



CARDIAC CARE

FOR NURSES, NURSE PRACTITIONERS, CLINICAL NURSE SPECIALISTS *and* PHYSICIAN ASSISTANTS

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The PA Component to the CCA Team

By Gregory L. Ehle, M.M.Sc., PA.-C

Physician Assistants, who comprise some 25 percent of the CCA membership at the ACC, have been a quiet group up to now, but much of this issue is devoted to introducing the physician assistant member of the cardiac care team.

Physician assistants serve in just about every capacity in cardiology. They work in the cardiac care unit, the cath lab, the electrophysiology lab, the outpatient clinic and the operating room. PAs frequently play a role in cardiac procedures, serving as first assistants during invasive procedures, such as open heart surgery.

PAs also contribute to patient care. They see patients, write orders and prescriptions, admit and discharge patients, dictate, and take



David Schneider, M.D., and Greg Ehle take a break to have their photo taken by Prospero B. Gogo, M.D.

calls. Some of the duties are similar to those of nurse practitioners and other providers on the cardiac care team; some are distinct to PAs.

► **Ehle continued on next page.**

Taking Cardiac MR from Novelty to Practice

By Heather M. Ross, M.S., A.P.R.N., N.P.

Adult congenital heart disease (CHD) represents an emerging population of patients requiring specialized cardiovascular care. One of the many challenges in caring for adult patients with congenital defects is how to adequately assess complex cardiac anatomy and function. The most common means of noninvasive evaluation in the pediatric CHD population is transthoracic echocardiography. In the adult population, however, limited acoustic windows often result in inadequate imaging of right-sided structures critical to the evaluation of CHD. For this reason, many consider cardiac MR as a supe-



Heather M. Ross

rior means of imaging cardiac anatomy and function in adult patients with CHD.

At St. Joseph's Hospital and Medical Center in Phoenix, as elsewhere, MR is still a novel imaging technology for cardiovascular applications and is rarely considered as a first-line examination. In working to integrate cardiac MR as a standard modality for evaluating our adult CHD patients, we have a radiologist and pediatric cardiologist who both have extensive experience with cardiac MR and CHD expertise. With this team, we are now using cardiac MR in initial evaluations of many adult CHD patients and for ongoing surveillance to trace disease progression and to determine the need for surgical intervention.

► **Ross continued on next page.**

Member News



CCA member Sandra Keavey was installed as the new Vice President/President-Elect for the Association of Physician Assistants in Cardiology at APAC's annual meeting in June 2005. ■

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Ehle (continued from cover)

The relationship between P.A. and cardiologist is complementary. While the cardiologist focuses on the intervention, the P.A. works to modify risk factors, teach new behaviors and translate medical terminology into a language that patients can understand.

The supervising cardiologist helps to shape patient interactions, provide guidance on clinical decisions and give structure to patient care that the cardiac care team members carry out. P.A. licensing requires a supervising physician. While P.A.s enjoy some autonomy within this relationship, having a cardiologist's guidance provides security and support.

The relationship is also a two-way street because most hospital and clinic staff would prefer to call the P.A. for routine issues instead of bothering the cardiologist.

The training and hard work that goes into completing a cardiology fellowship and becoming a cardiologist cannot be replaced, but it can be put to more effective use with a cardiac care team, which includes the P.A.

Gregory L. Ehle is with University Cardiology Associates, Fletcher Allen Health Care, Burlington, Vt. ■

Ross (continued from cover)

Currently, cardiac MR is not a standalone modality for evaluating most congenital lesions. Most of our patients still undergo routine transthoracic echocardiography as part of initial and surveillance evaluations, due in large part to the ease of access and interpretation of these studies. Diagnostic catheterization is commonly used for preoperative evaluation of pulmonary arterial pressures, coronary artery anatomy and potency.

The use of cardiac MR is limited by the presence of an implanted pacemaker or ICD for many adult CHD patients. However, an increasing body of evidence suggests that cardiac MR may be safely used for patients with implanted devices.

Given its superior imaging quality, MR may become the primary modality in imaging CHD in the adult patient.

The keys to expanding the applications of cardiac MR include increasing awareness of adult CHD providers, as well as access to scanning equipment and experienced operators.

Ross is nurse practitioner and program coordinator, Adult Congenital Heart Program, St. Joseph's Hospital and Medical Center, Phoenix. ■

Supporting the First Fiddle

By Jeffrey Fox, P.A.

Many P.A.s successfully conduct diagnostic Cath with precision and low procedural comorbidities.

As a Cardiothoracic P.A., I read CINEs on a daily basis to familiarize myself with the anatomy of the pending procedure and to help attending surgeons triage the distal target sites. Technology that allows less invasive studies may help cardiologists practice better. For example,

the P.A. could obtain the CT/MRI and report the findings to the attending physician to facilitate the next procedural step.

Certainly, having P.A. team members work with the new modalities maximizes the cardiologist's time per patient. Supporting the cardiologist meets the P.A. goal, which is to sit second fiddle and support the first fiddle, the cardiologist.

