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From the President

BOT Actions
Recognize Member Needs

With the swirl of issues surrounding us, such as health care reform, physician payment formulas, economic recovery and more, it is sometimes hard to remember that our primary focus as physicians is our patients. This month’s cover story deals with a special group of patients — the elderly — and the cardiovascular (CV) professionals who have chosen to focus on the unique needs of this growing population.

Combining the marvels of modern medicine with the surge of aging baby boomers, we face an elderly population that is living longer than before, and because most of them have multiple comorbidities, they will challenge all physicians. In addition, as the article’s author, Daniel E. Forman, M.D., F.A.C.C., points out — most of them will end up in a cardiologist’s office at some point. Typical aging changes do increase the likelihood of their having some form of CV disease, if not more than one form.

The article, however, is not just about the elderly population. It is also about the CV professionals who have added expertise or sensitivity to the various issues of aging and who also wish to work with others and share their knowledge to improve the care of the growing elderly population.

In March, the ACC Board of Trustees (BOT) voted to establish the ACC Geriatric Cardiology Council and Section. By creating this group, these specialists will be able to expand their knowledge, develop education programs and work to incorporate some sensitivity to care of the elderly in guidelines and other documents. A packed turnout at an ACC.09 session to introduce the new teaching program, “Essentials of CV Care in Older Adults,” proved that this is a timely decision.

ACC.09 was an exciting time for two other ACC membership groups — the Cardiac Care Associates and the International Committee. The BOT established the Cardiovascular Team Council and Section (CVT), which comprises CCA members in good standing. CCAs who qualify also now have a professional designation — Associate of the American College of Cardiology or AACC. Finally, for the first time, a CCA member, Eileen Handberg, Ph.D., A.R.N.P., received the designation of FACC.

The BOT has also established the new International Council and Section, thus formalizing the process first begun with the International Committee, and in April, ACC’s first international Chapter in Malaysia was formed. Look for more details in the June issue.

These really are exciting moves for ACC membership. The formation of the ACC Councils and Sections enables specialty groups to build stronger networks, provide advice and recommendations to the BOT, share information with each other and create education tools for their colleagues in other specialties. ACC Sections are not separate entities but, instead, are an integral part of the ACC. By strengthening the individual units and meeting their needs, we make the whole stronger and are able to do an even better of providing quality care to our patients.

Alfred A. Bove, M.D., Ph.D., F.A.C.C.
ACC President

MAY 2009

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New MACCs Recognized for ACC and Professional Contributions Help Select the College’s Future Leaders

Cover Illustration by Julia Green
We are all aware of the aging Baby Boomer population — we probably hear about them several times a week in terms of potential health care costs and/or anticipated shortages of health care providers. In addition to the surge of Baby Boomers who are getting older, the average survival rate among the elderly is longer. Far-reaching successes in management of myocardial infarction, sudden death and many other diseases translate into more people living into their 80s and sometimes 90s or beyond.

Based on studies conducted by the ACC, we anticipate workforce shortages of cardiologists. Yet the implications for caregiving are even more significant when one considers the unique demands of providing care to an older community. As a function of age and cardiac risk factors that accumulate over a lifetime, most elderly have cardiovascular (CV) disease as well as multiple comorbidities that compound the complexity of CV management choices. Prevalence of myocardial infarctions, heart failure, arrhythmias, hypertension and strokes all increase as a function of aging. Not only is this generating increased demand for standard CV diagnostic and therapeutic procedures, but more typically than not, confounding issues of fragility, comorbidity, polypharmacology and socioecon-omic stressors make these choices more complicated than for younger cardiac patients.

While many assume that geriatricians are best suited to respond to such complex age-related challenges, they are not necessarily a viable option. Not only is there a notorious shortage of geriatric clinicians, but many patients also associate a stigma with going to a geriatrician. This shouldn't be a surprise because, unlike many societies that value old age, we live in a society that values youth. Many older patients actually steer away from geriatricians because they don't want to think of themselves as aged and may even go out of their way to avoid geriatricians.

Why CV Caregivers Are Important
Cardiologists actually hold a unique position when it comes to the aged. Typical aging changes in the heart, arteries, kidneys and other vital organs — along with typical occidental lifestyles — increase age-related susceptibility to CV disease. As a function of living into their senior years, most people end up in a cardiology office. If CV caregivers have added expertise or sensitivity to the various issues of aging, we can provide better and more comprehensive care for our elderly patients.

I know many of us feel that we are already sensitive to aging issues and that we have a handle on what we need to know. However, anecdotally, I hear from many patients that they feel their doctors are not sensitive to all their morbidity issues and age-related vulnerabilities and do not seem to routinely account for related risks in their treatment strategies. I can provide a simple example of an elderly patient with no prior cardiac history, who had a small surgical procedure. Her physicians administered IV fluids in a manner that, although routine for a younger person, proved overwhelming for this older patient. She developed heart failure — for the first time in her life — which led to a prolonged hospitalization, new onset atrial fibrillation, confusion and a related fall.

ACC Takes Steps to Advance Knowledge
All of ACC’s CV professionals — physicians, nurses, physician assistants and pharmacists — now have an important opportunity to improve the care of our growing elderly population. In acknowledgment of its importance and to advance the field
of knowledge, the ACC Board of Trustees recently established
the ACC Geriatric Cardiology Council and Section.

