Acute Care Resource Utilization: Management of Multivisit Patients

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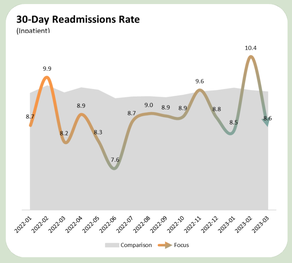
Problem & Importance

As we continue to strive for delivery of high-quality care in the setting of efficiency, successful transitions out of the hospital are imperative. With our readmission performance unfavorable, a root cause analysis was conducted to understand what the key drivers were. Through an EMR based intervention, EW Sparrow Hospital was able to decrease the need for hospitalization in patients who had previous trends of high utilization (10+ admissions in the prior rolling 12 months), leading to increased quality of life for patients while driving down readmission rates and overall acute care utilization.



30-Day Readmission Visits
(Original 35 MVP's)

2021	2022	2023
218	65	9

Understanding the Current State

Sparrow Hospital began to analyze its utilization/readmissions data from several different approaches, one being by individual patient. Through this, we learned that in 2021 a significant portion of our utilization/readmission rate was being driven by a small number of individuals. It was at that point that we began to filter our data in different ways to look at patients who had ten or more inpatient or observation admissions in the prior year. After a root cause analysis of indication for multiple admissions, the data was analyzed for trends in admitting diagnosis, payer, social determinants, and other variables that may provide insight into addressing the specific reason driving high utilization. In response to what was learned through multiple rounds of applying various types of segmentation and filters, the team developed a strategy that required minimal resources to improve longitudinal management of these patients, regardless of where they presented in our system or who was on service.

No one in a position to control the content of this educational activity has relevant financial relationships with ineligible companies.

Learning Objectives

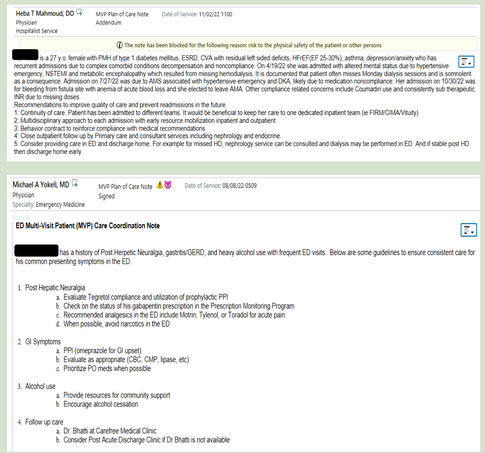
- Discuss effects of high utilization on readmissions and resource consumption and the impact on patients.
- Identify steps to improve resource consumption of patients with chronic medical conditions that have led to high utilization of acute care services.

What We Measured

Baseline	SMART Target	Gap to Close (*Target Minus Baseline*)
Number of MVPs (2021): 35 Number of admitted days (2021): 2088	Number of MVPs (2022): 28 Number of admitted days (2022): 1670	Number of MVPs: decrease by 20% year over year (equivalent of 7 pts) Number of admitted days: decrease by 20% year over year (equivalent of 418 days)

Analysis & Interventions to Improve

A multidisciplinary physician team familiar with the patient created integrated, documented care plans providing standing guidance to their peers. An alert would fire when the provider opened the patients record, directing them to the insights from relevant primary and specialty care providers. This would help clinicians understand current medical concerns (including social determinants that may play a role in health and wellness), provide awareness of patient's baseline presentation, and share clinical guidance for both acute and chronic presentations. This clinical guidance was integral for just in time use in clinical decision making. It was found to prevent delays in care for specialty consultations, decrease unnecessary admissions, and improve post-acute transitions. In addition, the teams worked to close gaps in access to care, care navigation, and social determinants impacting how the patient sought care.


