



Cardiovascular Disease Fellowship Program Handbook

2011-2012



University of Arkansas for Medical Sciences

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Introduction

Overview

The Division of Cardiology offers excellent clinical training in an academic environment. The Cardiovascular Disease Fellowship Program is committed to training clinical and academic leaders in Cardiovascular Medicine by teaching them to:

1. Provide compassionate, expert care to patients across the entire spectrum of cardiovascular diseases.
2. Develop competence in current diagnostic and therapeutic techniques of cardiovascular medicine.
3. Understand and participate in cardiovascular research.
4. Effectively communicate with both patients and medical staff.
5. Evaluate and improve their patient care.
6. See their practice in the context of larger health care and societal structures.
7. Mature individually with the highest ethical and humanistic behavior.

The Cardiovascular Disease Fellowship is an accredited 3-year program, accepting four fellows each year. For the most part, our educational requirements are designed to meet the COCATS3 guidelines of the American College of Cardiology. All fellows receive extensive clinical experience with progressive responsibility, a program of clinical conferences and didactic lectures, and exposure to research.

All fellows successfully completing the program will be eligible for board certification in Cardiovascular Medicine. In addition, all fellows should also have Level 2 training in Nuclear Cardiology, Diagnostic Catheterization, and Echocardiography.

Institutions

The cardiovascular fellowship operates out of 4 different institutions described below.

University of Arkansas for Medical Sciences

The University of Arkansas for Medical Sciences (UAMS) serves as the state's only academic medical center, providing state-of-the-art care to patients as well as groundbreaking research. It is internationally renowned for its bone marrow transplant center and skull-based surgery. It serves as a major referral center for patients across Arkansas, providing cardiology trainees with a broad range of patients in both the in-patient and out-patient settings. UAMS is one of the co-sponsoring institutions for the cardiovascular fellowship.

Central Arkansas Veterans Healthcare System

The Central Arkansas Veterans Healthcare System (CAVHS) is actually 2 hospitals under a single umbrella and also includes outpatient clinics in several locations throughout Arkansas. This hub forms one of the largest medical centers in the VA system. CAVHS patients come to this center from across Arkansas and the surrounding states, bringing a great number of patients with all stages of atherosclerotic disease and making CAVHS one of the busiest VA cardiology services in the country. Over its 83-year history, CAVHS has earned an excellent reputation in patient care, education, and research. It serves as the other co-sponsoring institution for the cardiovascular fellowship.

Arkansas Children's Hospital

Arkansas Children's Hospital is the only pediatric hospital in Arkansas and is considered one of the nation's leading pediatric centers. Our fellows have the opportunity to work with pediatric cardiologists with an emphasis on grown-up congenital heart disease. ACH also houses the Burn Center, treating burn victims of all ages. Our fellows will be called to offer consultation for adults on that service as well.

Baptist Health

Baptist Health is the largest health organization in the state of Arkansas. Their cardiac rehab program offers cardiac patients a multi-disciplinary, individualized program to maximize recovery from heart disease. Our fellows rotate through this program to supplement their cardiac rehab experience.

Program Leadership

The Cardiovascular Fellowship is under the leadership of the program director who is ultimately responsible for all program decisions. He receives assistance from an associate program director and the program coordinator. The fellowship committee guides all key decisions and policies for the program. This committee meets on a regular basis to review the most important issues relevant to fellowship training. This committee is composed of the program director, the associate program director, the program coordinator, the chief fellows, and other interested faculty members. The Fellowship Committee reports to the Division Director, Dr. David Rutlen.

Eugene S. Smith, III, MD - Program Director
Allison Shaw, MD – Associate Program Director
Freij Gobal, Sandeep Singla – Chief Fellows
Christina Dowden – Fellowship Program Coordinator

Christina Dowden – Program Coordinator

This position is the key administrative person for the fellowship program. All official program information should be submitted to the coordinator. The coordinator will organize all official fellowship functions. This individual is invaluable to the program and will be able to offer assistance with almost any issue involving the fellowship program. The current fellowship program coordinator is Christina Dowden. She can be reached by telephone at 686-7882 or by email at CMDowden@uams.edu. Her office is located in the Shorey building at UAMS in room 3S/05 (third floor).

Chief Cardiology Fellow

The chief cardiology fellow serves as the fellow's representative to the faculty and the faculty's representative to the fellows. The position is selected by the program director and assists in many of the administrative scheduling tasks for the academic year. In addition, this upper level fellow represents the fellowship program in a variety of situations throughout the year. More specific details about this position are outlined in the policies at the end of the handbook. This year's Chief Fellows are **Freij Gobal, MD and Sandeep Singla, MD.**



Faculty

The faculty in the Cardiology division is a diverse group of individuals, representing some of the best and brightest physicians and researchers at UAMS. There is also a varied group of adjunct faculty members hailing from across the globe. These individuals combined bring a unique and cutting edge perspective to clinical care and research. The faculty is divided into three groups: clinical, research, and adjunct, according to their specialty and location.

Clinical Faculty

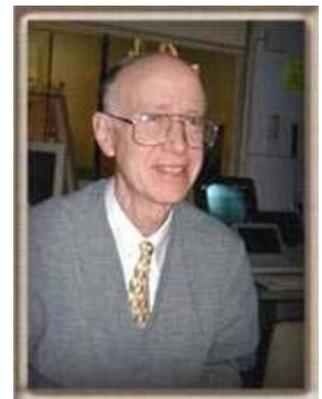


David Rutlen, MD – Director, Division of Cardiovascular Medicine and Professor

David L. Rutlen, M.D. is Professor of Medicine and Chief of Cardiovascular Medicine at the University of Arkansas for Medical Sciences. He graduated from Dartmouth College and Harvard Medical School and trained in Internal Medicine at Brigham and Women's Hospital and in Cardiovascular Medicine at the Massachusetts General Hospital. Dr. Rutlen directed a cardiovascular physiology laboratory for 13-1/2 years at Yale University School of Medicine and subsequently served as Chief of Cardiovascular Medicine at the Medical College of Georgia and then at the Medical College of Wisconsin before joining the UAMS faculty in 2008. He is Board Certified in Internal Medicine and Cardiovascular Disease and is a Fellow of the American College of Cardiology, American College of Physicians, and the American Heart Association.

Joe K. Bissett, MD – Professor of Internal Medicine

Dr. Bissett is a graduate of the University of Arkansas for Medical Sciences Medical School and has worked at UAMS for several years. He received his Cardiology training at the State University of Iowa Hospitals in Iowa City, Iowa. He holds certifications in Internal Medicine, Cardiology, Clinical Cardiac Electrophysiology and Interventional Cardiology. Dr. Bissett is a member of the American Heart Association and American College of Cardiology. He is also a member of the Central and Southern Societies for Clinical Research and the American Federation for Clinical Research. He received the 2000 Humanism in Medicine Award and the 2002 *Arkansas Times*' "Best Doctors of Arkansas Award". His clinical and research interests include: electrophysiology of unstable coronary syndromes; evaluation of hypotension in patients with diagnostic and interventional catheterization procedures: electrophysiologic, hemodynamic, and angiographic correlation; left and right ventricular pacing in congestive heart failure; and comparison of medical and interventional therapy in atrial flutter and fibrillation.



