



Perceptions and Barriers on the Use of PCSK9 Inhibitors in Heterozygous Familial Hypercholesterolemia: A Survey of Primary Care Physicians and Cardiologists

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BACKGROUND

Heterozygous familial hypercholesterolemia (HeFH) results in significant elevations in LDL-C and premature atherosclerotic cardiovascular disease (ASCVD). Current guidelines call for the use of high intensity statin and ezetimibe followed by PCSK9 inhibitor (PCSK9i) therapy for additional LDL-C lowering. Data are sparse, however, regarding physician attitudes, use, and barriers for using PCSK9i in such patients.

OBJECTIVE

We sought to examine physician attitudes, use, and barriers for using PCSK9i therapy in patients with HeFH.

METHODS

- MedSurvey, an independent research survey vendor, provided a survey sent out via e-mail to primary care physicians and cardiologists across the US from a registry of practitioners who agreed to be surveyed and matched the specialty requirements.
- Requirements for participation included being a US based physician licensed and currently practicing, not certified by ABCL or ACCL, have seen patients with an untreated LDL-C \geq 190 mg/dL, and were among the following specialty groups: Family Medicine, General Practice, Internal Medicine, and Cardiology.
- The survey was fielded from August 29, 2019 to September 30, 2019 where 1,561 physicians responded to the survey of which 500 primary care physicians (PCP) and 500 cardiologists completed the survey.

RESULTS

	Primary Care	Cardiologist	p-value
Ranking High Intensity Statin as Most Important for HeFH patient with untreated LDL-C \geq 190 mg/dL	64.8%	68.6%	0.04
Ranking PCSK9i as Most Important for HeFH Pt on Maximal Tolerated Statin Needing Add'l LDL-C Lowering	48.4%	58.2%	<0.01
Currently has HeFH patient on a PCSK9i	44.2%	68.4%	<0.0001
Likely or Very Likely to Prescribe a PCSK9i in an Adult with HeFH on maximum statin Therapy with ASCVD	66.0%	87.8%	<0.0001
Likely or Very Likely to Prescribe a PCSK9i in an Adult with HeFH on maximum statin Therapy without ASCVD	51.0%	70.2%	<0.0001
Personally Prescribed a PCSK9i for an Adult Pt with HeFH	46.8%	70.4%	<0.0001
Encountered Difficulty Prescribing a PCSK9i for a Patient with HeFH (very or extremely difficult)	58.1%	50.6%	0.07

	Ever Prescribed a PCSK9i	Difficulty Prescribing a PCSK9i
Provider: PCP vs. Cardiologist	0.46 (0.34-0.63)	0.80 (0.60-1.07)
Practice Location	-----	-----
Suburban vs. Rural	-----	0.77 (0.48-1.23)
Urban vs. Rural	-----	0.56 (0.34-0.93)
Practice Setting	-----	-----
VA/Government vs. Academic	0.51 (0.16-1.67)	-----
Health system vs. Academic	1.28 (0.82-2.00)	-----
Private vs. Academic	1.53 (1.02-2.28)	-----
Other vs. Academic	0.59 (0.15-2.34)	-----
Very or extremely likely to prescribe a PCSK9i in an adult with HeFH with ASCVD on max statin needing additional LDL-C lowering	3.86 (2.57-5.78)	2.80 (1.74-4.49)
Very or extremely likely to prescribe a PCSK9i in an adults with HeFH with no clinical ASCVD on max statin needing additional LDL-C lowering	1.96 (1.40-2.72)	1.43 (1.02-2.02)
Correctly diagnosing patient as HeFH	1.26 (0.95-1.68)	-----
Choosing High Intensity Statin for HeFH adult pt with LDL-C \geq 190 mg/dL	0.62 (0.34-1.11)	-----

SUMMARY OF RESULTS

- Cardiologists compared to PCPs were more likely to have an HeFH patient on a PCSK9i and to rank a PCSK9i as most important in an HeFH pt on statin therapy needing additional LDL-C lowering (Table 1).
- Cardiologists were also more likely than PCPs to prescribe a PCSK9i in an adult with HeFH on maximal therapy with or without ASCVD and to have personally prescribed one for an adult patient with HeFH (Tables 1 and 2).
- While PCPs felt the pre-authorization process was the most important barrier in prescribing a PCSK9i, the cardiologist felt the time-consuming nature of prescribing a PCSK9i was most important (Figure).
- The expense of PCSK9i, getting frequent denials, and patients not wanting to take injective medications were the other top barriers for prescribing a PCSK9i (Figure).
- Stepwise logistic regression showed prescribing a PCSK9i was less likely by a PCP compared to a cardiologist (OR=0.46, 95% CI=0.34-0.63), but more likely among providers indicating they were in a private vs. academic practice setting (OR=1.5 [1.0-2.3]) or were very or extremely likely to prescribe a PCSK9i in an adult patient with HeFH on maximal statin needing additional LDL-C lowering either with clinical ASCVD (OR=3.9 [2.6-5.8]) or without clinical ASCVD (OR=2.0 [1.4-2.7]) (Table 2).
- Those in an urban vs. rural practice location were less likely (OR=0.56 [0.34-0.93]) and overall respondents were more likely to face difficulty (very or extremely difficult) prescribing a PCSK9i or if they indicated they were very or extremely likely to prescribe a PCSK9i in an adult with HeFH on maximal statin needing additional LDL-C either with (OR=2.8 [1.7-4.5]) or without (OR=1.4 [1.0-2.0]) ASCVD (Table 2).

CONCLUSIONS

- Over half of respondents indicated they already have patients on PCSK9i and were more likely to prescribe them in those with compared to without ASCVD.
- A complicated and time-consuming process, followed by expense, were the most important barriers for prescribing a PCSK9i.
- Our results underscore the importance of better educating physicians, and PCPs in particular, on the recommended treatment options for patients with HeFH, as well as to address key barriers in prescribing a PCSK9i.

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Frequency (%) of Providers Ranking Barriers Encountered as Most Important when Prescribing a PCSK9i for an Adult Patient with HeFH