Heba T Mahmoud, DO — MVP Plan of Care Note — Date of Service: 11/02/22 1100
Physician — Addendum
Hospitalist Service

The note has been blocked for the following reason: risk to the physical safety of the patient or other persons

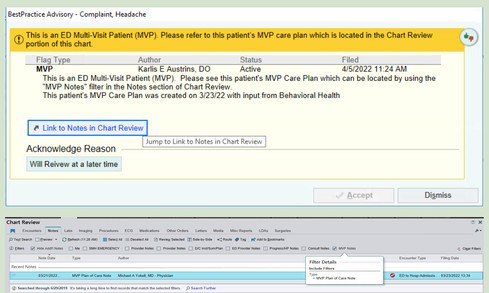
[redacted] is a 27 y.o. female with PMH of type 1 diabetes mellitus, ESRD, CVA with residual left sided deficits, HFrEF(EF 25-30%), asthma, depression/anxiety who has recurrent admissions due to complex comorbid conditions decompensation and noncompliance. On 4/19/22 she was admitted with altered mental status due to hypertensive emergency, NSTEMI and metabolic encephalopathy which resulted from missing hemodialysis. It is documented that patient often misses Monday dialysis sessions and is somnolent as a consequence. Admission on 7/27/22 was due to AMS associated with hypertensive emergency and DKA, likely due to medication noncompliance. Her admission on 10/30/22 was for bleeding from fistula site with anemia of acute blood loss and she elected to leave AMA. Other compliance related concerns include Coumadin use and consistently sub therapeutic INR due to missing doses.
Recommendations to improve quality of care and prevent readmissions in the future.
1. Continuity of care. Patient has been admitted to different teams. It would be beneficial to keep her care to one dedicated inpatient team (ie FIRM/CIMA/Vituity)
2. Multidisciplinary approach to each admission with early resource mobilization inpatient and outpatient
3. Behavior contract to reinforce compliance with medical recommendations
4. Close outpatient follow up by Primary care and consultant services including nephrology and endocrine
5. Consider providing care in ED and discharge home. For example for missed HD, nephrology service can be consulted and dialysis may be performed in ED. And if stable post HD then discharge home early.

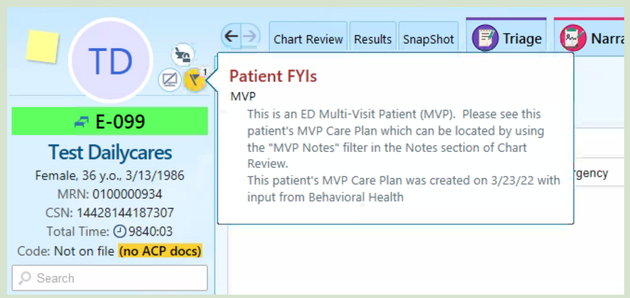
Michael A Yokell, MD — MVP Plan of Care Note — Date of Service: 08/08/22 0509
Physician — Signed
Specialty: Emergency Medicine

ED Multi-Visit Patient (MVP) Care Coordination Note

[redacted] has a history of Post Herpetic Neuralgia, gastritis/GERD, and heavy alcohol use with frequent ED visits. Below are some guidelines to ensure consistent care for his common presenting symptoms in the ED.

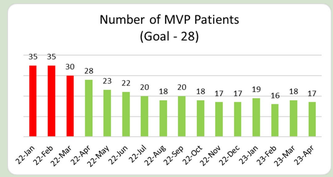
1. Post Hepatic Neuralgia
   a. Evaluate Tegretol compliance and utilization of prophylactic PPI
   b. Check on the status of his gabapentin prescription in the Prescription Monitoring Program
   c. Recommended analgesics in the ED include Motrin, Tylenol, or Toradol for acute pain
   d. When possible, avoid narcotics in the ED
2. GI Symptoms
   a. PPI (omeprazole for GI upset)
   b. Evaluate as appropriate (CBC, CMP, lipase, etc)
   c. Prioritize PO meds when possible
3. Alcohol use
   a. Provide resources for community support
   b. Encourage alcohol cessation
4. Follow up care
   a. Dr. Bhatti at Carefree Medical Clinic
   b. Consider Post Acute Discharge Clinic if Dr Bhatti is not available

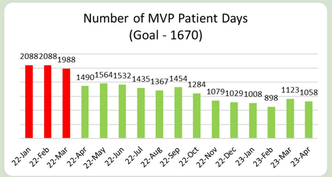




Results & Outcomes Achieved

In the first year of the initiative, Sparrow was able to decrease the overall number of patients who met the definition of an MVP from 35 to 17 unique patients, with only 4 of those 17 who remain being patients in the original pilot group. MVP acute care utilization dropped by over 55%.