Fox is chief P.A., Midwest Heart Surgery Institute, Milwaukee, Wis. ■

Cardiac Imaging Modalities: How P.A.s Can Help



Mark S. Lombardo, P.A.
Geisinger Medical
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The growing use of imaging modalities gives cardiac care team members additional tools to assist cardiologists in taking care of patients and opens the door for professional growth for physician assistants. A review of available literature reveals that the concept is not unprecedented.

The issue of using P.A.s to perform coronary angiography was evaluated by DeMots et al in March 1987. The study evaluated physician assistants and cardiology fellows and determined that differences in complications and procedural times were not statistically significant between the two groups.¹ The study demonstrated that using physician assistants to perform cardiac angiography was

a viable option.

In "Cardiovascular Magnetic Resonance Imaging"² the authors allude to P.A.s participating in cardiac stress testing during an MRI by writing, "It is important that a physician or other designated staff (such as a nurse practitioner or physician assistant trained in cardiac MRI image interpretation) continuously review the images acquired during pharmacologic infusion for any evidence of ischemia."

What all of the advances in imaging modalities have in store for P.A.s and other cardiac care team members has yet to be adequately determined. However, with the rapid growth among modalities, one can imagine the potential for abundant professional growth. ■

¹ DeMots H, Coombs B, Murphy E, Palac R. Coronary arteriography performed by a physician assistant. *Am J Cardiol.* 1987;60:784-787.

² Darry SN, O'Neal J, Wesley-Farrington D, Davis AD, Link KM, Hundley G. Cardiovascular magnetic resonance imaging. *Prog Cardiovasc Nurs* 2004; 19(2):60-67.

Knowing Where to Get Started



Jonathan E. Skillings, P.A.
VAMC, Baltimore, Md.

The question of using mid-level practitioners to interpret cardiac images is a timely one. Actually, I am undergoing echo training using the ACC guidelines as a basis at this time. Fellow colleagues are looking for training opportunities and information about reimbursement.

It certainly seems that imaging modalities offer a potential growth area for P.A.s. Physician assistants perform many thousands of stress tests and routinely interpret ECGs, and not many years ago, those tests were considered to be for "physicians only." I also believe that interpretation of

nuclear cardiology studies is another potential growth area.

However, Cardiac CT and MRI are so new for most practitioners that P.A.s should probably not start with them. I do believe that having mid-levels perform some of these tasks as part of the Cardiac Care Team is beneficial in that it frees up the cardiologist to see patients and perform invasive procedures.

I think that the issue must be addressed from many angles including training requirements and availability of training, measures of continued competence and methods of quality assurance, medicolegal aspects and unfortunately, but perhaps most important, reimbursement issues. ■



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Discover Imaging and Cardiosource



Suzanne Hughes

By Suzanne Hughes, M.S.N., R.N.

The new ACCF/AHA Clinical Competence Statement on Cardiac Imaging with CT and MR is completed. This long anticipated statement, developed in collaboration with multiple professional organizations, summarizes the requisite knowledge and skill requirements to perform and interpret

these new cardiovascular diagnostic procedures.

In addition to outlining recommended standards for cognitive and technical skills and issues around radiation exposure, this paper provides a clear and comprehensive review of each of the new imaging modalities and their application(s) for clinical practice.

Cardiovascular computed tomography (CCT) and cardiovascular magnetic resonance (CMR) are complex, dynamic areas about which patients and the public are likely to have many questions and concerns. For this reason,

nursing professionals and physician assistants will want to review the document closely.

New Free Cardiosource

If you haven't done so yet, go to <http://www.cardiosource.com> and take a few minutes to "discover" the new premium Cardiosource that is available free to all ACC members. Check out the daily *Heart Health News* items, listen to Expert Opinions, review Case Studies and clinical trials, search *JACC* Online and of course, review the complete Clinical Competence Statement on Cardiac Imaging with CT and MR in *JACC* Online or on www.acc.org.

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To the Cardiac Care Team



Ellen Langrehr

The American College of Cardiology has approved a new abstract category for the 2006 Scientific Session, scheduled March 11 – 14 in Atlanta. The new category, "Innovative Models for Practice, Education or Research," will feature abstracts including but not limited to —

- measurement of patient outcomes
- quality of life measures
- complementary health practices
- identification of cost-effective interventions
- delivering cost-effective health care
- behavioral aspects of cardiovascular health and disease

Priority will be given to submissions that demonstrate a team-based approach to cardiac care or those that include nonphysician professionals.

Carolyn Lekavitch, N.P., Duke University, and I are cochairs of this category. We will be working with

Robert Harrington, M.D., F.A.C.C., and a multidisciplinary team of six reviewers.

Abstracts may be submitted from Aug. 31, 2005, through Oct. 5, 2005. From Oct. 19 through Nov. 2, reviewers will read and score each abstract in a blinded fashion. A report will then be generated with the average grade of each abstract. The best abstracts will then be selected, and the ASSPC will decide on an oral or poster format for each.

All accepted abstracts will be published in a special *JACC* supplement in February 2006.

I encourage you to submit an abstract in this exciting new category. Please contact Carolyn (lekav001@mc.duke.edu) or me (ealangre@wisc.edu) if you have any questions or suggestions.

Ellen Langrehr, R.N., A.C.N.P., C.C.R.N.
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