2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults

November 21, 2014
12:30pm - 1:30pm ET
<table>
<thead>
<tr>
<th>Time (ET)</th>
<th>Agenda Item / Topic</th>
<th>Speaker / Facilitator</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:30 – 12:35</td>
<td>Welcome and Introductions</td>
<td>Laura King Hahn, American Heart Association, Program Initiatives Manager, The Collaboration for Heart Disease and Stroke Prevention</td>
</tr>
<tr>
<td>12:35 – 12:40</td>
<td>Million Hearts® Description of the ABCS</td>
<td>Laura King Hahn, American Heart Association</td>
</tr>
</tbody>
</table>
| 12:40 – 1:15 | Controlling Cholesterol: Guidance for Use & Implications for Primary Care Practitioners | Dr. Neil J. Stone, MD, MACP, FAHA, FACC  
Northwestern University Feinberg School of Medicine  
Chair, ACC/AHA Prevention Guideline  
2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults  
A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines |
| 1:15 – 1:25  | Q and A                                                      | Laura King Hahn, American Heart Association                                           |
| 1:25 – 1:30  | Final Remarks                                               | Laura King Hahn, American Heart Association                                           |
Welcome & Introductions
Million Hearts®
Description of the ABCS
Laura King Hahn, American Heart Association
Program Initiatives Manager
The Collaboration for Heart Disease and Stroke Prevention
(Supporting the Million Hearts Initiative)
Million Hearts®

Goal: Prevent 1 million heart attacks and strokes by 2017

- US Department of Health and Human Services initiative, co-led by:
  - Centers for Disease Control and Prevention (CDC)
  - Centers for Medicare & Medicaid Services (CMS)
- Partners across federal and state agencies and private organizations
Key Components of Million Hearts®

Keeping Us Healthy
Changing the environment

Excelling in the ABCS
Optimizing care

Focus on the ABCS

Health tools and technology

Innovations in care delivery

### The ABCS to Prevent Heart Attacks and Strokes

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>Aspirin</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>Blood pressure</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>Cholesterol</td>
</tr>
<tr>
<td><strong>S</strong></td>
<td>Smoking</td>
</tr>
</tbody>
</table>

Sources: National Ambulatory Medical Care Survey, National Health and Nutrition Examination Survey
## Getting to Goal

<table>
<thead>
<tr>
<th>Intervention</th>
<th>2009-2010 Measure Value</th>
<th>2017 Target</th>
<th>Clinical target</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Aspirin for those at risk</td>
<td>54%</td>
<td>65%</td>
<td>70%</td>
</tr>
<tr>
<td>Blood pressure control</td>
<td>52%</td>
<td>65%</td>
<td>70%</td>
</tr>
<tr>
<td>Cholesterol management</td>
<td>33%</td>
<td>65%</td>
<td>70%</td>
</tr>
<tr>
<td>Smoking cessation</td>
<td>22%</td>
<td>65%</td>
<td>70%</td>
</tr>
<tr>
<td>Smoking prevalence</td>
<td>26%</td>
<td>10% reduction (~24%)</td>
<td></td>
</tr>
<tr>
<td>Sodium reduction</td>
<td>3580 mg/day</td>
<td>20% reduction (~2900 mg/day)</td>
<td></td>
</tr>
<tr>
<td>Trans fat reduction (artificial)</td>
<td>0.6% of calories</td>
<td>100% reduction (0% of calories)</td>
<td></td>
</tr>
</tbody>
</table>

Sources: National Ambulatory Medical Care Survey, National Health and Nutrition Examination Survey, National Survey of Drug Use and Health
Health Disparities

- African-Americans develop high blood pressure more often, and at an earlier age, than whites and Hispanics do.
- African-Americans are nearly twice as likely as whites to die early from heart disease and stroke.
- American Indians and Alaska Natives die from heart diseases at younger ages than other racial and ethnic groups in the United States. 36% of those who die of heart disease die before age 65.

