Improvement of Quality Metrics in Patients with Ischemic Vascular Disease (IVD), Coronary Artery Disease (CAD), and Congestive Heart Failure (CHF)

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Medicare’s Shared Savings Program, in which Lehigh Valley Health Network participates, requires Accountable Care Organizations (ACOs) to demonstrate adherence to 33 quality guidelines.

**Project goals:**
- Identify patients from Lehigh Valley Physician’s Group (LVPG) who are not in adherence with metrics for IVD, CHF, and CAD & potential reasons why not
- Educate providers and medical staff on documentation guidelines.
- Improve evidence-based patient care for IVD, CHF, and CAD

**Methods**

1. Quality metrics for patients with cardiovascular disease chosen:
   - IVD patients on antiplatelet therapy
   - CHF patients with LVSD on beta-blockers
   - CAD patients with LVSD/DM on ACE inhibitors/ARBs
2. Patients not in compliance with metrics were identified using the EPIC EMR
3. Patient charts were reviewed & relevant information documented in Excel spreadsheets for each metric (shown below for antiplatelet metric)
4. Collected data was shared with a specified contact person at each of the practices
5. Each contact person updated the patient medication lists or consulted providers about adding medications if appropriate
6. Progress of each practice was tracked through weekly review of EPIC quality metric reports/graphs

**Results**

| Table 1: Antiplatelet Quality Metric
| Charts Reviewed: 733 | Practices: 8 |

<table>
<thead>
<tr>
<th>Possible Clinical and Pharmacological Contraindications</th>
<th>Percentage of Total Patients Reviewed</th>
<th>Percentage of Patients not currently/previously on aspirin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirin <strong>Intolerance</strong></td>
<td>31.4%</td>
<td>46.9%</td>
</tr>
<tr>
<td>History of Hemorrhage</td>
<td>7.5%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Gl blood/Ulcer</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>Fall Risk</td>
<td>7.4%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Severe Kidney Disease</td>
<td>10%</td>
<td>14.4%</td>
</tr>
<tr>
<td>Use of Nsaids</td>
<td>5.9%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Chronic Obstructive Use</td>
<td>5.2%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Allergy</td>
<td>5.2%</td>
<td>N/A</td>
</tr>
<tr>
<td>Aspirin listed in past notes</td>
<td>45.4%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Table 2: ACE inhibitor/ARB Quality Metric
| Charts Reviewed: 212 | Practices: 3 |

<table>
<thead>
<tr>
<th>Possible Clinical Contraindications</th>
<th>Percentage of Total Patients Reviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension, angioedema, renal insufficiency, hyperkalemia, bradycardia</td>
<td>2.8%</td>
</tr>
<tr>
<td>Intolerance</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

**Discussion/Conclusion**

Most common procedural problem was medication list not transferred with the average occurrence being 43.3% of patients. Also, 55.2% of patients did not have an upcoming appointment. This proves as a problem for the project in the future.

- Most common contraindications found:
  - Antiplatelet—use of blood thinner 31.4%
  - Beta blocker—intolerance (fatigue) 6.9%
  - ACE inhibitor/ARB—clinical contraindications 18.9%

**Future Directions**

Education tools developed for sustainability:

- A PowerPoint for practice education with EPIC screenshots for documenting allergies, contraindications, and intolerances to improve metric accuracy
- Review of reports regularly to determine patients coming in for an appointment who are not receiving standard of care medications
- Follow work flows to address patients not meeting standards

**Lehigh Valley Health Network, Allentown, Pennsylvania**