ABSTRACT

The DUH GenMed readmission rate is higher than peers. An existing readmission risk score only available at discharge did not offer proactive identification of high risk patients during admission. A project was launched with key partners in Hospital Medicine, Case Management, DHTS, DCRI, and Performance Services to analyze and implement the Epic readmission risk score and interventions to mitigate readmissions. The intervention rate improved, and the team is closely monitoring the impact on readmissions.

BACKGROUND

A workgroup was launched to evaluate the predictability of the Epic readmission risk score. The team worked to outline the process for high risk patients (Figure 1) and created a resource guide for all post-discharge interventions. The provider and Case Management teams compiled a resource guide listing all available post-discharge interventions for patients. The case manager initiates interventions as appropriate for the high-risk readmission patients. Then, the Resource Center nurse targets follow-up phone calls within 1 day from discharge for all high-risk patients to ensure a smooth transition.

OUTCOMES

Model performance revealed a c-stat 0.738 (DUHS, all services)

<table>
<thead>
<tr>
<th>For High Risk Patients:</th>
<th>Patients Without Intervenition</th>
<th>Patients With Intervenition</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readmission Rate</td>
<td>36.68%</td>
<td>32.04%</td>
<td>-5%</td>
</tr>
<tr>
<td>Intervention Rate</td>
<td>61%</td>
<td>71%</td>
<td>10%</td>
</tr>
<tr>
<td>Average # of Interventions per Patient</td>
<td>1.45</td>
<td>1.78</td>
<td>0.33</td>
</tr>
<tr>
<td>Attempted Follow-up Phone Call Rate Within 1 Day from Discharge</td>
<td>28%</td>
<td>72%</td>
<td>44%</td>
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</tbody>
</table>

Lessons Learned:
- Change is hard and continued feedback to the careteam is important.
- Multidisciplinary teamwork is powerful, and our DCRI partners provided a lot of value in the statistical rigor of the model validation.
- No risk model is “perfect” but can be a helpful resource for careteams to prioritize interventions.

Next Steps:
- A DUHS analysis by service and hospital has been conducted to validate the risk score, and expansion plans are underway to expand the pilot to other patient populations across the health system.
- The team is analyzing the impact of specific interventions on the readmission rate to better pinpoint the key drivers.
- Pharmacy has hired additional resources to support focused med-rec on high risk patients, and the team is analyzing the impact of this change.

Figure 1. Careteam Workflow for Risk Score

Figure 2. Risk Score and Factors

Figure 3. % of Discharges Assigned an Intervention (High and Medium Readmission Risk)