Reducing 30-Day Readmissions after Coronary Artery Bypass Grafting for High-Risk Populations: A Focus on Medicaid Insurance

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Introduction
- 30-day readmissions after CABG are costly from a fiscal and quality standpoint with annual rates ranging 12.6-23.6% nationally.1,2,3
- Medicaid insurance and related socioeconomic risk factors increase likelihood of readmission after CABG.1,2
- Most readmissions occur within 10 days from discharge and are considered preventable through the Hospital Readmissions Reduction Program (HRRP).1,2,3
- Multidisciplinary care coordination to ensure timely follow-up after discharge may reduce readmissions for this population.2,4

Purpose
- To reduce 30-day readmissions after CABG for patients with Medicaid insurance by implementing an evidence-based, comprehensive, early postoperative follow-up protocol at discharge.

Project Aims
1. To reduce the number of Medicaid-insured patients readmitted within 30 days of discharge after CABG.
2. To schedule postoperative follow-up appointments after CABG prior to discharge for 85% of patients with Medicaid insurance.
3. To see Medicaid-insured patients after CABG for postoperative follow-up in the surgical clinic within 10 days of discharge.

Methods
- **Design:** pre/post test intervention design; data from STS database
- **Setting:** inpatient step-down unit and outpatient surgical clinics
- **Inclusion criteria:** Medicaid-insured and uninsured adult patients who underwent CABG and CABG+valve surgeries
- **Exclusion criteria:** other insurance types and other operations

Intervention: Postop Scheduling Algorithm
- **Discharge providers triage patients for early or usual care post-discharge follow-up visit based on insurance- and clinical-related risk factors.**
- **Appointments scheduled accordingly for patients prior to discharge.**
- **Patients seen for post-discharge visit within recommended timeframe in outpatient surgical clinic.**

Results

<table>
<thead>
<tr>
<th>Aim</th>
<th>Intervention group (n=54)</th>
<th>Comparison group (n=49)</th>
<th>p-Value (Chi-square testing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Readmissions</td>
<td>Yes, n=9 (16.7%)</td>
<td>No, n=43 (79.6%)</td>
<td>Yes, n=7 (14.3%)</td>
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<tr>
<td>2. Scheduled appointments</td>
<td>Yes, n=41 (75.9%)</td>
<td>No, n=12 (22.2%)</td>
<td>Yes, n=36 (73.5%)</td>
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<td>3. POV within 10 days</td>
<td>Yes, n=22 (40.7%)</td>
<td>No, n=31 (57.4%)</td>
<td>Yes, n=16 (32.7%)</td>
</tr>
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</table>

Discussion and Limitations
- No significant difference in readmissions between Medicaid groups, but **total CABG readmissions decreased from 9.9% (2019) to 7.5% (2020).**
- Intervention increased scheduled appointments, increased number of patients seen within 10 days of discharge, decreased early readmissions, and decreased preventable readmissions.
- **Scheduling postoperative appointments pre-discharge significantly improved adherence** with early postoperative visits for Medicaid-insured patients (p=0.04).
- **COVID-19 pandemic presented challenges in the intervention group.**
- **Limitations:** small sample size, 20-week time frame, single institution

Conclusions
- Improved care coordination and continuity after discharge to ensure timely follow-up after CABG benefits patients with Medicaid clinically.
- **Readmissions remain a multifactorial issue.**
- **Sustainability:** adopted as **standard practice** in Department, strong potential for **wider application/adaptation to other HRRP diagnoses.**
- **Future work:** all insurance types, patient satisfaction, financial implications.

References