Monthly Campaign Webinar
May 21, 2020
Today’s Webinar

• Together 2 Goal® Updates
  – Webinar Reminders
  – AMGA COVID-19 Resources
  – Innovator Track CVD Breakout Session
• Statin Therapy: Demystifying fact vs. Fiction
  – Laura Balsamini, Pharm.D., BCPS of Summit Medical Group
• Q&A
  – Use Q&A or chat feature
Webinar Reminders

• Webinar will be recorded today and available the week of May 25th
  – www.Together2Goal.org

• Participants are encouraged to ask questions using the “Chat” and “Q&A” functions on the right side of your screen
AMGA COVID-19 Resources

COVID-19 Resource Library
Innovator Track CVD Breakout Session

BONUS Webinar

Achieving and Sustaining Improved Cardiovascular Risk Care for Diabetes Patients: Building Lessons of the Together 2 Goal® Innovator Track CVD Cohort

- **Jon Brady, Pharm.D.** of Geisinger
- **Janet Appel, R.N., M.S.N., CCM** of Sharp Rees-Stealy Medical Centers
- **Samuel Bauzon, M.D., M.M.M., CPE** of Southwest Medical Associates
Today’s Featured Presenter

Laura Balsamini, Pharm.D., BCPS

National Vice President, Pharmacy Services
Summit Medical Group, PA and Summit Health Management, LLC
Statin Use in Type 2 Diabetes Mellitus

May 21st, 2020
Laura Balsamini, Pharm.D., BCPS, National Vice President, Pharmacy Services, Summit Medical Group, New Jersey
Outline

1. Statin benefit evidence and guidelines
2. Statin-Associated Side Effects
3. Addressing Statin-Associated Side Effects
4. Addressing Medication Adherence with Statins
Evidence and Guidelines
Statin Benefit Fact

- Statins remain the first-line lipid lowering medication
- Robust data from CTT (Cholesterol Treatment Trialists) meta-analysis of 27 large-scale trials
- Each ~40 mg/dL (1 mmol/L) reduction in LDL-C with statin therapy leads to a ~25% risk reduction of major vascular events each year after the first year.
  - More modest, 10-12% reduction in the first year.
- In patients with diabetes, each 39 mg/dL reduction in LDL with statin therapy, reduces risk of all-cause mortality by 9% and vascular mortality by 13%.
- Reductions greatest in those with high baseline ASCVD risk
Statins & Diabetic Retinopathy

• Prior data from FIELD and ACCORD EYE trials demonstrated fenofibrate + simvastatin slowed progression of DM retinopathy

• New evidence: Association of Statin Therapy With Prevention of Vision-Threatening Diabetic Retinopathy
  – Study published in January 2019 in JAMA Ophthalmology
  – Taiwanese population (~38K Taiwanese patients with type 2 diabetes and dyslipidemia)

• Results: Statins reduced rate of diabetic retinopathy and need for treatments for vision-threatening diabetic retinopathy

• Data needs to be reproduced in an ethnically diverse sample of U.S. patients
2018 ACC/AHA Guidelines Management of Blood Cholesterol
Primary Prevention

- LDL ≥70 mg/dL: Start **moderate-intensity statin** without calculating 10-yr ASCVD risk.
- Higher risk, especially those with multiple risk enhancers or those 50 to 75 years of age: Start **high-intensity statin** to reduce the LDL-C by ≥50%.

40 to 75 years with DM

Diabetes-Specific Risk Enhancers

<table>
<thead>
<tr>
<th>Risk Enhancers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long duration (≥10 years for type 2 diabetes mellitus (S.4.3-20) or ≥20 years for type 1 diabetes mellitus (S4.3-6))</td>
</tr>
<tr>
<td>Albuminuria ≥30 mcg of albumin/mg creatinine (S4.3-25)</td>
</tr>
<tr>
<td>eGFR &lt;60 mL/min/1.73 m² (S4.3-25)</td>
</tr>
<tr>
<td>Retinopathy (S4.3-19)</td>
</tr>
<tr>
<td>Neuropathy (S4.3-16)</td>
</tr>
<tr>
<td>ABI &lt;0.9 (S4.3-22, S4.3-24)</td>
</tr>
</tbody>
</table>

