Fairfield Medical Center

Cardiovascular Risk Factor Management

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Disclosures

- None

Objectives

- To review hypertension thresholds, lifestyle modification options and pharmacotherapy
- To discuss cholesterol goals for primary prevention based on risk profile
- To evaluate treatment options for cholesterol control
- Treatment strategies for the statin intolerant

Hypertension

Hypertension – ACC 2017

Definitions & Blood Pressure Categories

- Normal: <120/<80 mmHg
- Elevated: 120–129/<80 mmHg
- Stage 1 Hypertension: 130–139 or 80–89 mmHg
- Stage 2 Hypertension: ≥140 or ≥90 mm

Hypertension – How do we check?

Out-of-office BP monitoring (home BP monitoring or ambulatory BP monitoring) is increasingly recommended to confirm diagnosis and better assess true BP than single clinic readings.

Hypertension – Lifestyle Management

- Diet
  - DASH eating plan
  - Reduced sodium intake
- Physical activity
- Weight loss
- Alcohol moderation
- Smoking cessation
- Stress and sleep management

Hypertension – Pharmacologic Treatment

- Treatment goals
  - Common target: <130/80 mmHg
  - PREVENT Score (replacing ASCVD score)
  - Individualization for elderly/complex cases
- First-line medications
  - Thiazide diuretics
  - ACE inhibitors / ARBs
  - Calcium channel blockers
- Use of combination therapy (fixed-dose preferred)
- Reassessment for resistant hypertension

Hypertension – The Take Away

Early and aggressive BP control
Lifestyle modification is foundational
Individualized treatment approach
Home BP monitoring is invaluable

Lipid Management

Lipids – Old Guidelines

2018 AHA/ACC Guideline on the Management of Blood Cholesterol

- Goal LDL < 70 mg/Dl for secondary prevention
  - Consider non-statin therapy if on maximally tolerated statin
- Step-wise approach to therapy
  - Ezetimibe as first additional non-statin
  - PCSK9 inhibitor after Ezetimibe
- Primary prevention patients with borderline or intermediate risk should have risk benefit discussion
- Consider coronary artery calcium (CAC) for non-diabetic ASCVD 7.5% - 20% if uncertain about statin therapy

Lipids – Newer Guidance

2022 ACC Expert Consensus Decision Pathway

- Goal LDL < 55 mg/dL in “very high” risk groups and secondary prevention
- Goal LDL < 70 mg/dL for not “very high” risk groups and secondary prevention
- Goal LDL <70 mg/dL for primary prevention, diabetes, and ASCVD risk >7.5%
- Goal LDL <100 mg/dL for primary prevention, diabetes, and ASCVD risk <7.5%
- Earlier initiation of combination therapy
- Use of ezetimibe in high-risk primary prevention
- Use of PCSK9 in very high-risk primary prevention
- Guidelines for statin intolerance management

Lipid Management Secondary Prevention

Lipids

2022 ACC Expert Consensus Decision Pathway

- **Goal LDL < 55 mg/dL in "very high" risk groups and secondary prevention**
- **Very High Risk is 1 major and 2 High-Risk**
- **If you don't meet this criteria, then goal is < 70 mg/dL**

TABLE 1 Criteria for Defining Patients at Very High Risk* of Future ASCVD Events

Major ASCVD Events
Recent ACS (within the past 12 months)
History of MI (other than recent ACS event listed above)
History of ischemic stroke
Symptomatic PAD (history of claudication with ABI <0.85 or previous revascularization or amputation)

High-Risk Conditions
Age ≥65 years
Heterozygous familial hypercholesterolemia
History of prior coronary artery bypass surgery or percutaneous coronary intervention outside of the major ASCVD event(s)
Diabetes
Hypertension
CKD (eGFR 15-59 mL/min/1.73 m^2)
Current smoking
Persistently elevated LDL-C (LDL-C ≥100 mg/dL [≥2.6 mmol/L]) despite maximally tolerated statin therapy and ezetimibe
History of congestive HF

*Very high risk includes a history of multiple major ASCVD events or 1 major ASCVD event and multiple high-risk conditions. Reprinted with permission from Grundy et al.[7]

ABI = ankle-brachial index; ACS = acute coronary syndrome; ASCVD = atherosclerotic cardiovascular disease; CKD = chronic kidney disease; eGFR = estimated glomerular filtration rate; HF = heart failure; LDL-C = low-density lipoprotein cholesterol; MI = myocardial infarction; PAD = peripheral artery disease

