Body System: Cardiovascular		
Session Topic: Hyperlipidemia		
Educational Format		**Faculty Expertise Required**
REQUIRED	Interactive Lecture	Expertise in the field of study. Experience teaching in the field of study is desired. Preferred experience with audience response systems (ARS). Utilizing polling questions and engaging the learners in Q&A during the final 15 minutes of the session are required.
OPTIONAL	Problem-Based Learning (PBL)	Expertise teaching highly interactive, small group learning environments. Case-based, with experience developing and teaching case scenarios for simulation labs preferred. Other workshop-oriented designs may be accommodated. A typical PBL room is set for 50-100 participants, with 7-8 each per round table. Please describe your interest and plan for teaching a PBL on your proposal form.

Professional Practice Gap	**Learning Objective(s) that will close the gap and meet the need**	**Outcome Being Measured**
• There exists a great deal of variability in knowledge, beliefs, and practice patterns among practicing family physicians in the management of patient risk for coronary heart disease, focusing on coronary risk assessment and treatment of hyperlipidemia. • Knowledge gap regarding the genetic predisposition to hyperlipidemia associated with aortic valve disease. • Patients typically don't know their cholesterol levels are too high • The AAFP has endorsed ACC/AHA cholesterol management guidelines, with qualifications – family physicians need to be updated on these recommendations. • As new over the counter (OTC) formulations of statins become available, physicians need to become	1. Provide a cholesterol screening for all patients over the age of 20 at least once every five years, with special attention to those who exhibit risk factors for hyperlipidemia. 2. Categorize risk stratification for cholesterol therapy based upon LDL-C risk factors and the Framingham Data. 3. Counsel patients on different types of cholesterol, the impact of dietary and lifestyle choices on overall blood cholesterol and appropriate behavioral modifications that can be made to prevent hyperlipidemia 4. Prepare treatment plans according the National Cholesterol Education Program Adult Treatment Panel III (NCEP ATP-III) guidelines for patients who require more in-depth management of hyperlipidemia.	Learners will submit written commitment to change statements on the session evaluation, indicating how they plan to implement presented practice recommendations.

familiar with these new medications, & be able to educate patients regarding • Preventable cardiovascular medication errors are common in the US • Less than half (48.1%) of adults with high LDL cholesterol are getting treatment to lower their levels • People with high total cholesterol have approximately twice the risk for heart disease as people with ideal levels		

ACGME Core Competencies Addressed (select all that apply)

X	Medical Knowledge		Patient Care
	Interpersonal and Communication Skills		Practice-Based Learning and Improvement
	Professionalism		Systems-Based Practice

Faculty Instructional Goals

Faculty play a vital role in assisting the AAFP to achieve its mission by providing high-quality, innovative education for physicians, residents and medical students that will encompass the art, science, evidence and socio-economics of family medicine and to support the pursuit of lifelong learning. By achieving the instructional goals provided, faculty will facilitate the application of new knowledge and skills gained by learners to practice, so that they may optimize care provided to their patients.

- Provide up to 3 evidence-based recommended practice changes that can be immediately implemented, at the conclusion of the session; including SORT taxonomy & reference citations
- Facilitate learner engagement during the session
- Address related practice barriers to foster optimal patient management
- Provide recommended journal resources and tools, during the session, from the American Family Physician (AFP), Family Practice Management (FPM), and Familydoctor.org patient resources; those listed in the References section below are a good place to start
    - Visit http://www.aafp.org/journals for additional resources
    - Visit http://familydoctor.org for patient education and resources
- Provide recommendations for incorporating current clinical guidelines for cholesterol screening for all patients over the age of 20 at least once every five years, with special attention to those who exhibit risk factors for hyperlipidemia.
- Provide recommendations for categorize risk stratification for cholesterol therapy based upon LDL-C risk factors and the Framingham Data.
- Provide strategies and resources for counseling patients on different types of cholesterol, the impact of dietary and lifestyle choices on overall blood cholesterol and appropriate behavioral modifications that can be made to prevent hyperlipidemia
- Provide recommendations on preparing treatment plans according the National

Cholesterol Education Program Adult Treatment Panel III (NCEP ATP-III) guidelines for patients who require more in-depth management of hyperlipidemia.
- Provide an overview of evidence-based recommendations for current vs. new treatment options.

Needs Assessment

Cardiovascular disease is the leading cause of death and disability in the United States and most western societies. The prevalence of cardiovascular disease is now increasing, presumably due to the aging of the population and the near epidemic rise in the prevalence of obesity and diabetes mellitus.[1] Recent data from the Centers of Disease Control and Prevention (CDC) indicate that nearly one-third (73.5 million) of adults in the United States have high low-density lipoprotein (LDL); fewer than 1 out of every 3 adults with high LDL cholesterol has the condition under control; less than half (48.1%) of adults with high LDL cholesterol are getting treatment to lower their levels; people with high total cholesterol have approximately twice the risk for heart disease as people with ideal levels; and nearly 31 million adult American have a total cholesterol level greater than 240 mg/dL.[2]

Optimal assessment and management of CVD risk factors, chiefly hyperlipidemia, can potentially reverse this trend. However, despite many well designed clinical trials demonstrating the efficacy of pharmacologic treatment of hyperlipidemia in men and women, both middle-aged and older, those with established cardiovascular disease and those without, and in all racial groups, diabetics, smokers, and hypertensive subjects; over 40 million Americans are estimated to have lipid disorders that are not optimally treated.[1]