ABI indicates ankle-brachial index; and eGFR, estimated glomerular filtration rate.
Primary Prevention

40 to 75 years without DM

- LDL ≥70 to < 190 mg/dL based on 10-yr ASCVD risk:
  - Low Risk (<5%): Lifestyle and risk discussion
  - Borderline Risk (5 to <7.5%): Lifestyle & consider risk enhancers
  - Intermediate Risk (≥7.5% to 19.9%): Consider risk enhancers and consider measuring CAC if risk decision is unclear and initiate moderate-intensity statin to reduce LDL by 30 to 49%.
  - High Risk (≥ 20%): Initiate high intensity statin to reduce LDL by ≥50%.

2018 ACC/AHA Guidelines Management of Blood Cholesterol
**Secondary Prevention**

**Very High Risk of ASCVD**

- **Definition:** History of multiple major ASCVD events OR 1 major ASCVD event and multiple high-risk conditions.
- **Treatment:** Maximally tolerated statin
  - If LDL remains $\geq 70$ mg/dL or non-HDL $\geq 100$ mg/dL despite statin:  
    - Add ezetimibe first then PCSK-9 inhibitor.

### Table 4. Very High-Risk* of Future ASCVD Events

<table>
<thead>
<tr>
<th>Major ASCVD Events</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent ACS (within the past 12 mo)</td>
<td></td>
</tr>
<tr>
<td>History of MI (other than recent ACS event listed above)</td>
<td></td>
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<tr>
<td>History of ischemic stroke</td>
<td></td>
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<tr>
<td>Symptomatic peripheral arterial disease (history of claudication with ABI $\leq 0.85$, or previous revascularization or amputation (S4.1-39))</td>
<td></td>
</tr>
<tr>
<td><strong>High-Risk Conditions</strong></td>
<td></td>
</tr>
<tr>
<td>Age $\geq 65$ y</td>
<td></td>
</tr>
<tr>
<td>Heterozygous familial hypercholesterolemia</td>
<td></td>
</tr>
<tr>
<td>History of prior coronary artery bypass surgery or percutaneous coronary intervention outside of the major ASCVD event(s)</td>
<td></td>
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<tr>
<td>Diabetes mellitus</td>
<td></td>
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<tr>
<td>Hypertension</td>
<td></td>
</tr>
<tr>
<td>CKD ($\text{eGFR}$ 15-59 mL/min/1.73 m²) ($\text{S4.1-15, S4.1-17}$)</td>
<td></td>
</tr>
<tr>
<td>Current smoking</td>
<td></td>
</tr>
<tr>
<td>Persistently elevated LDL-C (LDL-C $\geq 100$ mg/dL [$\geq 2.6$ mmol/L]) despite maximally tolerated statin therapy and ezetimibe</td>
<td></td>
</tr>
<tr>
<td>History of congestive HF</td>
<td></td>
</tr>
</tbody>
</table>

*Very high risk includes a history of multiple major ASCVD events or 1 major ASCVD event and multiple high-risk conditions.

ABI indicates ankle-brachial index; ACS, acute coronary syndrome; ASCVD, atherosclerotic cardiovascular disease; CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate; HF, heart failure; LDL, low-density lipoprotein cholesterol; and MI, myocardial infarction.
Lifestyle modification focusing on
- Weight loss
- Mediterranean style or Dietary Approaches to Stop Hypertension (DASH) diet
- Reduction of saturated fat and trans fat
- Increase of dietary omega-3 fatty acids, viscous fiber, and plant stanols/sterols intake
- Increased physical activity

Optimize glycemic control for patients with:
- Elevated triglyceride levels (≥150 mg/dL) and/or
- Low HDL cholesterol (<40 mg/dL for men, <50 mg/dL for women)

Monitoring Lipid Panel
- At the time of diagnosis of diabetes, at the initial medical evaluation, and at least every 5 years thereafter in patients under the age of 40 years.
# 2020 ADA Lipid Management

