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Facilitating Earlier Discharges to Decrease Avoidable Patient Days and Improve Flow for an Acute and Intermediate Care Unit

Natasha Bartlett
Maine Medical Center

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Project: Facilitating Earlier Discharges to Decrease Avoidable Patient Days and Improve Flow for an Acute and Intermediate Care Unit

Last Updated: July 10, 2019

Team Members: Adult Inpatient Medicine (AIM) Service Line Leaders, R4 Leadership, R4 Clinical Team, R4 Designated Charge RNs, Social Work/ Care Management, Providers/physicians, Information Systems, Nursing Supervisors

Problem/Impact Statement:

One of Maine Medical Center’s annual implementation (AIP) goals is a 5% reduction in avoidable days. R4 is a 34-bed medical respiratory acute and intermediate care (IMC) unit, which has historically had low early discharge percentage rates. Delayed discharges may result in longer lengths of stay (LOS) and adverse events; three options exist to decrease overcrowding: decrease admissions, mitigate LOS, and discharge patients earlier (Molla, Warren, Stewart, Stocking, Johl, & Sinigayan, 2018). The third option is this project’s focus: without interfering with the number of “midnights” the patient stays, discharging patients earlier in the day allows for positive patient churn and an improved workflow for clinical and provider teams. To reduce admission delays and improve patient churn, many organizations are focusing on processes and quality improvement projects for early patient discharges (Patel, Morduchowicz, & Mourad, 2017).

Scope:

All adult inpatients located on R4, regardless of primary or consulting services; exclusions: all patients on other units

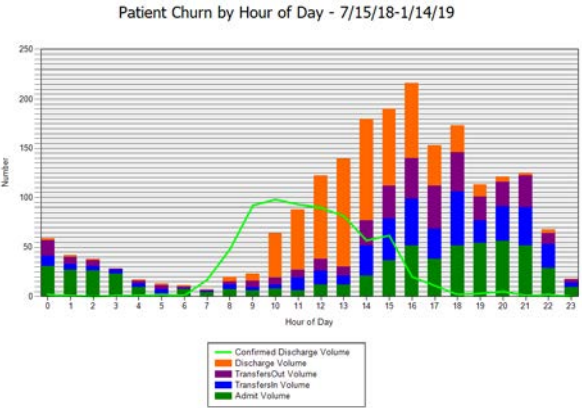
Goal/Objective:

The goal of discharging 25% of patients before 11:00 a.m. will improve patient churn and allow incoming patients to be admitted to R4 in a more medically appropriate and timelier fashion. In order for early discharges to occur, many tasks, workflows, and relationships must be evaluated with a systems-level approach using strategic intelligence. Planning for discharge is often an intense and complicated issue with many unforeseen challenges. Many R4 patients are discharged to facilities and a small percentage are discharge home with or without services. Current Goal Outcomes:

- 1. 25% of discharged patients will be discharged before 11:00 a.m.
- 2. Patient churn will be more evenly spread throughout the day, instead of exaggerated from 2:00 p.m. until 7 p.m.

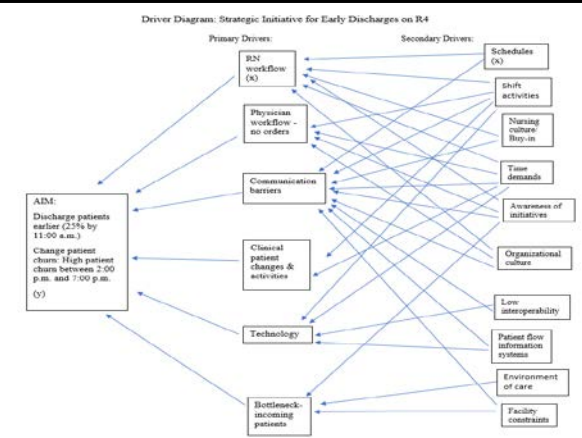
Baseline Metrics/Current State:

Goals	Previous 3 Month Averages	
	Baseline	Baseline Gap
Discharge % by 11:00 (Goal: 25%)	6%	19%
Discharge % by 14:00 (Goal: 50%)	48%	2%
Discharge % by 18:00 (Goal: 90%)	92%	-2%
% Pending DC Usage (Goal: 90%)	63%	27%
Avg Pending DC To DC Hrs (Goal: 18 - 24)	28	4-10
Avg Confirmed DC to DC Min (Goal: 120 minutes)	155	35



Root Cause Analysis:

R4 Early Discharge Project SWOT Analysis	
Strengths	<ul style="list-style-type: none">- organizational values are clear- team understands this problem is a patient safety & flow issue- skilled, knowledgeable clinicians- collaborative team- leadership interest/involvement- frequent leader communication & dialogue about goals, plans, & project necessity
Weaknesses	<ul style="list-style-type: none">- minimal application of evidenced based practice (EBP)- time/resource wastes with poorly understood discharge processes & miscommunications; rework created frequently- communication barriers- set, culturally accepted workflows; resistance to change- emphasis on perceived max unit census- some siloed staff, regardless of organization capacity & acuity
Opportunities	<ul style="list-style-type: none">- emerging need for non-traditional, innovative ideas for problem solving- 30% “new” staff members without engrained workflows- new emphasis on EBP & supportive research for goals- involved/engaged staff- minimal competition within healthcare community (also threat)
Threats	<ul style="list-style-type: none">- resource limitations- without consistency, risk reversion back to old thinking- communication and collaboration barriers- minimal competition within healthcare community (also opportunity)



Executive Sponsor:
Facilitator: Natasha Bartlett, MS, RN, NE-BC, CCRN-CMC

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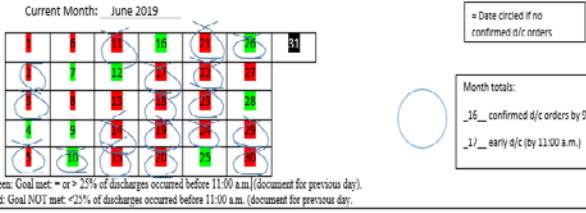
Countermeasures

PROJECT MILESTONES					
GOAL: 25% of the day's discharges will occur before 11:00 a.m.					
Phase 1- Start Date: Jan 2019, End Date: Jan 2020			Phase 2- Start Date: Jan 2020, End Date: Jun 2020		
Milestone	Measure of Success	Responsibility	Due Date	% Completion	
Project implementation & goal discussed w/team	100% of R4 team & SW/ICM are aware of project plan & goals	Unit leaders, R4 team (clinical team)	2019 Jan	25	50 75 100
Designated charge RNs (DCN) made aware of early discharge (d/c) goal	100% of DCNs verbalize project & goal understanding	Unit leaders, R4 DCNs	2019 Feb	25	50 75 100
Each day, early d/c discussed during DCN handoff	Early d/c pts are documented on assignment sheet 100% of time	R4 DCNs, unit leaders	2019 Feb	25	50 75 100
Standardize interdisciplinary care rounds (IDCR)	100% of IDCR will focus on d/c planning & barriers; rounds will be <30 minutes	leaders; support staff	2019 Mar	25	50 75 100
Patients taken out of Epic (electronic health record) immediately after d/c	Epic™ promptly OK to back chart using “Patient Station” tab (top of left Epic screen)	leaders; nursing unit secretary (NUS) team	2019 Feb	25	50 75 100
Teletasking™ (patient churn system) shows “pending” d/c dates for all	100% of the time, Teletasking is updated w/ anticipated d/c date to assist with preparation	R4 DCNs, NUS, unit leaders; bed placement clinicians	2019 Mar	25	50 75 100
White boards updated w/ anticipated d/c date	100% of the time, all patient white boards have an updated & accurate anticipated d/c date	DCNs, R4 team, support staff	2019 Apr	25	50 75 100
Track reasons for late d/c	Late d/c reasons documented on tracking sheet 100% of time	R4 DCNs, unit leaders, NUS	2019 Mar	25	50 75 100
Weekend IDCR implementation	Saturday & Sunday - Charge RN & provider teams will complete mini-rounds w/focus on discharges	Inpatient medicine (AIM) provider teams, R4 team,	2019 Oct	25	50 75 100
Family Medicine (FM) team cohered on R4	100% of appropriate adult inpatients will be located on R4	R4 team, unit leaders, bed placement clinicians	2019 Jun	20	50 75 100
Interprofessional advanced care education (IPACE) model implementation	100% successful implementation; FM & R4 complete IPACE rounds Monday-Friday	R4 team, unit leaders, bed placement clinicians	2019 Apr	25	50 75 100
Daily check-in w/Social Work & Care Management	100% of the time a check-in will occur at 3:00 p.m. Monday-Friday	R4 team, unit leaders, support staff	2019 Jun	25	50 75 100
R4 Nurses Station/Solarium Algorithm implementation	100% of all appropriate discharge patients waiting for rides will be placed in R4 Nurses Station/Solarium - algorithm utilized	R4 DCNs, R4 team, unit leaders, bed placement clinicians	2019 Sept	25	50 75 100
25% of R4 patients are d/c'd before 11:00 a.m.	Weekly report shows at least 25% of patients are d/c'd by 11:00 a.m.	R4 DCNs, FM team, AIM providers, R4 team, unit leaders	2020 Jan	25	50 75 100

MMC AIP Goal & R4 Project: Changing R4’s Workflow to Decrease Avoidable Patient Days by Increasing Early Discharge %

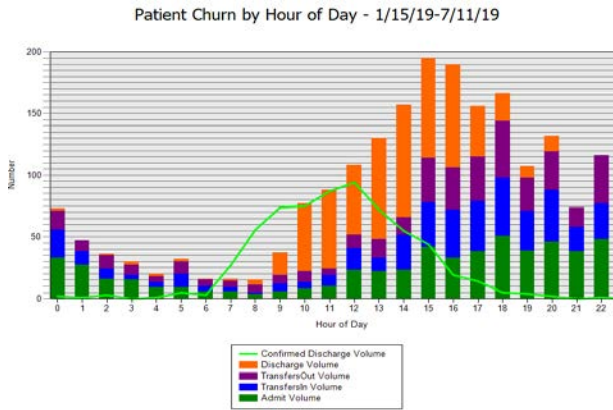
Experience, Financial, & Quality Goal: By utilizing Teletasking, efficient IDCR, and implementing workflow changes, R4/IMC/AVU will improve our patient throughput. Each day 25% of our discharges will occur before 1100.