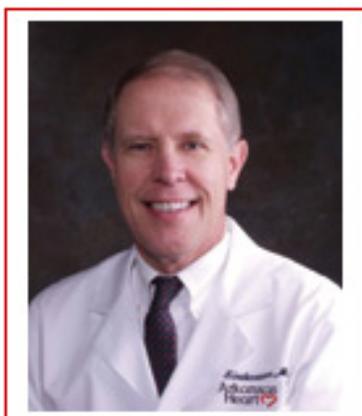


James E. Boger, MD – Clinical Associate Professor

Dr. Boger is a graduate of UAMS Medical School and has been an Assistant Clinical Professor at UAMS for several years. He received his training in Internal Medicine, Cardiology and Adult Congenital Heart Disease from UAMS and holds certifications in Internal Medicine and Cardiology. Dr. Boger is a member of the American College of Physicians, the American Colleges of Cardiology and Chest Physicians, the American Heart Association and the International Societies for Heart Transplantation and Adult Congenital Cardiac Disease. He has been the Director and Founder of the Richard D. Hall Cardiac Learning Center and “Harvey,” the cardiac patient simulator for medical education. He has also served as an educator in the field of Cardiology at several hospitals in the Central Arkansas area. He has also received the Red Sash Award for Teaching Excellence at UAMS in 1998, 1999 and 2006. Dr. Boger coordinates the rotations of medical residents and senior medical students through the Cardiology program at UAMS.

Ibrahim E. Fahdi, MD – Assistant Professor and Director, Cardiac Telemedicine and Cardiac Care Units

Dr. Fahdi was educated in Syria and received his Medical Degree from Aleppo University School of Medicine (Aleppo, Syria) in 1992. He performed his residency and cardiology training at UAMS. He holds certifications in Internal Medicine, Cardiovascular Medicine, and Nuclear Cardiology. Dr. Fahdi is a member of the American College of Cardiology, the American Heart Association, the American Telemedicine Association, the National Arab American Association, the Society of Cardiovascular Computed Tomography, and the American society of echocardiography. He served as Chief Cardiology Fellow at UAMS for the period of July 2003-June 2004. He received the research Trainee Award from the Southern Regional Society in 2000, and received the Excellence in Research Award from the Division of Cardiovascular Medicine at UAMS/CAVHS for 2002-2003. Dr. Fahdi was involved in establishing the UAMS Cardiac Telemedicine and has been involved in several multi-center trials. Also, he lead the foundation of the cardiac action life link program (CALL) to care for patient with STEMI in Little Rock. His main interests are in cardiac imaging and cardiac telemedicine.



John P. Lindemann, MD – Professor of Medicine

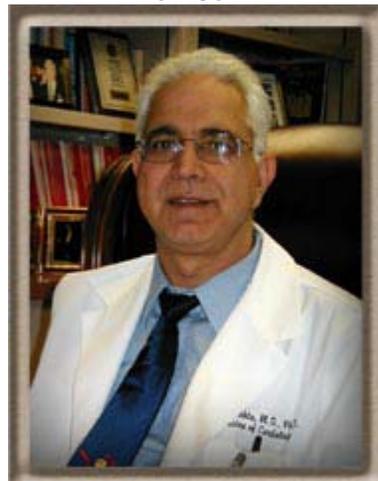
Received his undergraduate from Indiana University in Bloomington, Indiana. Attended Medical School at Indiana University Medical Center in Indianapolis, Indiana in 1974 and continued on with an internship and his Internal Medicine Residency there as well. His fellowship include; U.S.P.H.S. traineeship in Cardiology, (IUMC), Master Degree in Medical Genetics, (IUMC) 1978. He served as the Director of the Cardiac Non-Invasive Laboratory at UAMS in 1996 and Echocardiography Laboratory at Duke University Medical Center in North Carolina in 1997. He is board certified in Internal Medicine and Cardiovascular Disease.

James D. Marsh, MD – Nolan Professor and Chair, Department of Internal Medicine

Dr. Marsh received his MD from Harvard Medical School and performed his clinical training at the Peter Bent Brigham Hospital and West Roxbury Veterans Administration Hospital. He also served as a Research Fellow at the Harvard Medical School both during and after completion of his clinical training. He holds certifications in Internal Medicine and Cardiovascular Disease. He currently serves on the Editorial Boards of the *Journal of Molecular and Cellular Cardiology*, *American Journal of Medicine* and *Heart Failure Reviews*. Dr. Marsh is a Fellow of the American College of Cardiology, the American Heart Association, the American College of Physicians, and is a member of the Association of Professors of Cardiology, and the Association of University Cardiologists. His major research interests are: Regulation of expression and function of calcium channels; excitation-contraction coupling; control of transmembrane signaling; and clinical trials of therapy for vascular thrombotic syndromes. His research laboratory is studying potential gene-based therapy for hypertension.



Jawahar (Jay) L. Mehta, MD, PhD – Stebbins Chair in Cardiology; Professor, Internal Medicine, Physiology and Biophysics

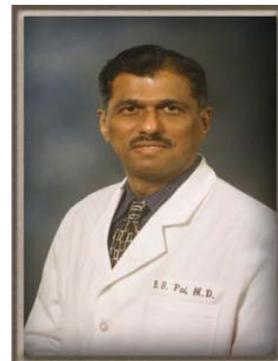


Dr. Mehta received his MD from Punjab University in India and his PhD from the University of Uppsala, Sweden. He received training in Internal Medicine from the Mt. Sinai School of Medicine in New York and Cardiology training from the State University of New York in Stony Brook. He also served as a Research Fellow at the University of Minnesota in Minneapolis. He holds certifications in Internal Medicine and Cardiology. He has published more than 1000 papers, abstracts and book chapters on the pathogenesis of cardiovascular diseases. Dr. Mehta has been an Invited Speaker and Visiting Professor at several different venues and holds ten U.S. patents for cardiovascular disease treatment techniques and equipment. He serves on the editorial boards of *American Journal of Cardiology*, *Circulation*, *Hypertension*, and the *Journal of the American College of Cardiology*, and *European Heart Journal*. He is a member of the American Society for Clinical Investigation and Association of American Physicians. He also is a

member of the international Committee of the ACC. His clinical and research interests include: acute cardiac care; molecular biology of angiotensin and ox-LDL receptors in myocardial ischemia and atherosclerosis; and inter-regulatory role of platelets, endothelium and leukocytes in CAD.

Balakrishna V. Pai, MD – Clinical Associate Professor

Dr. Pai was educated in India and received his MD from the Kasturba Medical College at the University of Mysore, India. He received training in Internal Medicine from Jewish Hospital in Cincinnati, Ohio and completed his Cardiology training at the University of Louisville, School of Medicine in Louisville, Kentucky. He is board certified in Internal Medicine, Cardiology, Nuclear Cardiology and Echocardiography. Dr. Pai worked full-time in Cardiology Private Practice in Hot Springs, Arkansas until 2001. He has been a faculty member at UAMS and CAVHS since 2002.



Hakan Paydak, MD, FACP, FACC – Associate Professor and Director of Clinical Cardiac Electrophysiology Fellowship Program



Dr. Paydak obtained his medical degree at Hacettepe University in Ankara, Turkey. He completed his residency at Gazi University Hospital, Ankara, Turkey. Dr. Paydak completed his Cardiology fellowship at Gazi University Hospital, Ankara, Turkey and University Hospitals of Cleveland, Cleveland, Ohio. His fellowships in Clinical Cardiac Electrophysiology were at Heart-Lung-Institute, University Hospital Utrecht, The Netherlands, Illinois Masonic Medical Center, Chicago, IL, University of Chicago Hospitals, Chicago, IL and University Hospitals of Cleveland, Cleveland, OH. Dr. Paydak is board certified in Internal Medicine, Cardiology, and Clinical Cardiac Electrophysiology.

Rajesh Sachdeva, MD – Associate Professor of Medicine

Dr. Sachdeva received his education in India and received his MD from the Government Medical College in Jammu, India. He received training in Internal Medicine in New York City and in Interventional Cardiology and Cardiovascular Disease in Bridgeport, Connecticut. He holds certifications in Internal Medicine, Cardiovascular Disease, and Interventional Cardiology. Dr. Sachdeva is a member of the American College of Cardiology and the Society of Cardiac Angiography and Interventions.