Source:

# Clinical Quality Measures

<table>
<thead>
<tr>
<th>ABCS (EHR)</th>
<th>Number</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>PQRS 204 NQF 0068</td>
<td>Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) with documented use of aspirin or other antithrombotic</td>
</tr>
<tr>
<td>B</td>
<td>PQRS 317</td>
<td>Preventive Care and Screening: Screening for High Blood Pressure Percentage of patients aged 18 and older who are screened for high blood pressure</td>
</tr>
<tr>
<td>B</td>
<td>PQRS 236 NQF 0018</td>
<td>Hypertension: Controlling High Blood Pressure Percentage of patients aged 18 through 85 years of age who had a diagnosis of hypertension (HTN) and whose blood pressure (BP) was adequately controlled (&lt;140/90) during the measurement year</td>
</tr>
<tr>
<td>C (EHR)</td>
<td>PQRS 316</td>
<td>Preventive Care and Screening: Cholesterol – Fasting Low Density Lipoprotein (LDL) Test Performed AND Risk-Stratified Fasting LDL Percentage of patients aged 20 through 79 years whose risk factors have been assessed and a fasting LDL test has been performed AND who had a fasting LDL test performed and whose risk-stratified fasting LDL is at or below the recommended LDL goal</td>
</tr>
</tbody>
</table>

PQRS = CMS Physician Quality Reporting System, NQF = National Quality Forum, EHR = electronic health record
### Clinical Quality Measures (cont’d)

<table>
<thead>
<tr>
<th>ABCS</th>
<th>Number</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>PQRS #2</td>
<td><strong>Diabetes Mellitus: Low Density Lipoprotein (LDL-C) Control in Diabetes Mellitus</strong> Percentage of patients aged 18 through 75 years with diabetes mellitus who had most recent LDL-C level in control (less than 100 mg/dL)</td>
</tr>
<tr>
<td></td>
<td>NQF #0064</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>PQRS #241</td>
<td><strong>PQRS Measure #241 (NQF 0075): Ischemic Vascular Disease (IVD): Complete Lipid Panel and Low Density Lipoprotein (LDL-C) Control</strong> Percentage of patients aged 18 years and older with Ischemic Vascular Disease (IVD) who received at least one lipid profile within 12 months and who had most recent LDL-C level in control (less than 100 mg/dL)</td>
</tr>
<tr>
<td></td>
<td>NQF #0075</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>PQRS 226</td>
<td><strong>Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention</strong> Percentage of patients aged 18 years or older who were screened about tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user</td>
</tr>
<tr>
<td></td>
<td>NQF 0028</td>
<td></td>
</tr>
</tbody>
</table>

PQRS = CMS Physician Quality Reporting System, NQF = National Quality Forum, EHR = electronic health record
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millionhearts.hhs.gov
What to Do About Cholesterol?
Risk Assessment is the Start, not the End of the Risk Decision in Primary Prevention

Neil J. Stone MD, MACP, FACC
Bonow Professor of Medicine
Feinberg School of Medicine
Northwestern University
Chicago, IL
Disclosures

No relevant disclosures

I do not accept honoraria from pharmaceutical companies

I served as the chair of the 2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults
ACC/AHA Blood Cholesterol Guideline Panel Members

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Jennifer G. Robinson, MD, MPH, FAHA, Vice Chair
Alice H. Lichtenstein, DSc, FAHA, Vice Chair

Anne C. Goldberg, MD, FACP, FAHA
Conrad B. Blum, MD, FAHA
Robert H. Eckel, MD, FAHA, FACC
Daniel Levy, MD*
David Gordon, MD*
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Janusz Wnek, PhD

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Glen Bennett, M.P.H.
Denise Simons-Morton, MD, PhD

Stone NJ et al 2013 ACC-AHA Cholesterol Guidelines
JACC Vol. 63, No. 25, 2014
1. **Encourage adherence to a healthy lifestyle**
2. Statin therapy recommended for adult groups demonstrated to benefit
3. Statins have an acceptable margin of safety when used in properly selected individuals and appropriately monitored
4. Engage in a clinician-patient discussion before initiating statin therapy – especially for primary prevention in patients with lower ASCVD risk

Guidelines Focus on Healthy Lifestyle

**Lifestyle guideline:** Healthy lifestyle (dietary patterns and physical activity) improves lipid and blood pressure risk factor levels

