Why Are PCSK-9 Inhibitors A Game-Changer For PAD Patients: Coronary Plaques Can Stabilize With Lower LDL-C Levels Produced By High Dose Statins Plus PCSK-9 Inhibitors: The GLAGOV Trial: How Low Should The LDL-C Be Lowered To?

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Patients Known to Benefit from Statins:

1. Patients with clinical ASCVD
2. Patients with LDL-C >190 mg/dL, not due to secondary causes
3. Patients aged 40 to 75 years with diabetes mellitus and LDL-C 70 to 189 mg/dL
4. Patients aged 40 to 75 years with no diabetes, but with LDL-C 70 to 189 mg/dL and predicted 10-year ASCVD risk ≥7.5%.


PCSK-9 Inhibitors – An Overview

- Mechanism of action: Monoclonal antibody to PCSK-9 binds to PCSK-9 and increases the number of LDL receptors available to clear circulating LDL.

Reducing LDL-C Results in Reduced Major Vascular Events

Clin Ther. 2009;31:236-244

Disclosures

- None
Reducing LDL with Statins, Prevents CV Death Across all Risk Groups

Lancet 2012; 380: 581–90

Can LDL-C be Too Low? Theoretically Yes. Practically, No Such Evidence Exists

- Cancer
- Depression
- Diabetes
- Cognitive decline / neuronal dysfunction

In GLAGOV PCSK-9 Reduced LDL-C and Atheroma Volume

JAMA. 2016;316(22):2373-2384

But Clinical Outcomes Are Lacking. Multiple PCSK9 Clinical Trials Still Ongoing

FOURIER: Evolocumab Reduced Death, MI and Stroke. **13% of Patients had PAD.**


Reminder: Statins have non-LDL Effects

FOURIER PAD
Sub-Analysis: NNT of ONLY 29 over 2.5 Years to Reduce MACE


90% of patients on statins; 2/3 on high intensity statin

PCSK-9 Treatment Cost is ~$14500. This is NOT Cost-Effective


PCSK-9 Inhibitors Often Not Approved, Or Cannot be Afforded

Less than half of patients prescribed a PCSK-9 inhibitor therapy were approved by their insurance carrier

<47% Approved

53% Denied

Commercial plans had the lowest approval rate and Medicare had the highest

15% of approved patients discontinued for non-medical reasons

The cumulative patient cost was more than twice as much as for patients who purchased the drug

Current Recommendations (Pre-Fourier)

J Am Coll Cardiol. 2016 Jul 5;68(1):92-125