Lipid Management
Primary Prevention

Lipid – Newer Guidance

- **If LDL is >190 then be aggressive**
- **If you're 40 and have DM, you should be on a statin. But what is your LDL goal?**

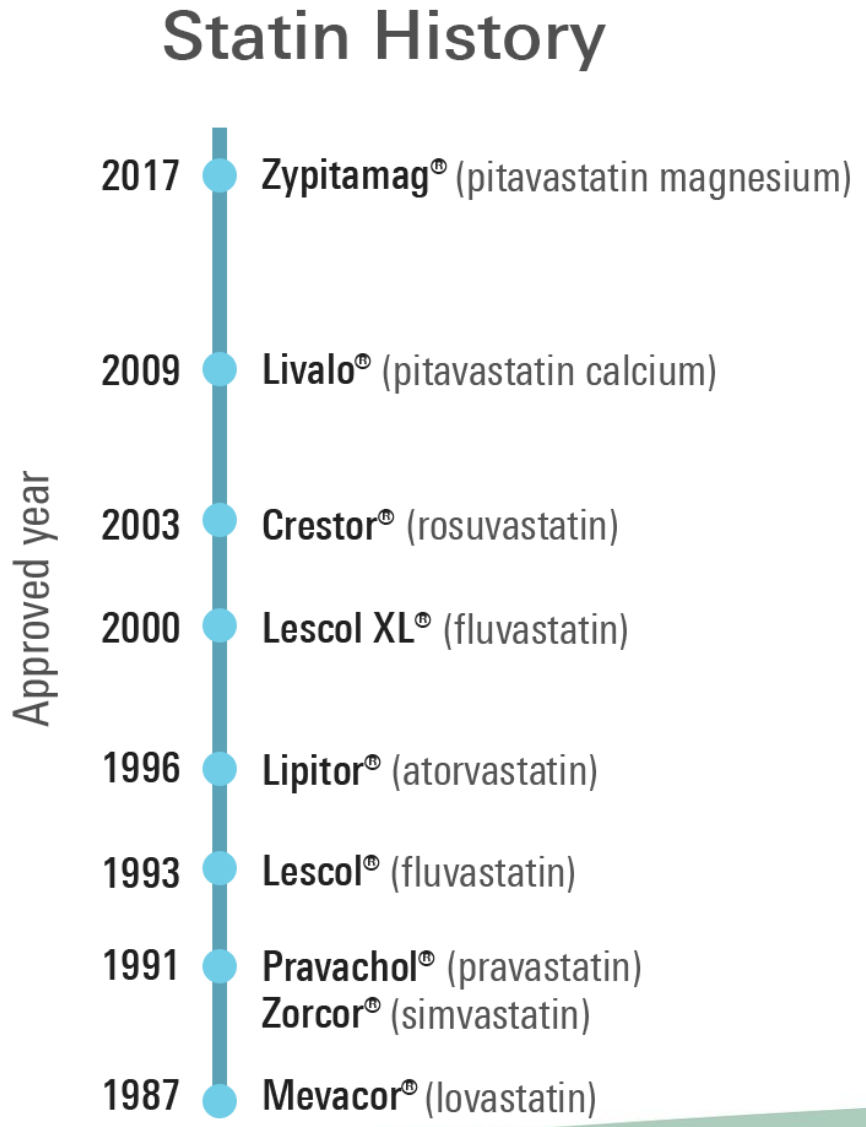
2022 ACC Expert Consensus Decision Pathway

- **Goal LDL <70 mg/dL for primary prevention, diabetes, and ASCVD risk >7.5%**
- **Goal LDL <100 mg/dL for primary prevention, diabetes, and ASCVD risk <7.5%**

Lipid Management: How do we get there?

