Adherence To Lipid Guidelines In CLTI Patients Undergoing Revascularization Leads To A Decrease In Mortality And MALE

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Disclosures

• Consulting: Abbott, Cook, Endologix, Medtronic, Silk Road

2013 ACC/AHA Lipid Management Guidelines

Peripheral Arterial Disease

Methods

• All CLTI pts undergoing first time revascularization at BIDMC 2005-2014 (Endo and Open)
• Exposure: Statin doses, by 2013 ACC/AHA Guidelines
• Propensity Score
• N=1109 limbs in 931 pts (excluded 252 on HD)
• Median F/u 380d

Outcomes

• Primary: Overall Survival
• Secondary: MALE (Major Adverse Limb Events)
  – amputation
  – major re-intervention
### Adjusted Outcomes for Patients on Statins

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>≤75 years old</th>
<th>&gt;75 years old</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>HR [95% CI]</td>
<td>P</td>
<td>HR [95% CI]</td>
</tr>
<tr>
<td>Death</td>
<td>0.71 [0.56 - 0.90]</td>
<td>0.01</td>
<td>0.65 [0.43 - 0.97]</td>
</tr>
<tr>
<td>MALE</td>
<td>0.81 [0.60 - 1.06]</td>
<td>0.16</td>
<td>0.91 [0.60 - 1.37]</td>
</tr>
</tbody>
</table>

*Controlling for age, sex, race, hypertension, diabetes, coronary artery disease, chronic kidney disease, smoking, procedure year and indication

### Outcomes by Guideline-Approved Intensity

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<td>HR [95% CI]</td>
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<tr>
<td>Death</td>
<td>0.77 [0.60 - 0.99]</td>
<td>0.04</td>
<td>0.81 [0.52 - 1.27]</td>
</tr>
<tr>
<td>MALE</td>
<td>0.71 [0.51 - 0.97]</td>
<td>0.03</td>
<td>0.67 [0.42 - 1.06]</td>
</tr>
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### Moderate Compared to High Intensity Statins in the Elderly

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<tr>
<td>Death</td>
<td>0.79 [0.49 - 1.26]</td>
<td>0.323</td>
</tr>
<tr>
<td>MALE</td>
<td>0.82 [0.41 - 1.64]</td>
<td>0.578</td>
</tr>
</tbody>
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### Statin Therapy and Adherence
- Statin therapy associated with poor adherence
- **Goals:**
  - Evaluate rates of discontinuation and dose change 1 year after discharge
  - Evaluate association between statin therapy at 1 year and subsequent long-term survival
Conclusions

- Statins associated with ↑ survival and ↓ limb events after revascularization for CLTI
- Correct dose per 2013 ACC/AHA Guidelines provides incremental benefit
- 2/3 of eligible patients are not on recommended doses
  - Target for QI projects.

Conclusions

- Moderate- and high-intensity statin therapy one-year after discharge is associated with higher long-term survival
- Discontinuation or decreased dose of statin is common and results in a loss of this benefit

Conclusions

- Discharging patients on appropriate statin therapy is not enough
- Vascular surgeons must confirm statin dosing during post-operative follow-up
  - Communication with other providers is crucial

Thank you