**Obesity guideline:** Lifestyle crucial for weight control

**Risk assessment guideline:**
- Lifetime risk estimator for those 20-59 years
- Helps identify high lifetime but low 10 year ASCVD risk
- Explicitly **not** used to choose drug therapy
- To enhance clinicians focus on lifestyle and risk factor improvement as low risk individuals by age 50 do best.
Lifetime Risk Estimator

- For those 20-59 years, it provides lifetime risk estimate
- This is intended to drive discussions of greater adherence to heart-healthy lifestyle
1. Encourage adherence to a healthy lifestyle
2. Statin therapy recommended for adult groups demonstrated to benefit
3. Statins have an acceptable margin of safety when used in properly selected individuals and appropriately monitored
4. Engage in a clinician-patient discussion before initiating statin therapy – especially for primary prevention in patients with lower ASCVD risk

Statin Benefit Groups

**Secondary Prevention**

- Diabetes – 40 to 75 yrs
- LDL-C 70-189 mg/dl

LDL-C ≥ 190 mg/dL

Rx: Optimal benefit with high intensity statins → lower LDL-C ≥ 50%
Use moderate intensity if age >75 or can’t tolerate high intensity

**Primary Prevention**

- 40 to 75 yrs
- LDL-C 70-189 mg/dl
- ASCVD Risk ≥ 7.5 %

Rx: Moderate intensity
or high intensity statin

Statin Rx not automatic, requires clinician-patient discussion
Primary Prevention Statin Therapy

• Thresholds for initiating statin therapy derived from 3 exclusively primary prevention RCTs
  – Placebo group- 10 yr event rates:
    JUPITER – 7.6%;
    AFCAPS-TEXCAPS 6.9%
    MEGA 5.1%;

Guideline Panel’s Recommendation:
• As a matter of caution, to avoid over-treating, the Panel identified those with risk ≥7.5% as a group in which statins provide benefit.
Clinician - Patient Discussion
Before Statin Rx Especially Primary Prevention

✔ Estimate 10 yr ASCVD Risk Review other risk factors & risk factor control
✔ Review potential for benefit from heart-healthy lifestyle

✔ Review potential for - benefit from statins and potential for adverse effects & drug-drug interactions

✔ Patient Preferences

*Factors if risk decision uncertain that improve calibration, discrimination, and reclassification
Family hx premature ASCVD;
hs-CRP ≥ 2,
CAC score ≥ 300 or 75th%
ABI < 0.9;
Clinician - Patient Discussion
Before Statin Rx in Primary Prevention

Primary prevention
(No diabetes, LDL-C 70 to 189 mg/dL, and not receiving statin therapy)
Estimate 10-y ASCVD risk every 4-6 y
using Pooled Cohort Equations†

DM age <40 or >75 y or
LDL-C <70 mg/dL

<5%
10-y ASCVD risk‡

Age <40 or >75 y
and LDL-C <190 mg/dL‡

≥7.5%
10-y ASCVD risk
(Moderate- or high-intensity statin)

5% to <7.5%
10-y ASCVD risk
(Moderate-intensity statin)

In selected individuals, additional factors may be considered to inform
treatment decision making§

Clinician-Patient Discussion
Prior to initiating statin therapy, discuss:
1. Potential for ASCVD risk-reduction benefits∥
2. Potential for adverse effects and drug–drug interactions¶
3. Heart-healthy lifestyle
4. Management of other risk factors
5. Patient preferences
6. If decision is unclear, consider primary LDL-C ≥160 mg/dL, family history of premature
ASCVD, lifetime ASCVD risk, abnormal CAC score or ABI, or hs-CRP ≥2 mg/L§

Emphasize adherence to lifestyle
Manage other risk factors
Monitor adherence

No to statin

Yes to statin

Encourage adherence to lifestyle
Initiate statin at appropriate intensity
Manage other risk factors
36 yo man with family history of premature CAD & LDL-C 180 mg/dL

- Too young for the 10 year ASCVD risk estimation
- Guidelines clearly show family history of premature CHD and LDL-C of ≥ 160 mg/dL informs the treatment decision re statin
- Statin therapy would be reasonable after a risk discussion
  - reviewing potential for benefit
  - potential for adverse effects
  - drug-drug interactions &
  - patient preference
Clinician - Patient Discussion