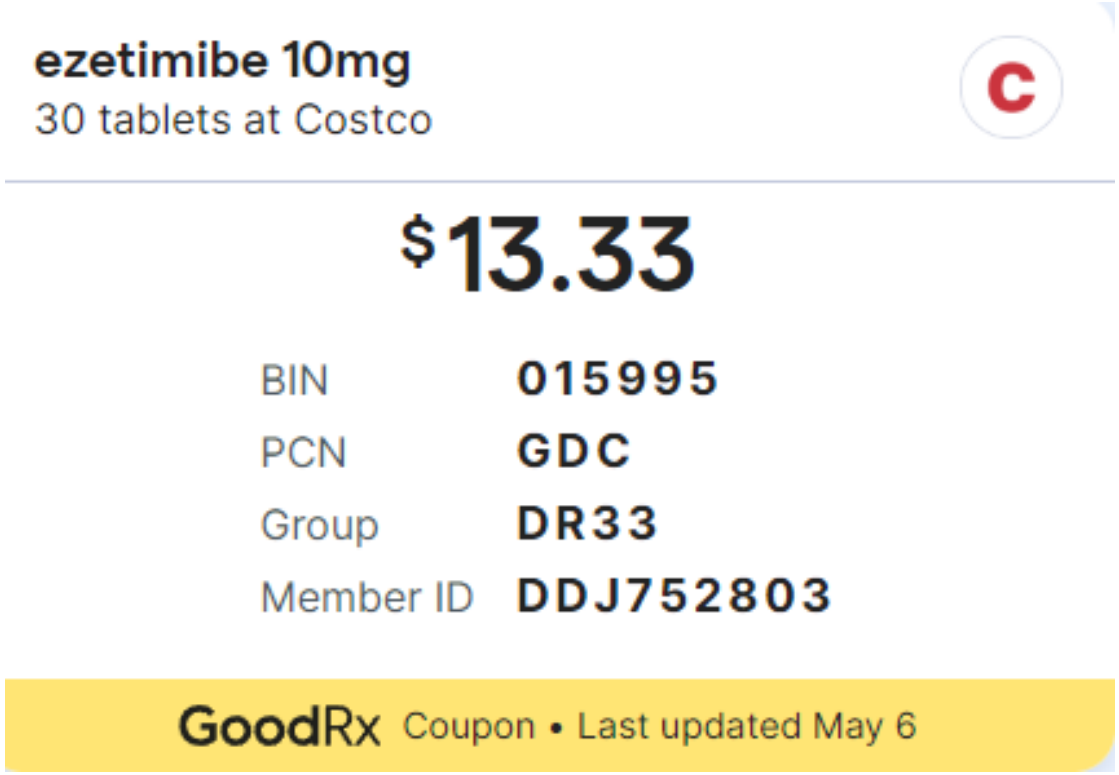
First Line – Still Statins

- **Affordable, effective**
- **Expect a 50% reduction in LDL when starting high intensity**
- **Reduced benefit from max dose statin**



Second Line - Ezetimbe/Zetia

- **Affordable**
- **Zetia alone ~18% reduction in LDL**
- **Zetia + Statin: ~25% reduction in LDL**



Third Line – PCSK9

Insurance can be a pain

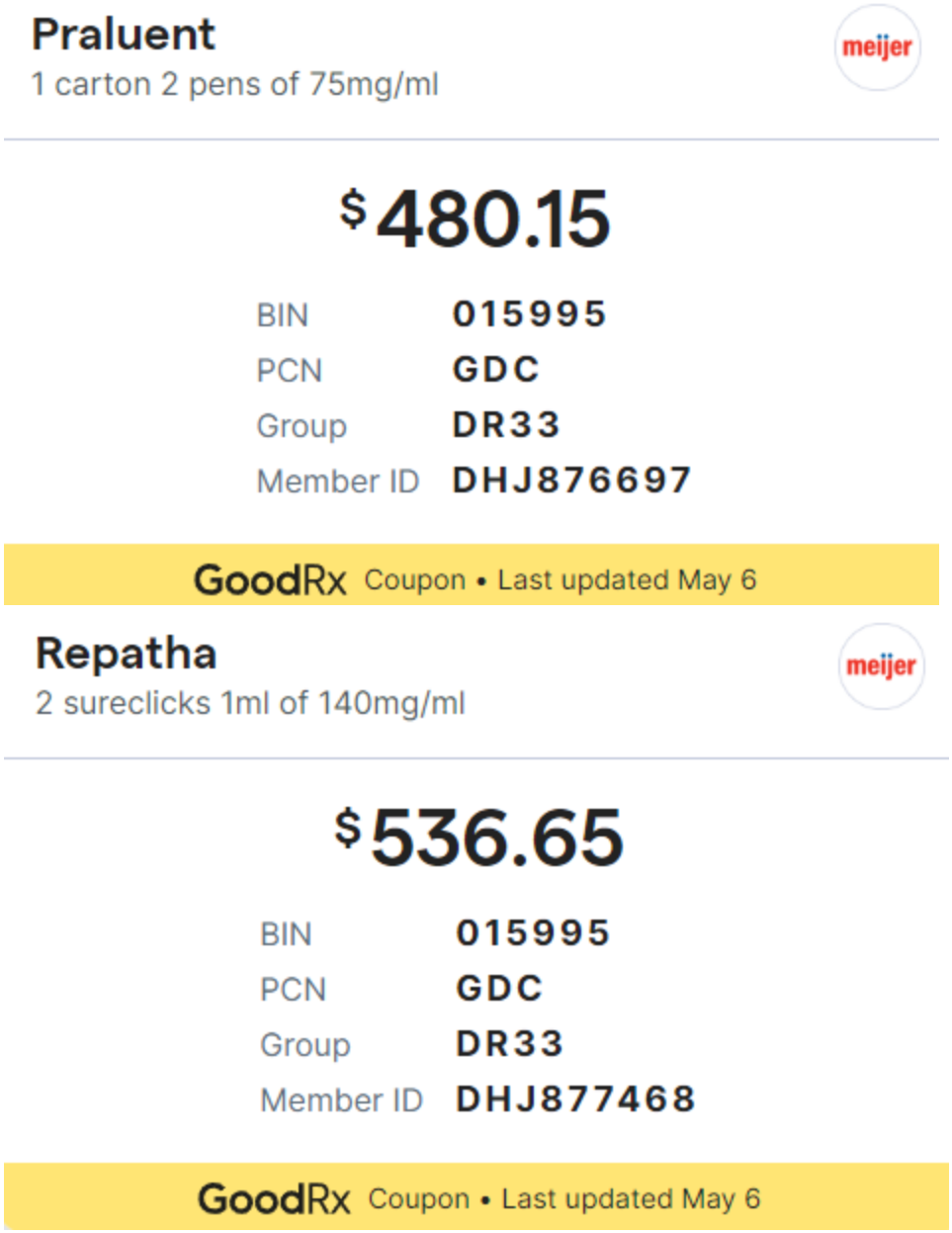
- **Statin + Zetia and not at goal**
- **If statin intolerant, want to see intolerance of 2 statins at low doses**

