

Background

Case Managers (CM) are now a standard support component of emergency departments (ED) of large hospitals. They can help with improving quality and decreasing healthcare utilization and costs. ED CM help ensure hospital admissions from EDs are appropriate and if an alternative disposition for the patient exists, then they work towards that goal. ED CMs are important to decrease friction and barriers to the correct care for patients. ED CM responsibilities can include¹:

- Utilization management roles such as evaluating the appropriateness of admission vs. observation vs. discharge
- Arranging alternative care destinations such as skilled nursing facility or assisted living
- Organizing outpatient resources such as meals, home health care, durable medical equipment
- Scheduling medical care follow-up
- Referring to support programs and social work for substance abuse, victims of violence, psychiatric care, etc.
- Facilitating insurance coverage
- Securing housing
- Developing high utilizer or individual care plans
- Counseling patients and families
- Reviewing discharge instructions

The majority of ED CM find patients they need to intervene on by using a manual process for case-finding which involves scanning multiple charts or relying on providers guiding them on who to see. The INTERMED tool for case finding is the most common tool in the literature but still represents a manual process that takes significant time².

Purpose

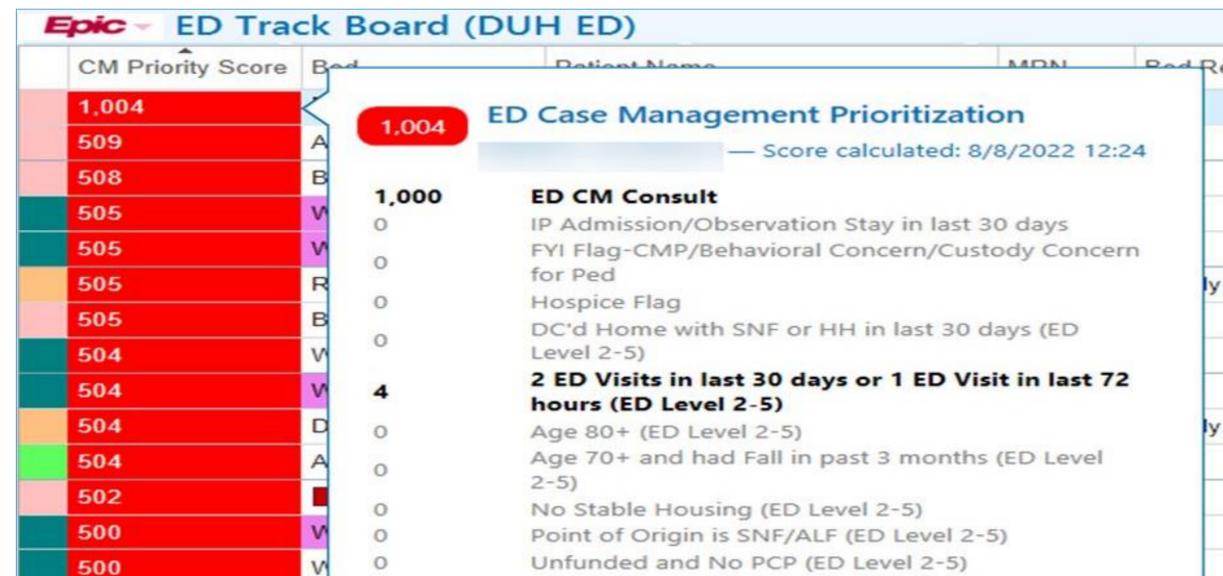
As part of our work on reducing readmissions at Duke University Health System we hypothesized that the development of an automated tool for case finding would improve efficiencies for CM, allowing them more time for interventions such as readmission reduction strategies. Therefore, we developed an automated tool that stratifies patients in ED based on variables agreed to by our expert consensus opinion.