Allison Shaw-Devine, MD – Assistant Professor of Cardiology, Associate Program Director, Cardiovascular Disease Fellowship Program

Dr. Shaw-Devine earned her medical degree at the University of Arkansas for Medical Sciences. She then completed a residency in Internal Medicine at UAMS. After having served as Chief Resident, she began additional training at the University of Arkansas for Medical Sciences by entering the Cardiovascular Disease Fellowship Program. Upon completion of her cardiology fellowship, she entered private practice for seven years. Heeding to a call from academic sector, Dr. Shaw-Devine returned to UAMS to continue her academic career. Dr. Shaw-Devine is Board Certified in Internal Medicine and Cardiovascular Disease by the American Board of Internal Medicine.

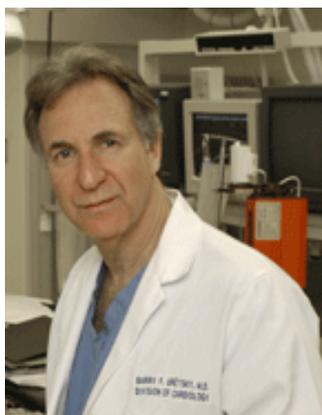


Asif Sewani, MD - Assistant Professor of Cardiology

Dr. Sewani attended Indiana University School of Medicine's as a resident in Internal Medicine from 2001-2004. He continued his academics in Cardiovascular Medicine at the University of Texas Medical Center the following three years and in 2006 he was selected as Chief Fellow. In August 2007, he entered the Clinical Cardiac Electrophysiology Fellowship Program at St. Elizabeth's Medical Center in Boston. Dr. Sewani is ABIM Board Certified. He currently holds an Assistant Professor position in the Division of Cardiovascular Medicine here at the University of Arkansas for Medical Sciences and he was voted as 2010-2011 Faculty of the Year by our Cardiology Fellows.

Eugene S. Smith, III, MD – Associate Professor and Director, Cardiovascular Disease Fellowship Program

Dr. Smith received his MD from Southwestern Medical School in Dallas, Texas. He trained in Internal Medicine at Presbyterian Hospital in Dallas, Texas and received his Cardiology training at UAMS. He holds certifications in Internal Medicine and Cardiology. Dr. Smith is a member of the American Heart Association's Council's of Clinical Cardiology and Epidemiology. He is also an honorary member of the Romanian Cardiology Society (Societatea Romana de Cardiologie). Dr. Smith has numerous administrative appointments at both UAMS and CAVHS.



Barry F. Uretsky, MD – Associate Professor and Director, Interventional Cardiology Fellowship Program

Dr. Uretsky joined the University of Arkansas for Medical Sciences in July 2008 as an Adjunct Professor of Cardiology as well as serving as a staff Cardiologist at Central Arkansas Veterans Healthcare System. He came to us from Sparks Hospital in Fort Smith Arkansas and has 34 years of experience. Prior to his time at Sparks he had a long career in academic institutions. He is board certified in Internal Medicine (1975), Cardiology (1979) and Interventional Cardiology (1999). He has served as Co-Director and Director of the Cardiac Catheterization Laboratory, Director of Cardiology and Program Director of Interventional Cardiology. He was voted "Super Doctor" two years in a row (2005, 2006) by *Texas Monthly*, received the Cardiology Fellows "Outstanding Teaching Award" and voted "Best Doctor in Arkansas" by *AY Magazine*.

Research Faculty



Paul L Hermonat, PhD – Professor



Sabine Telemaque, PhD – Assistant Professor

Adjunct Faculty

Anthony Fletcher, MD
Moses Kelley, MD
Robert Lambert, MD

Education

Competency Based Education and Evaluation

The ACGME accredits our training program. This accreditation assures that the training our fellows receive is in keeping with today's evolving standards. This standard recognizes that the practice of medicine involves much more than a cognitive awareness of appropriate medical treatments. Appropriate medical training requires that physicians be competent in 6 broad areas. They define the 6 areas as follows:

- a. **Patient Care** that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
- b. **Medical Knowledge** about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care
- c. **Practice-Based Learning and Improvement** that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care
- d. **Interpersonal and Communication Skills** that result in effective information exchange and teaming with patients, their families, and other health professionals
- e. **Professionalism**, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population
- f. **Systems-Based Practice**, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value ¹

To assess competency in these areas, a variety of evaluation tools must be utilized and the results incorporated into ongoing improvement of not only the resident (fellow) but the program as well. Our intent is to develop physicians who are competent across all of these areas and to be able to document this progress. Though this process requires on-going changes, our intent is not to burden our fellows with evaluations and projects unless we expect an educational benefit.

Overview of Rotations

Each fellow rotates through services in blocks of 1-2 months. A representative outline of these services follows:

Post Graduate Year PGY	Rotations & the Months which the fellow will rotate throughout the academic PGY level while in their training.					
4	Cath 4	Echo 3	CCU/consults 3	EP 2		
5	Cath 2-3	Echo 2-3	CCU/consults 2	EP 1	Elective 1-2	Subspecialty 2
6	Cath 2-3	Echo 1-2	CCU/consults 1-2	Nuclear 4	Elective 1-2	Cardiac Imaging 1

Some flexibility exists in this schedule and fellows interested in focusing their training in a particular area of cardiology have options for changes in the above. These changes must be approved by the program director and will be granted based on the merit of the proposed change, the past performance of the fellow, and its potential impact on the program at large.

Fellows also have continuity clinic at least once each week. At present this occurs every other week at the University and every week at the VA. Our hope is to move to every other week clinics at the VA during this academic year.

Fellows take at-home call on a rotating schedule. ECG reading assignments also occur on a rotating schedule.

Throughout these rotations, daily conferences supplement the learning. All fellows are expected to attend the conferences, regardless of their rotation. Failure to attend at least 50% of conferences could result in the loss of division sponsored conference travel.

A cardiovascular fellow must demonstrate competence in a number of cardiovascular procedures. As part of this requirement, a minimum number of procedures may be required. While the division of cardiology tracks most procedures, *it ultimately remains the responsibility of the fellow to track these numbers through New Innovations.*

It should be noted that the Program Director and/or the Chief Fellow reserve the right to pull and/or reassign Fellows from one service to another to meet coverage demands. This will be done only in irregular circumstances. The program coordinator should be notified of all these changes.

MODULAR CURRICULUM

A novel feature of our training program is the utilization of modules. A module coordinates learning within a defined topic across time, rotations, and venues. The curriculum has been divided into 13 such topics based upon content recommended by the COCATS 3 guidelines. They may be completed at any time during the fellowship and allow one to control the pace of their learning, while insuring that important content is not overlooked.

A distinct advantage to these modules is the ability to obtain and track experiences that occur outside of the fixed rotations. Medical learning opportunities do not always follow a schedule. One may learn about balloon pumps while managing a patient on call while assigned to the echo rotation, or care for a patient with tetralogy of Fallot on the electrophysiology service. A modular curriculum allows trainees an easy way to log the balloon pump experience in their Cath Module or to record the learning of congenital heart disease in their Adult Congenital Heart Disease Module even though these experiences did not occur on these rotations.

Another advantage is the ability to control the pace of learning. If a particular topic requires time beyond the rotation to master the cognitive or procedural content, this can be more easily accommodated. If a learner comes with experience in a given area, he or she may accelerate completion of a module and then focus attention on other areas of learning.

Rotations are important for temporal organization. They provide a space for learning to occur, but in clinical medicine, they can be plagued by vagaries of chance. Modules may allow our program to compensate for infrequent events if they are missed on a particular rotation.

These modules also allow for the progression of learners through their fellowship. Completion of an introductory module provides a better rationale for increasing responsibility than does simple passage through a rotation.