Sustain & Spread

Sustain:

- Standardized review of existing care plans to ensure that patient's condition/medical needs continue to align with documented plan
- Monitor for medical necessity of admissions and use of documented care plans in medical decision making by providers

Spread:

- Expand definition of MVP to patients who have had 8+ admits and create plans, then move to 6+ admission population
- Engage additional provider groups in developing care plans for patients who admit to their service/are managed in their clinics

Keys to Success

- Multidisciplinary collaboration to create robust, encompassing plans of care for patients who have histories of high utilization and/or complex medical presentations
- Concise EMR tools that allow providers across the system to access plans in real time at the point of care
- Education to ensure plan utilization
- Process to review and update plans

Speaker Contact Information
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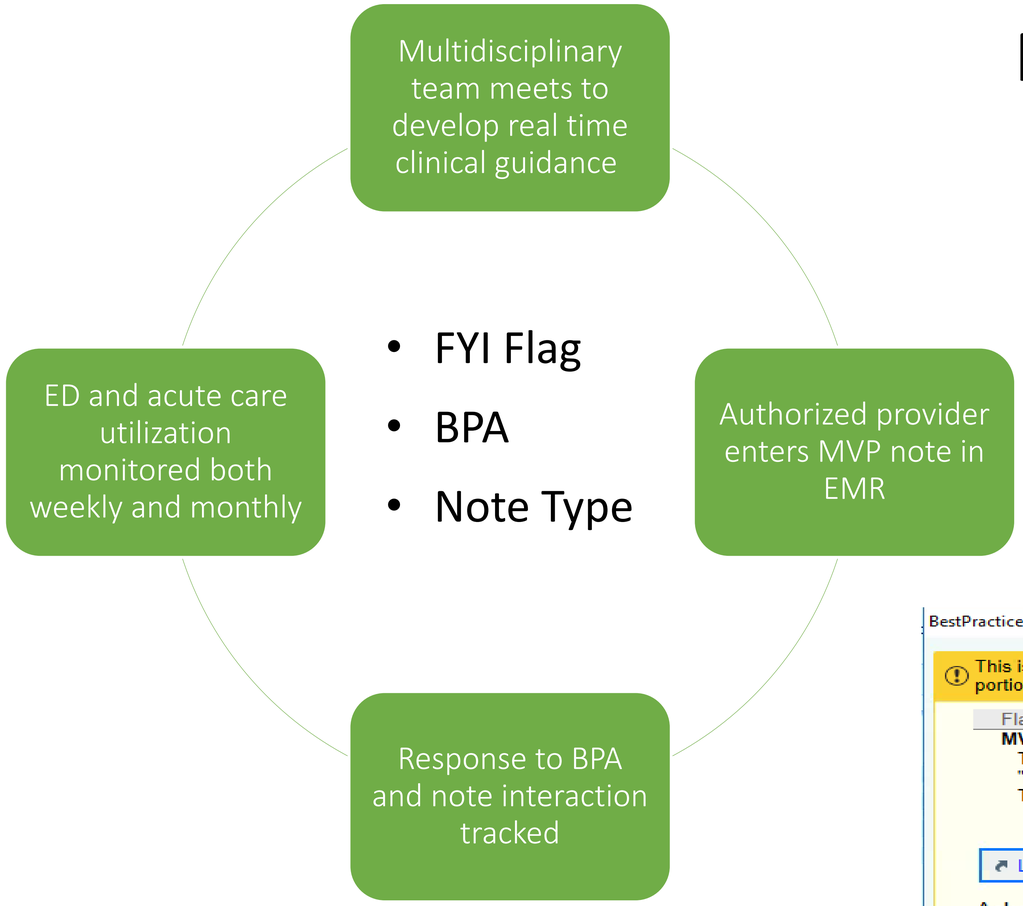
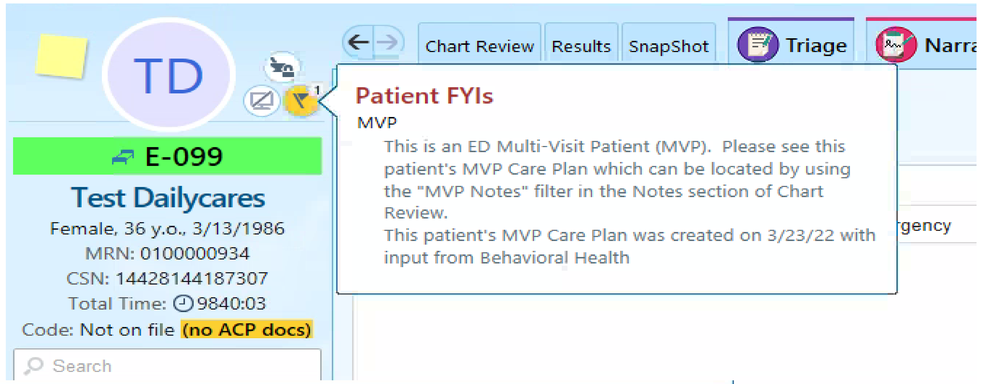
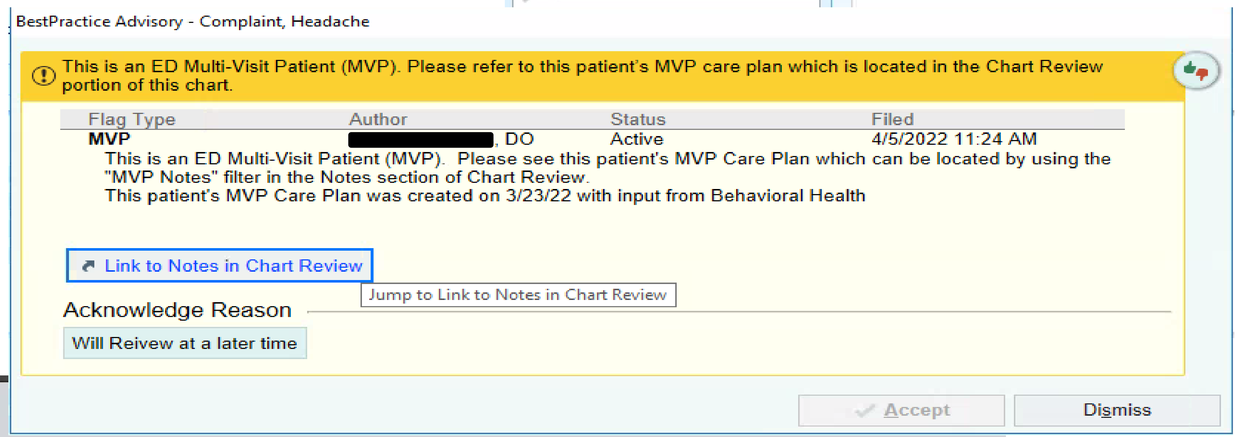
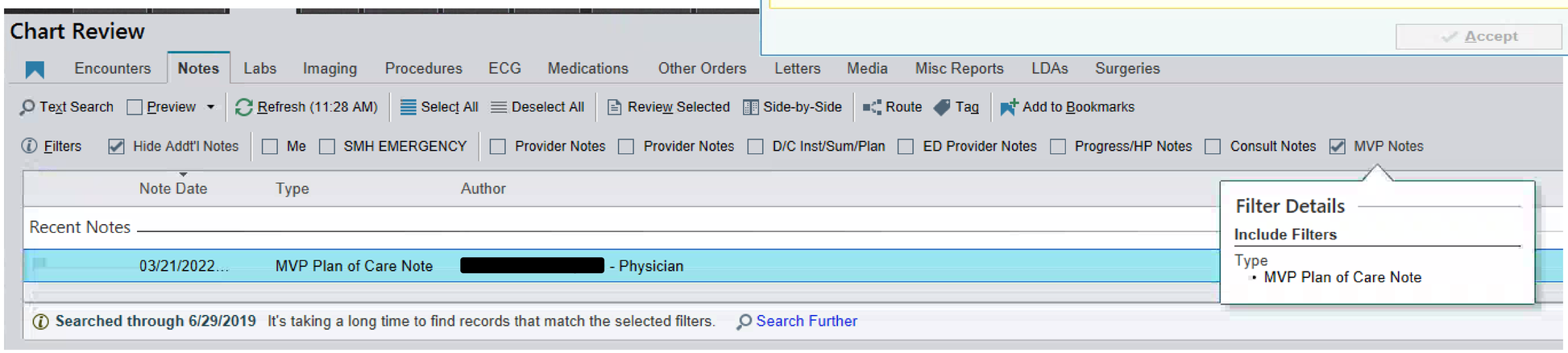
Process + Layered EMR Tools = Significant Decrease in Acute Care Utilization









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