## PRIMARY PREVENTION

<table>
<thead>
<tr>
<th>Patient Characteristic</th>
<th>Age</th>
<th>Statin Recommendation</th>
<th>ACC/AHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes w/o CVD or risk factors</td>
<td>40-75</td>
<td>Moderate-intensity statin</td>
<td>✓</td>
</tr>
<tr>
<td>Diabetes with CVD risk factors</td>
<td>50-70 (75 per ACC/AHA)</td>
<td>High-intensity statin</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>20-39</td>
<td>Reasonable to initiate statin</td>
<td>✓ With at least 1 diabetes specific risk enhancer</td>
</tr>
<tr>
<td>Diabetes with 10-year ASCVD risk 20% or higher</td>
<td>Any age group</td>
<td>Add ezetimibe to maximally tolerated statin to reduce LDL by ≥ 50% or more.</td>
<td>✓</td>
</tr>
</tbody>
</table>

## SECONDARY PREVENTION

| Diabetes with CVD                             | Any age group        | High-intensity statin                                       | ✓ (or maximally tolerated statin) |
| Diabetes with CVD with LDL ≥ 70 mg/dL despite maximally tolerated statin | Any age group        | Add ezetimibe or PCSK9 Inhibitor                            | ✓ (add ezetimibe before PCSK9 inhibitor) |
| Diabetes with CVD                             | > 75 years           | Reasonable to continue and initiate statin                  | ✓       |
Statin-Associated Side Effects
Knowledge Check Question 1

• Approximately, what percent of patients experience statin-associated side effects?
  
  A. 85-90%
  B. 50-60%
  C. 10-15%
  D. 75-80%
Knowledge Check Answer 1

• Approximately, what percent of patients experience statin-associated side effects?

A. 85-90%
B. 50-60%
C. 10-15%
D. 75-80%
Statin Associated Side Effects

• Statin therapy is usually well tolerated and safe.
• About 85-90% of patients **report no side effects.**
• Although rare, statin-associated side effects can be challenging to assess and manage.
  – The **most frequent type is SAMS** (Statin-Associated Muscle Symptoms) which is further divided into myalgia, myositis or myopathy, and rhabdomyolysis
  • **Statin intolerance is most frequently attributed to SAMS.**
  – Other rare side effects include transaminitis, incidence of diabetes, hemorrhagic stroke, and memory impairment
Demystification: Addressing Statin Associated Side Effects
Patient Talking Points: 5 M’s of Statins

1. **Myalgia or Muscle**
2. **Medication interactions**
3. **Major organ effects**
4. **Metabolism**
5. **Memory**
6. **Hemorrhagic stroke**
• SAMS include:
  • Myalgia: CK is normal
  • Myositis or myopathy: CK > ULN with concerning symptoms & objective weakness
  • Rhabdomyolysis: CK >10 times upper limit of normal, with evidence of renal injury
  • Myalgia is the most common form of SAMS.
    • Rarely myositis/myopathy or rhabdomyolysis.
    • Usually subjective myalgia, reported observationally in 5% to 20% of patients.
  • Often result in nonadherence and can adversely impact ASCVD outcomes.
• Common in those with predisposing factors including:
  • **Comorbidities**:  
    • Increasing age, female, low BMI, HIV, renal impairment, liver impairment, thyroid dysfunction, pre-existing myopathy, Asian descent, excess alcohol, high levels of physical activity, and trauma
  • **Concomitant medications**:  
    • CYP3A4 inhibitors: amiodarone, clarithromycin, darunavir, diltiazem, itraconazole, ketoconazole, ritonavir, verapamil, goldenseal, grapefruit  
    • OATP1B1 inhibitors: gemfibrozil, cyclosporine, rifampin  
    • CYP2C9: amiodarone, efavirenz, phenytoin, valproic acid
SAMS or Statin Intolerance Definition

1. Muscle-related symptoms that resolve with discontinuation of therapy
   • Typically occur 1 month after starting/changing statin therapy/dose
   • Confirmation of intolerance may require 2 to 6 week trial off statin

2. Symptoms occur with re-challenge on at least 2 to 3 statins:
   • Including with statins that use different metabolic pathways
   • Statins that have different lipophilicity
   • Single statin prescribed at the lowest approved dose
SAMS or Statin Intolerance Assessment