Fellows are encouraged to complete all modules but they must successfully complete required modules prior to graduating from the program. Below are the available modules. Those in bold are required modules.

- 1. Adult Congenital Heart Disease**
- 2. Cardiac Catheterization 1 & 2**
- 3. Cardiac Electrophysiology A & B**
- 4. Cardiac Imaging**
- 5. Clinical Cardiology A & B**
- 6. Echocardiography 1& 2**
- 7. Electrocardiography**
- 8. Heart Failure**
- 9. Nuclear Cardiology 1 & 2**
- 10. Preventative Cardiology**
- 11. Scholarship**

Rotation Responsibilities, Goals, and Objectives

Cardiac Catheterization Laboratories

All cardiology fellows spend three to four (2-4) months of each year assigned to the Cardiac Catheterization Lab. They will be trained to perform diagnostic catheterization and will have exposure to interventional procedures.

As the fellow advances in experience, the fellow will be given progressive responsibility in the management of these patients. The responsibility will be at the discretion of the supervising attending.

As the fellow advances in experience, the fellow will be given progressive responsibility in the management of these patients. This responsibility will be at the discretion of the supervising attending.

Responsibilities

During this rotation, the fellow should:

- Assess each referred patient for the appropriateness of catheterization and familiarize themselves with the patient's medical history, pertinent physical findings, and laboratory data. A brief note, placed in the chart, should summarize this data. The responsibility for pre-cath assessment over the weekend will alternate between the two fellows at the VA. At the University, pre-cath assessment may fall to the on-call fellow to insure that the cath fellow gets appropriate number of days off within the month.
- Discuss the procedure with the patient and obtain written consent.
- Write pre-catheterization orders.
- Perform cardiac procedures under the supervision of the attending cardiologist, complete the procedure report, and assist in the recovery of the patient as needed. A preliminary procedure note must be written prior to the patient leaving the cath lab.
- See each patient following the procedure to discuss the results and the proposed care plan. This information should be documented in the chart and forwarded to referring physicians when applicable.
- Follow-up on and care for any procedure related complications.
- Provide an end-of-month summary for M&M conference.
Learn the content in Cardiac Catheterization Learning Module.

Non-invasive Cardiology Laboratories

Each fellow will rotate through either the University or VA Non-invasive Lab for at least two (2) months each year.

Responsibilities

The 1st-year fellow should:

- Learn to perform and interpret echocardiograms.
- Read echocardiograms daily with the non-invasive attending.
- Learn how to perform and interpret treadmill stress tests (TMST). These studies should be reviewed with the appropriate non-invasive staff.
- Prepare case presentation for ECHO Conference 1-2 times monthly.
- Learn the content in the Echocardiographic and Electrocardiogram Learning Modules

The 2nd and 3rd year non-invasive fellow should:

- Perform and interpret TMST.
- Interpret all echocardiograms performed and review their findings with the non-invasive attending.
- Assist with trans-esophageal echocardiograms and stress echocardiograms as needed.
- Carry call-pager during the daytime (VA only).
- Handle incoming VA referrals (VA only).
- Prepare case presentation for ECHO Conference 1-2 times monthly (VA only).
- Provide an end-of-the month summary for M&M Conference.
- Learn the content in the Echocardiographic and Electrocardiogram Learning Modules.

Clinical Cardiology

The Cardiology Clinical Services have the primary responsibility for providing care to patients with cardiovascular disease at the University Hospital and the John McClellan VA Hospital. The fellows play an important role on all these services.

Cardiac Care Unit / Cardiology Consult Services

Fellows rotate through the Cardiac Care Unit (CCU) for three (3) months in their 1st year and three to four (3-4) months in their upper level years. This will run concurrent with responsibilities on the consult service. The CCU team will consist of interns, a medicine resident, the cardiovascular fellow, and a cardiology attending.

Responsibilities

The responsibilities of the 1st year are as follows:

- Make daily rounds on both services and be aware of the status of all patients on the CCU and Consult services. The fellow serves as a consultant to housestaff prior to any important diagnostic or therapeutic procedure for patients on the CCU and consult services.
- The fellow will examine and evaluate each patient and write a note outlining his findings and the proposed plan of care. This note is in addition to those of the medicine housestaff.
- The fellow should see each patient daily, reviewing the patients' care and documenting pertinent information that may not be clearly documented in the resident's progress notes.
- Participate in the teaching of students and housestaff on these services.
- Supervise performance of invasive procedures conducted in the CCU.
- Facilitate patient recruitment and the performance of research protocols.
- Serve as the liaison between the medicine housestaff and the Division of Cardiology.
- Learn the content in the Clinical Cardiology Learning Module A.

The responsibilities of the 2nd or 3rd year are as follows:

- Fulfill all responsibilities for 1st year fellows.
- Manage all patients on the CCU / consult services.
- Conduct daily teaching rounds with the housestaff on the CCU and consult services.
- Write notes on all admissions to the CCU service and on all consults.
- Review actions daily with the responsible attending.
- Learn the content in the Clinical Cardiology Learning Module B.

Nuclear Cardiology

All fellows will receive training in nuclear cardiology. During the four (4) months of this rotation the fellow should achieve all requirements for NRC licensing. The didactic requirement for licensing can be fulfilled through the online course.

Responsibilities

The nuclear cardiology fellow has the following responsibilities:

- Perform all stress tests.
- Be available for the administration of all stress and pharmacologic agents.
- Attend the daily reading sessions with the nuclear attending.
- Complete the online didactic course in nuclear medicine.
- Organize the nuclear cardiology conference.
- Review outpatient cardiology consults at the VA.
- Learn the content in Nuclear Cardiology Learning Module.

Electrophysiology

Fellow will receive four (4) months of training in cardiac electrophysiology. This will not only provide an understanding of the evaluation and management of cardiac rhythm disturbances, but also expose fellows to a number of interventions for the treatment of arrhythmias.

Responsibilities

The fellows on this service should:

- Participate in Arrhythmia clinic each Monday at the University and each Wednesday at the VA.
- See all electrophysiology consults and write notes daily.
- Interpret all ambulatory EKG monitoring for the VA and University Hospitals and review the results with the appropriate EP attending.
- Review the results for all event recorders.
- Assist in the performance of EP studies and device placements under the supervision of the EP attending. The fellow will be responsible for being familiar with the patient, discussing the procedure with the patient, obtaining consent, and completing all requisite paperwork for procedures to which he/she is assigned.
- Learn the content in Cardiac Electrophysiology and Electrocardiography Learning Modules.

During this rotation, the fellow will be excused from his/her University Clinic.

Subspecialty Clinics

This clinic combines several experiences in a single rotation. On this rotation fellows rotate through the grown-up congenital, vascular, and cardio-thoracic clinics and spend time in cardiac rehab.

Responsibilities

During the rotation, the fellow should:

- Participate in the Adult Congenital Heart Disease Clinic for 4 sessions.
- Participate in vascular clinic for 4 sessions for 4 sessions.
- Witness at least 2 heart surgeries and participate in CV surgery clinic for 4 sessions
- Attend at least 10 half-day cardiac rehab sessions at Baptist Rehab
- Learn the content in the Preventative Cardiology and Adult Congenital Heart Disease Modules.

Heart Failure

This rotation is based at Baptist and provides a broad spectrum of experiences handling patients with advanced heart failure.

Responsibilities

During the rotation, the fellow should:

- Participate in the care and management of heart failure patients in the clinic and hospital.
- Participate in the care and management of cardiac transplant patients in the clinic and hospital.
- Participate in cardiac rehab at Baptist each afternoon (except those in which the fellow has clinic).
- Learn the content in the Heart Failure Modules.

Continuity Clinic

Every fellow will have a clinic at the University and VA Hospitals. The thrust of such a clinic is to follow a set of patients through the long-term course of their cardiovascular disease.