Before Statin Rx in Primary Prevention

**Primary prevention**
(No diabetes, LDL-C 70 to 189 mg/dL, and not receiving statin therapy)

Estimate 10-y ASCVD risk every 4-6 y
using Pooled Cohort Equations†

- DM age <40 or >75 y or LDL-C <70 mg/dL

- <5% 10-y ASCVD risk‡
- Age <40 or >75 y and LDL-C <190 mg/dL‡
- ≥7.5% 10-y ASCVD risk (Moderate- or high-intensity statin)
- 5% to <7.5% 10-y ASCVD risk (Moderate-intensity statin)

In selected individuals, additional factors may be considered to inform treatment decision making§

**Clinician-Patient Discussion**
Prior to initiating statin therapy, discuss:
1. Potential for ASCVD risk-reduction benefits ‖
2. Potential for adverse effects and drug–drug interactions¶
3. Heart-healthy lifestyle
4. Management of other risk factors
5. Patient preferences
6. If decision is unclear, consider primary LDL-C ≥160 mg/dL, family history of premature ASCVD, lifetime ASCVD risk, abnormal CAC score or ABI, or hs-CRP ≥2 mg/L§

Emphasize adherence to lifestyle
Manage other risk factors
Monitor adherence

No to statin

Yes to statin

Encourage adherence to lifestyle
Initiate statin at appropriate intensity
Manage other risk factors
The Risk Decision in Older Adults

- 68 yo white man with average risk factors and estimated 10 year ASCVD risk of >7.5%

- Merits a risk discussion to consider adherence to optimal lifestyle, potential for benefit, potential for adverse effects, drug-drug interactions and informed patient preference

- If clinician felt risk decision uncertain, could order: CAC score, hs-CRP or ABI
Evidence Based To Inform Risk Decisions

- Best Scientific Evidence
- Patient preference
- Clinical Judgment

Adapted from Dr. Sanjay Kaul with permission
Clinician judgment is especially important for several patient groups for which the RCT evidence is insufficient for guiding clinical recommendations.

These patient groups include younger adults (<40 years of age) who have a low estimated 10-year ASCVD risk but a high lifetime ASCVD risk based on single strong factors or multiple risk factors.

“Other groups include those with serious comorbidities & increased ASCVD risk (e.g., individuals with HIV or rheumatologic or inflammatory diseases, or who have undergone a solid organ transplantation).

This guideline encourages clinicians to use clinical judgment in these situations, weighing potential benefits, adverse effects, drug–drug interactions, and consider patient preferences.”

Synopsis of Recommendations

5. Use the newly developed pooled cohort equations for estimation 10-year ASCVD risk

6. Initiate proper intensity of statin therapy

7. Evidence is inadequate to support treatment to specific LDL-C or non-HDL-C goals

8. Regularly monitor patients for adherence to lifestyle and statin therapy

Validation of the Atherosclerotic Cardiovascular Disease Pooled Cohort Risk Equations

Paul Muntner, PhD; Lisandro D. Colantonio, MD; Mary Cushman, MD; David C. Goff Jr, MD, PhD; George Howard, DrPh; Virginia J. Howard, PhD; Brett Kissela, MD, MS; Emily B. Levitan, ScD; Donald M. Lloyd-Jones, MD, ScM; Monika M. Safford, MD

In this cohort of US adults for whom statin initiation may be considered based on the ACC/AHA Pooled Cohort risk equations

• observed and predicted 5-year atherosclerotic CVD risks were similar
• indicating that these risk equations were well calibrated in the population for which they were designed to be used,
• demonstrated moderate to good discrimination.