Description

The tool resides in EPIC EMR ED track board in the CM tab. It is easily seen in CM standard views and workflows. We chose 11 different demographic and utilization variables and weighted them to create an overall CM Priority Score so that patients who should be seen by ED CM would score high. CM Priority scores were color-coded to indicate the need for CM support; red = high need, orange = medium, yellow = low, green = none. CM can hover their cursor over the score to discover the variables driving the score which may help with determining which interventions to apply. Four variables were scored high enough to ensure that CM always saw these patients: ED consult order for CM, potential readmission, complex care or behavioral concern flags, and hospice enrolled.

Case Management Priority Score		
#	Criteria	Weight/Score
1	Existing ED CM Consult	1000
2	IP Admission/Observation Stay in last 30 days	500
3	FYI Flag-CMP/Behavioral Concern/Custody Concern for <u>Ped</u>	500
4	Hospice Flag	500
5	DC'd Home with SNF or HH in last 30 days (ED Level 2-5)	5
6	2 ED Visits in last 30 days or 1 ED Visit in last 72 hours (ED Level 2-5)	4
7	Age 80+ (ED Level 2-5)	1
8	Age 70+ and had Fall in past 3 months (ED Level 2-5)	4
9	No Stable Housing (ED Level 2-5)	1
10	Point of Origin is SNF/ALF (ED Level 2-5)	5
11	Unfunded and No PCP (ED Level 2-5)	2

The total sum of the weight/score column for each patient = Case Management Priority Score



CM Priority Score	Bed	Patient Name	MDN	Bed Rec
1,004				
509	A			
508	B			
505	V			
505	V			
505	R			
505	B			
504	V			
504	V			
504	D			
504	A			
502				
500	V			
500	V			

Score	Criteria
1,004	ED CM Consult
0	IP Admission/Observation Stay in last 30 days
0	FYI Flag-CMP/Behavioral Concern/Custody Concern for Ped
0	Hospice Flag
0	DC'd Home with SNF or HH in last 30 days (ED Level 2-5)
4	2 ED Visits in last 30 days or 1 ED Visit in last 72 hours (ED Level 2-5)
0	Age 80+ (ED Level 2-5)
0	Age 70+ and had Fall in past 3 months (ED Level 2-5)
0	No Stable Housing (ED Level 2-5)
0	Point of Origin is SNF/ALF (ED Level 2-5)
0	Unfunded and No PCP (ED Level 2-5)

Conclusions

Hospital Medicine and Case Management share the same health system priorities of improving transition of care and reducing unnecessary readmissions. In addition, improving ED length of stay and reducing “ED left without being seen” rates are a shared goal. We believe the CM Priority Score tool can help in identifying ED patients that could benefit most from CM interventions, and that such a tool would be more efficient in case-finding than the usual CM practices. The CM Priority Score Tool went live 8/23/22 and we plan on assessing its efficacy and reporting out at a future time. We are holding a rapid improvement event to determine optimal interventions to pursue for patients with high scores in addressing patient needs, readmissions risk, ED utilization, and resource allocation.

TAKE HOME MESSAGE: Case Managers provide key help in improving emergency department workflows which can positively impact ED throughput and reduce unnecessary readmissions. Case-finding in ED to discover which patients will benefit from CM interventions is a manual and inefficient process. To improve this, we developed a EMR-embedded CM Priority Score Tool using weighted variables to guide our ED CM to which patients to intervene on.



References

1. Soril LJJ, Leggett LE, Lorenzetti DL, Noseworthy TW, Clement FM (2015) Reducing Frequent Visits to the Emergency Department: A Systematic Review of Interventions. PLoS ONE 10(4): e0123660. <https://doi.org/10.1371/journal.pone.0123660>
2. Marcoux V, Chouinard M-C, Diadiou F, Dufour I, Hudon C (2017) Screening tools to identify patients with complex health needs at risk of high use of health care services: A scoping review. PLoS ONE 12(11): e0188663. <https://doi.org/10.1371/journal.pone.0188663>