

Pharmacist-led review to evaluate lipid-lowering therapy in patients with diabetes at a Federally Qualified Health Center

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Introduction

- Atherosclerotic cardiovascular disease (ASCVD) is the leading cause of morbidity and mortality in patients diagnosed with diabetes mellitus
- The 2018 American Heart Association (AHA) and American College of Cardiology (ACC) Guideline on the Management of Blood Cholesterol recommends initiating a moderate-intensity statin in patients 40-75 years old with diabetes or high-intensity if multiple ASCVD risk factors are present
- ACC published the Expert Consensus Decision Pathway in 2022, which introduces stricter goals for patients with diabetes based on their estimated 10-year ASCVD risk (Table 1)
- At First Choice Health Centers (FCHC), it is unknown how many patients' current statin therapy reflects intensified Expert Consensus recommendations

Table 1: Expert Consensus Therapeutic Goals

10-Year ASCVD Risk	Goal LDL Reduction from Baseline	Goal LDL Level
<7.5%	30-49%	<100 mg/dL
≥7.5%, diabetes risk enhancers, or subclinical atherosclerosis	≥50%	<100 mg/dL If ≥20%, target <70 mg/dL

Objective

- Identify patients at FCHC who have a diagnosis of diabetes and are between the ages of 40 to 75 who will require interventions to their current statin therapy to align with 2022 Expert Consensus intensified therapeutic goals and prescribing recommendations

Methods

- Quantitative, retrospective, quality improvement project
- Patients 40-75 years old seen at FCHC between August 16, 2022 and August 15, 2023 with an ICD-10 diagnosis code for diabetes were queried
- Patients were excluded if they had a history of ASCVD or baseline LDL ≥190 mg/dL
- Patient demographic information, vitals, laboratory results, current lipid-lowering medications, and presence of diabetes risk enhancers were collected to determine baseline and current 10-year ASCVD risks
- Patients were categorized into one of three groups based on their CV risk assessment: (1) ASCVD 10-year risk <7.5%, (2) ASCVD 10-year risk 7.5-19.9%, presence of diabetes risk enhancers, or subclinical atherosclerosis, (3) ASCVD 10-year risk ≥20%
- Data analysis was completed utilizing descriptive statistics