Responsibilities

During the three years, the fellow is responsible to:

- Attend clinic weekly/bi-weekly at both the VA and University Hospitals.
- Be available for to handle outpatient cardiology issues that arise for these patients between visits including the completion of all medical records.
- Complete at least 1 practice-based improvement project and submit it to the program director for review.

Electrocardiography

All fellows have regular ECG reading assignments.

Responsibilities

Throughout the 3-year program, each fellow should:

- Interpret and sign all assigned 12-lead and ambulatory ECG's within 1 business day of receiving the ECG's.
- Perform, interpret, and sign all assigned stress tests in a timely fashion.
- Review any difficult 12-lead ECG, ambulatory ECG, or stress test with the available faculty.
- Take the yearly ECG in-service exam.
- Learn the material in the ECG Learning Modules.
- Lead one ECG Conference each year.

Elective Rotations

An elective rotation can involve an additional month of one of the services listed above or it can include exposure to an area not listed. Below are some of the potential areas for electives. This is not an exhaustive list and other offerings are possible.

- ***The elective must be approved by the program director 3 months in advance. It's the fellows' responsibility to inform the program coordinator of this project after approval has been made.***
- ***Any request for an elective outside of UAMS/VA must be submitted to the program director at least 6 months prior to the start of the elective.***

MRI imaging

CT Angiography

Grown-up Congenital Heart disease (GUCH)

Heart Failure

Research

Conferences

A wide variety of clinical conferences and didactic lectures insure successful preparation of each fellow for the Board Certification in Cardiovascular Medicine.

Fellows will be required to give conferences several times throughout the academic year. As part of the responsibility of giving conferences, fellows will be required to submit an outline or PowerPoint of key presentations to the program director. Fellows will need to email the presentation to the program coordinator and provide a printed copy of their presentation to the program coordinator to be maintained in their permanent file. The PowerPoint and Bibliography will need to be submitted 1 week in advance.

The faculty and fellows will evaluate fellows on their presentations.

- Conference attendance is very important. You must attend 50% of conferences or risk losing your travel stipend. A sign in sheet should be located at each conference.

Excused absences include:

- Clinical Care Necessity: Clinical care necessity in which case you will need to email program coordinator, stating why you couldn't make it. No response from the attending, contesting otherwise, will result in an excused absence.
- Approved Leave or Sick Leave due to illness
- Away rotation

Conferences include:

1. Cardiology Grand Rounds: This weekly conference is held on Wednesdays in the Ed II Building, Ground Floor, Room 137, 12:00-1:00 PM. This lively and popular conference involves discussion of patient management and other topics of mutual interest to cardiologists and cardiothoracic surgeons.
2. Internal Medicine Grand Rounds: Held every Thursday in the Education II Building, 12:00-1:00 PM, this conference is given by a UAMS faculty member or an invited speaker. Attendance will sometimes be required. On other weeks, this time is available for completing online course work or other cardiology assignments.
3. ECG, Echo, MRI and Nuclear Cardiology Conferences: These graphics conferences are held monthly. Faculty and fellows discuss interpretations and courses of treatment.
4. Journal Club: Monthly, a fellow will present and discuss an article from a major journal. The fellow will work with an attending to select and develop their topic for this conference which is held on Mondays or Fridays, 12:00-1:00 PM.

5. Fellows/Faculty Research: Once a month, a fellow or faculty member will present an update or outcome of a research conference which is usually presented as a Grand Rounds presentation held on a Wednesday 12:00-1:00 PM.
6. Quality Improvement Conference: Designed to improve fellow training and patient care, this conference is held monthly. Detailed assessments of adverse events and procedure complications are discussed in a non-confrontational forum. All fellows are responsible for obtaining their numbers for procedures, complications, etc., prior to conference
7. Board Review and Core Curriculum: This comprehensive round of conferences is designed to prepare fellows for the Cardiovascular Medicine Boards.
8. Clinical Case Conference: A round table discussion is held and topics are assigned in advance. Fellows are expected to prepare for this conference and required to study topic for a minimum of 1.0 hour before meeting.
9. Systems-Based Practice Conference: This quarterly conference explores issues in improving clinical practice. The work-conference coordinates division efforts to solve difficulties and to better understand the systems in which we work.
10. IM Subspecialty Fellows Conference: Held jointly with fellows from other medicine subspecialties, this conference addresses issues common to all specialties.
11. Cardiology Fellowship Meeting: Held once monthly on the 3rd Tuesday of the month from 4:00-5:00 PM at UAMS, the committee will meet with the Program Director and Coordinator to discuss training, policies, concerns, etc. in the Cardiology Conference Room (Shorey, 3S/23).
12. Interventional Cardiology Conference: Lectures presented by the Interventional faculty and fellows.
13. Clinical Cardiac Electrophysiology Conference: CCEP Conferences lectures presented by the CCEP faculty and fellows.
14. Pathology Conference: held quarterly in conjunction with IM resident's path conference. This conference focuses on cardiac cases that came to autopsy. Path slides are reviewed with pathologist.

A representative month is as follows:

Week	Monday	Tuesday	Wednesday	Thursday	Friday
1	General Cardiology Discussion	Cath Conference	Cardiology Grand Rounds	Internal Medicine Grand Rounds	CCEP Conference
2	Board Review	ECHO Conference	Cardiology Grand Rounds	Internal Medicine Grand Rounds	CCEP Conference
3	General Cardiology Discussion	Imaging Conference	Cardiology Grand Rounds	Internal Medicine Grand Rounds	CCEP Conference
4	Journal Club	ECHO Conference	Cardiology Grand Rounds: Basic Research	Internal Medicine Grand Rounds	Quality Improvement Conference (M&M)
5	IM Subspecialty				

Research and Scholarly Activity

Every fellow must complete at least 1 scholarly project during the fellowship. Each fellow should select a mentor to assist him in this project. This selection should be made based on a mutual interest between the fellow and the mentor. At the time of the second evaluation session with the program director (usually just after the 6th month of fellowship), the fellow will inform the program director of his choice for mentor. If a fellow has not selected a mentor by that time, the program director will assign a mentor. Working under the oversight of this mentor, the fellow will identify and develop a scholarly project. The program director or his appointed representative should approve this project.

Scholarly activities include investigative research in the basic sciences or clinical arena. In these cases the goal of the research would be the submission of an abstract for one of the major cardiology meetings or for publication in a peer reviewed journal. Such research is not the only way to complete this requirement. Fellows may elect to conduct a literature review or case report with a view toward presentation or publication of the results.

These projects will be reviewed during a fellow's periodic evaluations. Ultimately the program director will determine if a project completes this requirement.

Other Assignments

In addition to clinical responsibilities, the fellows are responsible for completing other projects within the curriculum. These projects are an essential part of the training program and must be satisfactorily completed in a timely manner.

Web-based Curriculum

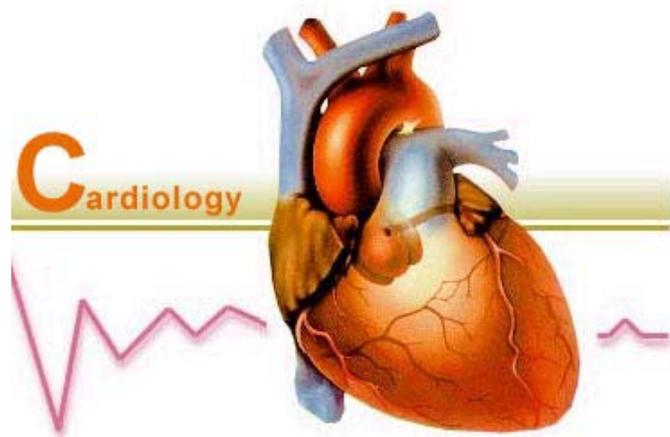
Our Graduate Medical Education Committee has provided us with 4 different courses. The courses involve physician fatigue, patient safety, medical-legal issues, and ethics. Each fellow must complete these and score above 80% on the questions prior to the end of their first year.

