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Development and Validation of a Burn Center Discharge Readiness Checklist to Identify Patients at High Risk of 30 Day Readmission

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Introduction

With increased focus amongst hospital systems regarding the quality of patient care provided, there has been augmented awareness on minimizing unplanned 30 day hospital readmission rates

Objective

Quality Improvement project: to evaluate the specific risk factors associated with 30 day readmissions at a burn center

Methods

- Retrospective chart review for all unplanned 30 day readmissions at a single institution over a one year period (September 2018-August 2019).
- Inclusion Criteria: All patients readmitted, regardless of underlying disease process (burn injury (n=7), necrotizing soft tissue infections (n=6), frostbite (n=1))
- A 20 item checklist of potential risk factors was developed, and cross referenced to all eligible patients
- Retrospective chart review was used to determine how many checklist factors were positive upon discharge for each patient
- The primary outcome was determining the main risk factors leading to a high risk for readmission

Results (n=14)

DISCHARGE READINESS CHECKLIST	Number of positive results
Inadequate family support to assist once discharged	11
Significant co-morbidities/associated traumatic injuries	10
Surgical intervention during hospitalization	10
Location of wound care in difficult to access anatomical areas (beck, buttocks, perineum)	8
Poor nutritional parameters	6
Length of stay >1 day per % TBSA injury	5
Discharge greater than 20 miles away from hospital	4
Lack of insurance	3
Established non-compliance with medical care	3
>20% TBSA burn injury	2
Inadequate access to home health care	2
Weekend discharge	2
Poor access to transportation	2
Previous readmission	1
Worker's compensation case	1
Established substance abuse	1
LACE score > 11	1
DCFS or APS involvement	0
Unemployed status	0
Homelessness	0

CONCLUSION: Traditional risk assessment scores (i.e. LACE) do not capture patients at high risk for readmission in a burn center. Development of an alternative checklist may help to identify these patients prior to discharge, with the potential to allocate additional resources to ultimately decrease 30 day readmission rates. The most common identifiable risk factors in our population included inadequate family support, significant co-morbidities, surgical intervention during hospitalization and Anatomical locations of injuries in hard to access areas