- Obtain a careful history of onset of symptoms (Timing).
  - More likely to present within 1 to 2 months after starting therapy or increasing dose
- Assess nature of symptoms including location and pattern (bilateral vs. unilateral, non-specific vs. large muscle groups, tingling, shooting pain vs. muscle ache, tenderness, and soreness).
  - Typically symmetric or bilateral muscle ache, tenderness or soreness in large muscle groups
- Certain populations are at high risk (Asians, Women, and Elderly).
- Rule out non-statin causes of muscle symptoms: Vitamin D deficiency, Hypothyroidism, polymyalgia rheumatica, recent unaccustomed exercise, and etc.
- Assess severity of muscle symptoms (tolerable vs. intolerable) and obtain CK levels
- Address drug-drug interactions that increase statin exposure.
Approximately 70 to 90% of patients can tolerate a statin after re-challenge using practical strategies.

**Intolerable** muscle symptoms regardless of CK level: Discontinue statin and re-challenge with strategies below only after symptoms resolve

**Tolerable** muscle symptoms and CK elevation without renal injury, trial following strategies:

1. Reduce dose/intensity.
2. Reduce frequency of administration.
   - Switch to a statin with a long half-life to allow for alternate day dosing.
     - Atorvastatin, Rosuvastatin, and Pravastatin.
3. Switch to a less lipophilic statin (more hydrophilic) metabolized by a different pathway.
Knowledge Check Question 2

- Which of the following combinations includes more hydrophilic statins?
  
  A. Rosuvastatin, pravastatin, and fluvastatin
  B. Fluvastatin, atorvastatin, and pitavastatin
  C. Rosuvastatin, simvastatin, and lovastatin
  D. Simvastatin, atorvastatin, and lovastatin
Knowledge Check Answer 2

• Which of the following combinations includes more hydrophilic statins?

A. Rosuvastatin, pravastatin, and fluvastatin
B. Fluvastatin, atorvastatin, and pitavastatin
C. Rosuvastatin, simvastatin, and lovastatin
D. Simvastatin, atorvastatin, and lovastatin
<table>
<thead>
<tr>
<th>Statin</th>
<th>Half-life</th>
<th>Admin. Time</th>
<th>Lipophilic</th>
<th>Metabolism</th>
<th>Dose Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atorvastatin</td>
<td>20 to 30 hours</td>
<td>Anytime</td>
<td>Yes</td>
<td>P-gp substrate CYP3A4</td>
<td>High: 40-80 mg Mod: 10-20 mg</td>
</tr>
<tr>
<td>Rosuvastatin</td>
<td>19 hours</td>
<td>Anytime</td>
<td>No</td>
<td>Minimal CYP2C9</td>
<td>High: 20-40 mg Mod: 5-10 mg</td>
</tr>
<tr>
<td>Pitavastatin</td>
<td>12 hours</td>
<td>Anytime</td>
<td>Yes</td>
<td>Minimal CYP2C9 &amp; CYP2C8</td>
<td>Mod: 2-4 mg Low: 1 mg</td>
</tr>
<tr>
<td>Fluvastatin XL</td>
<td>9 hours</td>
<td>Anytime</td>
<td>No</td>
<td>75% CYP2C9 20% CYP3A4 5% CYP2C8</td>
<td>Mod: 80 mg XL and 40 mg BID Low: 20-40 mg</td>
</tr>
<tr>
<td>Fluvastatin</td>
<td>3 hours</td>
<td>PM/HS</td>
<td>No</td>
<td>P-gp substrate CYP3A4</td>
<td>Mod: 20-40 mg Low: 10 mg</td>
</tr>
<tr>
<td>Simvastatin</td>
<td>1.9 hours</td>
<td>PM/HS</td>
<td>Yes</td>
<td>P-gp substrate CYP3A4</td>
<td>Mod: 20-40 mg Low: 10 mg</td>
</tr>
<tr>
<td>Pravastatin</td>
<td>1.8 hrs, all</td>
<td>Anytime</td>
<td>No</td>
<td>Minimal CYP450 metabolism</td>
<td>Mod: 40-80 mg Low: 10-20 mg</td>
</tr>
<tr>
<td></td>
<td>metabolites: 77 hrs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lovastatin</td>
<td>1.1 to 1.7 hours</td>
<td>PM/HS</td>
<td>Yes</td>
<td>P-gp substrate CYP3A4</td>
<td>Mod: 40 mg Low: 20 mg</td>
</tr>
</tbody>
</table>
Medication Interactions