The nuclear rotation has a web-based curriculum that must be successfully completed during the rotation.

The ECG in-service exam will be required of all fellows. Other offerings may also be added as they become available. The ECG in-service exam will be required of all fellows. Other offerings may also be added as they become available.

Practice-Based Learning Project

Fellows will participate as a group in an ABIM MOC Practice-Based Improvement Module with one of the Cardiology Faculty members. This project not only explores current practice but also works with systems to improve patient outcomes. This is to be completed within the 3rd year of fellowship.



Procedure Logs

Cardiovascular trainees must document their procedural numbers as part of their fellowship training. This documentation is ultimately the responsibility of fellows, but a number of resources can assist the trainee in this process. While an accurate accounting of these procedures is essential to documenting competence, the privacy of the patients must be safe guarded. Documentation must involve a minimum of patient information. No individually identified health information can be kept in the procedure log. Procedures should be cataloged by the initials of the first and last names, the date and the location of the procedure. This should allow confirmation of the procedure if this is ever necessary. Most types of procedures will be tracked in New Innovations. Some procedural numbers are so great that individual tracking is excessively cumbersome. Starting July 1, 2009, all cardiology procedures will be tracked in New Innovations with the following exceptions:

- 1) **ECG's** – these will be tracked in the MUSE system at the VA. The Program Coordinator will receive a semi-annual report on these numbers from the VA, listing the number of tracings read by each fellow. These reports will be run each December and June by the 15th of the month.
- 2) **Echocardiograms** - these will be logged in the echo reading system at both the VA and University hospitals. The University echo lab will supply a report to the program on a quarterly basis. The report will list the number of transthoracic, transesophageal, stress, and dobutamine echos read by each fellow. The fellow will be responsible for logging echos performed.

The VA echo lab will maintain a list of echos read each month according to the fellow involved in reading the study. The fellow will be responsible for accessing this list and reporting to the program coordinator the number of echos read each month. The fellow must also track the number of echos performed (transthoracic, TEE, stress, etc.).

Procedures that **must** be tracked in New Innovations include:

- 1) Coronary angiography
- 2) Right heart catheterization
- 3) Temporary pacing
- 4) Interpretation of ambulatory monitoring
- 5) Pacing device interrogations
- 6) Transthoracic echos performed
- 7) Stress tests (sum of TMST's, nuclear, and echo stress tests)
- 8) Encounters with patients with Adult Congenital Disease

Procedures that may be tracked in New Innovations include:

- 1) Intra-aortic balloon pump insertion
- 2) Echo studies using contrast
- 3) TEE's
- 4) Stress echos
- 5) Dobutamine echos
- 6) Nuclear imaging studies
- 7) CMR studies
- 8) CT angio studies

These latter procedures are those not mandated by the ACGME or by ABIM for general cardiology training but would be necessary for satisfactory completion of COCATS3 requirements. Tracking these numbers is strongly encouraged. Failure to adequately document these procedures may prevent the completion of the respective cardiology modules or may interfere with the program director's attestation of procedural counts needed for some subspecialty boards (e.g. echo).

The following is a list of procedures that each fellow should complete by the end of their cardiovascular fellowship (this assumes Level 2 training in ECG, cath, echo, and nuclear and Level 1 training in the other areas):

Procedures <i>*may be also counted in totals of general imaging procedures</i>	Primary Operator	Minimum Total
Left heart cardiac catheterizations		300
Right heart catheterizations		10
Echocardiograms With contrast	150	300 20
Transesophageal echocardiograms (optional)		50
Stress tests Exercise Pharmacologic Total		200
Nuclear studies	35	300
CT angiography		50
Cardiac MR		25
Temporary pacemakers		10
Cardioversions		8
Device interrogations		10
Ambulatory ECG monitors		150
ECG's		3500
Adult congenital patients		50
Adult congenital imaging procedures*		50

The number of actual procedures will likely substantially exceed these minimal values in many areas.

Evaluations

Proper evaluation is essential for the growth and development of both the trainees and the program itself. These evaluations provide a marker by which to plan future improvements. Over the last 3 years, our program has developed a number of evaluation tools to improve this process.

Fellows will be evaluated using a variety of methods. These include faculty evaluations that are completed every 6 months. A 360 evaluation collects input from nurses, technicians, and administrative staff with whom fellows interact. Patient surveys will be incorporated into our evaluations. Select conference presentations will be evaluated through survey. In addition the program director will incorporate input from individuals both within and without the division who have had a chance to interact with a fellow. Content from scholarly activities and learning assignments previously described will be incorporated into a composite evaluation. The program director will discuss these evaluations with the fellow at least every 6 months.

Program evaluation is as critical as fellow evaluation. The needs of our trainees change constantly requiring the program to change constantly. Only by the feedback that we get through program evaluation tools can we insure those changes lead to a better program for our fellows. Fellows evaluate each rotation at the end of the rotation, providing information about their learning experience. The fellow's annual survey also provides feedback on a broad range of critical program issues. In addition, the fellowship committee regularly reviews information from internal and external sources that reflect on our teaching. Our goal of excellence in cardiovascular training requires this continual cycle of program analysis and improvement.

General Information

Professional Conduct

The medical profession is a noble calling. Our society offers medical professionals a high degree of respect but that respect deserves to be earned by careful attention to compassionate care of patients and respect for all with whom we associate. Medical care requires much more than accurate diagnosis and treatment; it requires that we value those with whom and for whom we work and that we meet our responsibilities toward them. Professional behavior does not replace competent medical decision-making. It joins with such decision-making to form well-rounded medical care.

In no way could this handbook adequately explore the meaning of professionalism, nor could the program ever adequately evaluate all aspects of this competency. But as we attempt to provide an environment that fosters professional development, this program has identified the following key aspects of professional behavior that it will emphasize over the course of training. Each of these will have bearing on your professionalism evaluation.

Respect

Despite the differences between us, all humans deserve to be treated with respect. Interactions with our patients, their families, our colleagues and staff should be marked with courtesy and civility. Derogatory or demeaning comments (even those made outside the hearing of the subject) betray our patient's trust and disrupt the work environment. Even when disagreements exist, our goal is not to belittle another but to find ways to work together within the adversity.

Service

Medicine is a serving profession. Our patients and colleagues come to us with problems in hopes of assistance. Often our expertise in cardiology is needed to solve these problems; sometimes the solution lies outside the realm of cardiology. In all cases fellows should do what they can to offer assistance. This may involve directing the inquirer to a different resource; it may involve educating a provider in some area. It does not require us to answer requests in a way that squanders resources (either of time, materials, or money), nor does it require that we do another's work for them. An attitude of service does keep us responsive to addressing the true needs around us. If any situation seems to regularly abuse the assistance cardiology offers, it should be referred to the program director. Service may extend beyond the domain of the cardiovascular fellowship. Making the program director aware of service activities outside the fellowship program will assist in a more accurate evaluation of this competency.

Responsibility

Cardiovascular specialists are among the most highly trained members of the medical community. We deal with some of the most life threatening of medical conditions. As a result, we receive great respect and incur great responsibility. This requires that we follow through on clinical responsibilities. Cardiologists cannot afford inattentiveness or sloppiness in patient management and they must be diligent to arrange for patient care needs upon transfer or in their absence.

