(PBL) Dyslipidemia: Beyond the Numbers

Chuck Carter, MD, FAAFP

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Chuck Carter, MD, FAAFP

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Dr. Carter is a graduate of the University of South Carolina School of Medicine in Columbia. He completed his residency at Palmetto Health Richland in Columbia and a fellowship at Georgetown University School of Medicine in Washington, DC. He practices in a residency teaching program and primarily cares for underserved patients. He has interests in diabetes, cardiovascular health, headache disorders, and urologic conditions. He feels family physicians are critical partners to help guide patients through complex evaluations and specialty care.
Learning Objectives

1. Practice applying new knowledge and skills gained from Dyslipidemia sessions, through collaborative learning with peers and expert faculty.

2. Identify strategies that foster optimal management of dyslipidemia within the context of professional practice.

3. Formulate an action plan to implement practice changes, aimed at improving patient care.

Associated Sessions

• Dyslipidemia: Beyond the Numbers
Audience Engagement System

Step 1
- Dashboard

Step 2
- Learning
- CME0001 (PBL) Acute and Chronic Heart Failure
  - AM 10:10 AM - 11:15 AM
- CME0030 Deep Vein Thrombosis and Pulmonary Embolism Management: The EM Thrombosis
  - AM 11:15 AM - 12:30 PM
- CME0023 Becoming a More Informed, Healthy Hypeuricemic: Reducing Proinflammatory Bioactivity
  - AM 12:30 PM - 1:45 PM
- CME0071 Adult Dilated Cardiomyopathy
  - AM 1:45 PM - 3:00 PM
- CME0076 Probiotics: Selecting and Managing a Viable Beginner of Preventive and Clinical Distinction
  - AM 3:00 PM - 4:15 PM
- CME0036 (PBL) Dementia and Alzheimer’s Disease
  - AM 4:15 PM - 5:30 PM

Step 3
- CME001 (PBL) Acute and Chronic Heart Failure
  - Room 113A
  - Date: Thursday, Sep 26 10:10 AM
  - Duration: 1 hour
  - Credit Hours: 5
  - Keynote: Audience Engagement Systems

1. Practice applying new knowledge and skills gained from Acute and Chronic Heart Failure sessions, through collaborative learning with peers and expert faculty.
2. Identify strategies that foster optimal management of acute and chronic heart failure within the context of...

Cholesterol

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“Disease” defined by numbers

- LDL-C is dominant type of atherogenic cholesterol
- Dyslipidemia is LDL-C >130 or HDL-C < 40
- “Optimal” LDL-C around 100 b/c associated with low ASCVD rates
- “Treatment” primarily achieves reducing event risk

Why assess cardiovascular risk?

- The major cause of death in the US
  - ≅1 in 3 have some form of CV disease
  - 1 out of every 3 deaths
- A “common pathway” condition
  Adjusted population attributable fractions for ASCVD mortality
  - 40.6% for high blood pressure
  - 13.7% for smoking
  - 13.2% for poor diet
  - 11.9% for insufficient physical activity
  - 8.8% for abnormal glucose levels

Key Questions in Hyperlipidemia Treatment

• Why am I treating?
  – Primary prevention
  – Secondary prevention
  – True lipid disorder (ex. familial)
• Who am I treating? What are our goals?
• What is my treatment threshold and tolerance for over vs. under treatment?

Case 1

55-year-old man

<table>
<thead>
<tr>
<th>Demographics and history</th>
<th>Vitals</th>
<th>Labs</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-American</td>
<td>BP 124/78</td>
<td>TChol 190</td>
</tr>
<tr>
<td>Tobacco smoker</td>
<td>BMI 31</td>
<td>HDL 44</td>
</tr>
<tr>
<td>Not on blood pressure</td>
<td></td>
<td>LDL 120</td>
</tr>
<tr>
<td>medication</td>
<td></td>
<td>Triglycerides 140</td>
</tr>
<tr>
<td>No diabetes</td>
<td></td>
<td>Blood glucose 90</td>
</tr>
<tr>
<td>Mother –stroke age 71</td>
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</tbody>
</table>
Team Questions for Case 1

1) What is his 10 year ASCVD risk?
2) What is his lifetime risk of ASCVD?
3) What is your recommended prevention approach?
4) What if he were hypertensive on treatment?
5) Never smoked?
6) What test would you recommend if he was uncertain about treatment or you were uncertain about his risk?

What is his 10 year ASCVD risk?
What is his lifetime risk of ASCVD?

What is your recommended prevention approach?
What if he were hypertensive on treatment?

Never smoked?
What test would you recommend if he was uncertain about treatment or you were uncertain about his risk?

Case 2

44-year-old man

<table>
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<th>Demographics and history</th>
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<th>Labs</th>
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</thead>
<tbody>
<tr>
<td>Non-Hispanic white</td>
<td>BP 110/66</td>
<td>TChol 186</td>
</tr>
<tr>
<td>Never smoker</td>
<td>BMI 24</td>
<td>HDL 38</td>
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<tr>
<td>Not on blood pressure medication</td>
<td></td>
<td>LDL 110</td>
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<tr>
<td>No diabetes</td>
<td></td>
<td>Triglycerides 190</td>
</tr>
<tr>
<td>Father –MI at age 51</td>
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<td></td>
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<tr>
<td>Regular moderate to vigorous physical activity</td>
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Team Questions for Case 2

- What is his 10 year ASCVD risk?
- What is his lifetime ASCVD risk?
- What other factors would you look for to inform his risk assessment?
- What adjunct test would you consider?
- How might changes to his ethnicity inform your assessment of his risk?
- What would be your prevention approach?

What is his 10 year ASCVD risk?
What is his lifetime risk of ASCVD?

What other factors would you look for to inform his risk assessment?
What adjunct test(s) would you consider?

How might changes to his ethnicity inform your assessment of his risk?
What is your recommended prevention approach?

Case 3

62-year-old woman

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<thead>
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<th>Demographics and history</th>
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<th>Labs</th>
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</thead>
<tbody>
<tr>
<td>Non-Hispanic white</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current smoker</td>
<td></td>
<td></td>
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<tr>
<td>Had MI at age 60</td>
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<td></td>
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<tr>
<td>Regular low to moderate physical activity</td>
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<tr>
<td>Medications: Amlodipine 10 mg, carvedilol</td>
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<tr>
<td>12.5 mg, atorvastatin 80 mg, aspirin</td>
<td></td>
<td>TChol 196</td>
</tr>
<tr>
<td></td>
<td>BP 124/82</td>
<td>HDL 42</td>
</tr>
<tr>
<td></td>
<td>BMI 29</td>
<td>LDL 128</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Triglycerides 130</td>
</tr>
<tr>
<td></td>
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<td>Blood glucose 88</td>
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<td>eGFR 55</td>
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</table>
Team Questions for Case 3

- What is your assessment of her risk?
- What is your assessment of her treatment?
- What adjustments would you make?
- What if she were 82 instead of 62?
- What would you do if she reported that she doesn’t want to take her atorvastatin due to muscle aches?

What is your assessment of her risk?
What is your assessment of her treatment?

What adjustments would you make?
What if she were 82 instead of 62?

What would you do if she reported that she doesn’t want to take her atorvastatin due to muscle aches?
Thank you!

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• chuck.carter@uscmed.sc.edu

Questions