Injection every 2 weeks

- **Comes from specialty pharmacy**

Can expect a 50% reduction in LDL

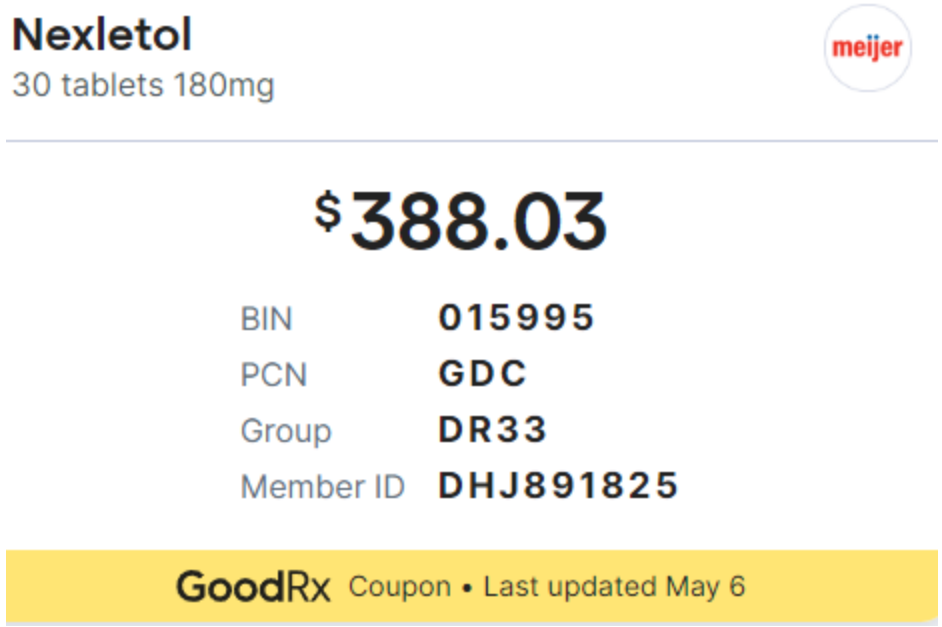
Mortality benefit



But there’s more!

The Others

- **Bempedoic acid**
- **Incliseran**
- **Evinacumab**
- **Lomitapide**



Statin Intolerance

Strategies for Statin Intolerance

Option 1

- **Start Crestor/Rosuvastatin 2.5 mg one day out of the week.**
- **After 2 weeks, have them take it two days out of the week.**
- **Continue to increase frequently every two weeks. Escalate as tolerated. Decrease frequency if intolerance develops**

Option 2

- **Zetia and then likely PCSK9**

Thank you