Body System: Cardiovascular		
Session Topic: Arrhythmias and Dysrhythmias		
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**
• Cardiovascular disease is a major cause of morbidity and mortality in our society. The family physician should be proficient in the diagnosis and management of a variety of cardiovascular disorders. • Heart palpitations and cardiac arrhythmias are common problems encountered by family physicians. Family physicians need to be familiar with the main types of cardiac arrhythmias, and the available diagnostic tools and treatment modalities. • A competence gap exists for family physicians to be able to determine which arrhythmias are benign and which indicate probable cardiac malfunction, and to manage recurrent or chronic rhythm abnormalities. • Knowledge and competence gaps exist with regard to	1. Identify the causes of ventricular arrhythmias and differentiate the types of ventricular arrhythmias and identify the causes of atrial arrhythmias and differentiate the types of atrial arrhythmias. 2. Manage life-threatening ventricular arrhythmias, and assess, diagnose and stratify for risk patients who have, or are at risk for, ventricular arrhythmias. 3. Prescribe treatment for atrial arrhythmias, including management of atrial fibrillation. 4. Manage premature ventricular complexes and non-sustained ventricular fibrillation in persons with and without heart disease.	Learners will submit written commitment to change statements on the session evaluation, indicating how they plan to implement presented practice recommendations.

providing health coaching, having standards for routinely monitoring medication adherence, having an organized approach to chronic disease care, engaging patients in collaborative care plans. • Hospital readmissions for cardiac dysrhythmias, acute myocardial infarction, heart failure, and complications of surgical procedures are among the top 10 conditions with the most hospital readmission rates.		

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 eduction and resources
- Assist learners with the application of current practice guidelines to specific challenging scenarios in practice
- Provide current, evidence-based treatment recommendations
- Provide specific case-based examples illustrating diagnosis, including the identification of red flags indicating the need for further diagnostic testing and possible referral
- Provide strategies and resources for establishing quality improvement plans to maximize care coordination and minimize hospital readmission
- Provide evidence-based recommendations regarding prescribing treatment for atrial arrhythmias, including management of atrial fibrillation.

- Provide recommendations for managing premature ventricular complexes and non-sustained ventricular fibrillation in persons with and without heart disease.

Needs Assessment:
Heart palpitations and cardiac arrhythmias are common problems encountered by family physicians. Patients may present with acute cardiac rhythm abnormalities. Although these arrhythmias are usually benign, they can indicate significant underlying heart disease. More often, patients have chronic arrhythmias, such as atrial fibrillation (AF), that may require treatment to reduce the risk of future complications. The challenges for the family physician are determining which arrhythmias are benign and which indicate probable cardiac malfunction, and to manage recurrent or chronic rhythm abnormalities.[1]

Data from a recent American Academy of Family Physicians (AAFP) CME Needs Assessment survey indicate that family physicians require additional education regarding the management of patients with arrhythmias &/or dysrhythmias.[2] More specifically, CME outcomes data from 2012-2014 AAFP Assembly: *Arrhythmias and Dysrhythmias* sessions suggest that family physicians need continuing medical education with regard to ECG interpretation; recognizing life threatening changes; understanding the workup for physiologic vs. pathologic arrhythmia; when to send for echo vs cardiology consult; pathologic associated syndromes (e.g. Wellen's); patient education and adherence to prescribed therapies; and available mobile applications for point of care.[3-5]

Physicians are often inconsistent with regard to therapeutic decision making for patients with AF, frequently exhibit poor communication between caregivers, and are inconsistent with their long-term management of these patients.[6-9] There have been important strides in the management of anticoagulation (ranging from using nothing, to aspirin, to various injectables, newer prescriptions or even various combinations of them all). The recommendations change rapidly, and family physicians who only see patients on an outpatient basis may not be aware of the medications that are available only for inpatient usage. Monitoring of the medications is now an issue (some require laboratory follow up and some don't), and side effects can vary. Family physicians should familiarize themselves with these new drugs and the guidelines for monitoring their use, along with establishing a systematic approach to anticoagulation management.[10-12] Physicians should also be made aware when the FDA posts warnings, such as how the use of the antibiotic azithromycin (Zithromax or Zmax) can lead to a potentially fatal irregular heart rhythm in people with certain risk factors.[13] Hospital readmissions for cardiac dysrhythmias, acute myocardial infarction, heart failure, and complications of surgical procedures are among the top 10 conditions with the most hospital readmission rates; therefore, physicians should focus on these areas for quality improvement and care coordination.[14]

