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Emergency Medicine Super Utilizers and the Role of Targeted Community Paramedicine

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CVPH Family Medicine October-November 2021



The University of Vermont
LARNER COLLEGE OF MEDICINE

Problem Identification:

- Frequent Emergency Department (ED) and Emergency Medical Service (EMS) utilizers, aka “frequent fliers,” are a notable population that interacts with the medical system (Moe et al. 2016)
- This patient population is high-resource utilizing and may impede high-quality emergency care, leading to poorer patient outcomes (Lee et al. 2020)
- Frequent utilizers are high-risk and often suffer from chronic disease
 - Malignancy, mental health disorders, substance use disorder, CKD, COPD (Chiu et al. 2020, Brennan et al. 2014, Laferte et al. 2020, Dirmyer 2016,
 - Poor access to primary and specialty care
- Family Medicine and Community Paramedicine may play a role in addressing these patient’s needs on a non-emergent basis

Public Health Cost of Super Utilizers:

- Super utilizers contribute to ED crowding and poorer patient outcomes (Lee et al. 2020)
- Frequent ED and EMS use contributes to increased healthcare system costs
 - In one study at a Milwaukee area ED, targeted intervention of 39 outreach to 39 frequent utilizers resulted in a 1-million-dollar savings to the healthcare system (Kodjak / NPR, 2015)

Community Perspective and Project Support

- At UVMMC:
 - Frequent utilizer population well-known to ED and 911
 - Grant-funded community paramedicine program through HealthNet
 - Internally funded program for ED-RN community outreach
 - Joint program to target top 100 ED utilizers
 - Specifics of paramedic / RN outreach at UVMMC provided by Roz Bidad, RN MSN and Amanda Young, RN MSN

Proposed Intervention and Methodology

- At UVMMMC
 - Improve access to primary and subspecialty follow up by outreach to patients who missing appointments
 - Improve adherence to care plans by tracking pill counts, monitoring prescription refills and assessing medication adherence at each community visit
 - Improve social determinants of health by assessing housing stability and food security at each community visit
 - ED nurses, HealthNet paramedics assigned to community outreach for top 100 ED utilizers
- At CVPH
 - May consider similar program utilizing CVPH-ED RNs, CVPH Family Medicine RNs or LPNs
 - May consider further collaboration with EMT of CVPH, local 911 services, law enforcement or other outreach services
 - Given link between CVPH-ED and CVPH-Family Medicine, may consider referral of at-risk ED discharges to CVPH Family Medicine for appropriate primary care follow up

Results / Response Data

- No results or response data at this time, UVMMC program not yet implemented

Evaluating Effectiveness and Limitations

- Effectiveness

- Track ED and EMS resource utilization by individual patients and compare with patient's baseline use (retrospective data from 2019)
- Track estimated ED and EMS healthcare costs pre and post community outreach team intervention

- Limitations

- Funding: Program at UVMMC requiring internal and external funding and a similar program at CVPH would likely need the same
- Staffing: Community outreach creates and additional staffing need on already understaffed services (911 ambulances, emergency departments, primary care clinics)

Recommendations for Future Work

- For potential implementation at CVPH:
 - Data gathering to further characterize need and highest resource utilizers at CVPH-ED
 - Outreach to Plattsburgh area social services to determine feasibility of building a multidisciplinary patient outreach team
 - Increase capacity of CVPH Family medicine, or identify willing primary care collaborators to provide accessible primary care to patient at risk for frequent ED utilization



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