Some areas of responsibility are more mundane but none-the-less important. Though fellow's clinical documentation requirements may not be as extensive as those of the residents, fellows must insure that they are familiar with their patients and that their documentation is timely and complete. Fellows are expected to have all medical records, orders, and reports completed within 2 weeks (or less when required by hospital policy). Similarly responding to pages or handling messages and correspondence within an appropriate time frame is likewise critical. Fellows also have the responsibility to take their learning seriously. This necessitates attendance at division conferences (except when urgent patient care responsibilities exist) and the completion of other learning assignments. Tardiness in these areas will impact ones professional evaluation.

Role-modeling

In a culture that has adopted poor dietary and activity habits, healthcare professionals must not only advocate but also practice a healthy lifestyle. While some will adhere to more strict standards than others, the importance of physicians incorporating some of their prescriptions into their own lives cannot be understated. The program will encourage each fellow to articulate and follow appropriate dietary and exercise choices for him or herself.

Appearance

First impressions are important. Rightly or wrongly patients usually make their initial assessment of their physician based on appearance -- they have little else to go on. Because of this, our program members will strive to present themselves in attire that engenders confidence and helps establish trust. For this reason, cardiology fellows should dress at all times in a manner that our patients consider professional.

Our intent with such a policy is not to inhibit freedom of expression, require an expensive wardrobe, or promote a rigid dress code. A physician's attire should be considerate of values held by his or her patients. Thus it should not be too ornate or relaxed. It must not be distracting or provocative. It should be appropriate for the work at hand and not present safety concerns for either the physician or the patient.

A few general guidelines may help define reasonable parameters in cardiology. Fellows should wear scrubs only on days in which the majority of their day will be spent performing procedures. In this case, they should wear their white coat when outside the cath lab area. During normal business days, fellows would be expected to dress in business attire (men with a dress shirt, slacks, and tie; women with a dress or sweater/blouse and skirt/slacks). On weekends and holidays, business casual is appropriate (men with collared shirt and slacks; women blouse/shirt and skirt/slacks). In general, informal attire such as jeans, T-shirts, athletic wear, shorts, and sneakers are not appropriate. Body piercings (with the exception of earrings) are also discouraged. Fellows should consider their attire, but attention to dress should never compromise patient care.

In a similar fashion, hair should be well groom and clean. It should not interfere with eye contact between the doctor and patient, nor should it create a distraction or potentially impair safety. Men should appear clean-shaven or maintain a well-groomed beard and/or moustache.

The program director may grant exceptions to some of these rules on a case by case basis to accommodate established cultural or religious practices.

Cardiology faculty will have the authority to request that a fellow change their attire if they feel it inappropriate based on the above criteria.

Communication

E-mail is the official means for transmission of information within the division of cardiology and between the College of Medicine Dean's Office/Director of Housestaff Records and all fellows. All fellows have an electronic mail box in the UAMS e-mail system and are members of the COMHS Group distribution list maintained by the Director of Housestaff Records. **Each fellow is responsible for regularly checking his/her e-mail (at least every 3rd business day).**

It is imperative that Fellows are able to be reached when necessary. The primary point of contact between the outside world and Fellows are the Cardiology offices at UAMS and the VA and the Fellowship Coordinator's office at UAMS. These offices receive calls regarding everything from consult requests to personal communications. They must be able to reach the Fellows and pass this information on within a reasonable period of time. They also disseminate pertinent reminders and information to assist the Fellows in both the educational and administrative requirements of their position. When more immediate communication is necessary, Fellows will be called or paged. Sometimes, circumstances dictate that a Fellow cannot return a call or page immediately, but an effort must be made to return calls and pages in a timely manner. Timely is defined as within 1010 minutes. Arrangements can be made with staff to answer pages during procedure intensive rotations. If a piece of hospital-provided communication equipment is not working properly, notify us immediately so steps can be taken to repair or replace the equipment.

Call

The Chief Fellow determines night and weekend coverage schedules. Generally, first and second year fellows take call every 8th night. Third year fellows provide back-up for first year fellows on call for at least the first half of the year or until the first year fellows meet the expectation of call for at least the first half of the year or until first year fellows meet the expectations of call. Call schedules are typically published two weeks prior to the start of each month. The cardiology office should be made aware of any changes in the call schedule.

While on call fellows are responsible for the following:

- Field all phone calls to the cardiology service
- Evaluate and write a note on all emergency consults
- Evaluate and write a note for all admissions to the CCU service
- Provide assistance in the care and management of all cardiology patients as requested
- Perform or assist in all emergency cardiology procedures
- Provide follow-up information to the appropriate services in a timely fashion.
- Receive and give handoffs to the appropriate services at the beginning and end of call.

Two cardiology faculty members will always be available to assist the on-call fellow as necessary. The non-invasive faculty member will field most of the calls, unless the issue involves or potentially involves an invasive procedure. A faculty member should be notified of all CCU admissions and emergency consults within an appropriate time frame. He should also be notified of any serious changes in the status of patients on the cardiology service or at any time a fellow has questions regarding the management of a problem referred to him.

Fatigue and Duty Hours

The program director will insure that fellows are aware of the signs of fatigue and the approach to a fellow with excessive fatigue. If any cardiology fellow or faculty member identifies a fellow who shows signs of fatigue sufficient to impair patient care or is significantly fatigued, the fellow is to report it to the chief fellow or the program director so that appropriate coverage can be arranged. If a fellow should experience significant fatigue while on call, they should notify the back-up fellow to take the remainder of the call. If such occurrences are more than occasional, the issue will be brought to the fellowship committee to determine the need for changes to prevent excessive fellow fatigue.

The cardiology program takes the issue of duty hours seriously. Each fellow must get an average of 1 day a week free from program responsibilities. Furthermore, the average workweek should never exceed 80 hours (when averaged over month). The fellow should immediately notify the program director if these limits are in danger of being exceeded.

Moonlighting

Moonlighting is a privilege and all fellows must have the Program Director's signed approval for all moonlighting activities. This approval must be obtained each year of the fellowship. This applies even to activities for which the fellow may receive no monetary compensation. This privilege may be revoked if fellows are unable to meet the demands of the program. The policies for moonlighting are established and set forth in the GME Committee policy manual. Because duty hour requirements extend to all work done inside or outside our educational institution, the total number of hours worked in and out of the program must average less than 80 hours per week.

Leave Requests

Fellows receive 15 business days of paid vacation each year, which cannot be carried over from one year to the next. Every effort should be made to take this leave during rotations that do not require back-up coverage by a fellow. The yearly rotation schedule will be developed to accommodate as many of the leave requests as possible. Every effort should be made to take this leave during rotations that do not require back-up coverage by a fellow. The yearly rotation schedule will be developed to accommodate as many of the leave requests as possible. A leave request form must accompany all requests for leave. Generally, vacation requests should come in 1-week blocks. The program director must grant special permission to any leave request greater than 1 week in duration, those involving travel outside the country, or those requested during the last month of the academic year. All vacation leave requests should be complete and available for the program director's signature 3 months prior to the proposed leave.

Professional Leave

Time spent taking Internal Medicine Board Exams or attending approved educational activities will not be counted against vacation time. There are 2 major cardiology meetings every year, the American Heart Association meeting in November and the American College of Cardiology meeting in March. In general, fellows will be given a stipend to assist in expenses given to attend one national meeting each year, if available. All approvals for educational leave are subject to the approval of the program director.

Sick/Parental Leave

Fellows have twelve days of sick leave (including weekend days) for medical reasons during each year of training (cannot be "carried over"). Sick leave in excess of twelve days requires special review by the Assistant Dean and Program Director. Family Medical Leave (paid and un-paid) may be granted to care for a newborn child or seriously ill spouse, child or parent. If the total vacation and sick leave exceeds 1 month for any year in training, the ABIM requires an extension of the training to compensate for the loss of time in the training program. If the total vacation and sick leave exceeds 1 month for any year in training, the ABIM requires an extension of the training to compensate for the loss of time in the training program.