Project start: Jan 15, 2019



Improvement Plans:	
Date & changes made to progress goal :	Date & changes made to progress goal cont'd:
1/1 1/31: discussed baseline data & QI project w/ team; project creation	4/2 started 3p SW/CM daily check ins; sent appointment invite to calendars
1/10: Update IDCR sign in sheets & reiterate IDCR focus	4/3 Teletasking consultant observation of IDCR
1/11: met w/ OCC & Teletasking to discuss d/c & cohorting	4/3 review of d/c project with Teletasking consultant
1/15: project start date	4/8 iPACE go live
1/22: changed R4’s transfer sheets to improve tracking/collection	4/10 Solarium made available for appropriate d/c pts waiting for ride
1/25: email reminder of R4 goals	4/18 100% team cohorting on R4
1/29: discussed project at afternoon huddle	4/26 finalized solarium d/c algorithm
1/30: hospital flow/Teletasking meeting 8-10a	5/1 leader discussion w/hospital flow/Teletasking director
2/7: Cohort discussion w/OCC & unit leaders	5/2 discussed project in DCN mtg
2/14: Discussed project w/DCN group	5/29 OCC/Teletasking mtg - cohorting
2/15: Project update via email	5/31 ipace mtg focus-improving OCC/R4-FM communication/relationships cohorting
2/19 2/21: CMS site visit priority	6/1 Data check - 3 1/2% of the time, R4 has no confirmed orders by 0900
3/6/19: KPI started - cohorting Fam Med pts to R4 KPI	6/3- updated project tracking sheets
3/11: cohorting leadership mtg	6/17 - email to NUS to reiterate importance of accurate d/c documentation (sheets vs. Epic)
3/12/19: Data check in - from 1/15-3/12, 59% of the time, NO d/c order by 0900, however, when we do have early order, 68% of the time pts are d/c'd by 1100.	6/17 - email to DCNs regarding pending discharge use
Improvement of Teletasking pending and projected d/c use.	6/17 & 6/18 discussed with CM SW leadership
3/13/19 - discussed project at staff mtg & IDCR	6/18/19 ordered TV for solarium
3/18, 3/22, 3/29 - weekly email with R4 and MDMC updates	6/25/19 - hold nurses station/solarium algorithm (FMEA requested)
	7/2 - data check - no confirmed orders by 9:00 a.m. 60% of the time

Outcomes



PDSA for R4’s Early Discharge Project

	Baseline	Current (Weeks 14-27)	Current Gap
Count Of Discharges	268	284	
Confirmed Discharge Order % by 09:00	9%	15%	7%
Confirmed Discharge Order % by 12:00	51%	55%	4%
Confirmed Discharge Order % by 18:00	93%	92%	-1%
Discharge % by 11:00 (Goal: 25%)	6%	14%	8%
Discharge % by 14:00 (Goal: 50%)	48%	45%	-3%
Discharge % by 18:00 (Goal: 90%)	92%	93%	1%
% Pending DC Usage (Goal: 90%)	63%	75%	12%
Avg Pending DC To DC Hrs (Goal: 18 - 24)	28	20	-8
Avg Confirmed DC to DC Min (Goal: 120 minutes)	155	145	-10

Next Steps

- Future Goals/Outcomes:
- 1. Continue with Project Milestones
 - 2. 60% of discharged patients will be discharged by 2:00 p.m.; 90% of discharged patients will occur by 6:00 p.m.
 - 3. Team will demonstrate interprofessional partnerships as noted by interprofessionalism scale
 - 4. R4 Nurses Station/Solarium Algorithm utilized 75% of the time

Resources:
Molla, M., Warren, D., Stewart, S., Stocking, J., Johl, H., & Sinigayan, V. (2018). A Lean Six Sigma quality improvement project improves timeliness of discharge from the hospital. *The Joint Commission Journal on Quality and Patient Safety*, 44(7), 401-412. doi: 10.1016/j.jcjq.2018.02.006
Patel, H., Morduchowicz, S., & Mourad, M. (2017). Using a systemic framework of interventions to improve early discharges. *The Joint Commission Journal on Quality and Patient Safety*, 43(4), 189-196. doi:10.1016/kj.jcjq.2016.12.003