Family physicians should consider referral for EPS testing for diagnostic evaluation of patients who have remote myocardial infarction with symptoms suggestive of ventricular tachyarrhythmias including palpitations, presyncope and syncope, for diagnostic evaluation of wide-QRS-complex tachycardias of unclear mechanism in patients who have coronary heart disease, and in patients who have syncope of unknown cause with impaired left ventricular function or structural heart disease. It may also be considered for risk stratification in patients who have remote myocardial infarction, nonsustained ventricular tachycardia, and left

ventricular ejection fraction equal to or less than 40%, and in patients who have syncope when bradyarrhythmias or tachyarrhythmias are suspected and in whom noninvasive diagnostic studies are not conclusive. While family physicians will refer for these tests, they are in a unique position to coordinate the care of their patients with all sub-specialists.

A review of the literature also indicates that patients, particularly older patients with multimorbidities, often need help integrating self-management tasks for potentially interacting conditions.[15] Physician are often challenged to provide optimal care for patients with chronic diseases, achieving standards of care only 50%-60% of the time.[16] Physicians can improve these standards of care through health coaching, having standards for routinely monitoring medication adherence, having an organized approach to chronic disease care, engaging patients in collaborative care plans, and adding a health education specialist to their practice.[17-21]

Family physicians should be familiar with current guidelines and recommendations on managing atrial fibrillation:[22,23]

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

- ACCF/AHA/HRS Focused Update on the Management of Patients With Atrial Fibrillation[23]
- ACC/AHA Joint Guidelines[24]
- Updated Guidelines on Management of Atrial Fibrillation from the ACCF/AHA/HRS[22]
- Catheter ablation of supraventricular arrhythmias and atrial fibrillation[25]
- AMA PCPI Approved Quality Measure: Atrial Fibrillation and Atrial Flutter[26]
- Improving anticoagulation management at the point of care[12]
- Management of common arrhythmias: Part I. Supraventricular arrhythmias[1]
- Management of common arrhythmias: Part II. Ventricular arrhythmias and arrhythmias in special populations[27]
- A systematic approach to managing warfarin doses[11]
- FamilyDoctor.org. Arrhythmia | Overview (patient resource)[28]

References:

1. Hebbar AK, Hueston WJ. Management of common arrhythmias: Part I. Supraventricular arrhythmias. *American family physician.* Jun 15 2002;65(12):2479-2486.

2. AAFP. 2012 CME Needs Assessment: Clinical Topics. American Academy of Family Physicians; 2012.

3. American Academy of Family Physicians (AAFP). 2012 AAFP Scientific Assembly: CME Outcomes Report. Leawood KS: AAFP; 2012.

4. American Academy of Family Physicians (AAFP). 2013 AAFP Scientific Assembly: CME Outcomes Report. Leawood KS: AAFP; 2013.

5. American Academy of Family Physicians (AAFP). AAFP Assembly CME Outcomes Report. Leawood KS: AAFP; 2014.

6. Ciervo CA, Granger Cb Fau - Schaller FA, Schaller FA. Stroke prevention in patients with atrial fibrillation: disease burden and unmet medical needs. *J Am Osteopath Assoc.* Sep 2012;112(9 Suppl 2):eS2-8.

7. Rosenman MB, Baker L, Jing Y, et al. Why is warfarin underused for stroke prevention in atrial fibrillation? A detailed review of electronic medical records. *Current medical research and opinion.* Sep 2012;28(9):1407-1414.

8. Fay MR, Montana C. What are the differences between physician and patient expectation with regard to the management of atrial fibrillation? *The journal of the Royal College of Physicians of Edinburgh.* 2012;42 Suppl 18:45-54.

9. Allen LaPointe NM, Lokhnygina Y, Sanders GD, Peterson ED, Al-Khatib SM. Adherence to guideline recommendations for antiarrhythmic drugs in atrial fibrillation. *American heart journal.* Nov 2013;166(5):871-878.