Pregnancy

Accommodations will be made to limit radiation exposure to any fellow who are or may be pregnant. It will be the responsibility of the fellow to notify the program director of this possibility. At that point, the program director will modify the fellow's responsibility to appropriately limit radiation exposure. Such a modification may impact the duration or content of fellow's training.

Scholarship leave

In order to provide time within the fellowship for completion of the scholarly activity, fellows will receive 4-5 days of leave from rotational duties. These days fall in the period of decreased clinical activity around the Christmas and New Year's holidays. Only under special circumstances these days may be reassigned to a different time of year at the program director's discretion. These days are not counted against annual leave as they are viewed as work days.

Other Benefits, Terms, and Conditions

Financial Support

Stipends for residents and fellows are competitive with other institutions in the southern region. The PGY-4 level stipend for 2011-2012 is approximately \$ 51,454.

Drug Testing Policy

UAMS has developed a drug testing policy, which includes all incoming fellows. The policy requires that all housestaff (interns, residents, fellows) accepted into a training program at UAMS submit to a drug screening. Employment (or acceptance for the training program) will be finalized only upon completion of negative drug screen. The test should be taken before July 1.

Liability Coverage

The University of Arkansas for Medical Sciences, through the Medical College Physician's Group, provides each resident with medical professional liability coverage for their activities within the residency/fellowship program. The coverage is written on a claims-made basis. Each resident/fellow is provided coverage in the amount of \$500,000 per medical incident with an annual aggregate of \$1,000,000. In addition to the limits of liability, the cost of legal defense is also provided. Hence, each resident/fellow is protected against claims for medical negligence for acts and/or omissions surfacing as a result of their UAMS COM approved activities. The coverage provided does not extend to activities outside the residency program. For this reason, **any resident involved in moonlighting activities should secure his/her own professional liability coverage** for the outside activities. For more information on Risk Management and Prevention contact the Faculty Group Practice Risk Management Department at 614-2077.

Medical, Dental, and Life Insurance

Fellows are eligible for medical, dental, and life insurance. Contact the Office of Human Resources for options at 686-5650.

Laundry

White lab coats are provided at the beginning of the academic program for the entire residency period. The department provides laundry service. Laundry is picked up on Tuesday's and Friday's; coats must be placed in the laundry basket in the Cardiology office on Monday or Thursday evenings.

Counseling/Psychological Support Services

The Employee Assistance Program (EAP) provides professional counseling and/or referral to community resources for a wide range of problems and situations including stress management, financial concerns, alcohol and other drug abuse, elder care, job/career issues, parenting, legal issues, marital/family problems and personal/emotional concerns. UAMS has prepaid the entire cost of the program so that the fellow is not required to make any contribution within the EAP. However, if the fellow is referred to a community resource, that person will be responsible for the cost. For further information please go to: <http://www.uams.edu/aeap/>

Employee Health/Student Preventive Health Services (EH/SPHS)

The EH/SPHS provides the MMR vaccine, an annual TB skin test and chemoprophylaxis medication if indicated following blood or body fluid exposures for residents/fellows. All residents/fellows must have a TB skin test annually while in the program.

International Medical Graduates (IMG)

Visas are handled through the Office of Human Resources (OHR). Phone 501-686-5650. The OHR also provides an International Medical Orientation Handbook which contains useful information about the US and Arkansas culture. Training programs may assign incoming residents/fellows a mentor within the department who assists with the acclimation process.

Restrictive Covenants

Fellows in programs sponsored by the UAMS COM are not required to sign any type of non-competition guarantee.

Closure/Reduction

In the event that the College of Medicine and/or the Program Director decide to reduce the number of fellowship positions in any program, the fellows will be notified immediately. An attempt will be made to reduce the number of positions over a period of time so as not to affect the fellows currently in the program. If this is not possible, the Program Director will assist the fellows in obtaining a position in another fellowship program.

Cardiac Life Support Certification

Fellows must maintain a current ACLS certification. Each fellow must supply the date of current certification to the program coordinator.

Annual Records and Requirements to Continue in a Training Program

Prior to the beginning of each academic year, each fellow must complete the Annual GME Survey; the Physician Health Questionnaire; the Attestation about policies and procedures; the annual Agreement of Appointment and return these to the Director of Housestaff Records by the designated date (usually June 1 prior to the start of the academic year on July 1). Fellows who return the forms and complete the Annual GME Survey by the deadline will receive the increase in stipend for the next PGY level with the first paycheck at the new PGY level. Fellows who do not complete the survey by the deadline will not receive the increase in stipend. This procedure will remain in effect until the fellow completes the survey, then the increase in stipend will be effective in the subsequent pay period.

Use of Records for Educational Research

Many UAMS COM faculty members and staff are engaged in on-going efforts to monitor and improve the undergraduate and graduate medical school curriculum. In addition, our accrediting agencies expect us to assess ourselves on an on-going basis and participate in the community of scholars sharing what has been learned. The public dissemination of knowledge is one of the responsibilities of our profession. To this end, such things as test scores, faculty and preceptor ratings, clinical skills and other performance-based assessments, and follow-up surveys and evaluations will be analyzed to address such questions. If the information is released publicly, it is only released in an aggregated form to maintain confidentiality. Individual students and residents/fellows are not identified. Personally identifiable information is kept confidential, and the privacy of students and residents/fellows is protected to the maximum extent allowed by law. If you have any questions concerning this policy, please contact the Associate Dean for Graduate Medical Education.

Sexual Harassment and Anti-Discrimination

The University of Arkansas for Medical Sciences is committed to providing an academic and employment environment that fosters excellence. Harassment, racism and discrimination subvert this mission and will not be tolerated. All students, residents/fellows, physicians and other staff and employees shall abide by the institutional policies.

UAMS Drug-free Awareness Statement & Practitioner Health Questionnaire

At the beginning of the program, all fellows receive the UAMS Drug-free Awareness Statement and acknowledge receipt by signing the receipt form and returning it to the Director of Housestaff Records. All fellows must complete the Practitioner Health Questionnaire and return it to the Associate Dean for GME. This questionnaire is updated yearly at the time of contract renewal. Questionnaires are confidential. Questionnaires with concerns are reviewed by the UAMS or ACH Medical Staff Health Committees, which recommend a plan of action/follow-up for the fellow and reviews this with the respective program director and departmental chairperson.

Resident Organization/Resident Council:

All residents/fellows are automatically members of the Resident Organization. The leadership body is the Resident Council. The Chair and Vice-Chairs of the Resident Council are peer-elected and represent the Resident Organization on the Graduate Medical Education Committee.

Signs and Symptoms of Fatigue or Impairment

Signs and symptoms of impairment may include, without limitation, the following:

1. Physical signs such as fatigue, deterioration in personal hygiene and appearance, multiple physical complaints, accidents, eating disorders.
2. Disturbance in family stability or evidence of personal or professional relationship difficulties with resulting isolation.
3. Social changes such as withdrawal from outside activities, isolation from peers, embarrassing or inappropriate behavior at parties, adverse interactions with police, driving while intoxicated, undependable and unpredictability, aggressive behavior, argumentative, or unusual financial problems.
4. Professional behavior patterns such as unexplained absences, spending excessive time at the hospital, tardiness, decreasing quality or interest in work, inappropriate orders, behavioral changes, altered interactions with other staff, inadequate professional performance or significant change in well-established work habits.
5. Behavioral signs such as mood changes, depression, slowness, lapses of attention, chronic exhaustion, risk taking behavior, excessive cheerfulness, flat affect.
6. Signs of drug use or alcohol abuse such as excessive agitation or edginess, dilated or pinpoint pupils, self medication with psychotropic drugs, stereotypical behavior, alcohol on breath at work, uncontrolled drinking at social activities, black outs, binge drinking, changes in attire (e.g., wearing of long sleeve garments by potential drug users).