Data from a recent American Academy of Family Physicians (AAFP) CME Needs Assessment survey indicate that family physicians have knowledge gaps with regard to optimal management of hyperlipidemia; cardiovascular risk reduction; and cardiovascular pharmacological management.[3] More specifically, CME outcomes data from sessions of 2011 AAFP Assembly: Hyperlipidemia, 2015 AAFP Board Review Express, and 2015 Internal Medicine courses that focused on hyperlipidemia suggest that family physicians need continuing medical education with regard to following new lipid guidelines, particularly concerning statin therapy based on risk factors; and utilizing new risk assessment calculation tools.[4-6] Additionally, physicians should understand new research regarding the genetic predisposition to hyperlipidemia associated with aortic valve disease.[7]

Family physicians play an integral role in helping patients understand the importance of monitoring their blood cholesterol, as hyperlipidemia has no signs or symptoms and patients typically don't know their cholesterol levels are too high unless they are routinely tested by a family physician. While some factors cannot be modified, family physicians can help patients to improve a number of behavioral risk factors, including: [8,9]

- Diet – one high in saturated fat and trans fat leads to high levels of harmful low-density lipoprotein (LDL).
- Overweight/obesity – being overweight tends to increase LDL levels, lower high-density lipoprotein (HDL) levels and increase overall cholesterol in the body.

- Physical activity – lack of exercise easily leads to weight gain, which can raise LDL cholesterol levels.

Some factors, naturally, cannot be controlled, but family physicians can help monitor and track them in patients. This includes heredity; a condition known as familial hypercholesterolemia results in high LDL beginning at birth and can result in a heart attack at a young age. Age and sex are also associated with hyperlipidemia; although LDL levels start to increase with aging, men start to have decreased HDL levels beginning at puberty. [8,9]It is important for family physicians – who are aptly prepared to treat patients throughout the entire course of their lifetime – to recognize these risks and be able to offer appropriate treatments.

Some patients may have difficulty understanding the difference between LDL and HDL and their relation to overall cholesterol levels in the blood. Furthermore, they may have certain misconceptions about "good" versus "bad" cholesterol and how dietary and lifestyle choices can impact them. It thus becomes increasingly important for family physicians to educate their patients to ensure they have an adequate understanding of blood cholesterol and the development of hyperlipidemia. Patients should also understand that elevated LDL is a major cause of coronary artery disease (CAD), which can, in turn, lead to various heart diseases and stroke. This is particularly important for pediatric patients as well, who start to exhibit elevated cholesterol levels as a result of familial hypercholesterolemia or atherosclerotic build-up that starts in childhood.[10,11]

Although family physicians treat a wide range of conditions in many different types of patients, some provisions of care remain out of their control and necessitate referral to sub-specialists. Patients with advanced disease states often require enhanced testing mechanisms to diagnose a condition, receive enhanced treatment modalities and establish or maintain improvements in health. In such situations, however, family physicians can and should still serve as the patient's coordinator of care to ensure they receive optimal treatment and management of their condition. The AAFP's position paper on disease management asserts that "any disease management program or entity must involve the patient's family physician to maximize the continuity of care. Family physicians serve as the optimal care coordinator to assist patients not only with clinical care and information, but in understanding and navigating the health care system."[12,13] By utilizing a multi-disciplinary approach to care, family physicians can promote collaboration between specialties, focus on providing appropriate, timely services that maintain a continual loop of reporting and feedback among all parties involved in the patient's care, and help patients engage in self-management of their disease.

Counseling patients with regard to a healthful diet and physical activity should also be considered as part of the overall management strategy for selective patients, taking into consideration other risk factors for cardiovascular disease, a patient's readiness for change, social support and community resources that support behavioral change.[14] Family physicians need to be kept up to date on current evidence-based recommendations for screening, diagnosis, prevention, and treatment of patients who have, or are at risk of developing atherosclerotic cardiovascular disease (ASCVD). [15-18]

Physicians may improve their management of patients with hyperlipidemia by engaging in continuing medical education that provides practical integration of current evidence-based guideline-directed medical therapy into their standards of care, including, but not limited to the following the joint guidelines from the American College of Cardiology (ACC) and the American Heart Association (AHA).[19] Physicians should be familiar with the following AAFP clinical preventive service recommendations and clinical practice guidelines:

Physicians can improve patient satisfaction with the referral process by using readily available strategies and tools such as, improving internal office communication, engaging patients in scheduling, facilitating the appointment, tracking referral results, analyzing data for improvement opportunities, and gathering patient feedback.[20,21]

Resources: Evidence-Based Practice Recommendations/Guidelines/Performance Measures

- Best alternatives to statins for treating hyperlipidemia[11]
- ACC/AHA guideline on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults[15]
- Statins for primary cardiovascular prevention[16]
- Pharmacologic treatment of hyperlipidemia[18]
- Simple tools to increase patient satisfaction with the referral process[20]
- Adding health education specialists to your practice[22]
- Envisioning new roles for medical assistants: strategies from patient-centered medical homes[23]
- The benefits of using care coordinators in primary care: a case study[24]
- Engaging Patients in Collaborative Care Plans[25]
- The Use of Symptom Diaries in Outpatient Care[26]
- Health Coaching: Teaching Patients to Fish[27]
- Medication adherence: we didn't ask and they didn't tell[28]
- Encouraging patients to change unhealthy behaviors with motivational interviewing[29]
- Integrating a behavioral health specialist into your practice[30]
- High Cholesterol | Overview (patient education)[31]

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