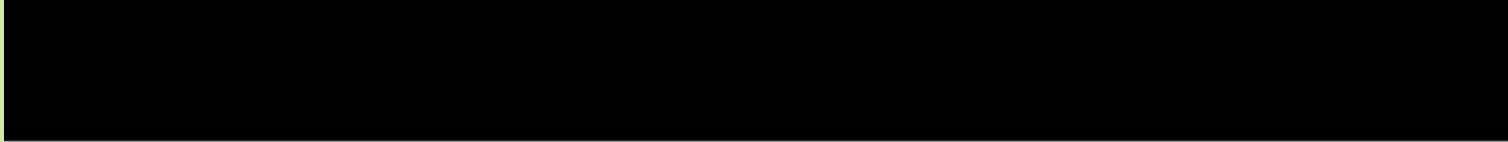


# 2013 Lipid Guidelines: Headed in the Right Direction

**Indiana ACC  
October 18, 2014**

**Patrick J. Daley, MD, FACC  
Parkview Physician Group Cardiology  
Fort Wayne, IN**

# 2013 ACC/AHA Blood Cholesterol Guidelines



CLINICAL ATHEROSCLEROTIC  
CARDIOVASCULAR DISEASE

LDL > 190 MG/DL

HIGH INTENSITY STATINS  
LOWER LDL > 50%  
ATORVASTATIN 40-80 MG  
ROSUVASTATIN 20-40 MG

MODERATE IF > 75 YEARS OLD

DIABETICS

40 TO 75 YEARS OLD  
LDL 70-189 MG/DL

40 TO 75 YEARS OLD  
LDL 70-189 MG/DL

10-YEAR RISK > 7.5%

HIGH IF > 7.5%

MODERATE INTENSITY STATINS  
LOWER LDL 30-50%

- Secondary prevention: 19 randomized clinical trial's evaluated (4 S, PROVE IT, TNT etc.)
- Primary prevention: Framingham Heart Study, Atherosclerosis Risk in Communities (ARIC) study, the Cardiovascular Health Study (CHS), and the Coronary Artery Risk Development in Young Adults (CARDIA) study (collectively termed the FACC studies...

need to find patients whose natural history unaffected by statin and asa therapy)

- 91 % Class I ACC guidelines retained if supported by RCT's
- 74% Class I ACC guideline retained if supported by opinion

*Durability of Class I American College of Cardiology/American Heart Association Clinical Practice Guideline Recommendations*  
*Mark D. Neuman, MD, et al.*  
*JAMA. 2014;311(20):2092-2100.*

# Why Focusing on an LDL Targets Leads to Poor Identification of Which Patients Benefit From Statin Therapy

- Baseline 5-Year CV Risk  
Absolute CV Risk Reduction for 5 Years  
Net Benefit If Treated for 5 Years With 40 mg Simvastatin (NNT to Prevent 1 CV Event)
- Male, Age 55 Years, Nonsmoker, SBP=120, HDL=55, CRP=5, No Family History

LDL=90 mg/dL	~2%	8 in 1000	125
LDL=145 mg/dL	~2.5%	10 in 1000	100
LDL=190 mg/dL	~3%	12 in 1000	83
- Male, Age 55 Years, Smoker, SBP=140, HDL=25, CRP=5, Positive Family History

LDL=190 mg/dL	~13%	52 in 1000	19
LDL=145 mg/dL	~11%	44 in 1000	23
LDL=90 mg/dL	~8%	32 in 1000	31

The first column is the five-year cardiovascular risk  
The second column is the absolute CV risk reduction for five years  
The third column is NNT to prevent one CV event

- No randomized clinical trial titrating statin to LDL goal
- All randomized clinical trials were fixed dose statin therapy

# The new cholesterol guidelines are better than the old ones

- 2001 guidelines: 59% of patients with >50% left main on cta  
40% of patients with >50 stenosis of other branches  
Would not have been treated
- 2013 guidelines 19% of left main  
10% of other vessels  
Would not have been treated
- Proportion of patients assigned to statin therapy 15% higher under new guidelines or 8.9 million more Americans on statin therapy
- *Johnson KM. Accuracy of Statin Assignment Using the 2013 AHA/ACC Cholesterol Guidelines Versus the 2001 NCEP ATP III Guideline: Correlation with Atherosclerotic Plaque Imaging. JACC 2014; 64:910-19*



- **New risk calculator is better than ATP III/Framingham risk calculator regarding:**
  - Women (stroke is a primary concern)
  - African-Americans
  - Includes diabetes, increasingly important with obesity epidemic.
- *A Systematic Examination of the 2013 ACC/AHA Pooled Cohort Risk Assessment Tool for Atherosclerotic Cardiovascular Disease JACC 2014;64:959-68.*

# But, Be careful:

- Age has disproportionate influence on risk determination
- Even with optimal risk profiles (total cholesterol <170 ,> HDL 50 mg/dL , untreated systolic blood pressure 110 mmHg, no diabetes or smoking)
- Age to reach 7.5% threshold:  
65 in Non-Hispanic white man  
70 years in African-American men and women  
75 years in non-Hispanic white women
- *A Systematic Examination of the 2013 ACC/AHA Pooled Cohort Risk Assessment Tool for Atherosclerotic Cardiovascular Disease JACC 2014;64:959-68.*

- 2013 risk calculator tool works well if used to engage the patient in a conversation about risk and intervention...  
Not as the ultimate arbiter

## Risk status may be upgraded if the following are present:

- Family history of premature ASCVD
- High Sensitivity C-reactive protein > 2.0 mg/L
- CAC score > 300 or > 75th percentile
- Ankle- Brachial index less than .9

# RCTs:

- Intensive therapy in pursuit of recommended blood pressure goals can result in substantial patient harm, striving for recommended glycemic goals can increase mortality, torcetrapib and hormone replacement therapy can both “improve lipids” and elevate risk.

- Chasing LDL lower with Zetia never felt right
- IMPROVE IT study

- Niacin  
Mixed emotions
- Small particle LDL, atherogenic lipid profile

# Top 10 things to love about the new guidelines



- No more Zetia

Maybe for statin intolerant, when bile acid sequestrants are not tolerated

- Risk Calculator

- Calcium score greater than 300  
(Older patients, 10 year risk 5 to 7.5%)

- Recommendations based upon hard evidence, not opinion

- No more fibric acid derivatives  
(Risk with ckd)
- With exceptions: hypertriglyceridemia  
greater than 500 mg per dl

- No more niacin  
AIM-HIGH  
HPS2-THRIVE  
(diabetes, infection, stroke )
- ? Exceptions: recurrent events on appropriate Statin, antiplatelet therapy lifestyle interventions)

- Primary prevention risk calculator includes women, African-Americans, diabetics

- Primary prevention risk calculator includes risk of stroke



- The question is not whether a drug makes your lab tests better, but whether it lowers your risk of heart disease and stroke.

- The 2013 this risk calculator is more accurate at identifying patients with atherosclerosis then prior guidelines

- The new guidelines result in better care and make management of our patients easier and simpler 😊