Muntner et al. JAMA March 2014
Pooled Cohort Equations: External Validation in ReGARDS Population

1. Overestimation in high socioeconomic status (SES) healthy volunteers for clinical trials

Claim based on analyses of Women’s Health Study, Physician’s Health Study, Women’s Health Initiative Observational Study

- Risk factor levels were self-reported in these studies
- The participants in these studies (esp. PHS) were not broadly representative of the US population

2. Underestimation in South Asians

Both of these are examples where the risk discussion allows the needed calibration

Ridker PM and Cook NR. Lancet 2013; 382:1762-1765; Cook, Rider, JAMA Internal Medicine October 2014

## ASCVD Risk Calculator Pooled Cohort Equations

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Units</th>
<th>Value</th>
<th>Acceptable range of values</th>
<th>Optimal values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>M or F</td>
<td>F</td>
<td>M or F</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>years</td>
<td>55</td>
<td>20-79</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>AA or WH</td>
<td>AA</td>
<td>AA or WH</td>
<td></td>
</tr>
<tr>
<td>Total Cholesterol</td>
<td>mg/dL</td>
<td>210</td>
<td>130-320</td>
<td>170</td>
</tr>
<tr>
<td>HDL-Cholesterol</td>
<td>mg/dL</td>
<td>56</td>
<td>20-100</td>
<td>50</td>
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<tr>
<td>Systolic Blood Pressure</td>
<td>mm Hg</td>
<td>145</td>
<td>90-200</td>
<td>110</td>
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<tr>
<td>Treatment for High Blood Pressure</td>
<td>Y or N</td>
<td>Y</td>
<td>Y or N</td>
<td>N</td>
</tr>
<tr>
<td>Diabetes</td>
<td>Y or N</td>
<td>N</td>
<td>Y or N</td>
<td>N</td>
</tr>
<tr>
<td>Smoker</td>
<td>Y or N</td>
<td>N</td>
<td>Y or N</td>
<td>N</td>
</tr>
</tbody>
</table>
ASCVD Risk Calculator
55 yo AA and White Women

African American Women

White Women

Your 10-Year ASCVD Risk (%)
Optimal (%)

African American Women

White Women

10-Year ASCVD Risk (%)

0 1 2 3 4 5 6 7 8 9 10

Your 10-Year ASCVD Risk (%)
Optimal (%)
Accuracy of Statin Assignment Using the 2013 AHA/ACC Cholesterol Guideline Versus the 2001 NCEP ATP III Guideline Correlation With Atherosclerotic Plaque Imaging

Kevin M. Johnson, MD, * David A. Dowe, MD†

ABSTRACT

BACKGROUND Accurate assignment of statin therapy is a major public health issue.

OBJECTIVES The American Heart Association and the American College of Cardiology released a new guideline on the assessment of cardiovascular risk (GACR) to replace the 2001 National Cholesterol Education Program (NCEP) Adult Treatment Panel III recommendations. The aim of this study was to determine which method more accurately assigns statins to patients with features of coronary imaging known to have predictive value for cardiovascular events and whether more patients would be assigned to statins under the new method.

METHODS The burden of coronary atherosclerosis on computed tomography angiography was measured in several ways on the basis of a 16-segment model. Whether to assign a given patient to statin therapy was compared between the NCEP and GACR guidelines.
Current Guidelines Identify Plaque Burden More Accurately

Population: 3,076 subjects; 65.3% men mean age 55; women 59; >90% white
At time of imaging 44% not on statins

Probability of statin Rx rose sharply with increasing plaque burden with Guideline on Risk Assessment estimation of risk (GACR)

The GACR assigned fewer patients with no plaque to statins & more patients with heavy plaque to statins.

The correlation of serum LDL-C with statin prescription assignment is essentially zero. Targets defining assignment of patients to statin therapy.
More adults eligible for statin treatment under the new ACC/AHA guideline:

Statins: 43 million (37.5%) → 56 million (48.6%)

Those who were reclassified upward as contrasted to those reclassified downward:

1) older
2) more men
3) higher systolic blood pressure,
4) had a significantly lower level of LDL-C
5) higher rate of obesity.