• Discuss with patients that statins do interact with numerous medications
• Adjust dose to account for drug interactions.
  – “SAL” – Simvastatin, Atorvastatin, and Lovastatin are metabolized by CYP3A4.
  – “FRP” – Fluvastatin, Rosuvastatin, and Pitavastatin are metabolized by CYP2C9.
  – Minimal CYP450 metabolism – Pravastatin
• AHA Statement of Drug-Drug Interactions with Statins
  – Statin-fibrate combination therapy: fenofibrate or fenofibric acid >>>> gemfibrozil
  – Statin-calcium channel blocker combination therapy: simvastatin >10 mg/d and
    lovastatin >20 mg/d when used with diltiazem or verapamil are not recommended
• Statin-grapefruit juice combination: not recommended with simvastatin, atorvastatin, and lovastatin
Major Organ Effects: Statins & Transaminitis

• Discuss the possibility of transient transaminitis
  – Transient and mild (< 3 times the upper limit of normal) elevation of aspartate aminotransferase (AST) and alanine aminotransferase (ALT)
  – Rare incidence and rarely clinically significant
  – Usually occurs in the early stages of therapy
  – CK and LFTs should only be measured if symptomatic for statin-associates muscle symptoms
JUPITER trial found 25% more cases of newly diagnosed diabetes in the rosuvastatin group compared to placebo (270 vs. 216, out of 17,603 total).

However, for every 54 newly diagnosed case of diabetes, 134 vascular events or deaths were prevented.

Occurrence of new-onset diabetes **increased when patients had one or more pre-existing risk factors for diabetes plus were taking high intensity statin**

NNT to avoid an ASCVD versus NNH with respect to diabetes for initiation of statin therapy:

<table>
<thead>
<tr>
<th>10-year ASCVD % Risk</th>
<th>Moderate intensity statin</th>
<th>High intensity statin</th>
</tr>
</thead>
<tbody>
<tr>
<td>High risk: Risk threshold 7.5%</td>
<td>NNT: 36 to 44</td>
<td>NNT: 30</td>
</tr>
<tr>
<td></td>
<td>NNH: 100</td>
<td>NNH: 33</td>
</tr>
<tr>
<td>Low to moderate risk: Risk threshold 5 to 7.4%</td>
<td>NNT: 57 to 67</td>
<td>NNT: 44</td>
</tr>
<tr>
<td></td>
<td>NNH: 100</td>
<td>NNH: 33</td>
</tr>
</tbody>
</table>

These estimates support net clinical benefit in each risk group for moderate intensity and high risk group for high intensity.

**Conclusion: Benefit >>>>> Risk**

Small increased risk should not be a reason to avoid prescribing statin.
Randomized trials of lovastatin (2001) and simvastatin (2004) have shown some evidence of minor decrements in cognitive function.

A 2013 systematic review of randomized trials and observational studies did not suggest that statins harm cognition.
- Quality of the evidence was felt to be low.

A large database observational study from 2015 found association between first exposure of statin therapy and short term memory loss (within 30 days).
- Authors thought results reflected detection bias rather than a true causal effect.

Conclusion: Further research is needed to establish relationship.
- Reasonable to switch therapy to a more hydrophilic statin for a patient presenting with memory loss after recent statin initiation.
  - Possibly less CNS penetration.
- Initiate low intensity statin for a patient with baseline concerns of memory loss.
Statins & Hemorrhagic Stroke

- SPARCL trial found a slight increase in hemorrhagic strokes in the statin group.
- CTT meta-analysis found a slight increase that was not statistically significant.
- However, out of 10,000 patients treated for five years, only 5-10 patients may have a hemorrhagic stroke, which pales in comparison to the reduction in ischemic stroke seen with LDL-C reduction.
- **Conclusion: Benefit >>>>>> Risk**
Patient Talking Points: 5 M’s of Statins

1. **Muscle**
   - Discuss low possibility for wide range of muscle symptoms. Statins are very well tolerated and about 85-90% of patients report no side effects.

