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Use of a Lipid Optimization Tool Database to Identify Candidates for PCSK9 Inhibitor Therapy in a Community Cardiology Group Practice

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BACKGROUND [1,2]

Despite well-established benefits of lipid-lowering therapy, lipid targets in the community are still underachieved. OCC developed a physician-supervised, nurse-managed electronic database of 13,000 patients with dyslipidemia that facilitates comprehensive follow-up, structured lipid management and telemonitoring. We describe our cardiology practice's experience in using this database to identify patients eligible for PCSK9-inhibitor therapy.

The purpose of this study is to identify PCSK9i eligible patients using an electronic database of lipid levels and to determine barriers to starting this form of lipid-lowering therapy.

METHOD [3,4]

1. We broadly queried the database to identify all patients with LDL-c levels > 2.0 mmol/L.
2. We reviewed these patients' medical records to identify PCSK9i eligible patients
   - Aged < 80 years **AND**
   - Either arteriosclerotic cardiovascular disease (ASCVD) or heterozygous familial hypercholesterolemia (HeFH) **AND**
   - Suboptimal LDL-C levels despite being on maximally tolerated statin therapy.
3. Once identified, we contacted these patients to determine their interest in starting PCSK9i therapy.

RESULTS

Of 13,000 patients enrolled in our database, 1926 (14.8%) active patients had LDL-c levels above 2.0 mmol/L (Figure 1.).

Among these patients, 1766 (92%) were ineligible for PCSK9i therapy; 725 (41%) patients had neither ASCVD nor HeFH, 397 (22%) were aged over 80 years, 366 (21%) were not on their maximally tolerated statin dose, 115 (7%) were inactive patients, 107 (6%) patients' physicians were satisfied with their current regimen, and 56 (3%) patients were not interested (Figure 2.).

We contacted the remaining 160 (8%) patients eligible for PCSK9i therapy. Among these patients, 80 (50%) had either begun or were in the process of beginning PCSK9i therapy, 64 (40%) lacked third-party medical insurance, and 16 (10%) were not interested (Figure 2.).

The primary reasons for disinterest were anxiety about using an injectable medication and reluctance to start a newly approved drug.

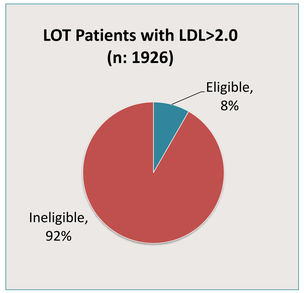

Figure 1: *Of the 1926 patient with suboptimal LDL-C (>2.0), 8% were eligible for PCK9i therapy (ie: >80 years old with ASCVD and/or HeFH).*

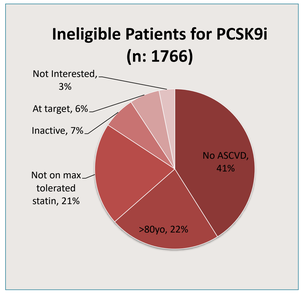

Figure 2: *Identifying reasons for ineligibility in suboptimal patients; 725 (41%) patients had neither ASCVD nor HeFH, 397 (22%) were aged over 80 years, 366 (21%) were not on their maximally tolerated statin dose, 115 (7%) were inactive patients, 107 (6%) patients' physicians were satisfied with their current regimen, and 56 (3%) patients were not interested*

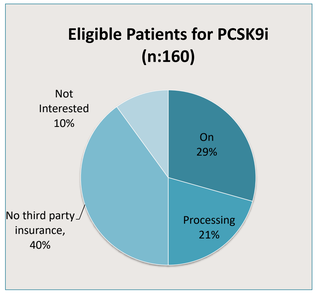

Figure 3: *Outcomes of eligible patients with suboptimal LDL-C (>2.0); 80 (50%) had either begun or were in the process of beginning PCSK9i therapy, 64 (40%) lacked third-party medical insurance, and 16 (10%) were not interested.*

CONCLUSIONS

The lipid optimization tool database used by our cardiology practice rapidly identified PCSK9i-eligible patients. Major obstacles for commencement of therapy included lack of third-party insurance coverage and anxiety about using injectable medication.

In patients not optimally controlled with standard lipid lowering therapy, increased availability of PSCK9-inhibitors should be pursued along with proper patient education to alleviate patients' concerns about this effective lipid-lowering therapy.

REFERENCES

1. Mancini GBJ, Tashakkor AY, Baker S, Bergeron J, Fitchett D, Frohlich J, et al. Diagnosis, prevention, and management of statin adverse effects and intolerance: Canadian working group consensus update. Canadian Journal of Cardiology. 2013. p. 1553–68.
2. National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation and T of HBC in A (Adult TPI. Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) final report. Circulation. 2002;106(25):3143–421.
3. Robinson JG, Farnier M, Krempf M, Bergeron J, Luc G, Averna M, et al. Efficacy and safety of alirocumab in reducing lipids and cardiovascular events. N Engl J Med. 2015;372(16):1489–99.
4. Sabatine MS, Giugliano RP, Wiviott SD, Raal FJ, Blom DJ, Robinson J, et al. Efficacy and Safety of Evolocumab in Reducing Lipids and Cardiovascular Events. N Engl J Med. 2015;372(16):1500–9.

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