the total visits
- Most common diagnoses were sexual health (19.9%), sickle cell vaso-occlusive crises (18.7%) and upper respiratory infections (18.3%).



Diagnoses seen in the ED Surge Program

- High healthcare utilization showed no significant covariates in logistic regression analysis
- Severe visits were predicted by a diagnosis of VOC with an odds ratio (OR) 34.55 and 95% CI [11.89-100.35], neuro issues with OR 21.03 [2.16-204.36] and dehydration OR 33.98 [7.77-148.70].



Survival Analysis with depicted days until ED visit or inpatient admission for specific groups following ED Surge Program Appointment

- Significant groups in days until next ED visit include
 - High utilizers with a HR 2.20 [1.31-3.68]
 - Severe visit with a HR 2.44 [1.25-4.75]
 - VOC with a HR 2.82 [1.69-4.70]
- Significant groups in days until next inpatient admission
 - High utilizers with a HR 2.81 [1.44-5.50]
 - VOC with a HR 3.07 [1.48-6.37]
 - MSK complaints with a HR 9.79 [1.09-87.59]
 - Kidney complaints with a HR 20.16 [1.83-222.35]

Conclusions

- In the first year of operation, the ED Surge Program reduced patient burden in the ED and had minimal patients sent back to the ED
- Patients that are high healthcare utilizers will likely have frequent ED visits and hospitalizations no matter where they are triaged
- Severe complaints or diagnoses of VOC, neurologic issues, dehydration, MSK, and kidney issues may be better served with an ED visit or direct admission to minimize future healthcare utilization.

Acknowledgements

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