Statin Prescription and Dose Intensity Among Elderly Medicare Beneficiaries, by Cardiovascular Disease Diagnosis and Prescriber Specialty

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Introduction

- Hypercholesterolemia is a major risk factor for coronary heart disease.
- Statins have been extensively used to treat patients with hypercholesterolemia.
- Statin use is known to benefit elderly patients with cardiovascular disease.

Methods

- Using 2007-2010 5% samples of Medicare Parts A, B, and Part D claims, we identified beneficiaries with history of prevalent cardiovascular disease or diabetes.
- The study cohort consisted of beneficiaries continuously enrolled in Medicare Parts A, B, and D during 2009, not enrolled in an HMO, residing in the 50 US states or District of Columbia, and alive, without end-stage renal disease, and aged ≥65 years on January 1, 2009.
- We used a disease hierarchy approach and included 9 subgroups: patients with history of myocardial infarction (MI), unstable angina, ischemic stroke, stable angina, transient ischemic attack (TIA), carotid stenosis, coronary revascularization (PCI/CAB), peripheral arterial disease (PAD), or diabetes mellitus.
- We identified statin users at diagnosis or within 12 months post-diagnosis.

Results

- The cohort included 613,674 enrollees who met the inclusion criteria. The cohort had 112,109 patients (22%) and TIA patients (13.7%), respectively.
- Overall, family/internal medicine was the most common specialty of statin prescribers across all cardiovascular disease groups (Table 3).
- Cardiologists were most likely to prescribe statins to PCI/CAB patients (23.8%).
- Endocrinologists prescribed 2.3% of statins for patients with diabetes mellitus.
- Most PAD patients (62.9%) were prescribed statins by family/internal medicine clinicians.

Conclusions

- Despite the benefits of statin treatment, the prevalence of statin use is lower among elderly PAD and TIA patients, relative to other cardiovascular disease groups.
- There appear to be differences in statin prescribing by physician specialty. These findings suggest a need for more comprehensive assessment of the determinants and outcomes of statin use in elderly patients with cardiovascular disease.

Limitations

- The retrospective claims data used for this analysis allow us to identify only prescription drugs dispensed in the outpatient setting. Thus, we could not identify prescriptions written during hospitalizations.
- Some Medicare Part D beneficiaries (those without low-income subsidy) encounter the coverage gap and may fill prescriptions outside the Part D system. We were unable to identify such prescriptions.

Table 1. High-, moderate- and low-intensity statin therapy*

<table>
<thead>
<tr>
<th>Cardiovascular disease</th>
<th>N</th>
<th>On statin, %</th>
<th>Statin intensity, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI</td>
<td>21,823</td>
<td>72.8</td>
<td>22.0</td>
</tr>
<tr>
<td>TIA</td>
<td>24,182</td>
<td>59.2</td>
<td>15.4</td>
</tr>
<tr>
<td>Stable angina</td>
<td>16,591</td>
<td>51.9</td>
<td>13.8</td>
</tr>
</tbody>
</table>

*Proportion of elderly Medicare cohort with prevalent cardiovascular disease on statins at diagnosis or within 12 months post-diagnosis.