2. **Medication interactions**
   - Discuss that statins do interact with numerous medications
   - [AHA Statement of Drug-Drug Interactions with Statins](#)

3. **Major organ effects**
   - Discuss the possibility of transient transaminitis

4. **Metabolism**
   - Discuss the small increased risk of new-onset diabetes

5. **Memory**
   - Discuss the recent observational study data suggesting short-term memory loss which has not been observed in RCTs and is reversible with drug cessation

6. **Hemorrhagic stroke**: Discuss the slight increase in intracranial hemorrhagic (ICH) stroke which pales in comparison to reduction of ischemic strokes
Addressing Medication Adherence with Statins
## Quality Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Value-Based Contract</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statin Adherence (Triple Weighted)</strong></td>
<td>Percentage of members who adhere to statin ≥ 80 % of the time.</td>
</tr>
</tbody>
</table>
| **SUPD (Triple Weighted)** | Inclusions: 40-75 years of age with 2 fills of a diabetes medication.  
Measure Satisfied: If patients have ≥ 1 claim of **ANY intensity** statin medication anytime in the measurement year.  
**Exclusions:** Hospice or ESRD. |
| **SPC (Triple Weighted)** | Inclusions: Male 21-75 years of age and Female 40-75 years of age **with a diagnosis of ASCVD current or prior year** (MI, CABG, PCI, Ischemic vascular disease).  
Measure Satisfied: If patients have ≥ 1 claim of **moderate or high intensity** statin medication in the measurement year.  
**Exclusions:** Myalgia, myositis, myopathy, rhabdomyolysis in the current year and/or cirrhosis, dispensed clomiphene, IVF, ESRD, or pregnancy in current or prior year. |

CMS targeted measures DO NOT consider calculated ASCVD risk or LDL levels!  
SUPD = Statin Use in Persons with Diabetes, SPC = Statin Therapy in Persons with Cardiovascular Disease
Clinical Pharmacy Services

• Telephonic outreach for counseling and demystification (clinician-patient risk discussion)
  – Helps enhance patient’s understanding of the infrequency of side effects, address stigma associated with side effects, and the reversibility of most side effects with adjusting therapy
• Medication synchronization to minimize trips to the pharmacy
• Counseling on heart healthy and diabetic friendly diet
• 30 to 90 day switch – lead by Clinical Pharmacy Technician
• Outreach calls to patients with low medication adherence rates – lead by Clinical Pharmacy Technician
• Comprehensive medication review with embedded pharmacists
• Collaborating with providers to manage statin intolerance
  – Comprehensive medication review to rule out drug-drug interactions
  – Providing recommendations for preferred statins, dose selection, frequency adjustments
  – Close follow-up with patients to monitor symptoms after therapy adjustment
Together 2 Goal Campaign Planks

**Campaign Planks**

**Empower Patients**
- Build an Accountable Diabetes Team
- Integrate Emotional & Behavioral Support
- Refer to Diabetes Self-Management Education & Support Programs

**Improve Care Delivery**
- Conduct Practice-Based Screening
- Adopt Treatment Algorithm
- Measure HbA1c Every 3-6 Months
- Assess & Address Risk of Cardiovascular Disease
- Contact Patients Not at Goal & with Therapy Change within 30 Days

**Leverage Information Technology**
- Use a Patient Registry
- Embed Point-of-Care Tools
- Publish Transparent Internal Reports
Clinician-Patient Risk Discussion

• Utilize shared decision making and decision aid tools *at point of care*.
  – For example: Using ASCVD Risk Estimator Plus calculator to estimate 10-year risk of ASCVD.
  – These tools enable open dialogue with patients regarding risk vs. benefits of statin therapy and result in informed, engaged, and educated patients!