10. Estes NAM, Halperin JL, Calkins H, et al. ACC/AHA/Physician Consortium 2008 Clinical Performance Measures for Adults With Nonvalvular Atrial Fibrillation or Atrial Flutter: A Report of the American College of Cardiology/American Heart Association Task Force on Performance Measures and the Physician Consortium for Performance Improvement (Writing Committee to Develop Clinical Performance Measures for Atrial Fibrillation). *Circulation.* February 26, 2008 2008;117(8):1101-1120.

11. Ebell MH. A systematic approach to managing warfarin doses. *Family practice management.* May 2005;12(5):77, 79-80, 83.

12. Caffee AE, Teichman PG. Improving anticoagulation management at the point of care. *Family practice management.* Feb 2002;9(2):35-37.

13. Azithromycin Poses Risk of Potentially Fatal Arrhythmias, FDA Warns. *AAFP News.* 2013. http://www.aafp.org/news/health-of-the-public/20130315azithromycin-risk.html. Accessed June 2015.

14. Hines AL, Barrett ML, Jiang HJ, Steiner CA. Conditions With the Largest Number of Adult Hospital Readmissions by Payer, 2011: Statistical Brief #172. In: AHRQ, ed. *Healthcare Cost and Utilization Project (HCUP) Statistical Briefs*. Rockville MD2014.

15. Bayliss EA, Ellis JL, Steiner JF. Barriers to self-management and quality-of-life outcomes in seniors with multimorbidities. *Annals of family medicine.* Sep-Oct 2007;5(5):395-402.

16. Lyon RK, Slawson J. An organized approach to chronic disease care. *Family practice management.* May-Jun 2011;18(3):27-31.

17. Chambliss ML, Lineberry S, Evans WM, Bibeau DL. Adding health education specialists to your practice. *Family practice management.* Mar-Apr 2014;21(2):10-15.

18. Jaber R, Braksmajer A, Trilling J. Group visits for chronic illness care: models, benefits and challenges. *Family practice management.* Jan 2006;13(1):37-40.

19. Bennett HD, Coleman EA, Parry C, Bodenheimer T, Chen EH. Health coaching for patients with chronic illness. *Family practice management.* Sep-Oct 2010;17(5):24-29.

20. Brown M, Sinsky CA. Medication adherence: we didn't ask and they didn't tell. *Family practice management.* Mar-Apr 2013;20(2):25-30.

21. Mauksch L, Safford B. Engaging Patients in Collaborative Care Plans. *Family practice management.* 2013;20(3):35-39.

22. Lambert M. Updated Guidelines on Management of Atrial Fibrillation from the ACCF/AHA/HRS. *American family physician.* 2011;84(11):8.

23. Members WG, Wann LS, Curtis AB, et al. 2011 ACCF/AHA/HRS Focused Update on the Management of Patients With Atrial Fibrillation (Updating the 2006 Guideline): A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. *Circulation.* January 4, 2011 2011;123(1):104-123.

24. American Heart Association. ACC/AHA Joint Guidelines. 2014; http://my.americanheart.org/professional/StatementsGuidelines/ByTopic/TopicsA-C/ACCAHA-Joint-Guidelines_UCM_321694_Article.jsp. Accessed August, 2014.

25. Shapira AR. Catheter ablation of supraventricular arrhythmias and atrial fibrillation. *American family physician.* Nov 15 2009;80(10):1089-1094.

26. Estes NAMea. ACC/AHA/PCPI Atrial Fibrillation and Atrial Flutter Physician Performance Measurement Set. *PCPI and PCPI Approved Quality Measures* 2007; http://www.ama-assn.org/apps/listserv/x-check/qmeasure.cgi. Accessed April, 2013.

27. Hebbar AK, Hueston WJ. Management of common arrhythmias: Part II. Ventricular arrhythmias and arrhythmias in special populations. *American family physician.* Jun 15 2002;65(12):2491-2496.

28. FamilyDoctor.org. Arrhythmia | Overview 2000; http://familydoctor.org/familydoctor/en/diseases-conditions/arrhythmia.html. Accessed August, 2013.