Pencina et al NEJM 2014
New Guidelines Efficiently Choose Additional Individuals to Get Statin Rx (Dallas Heart Study)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Additional Statin Eligibility*</th>
<th>Event Rate Among Newly Statin Eligible</th>
<th>NNT Among Newly Statin Eligible†</th>
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</thead>
<tbody>
<tr>
<td><strong>Primary analysis</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASCVD</td>
<td>4.8%</td>
<td>15.8%</td>
<td>14–21</td>
</tr>
<tr>
<td>CHD</td>
<td>4.8%</td>
<td>11.7%</td>
<td>19–29</td>
</tr>
<tr>
<td><strong>ATPIII statin eligibility determined by optional cholesterol goals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASCVD</td>
<td>−2.8%</td>
<td>15.7%</td>
<td>14–21</td>
</tr>
<tr>
<td>CHD</td>
<td>−2.8%</td>
<td>12.4%</td>
<td>18–27</td>
</tr>
<tr>
<td><strong>Restricting to individuals aged ≥40 years</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASCVD</td>
<td>9.0%</td>
<td>15.8%</td>
<td>14–21</td>
</tr>
<tr>
<td>CHD</td>
<td>9.0%</td>
<td>11.6%</td>
<td>19–29</td>
</tr>
</tbody>
</table>
Risk of New Diagnosis of DM with statins depends on

- **Statin intensity** (ACC-AHA Guidelines 2013)
  - 1 in 1000 cases for moderate
  - 3 in 1000 cases for high intensity

- **Number of DM Risk factors**
  - **New onset DM (NODM) risk** - Atorvastatin 80 mg/d v less intense statin Rx
    - No increase if 0 to 1 NOD risk factors
    - 24%, increase if 2 to 4 NOD risk factors.
    - The number of CV events was significantly reduced with atorvastatin 80 mg in both NOD risk groups. (Waters et al J Am Coll Cardiol 2013)

- **One year change in body weight** as in TNT trial (Ong K-L et al. (Am J Cardiol 2014;113:1593e1598)

Statins accelerated the average time to diagnosis of diabetes by 5.4 weeks as those on placebo.
Always encourage adherence to lifestyle (even if receives a statin)

Bring practice close to the RCT evidence:

No arbitrary fixed LDL-C or non HDL-C goals

Data supports appropriate intensity of statins for higher ASCVD risk groups in whom statins shown to benefit:

Secondary prevention, Primary LDL-C ≥ 190 mg/dl; Diabetes 40-75 yrs

Choose Risk Estimator to estimate lifetime and 10 year risk with ASCVD risk estimator in primary prevention. It provides useful decision support. Not for those on treatment already.

Discuss attention to risk factor control, lifestyle, potential for benefit as well as adverse effects, drug-drug interactions and patient preference in a clinician-patient risk discussion. This precedes statin Rx in primary prevention. Statin Rx not automatic!!
Evaluate additional factors that can inform the risk discussion. Factors chosen if they improved discrimination, calibration, & reclassification of the risk assessment (not arbitrary)

1. **Family history of premature ASCVD**
2. CAC score ≥ 300 or ≥75th%
3. hs-CRP ≥ 2.0 mg/L
4. ABI<0.9
5. May use a primary elevation of LDL-C ≥ 160 mg/dl
6. Use lifetime risk estimation in those 20-59 to enhance discussion of need for more optimal lifestyle to improve entire risk profile.

Follow-up needed to evaluate adherence to therapy, adequacy of treatment effect achieved with follow-up lipids/safety checks

Give consideration to “proven” non-statins in “high risk” groups

--LDL-C ≥ 190 mg/dl secondary prevention, high risk DM
2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults. E-Published on November 12, 2013, available at: http://circ.ahajournals.org/lookup/doi/10.1161/01.cir.0000437738.63853.7a

Understanding and Managing Cholesterol
– Interactive guide including quizzes, videos and more to help patients manage their cholesterol.

Downloadable Toolkit for Providers:
• **Pocket Guide** - Information about guidelines for treating patients with high cholesterol
• **Referral Pad** - Instructs patients on how to sign up for Heart360
• **Waiting Room Poster** - Encourages enrollment in Heart360
• **Quick Start Guide** - Shows you how to enroll in Heart360
Questions & Answers

Laura King Hahn, American Heart Association
Neil J. Stone, MD, Northwestern University Feinberg School of Medicine
Thank You!

For more information, please visit the CDC’s Million Hearts® website at: millionhearts.hhs.gov
or
the AHA’s Million Hearts® webpage at: http://www.heart.org/HEARTORG/Advocate/American-Heart-Association-Million-Hearts_UCM_463392_Article.jsp