Results

Figure 1: Patient Eligibility

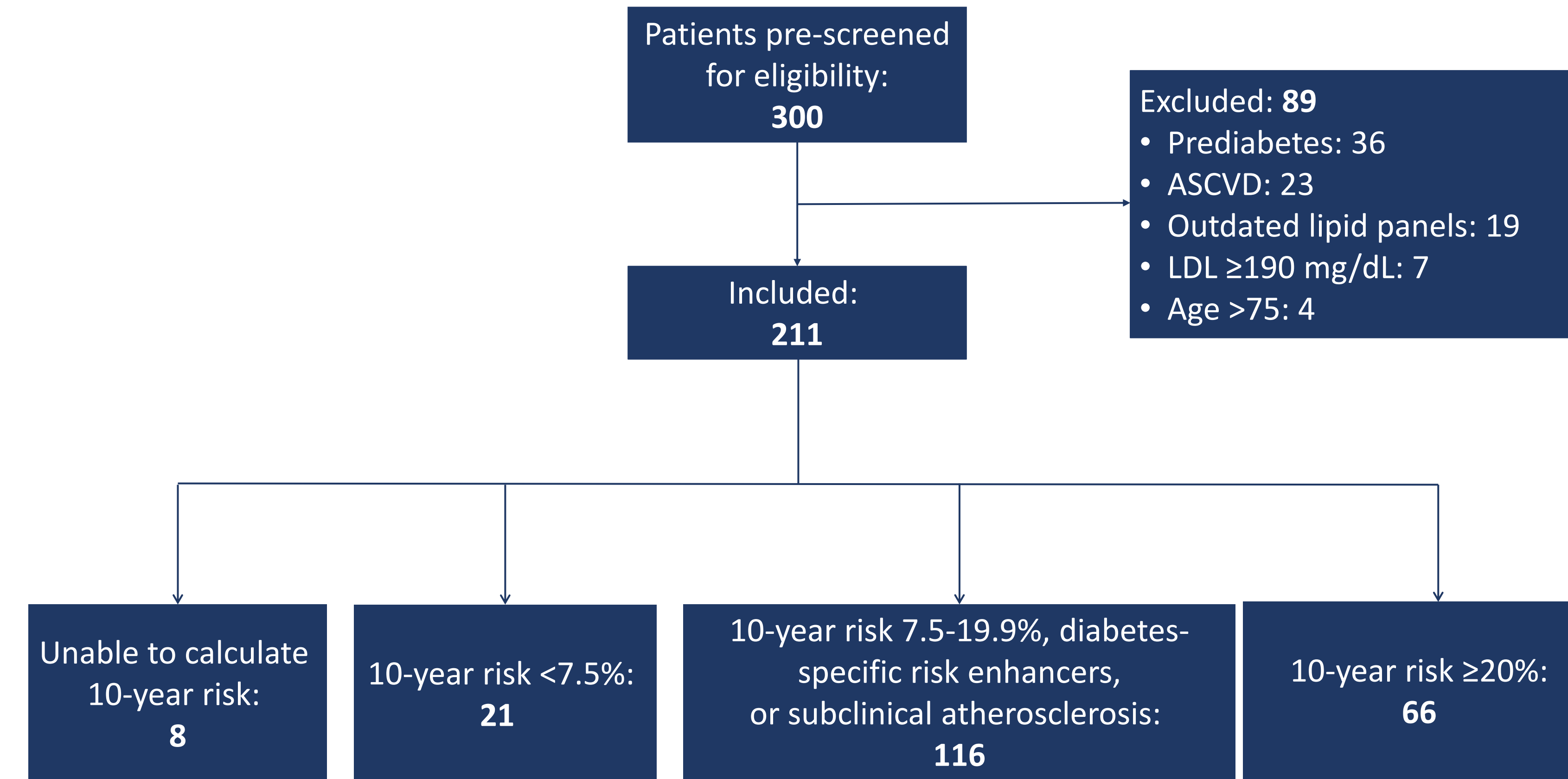


Table 2: Demographics

Characteristic	N=211
Age, years	57.1
Female	120 (56.9%)
Black	78 (37.0%)
White	109 (51.7%)
Not Hispanic or Latino	134 (63.5%)
Type 1 Diabetes	1 (0.5%)
Type 2 Diabetes	210 (99.5%)
Diabetes risk enhancers	154 (73.0%)
Subclinical atherosclerosis	0 (0%)
No statin	41 (19.4%)
Low intensity statin	10 (4.7%)
Moderate intensity statin	99 (46.9%)
High intensity statin	61 (28.9%)

Conclusions

- Many patients will require changes to their lipid-lowering therapy to align with the Expert Consensus intensified prescribing recommendations and therapeutic goals
- Patients with a greater 10-year ASCVD risk are less likely to be at goal based on the new recommendations and will require additional intensification of pharmacologic therapy to reach their lipid-lowering goals
- Lipid-lowering therapy has demonstrated a reduction in lowering ASCVD risk and major cardiac events, therefore illustrating the importance of therapeutic optimization
- It is anticipated that the next guideline update will adopt the intensified recommendations from the Expert Consensus
- These results will be disseminated to providers at FCHC
- Pharmacists at FCHC plan to help optimize lipid-lowering therapy by: (1) educating clinicians on the new recommendations, (2) reaching out to clinicians with recommendations based on the patients identified in this review, (3) counseling patients on the importance of lipid-lowering therapy for cardiovascular risk reduction

Limitations

- Unable to assess patient adherence to statin therapy
- Not able to calculate 10-year ASCVD risk for all patients
- 10-year ASCVD risk is sensitive and changes easily based on vitals and lifestyle changes like smoking status
- Difficulty assessing why patients were not on optimal statin therapy at baseline according to the 2018 ACC/AHA Guideline on Cholesterol Management

References

- American Diabetes Association. Standards of medical care in diabetes – 2023. *Diabetes Care*. 2023;46(Suppl 1):S1-S291. doi: 10.2337/dc-SINT
- Grundy SM, Stone NJ, Bailey AL, et al. 2018 AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA guideline on the management of blood cholesterol: a report of the American College of Cardiology/American Heart Association Task Force on clinical practice guidelines. *J Am Coll Cardiol*. 2019;73(24):3168-3209. doi: 10.1016/j.jacc.2018.11.002
- Lloyd-Jones DM, Morris PB, Ballantyne CM, et al. 2022 ACC expert consensus decision pathway on the role of nonstatin therapies for LDL-cholesterol lowering in the management of atherosclerotic cardiovascular disease risk: a report of the American College of Cardiology Solution Set Oversight Committee. *J Am Coll Cardiol*. 2022;80(14):1366-1418. doi: 10.1016/j.jacc.2022.07.006

Disclosure

- The authors of this presentation have no conflicts of interest to disclose

Figure 2: Percent of Patients at Goal Based on 2018 Guideline and 2022 Expert Consensus