<table>
<thead>
<tr>
<th>Recommendations for Statin Safety and Statin-Associated Side Effects</th>
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</thead>
<tbody>
<tr>
<td>Referenced studies that support recommendations are summarized in Online Data Supplements 40 and 41.</td>
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</table>

<table>
<thead>
<tr>
<th>COR</th>
<th>LOE</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>A</td>
<td>1. A clinician–patient risk discussion is recommended before initiation of statin therapy to review net clinical benefit, weighing the potential for ASCVD risk reduction against the potential for statin-associated side effects, statin–drug interactions, and safety, while emphasizing that side effects can be addressed successfully (S5-1–S5-7).</td>
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</tbody>
</table>
ASCVD Risk Estimator EHR Calculator

Cardiovascular Risk

10-year ASCVD risk: 11.6%
Lifetime ASCVD risk: 69%

Smoking Status: Never smoker

<table>
<thead>
<tr>
<th>Date</th>
<th>BP</th>
<th>Wt</th>
<th>BMI</th>
<th>Total Chol</th>
<th>Trig</th>
<th>LDL</th>
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<tbody>
<tr>
<td>4-2018</td>
<td>140 / 100</td>
<td>247 lbs 0 oz</td>
<td>31.7</td>
<td>149 mg/dL</td>
<td>258 mg/dL</td>
<td>57 mg/dL</td>
<td>40 mg/dL</td>
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<tr>
<td>09-30-2018</td>
<td>124 / 78</td>
<td>244 lbs 0 oz</td>
<td>31.3</td>
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<td>07-06-2018</td>
<td>150 / 100</td>
<td>247 lbs 0 oz</td>
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Medication Adherence Best Practices

Best Practices for Providers

Best Practices to empower patients!

Tools to improve adherence!

Quick tool to assess risk of non-adherence!
Statin Medication Adherence Pearls

• Monitoring Lipid Panel:
  – Obtain a lipid profile at initiation of statins, 4–12 weeks after initiation or a change in dose, and annually thereafter to monitor efficacy and inform medication adherence
  – Collaborate with pharmacist or nurses on the team to follow-up with patients on significant increases in LDL despite statin therapy to confirm adherence

• Pharmacy fill history or insurance claims data
  – If available, encourage providers to make note of statin fill history during every office visit or while reviewing lab results

• Satisfying payer measures:
  – Utilize point-of-care decision making tools (ASCVD risk calculator) at time of patient encounter to act as a visual aid to drive home important points
  – Conduct thorough clinician-patient (Clinical Pharmacist-Patient) discussion of risk and benefits with statin therapy
  – Ensure prescriptions reflect modified dosing to manage statin intolerance (i.e. rosuvastatin 10 mg every OTHER day)
Summary

• Utilize shared decision making tools such as the ASCVD 10-year Risk Estimator at point of prescribing.

• When counseling about side effects, discuss the five M’s and hemorrhagic stroke risk:
  – Muscle-symptoms, Medication interactions, Major organ effects (transaminitis), Metabolism (small risk of diabetes), and Memory loss (short-term and reversible with drug cessation).

• Manage statin associated side effects by performing a thorough assessment, ruling out non-statin causes of muscle symptoms, switching to a less lipophilic statin, lowering dose/intensity, reducing frequency, and/or adjusting dose for drug interactions.
Knowledge Check Question 3

- Which of the following drugs shown to reduce CVD outcomes is correctly matched with its highest LDL lowering potential when combined with statins?
  A. Ezetimibe – 20%
  B. Colesevelam – 20%
  C. Evolucumab – 15%
  D. Fenofibrate – 5%
Knowledge Check Answer 3

• Which of following drugs shown to reduce CVD outcomes is correctly matched with it’s highest LDL lowering potential when combined with statins?

A. Ezetimibe – 20% (13 to 20%)
B. Colesevelam – 20% (15 to 30%)
C. Evolucumab – 15% (43 to 64%)
D. Fenofibrate – 5% (10 to 40%)
Reference Materials

• ACC Top Ten Take Home Messages
• ACC Summary of Guidelines
• Full ACC/AHA Guideline Report
June Webinar

• **Date/Time**: June 18, 2020 from 2-3pm Eastern

• **Topic**: Cardiovascular Benefit of New Diabetes Medications

• **Presenter**: Gretchen Shull, M.D. of Mercy