The Council's goal is to grow and share knowledge that
enhances caregiving for the elderly. Advocacy and increased
clinical proficiency to respond to the needs of seniors are
other key objectives. The Council does not envision replacing
caregiving or leadership roles of others in the CV community,
but rather, it wants to help increase and standardize our sensi-
tivities and responsiveness to the needs of an aging population.

Interestingly, the ACC recently released a teaching
program, “Essentials of Cardiovascular Care in Older Adults
(ECCOA).” The program was funded by the Hartford
Foundation to improve orientation of cardiology fellows
to geriatric cardiology. During a seminar at ACC.09 to
introduce this new curriculum, the packed audience consisted
primarily of seasoned clinicians and academics, pointing
to an obvious need and interest that extends well beyond
trainees. The Council expects to provide this kind of program
and resources to the broader ACC membership. Similarly,
Karen Alexander, M.D., F.A.C.C., and others using the
NCDR® registries have already been generating many insights
regarding better treatment of STEMI and NSTEMIs for
older patients, and their work has catalyzed many related
research projects and clinical enhancements.

The Council does not expect to be isolated from the
rest of the College. If we are doing our job right, we will be
interfacing with all members, focusing on broad issues of
diagnostics, therapeutics and advocacy. To achieve our goals,
we hope to draw from all of the College’s CV professionals
and also from clinicians in the non-cardiology community
who focus on geriatric issues, such as neurologists, nephrolo-
gists, anesthesiologists and, of course, geriatricians.

Within the College, electrophysiologists are already
considering aging dynamics pertaining to device and proce-
dures for atrial fibrillation and sudden death. Likewise
surgeons are grappling with aging complexities pertaining
to valvular disease, coronary artery disease, and procedural
efficacy (anesthesia, post-operative management, etc.). The
Geriatric Council hopes to build synergy with these efforts.

Incorporating Standards of Care

For now, it remains conspicuous that the extensive ACC/
American Heart Association clinical guidelines rarely consider
standards of care that apply to the special issues related to the
aged. In fact, most studies and guidelines are based on data
collected from younger cardiac patients. For example, many
landmark heart failure studies enrolled patients specifically
selected to exclude confounding comorbid diseases. Yet, heart
failure among the elderly is particularly likely to include issues
of renal disease, coronary artery disease, depression and other
complicating conditions. Since prevalence of heart failure soars
as a function of aging, it is critical that guidelines address the
issues that are particularly relevant to the elderly patients we
really treat.

The Geriatric Cardiology Council is in its infancy and
is just beginning to mobilize. We look forward to working
with all of you and hope to attract broader participation of
caregivers who share this interest. A College-wide solicitation
for participation is about to be distributed. In the
meantime, anyone with interest is invited to contact
Stephanie Mitchell at smitchel@acc.org.

Forman, who is chair of the new ACC Geriatric
Cardiology Council, works in the cardiovascular division
at Brigham and Women's Hospital and the VA Boston.
ACC Addresses Relationships with Industry

Recently, there have been a number of proposals to dramatically reduce or eliminate industry support for the activities of medical professional societies. In April, an article published in the *Journal of the American Medical Association* called for medical associations to sever most funding from industry, with the exception of journal advertising and exhibit hall fees. The Institute of Medicine released a report April 28 that also addresses this topic. The ACC joined several other medical professional societies in issuing a joint statement on this report. The following serve as a reminder of ACC’s long-term actions on conflict of interest and industry relationships:

- The ACC takes a stringent approach to ensuring responsible, transparent relationships in which industry support has no influence on educational content, quality measures or scientific research.
- The ACC adheres to Accreditation Council for Continuing Medical Education standards for industry support of educational content.
- The ACC discloses all funding sources on our Web site, [www.acc.org/about/overview/overview.htm#SECS](http://www.acc.org/about/overview/overview.htm#SECS), in a unique effort to be as transparent as possible.
- Members of guidelines writing groups disclose any relevant conflicts of interest (for themselves and their immediate family) in writing and verbally at the beginning of each and every meeting. They recuse themselves from votes on issues involving their conflicts.
- The College publicly displays the disclosures of our Trustees, Governors, Committee Chairs, and members of guidelines and clinical document committees on [www.acc.org](http://www.acc.org).
- There is a strict separation between ACC fundraising staff (who work directly with industry) and education staff (who develop educational content). Industry supporters never influence the content of ACC Foundation educational programs or products.
- The College eschewed an estimated $5.5 million in industry sponsorship for lanyards, portfolio bags and more at our 58th Annual Scientific Session in Orlando to avoid the appearance of inappropriate influence by industry at our most important educational and scientific event of the year.

The ACC is leading the way to professional standards for relationships between medical professional societies and industry. Read more on [www.acc.org](http://www.acc.org).
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The primary strategy Medicare currently uses to hold down costs associated with new technologies or procedures is to limit coverage and payment through either a national (NCD) or local coverage determination (LCD). Both NCDs and LCDs outline specific criteria that must be met before Medicare will pay for an item or service.

In making their decisions, the Centers for Medicare and Medicaid Services (CMS) and its local contractors examine peer-reviewed, published evidence to determine if the services or items under consideration meet pre-specified criteria. Covered services or items must improve health outcomes, be safe and effective, and meet a benefit category specified by federal statute; however, they cannot be investigational or experimental. CMS policy favors services or items with expansive scientific data demonstrating health benefits.

Clinical trial data, guidance documents and post-market data are crucial to establishing or expanding beneficiary coverage.

NCD or LCD?

Most coverage determinations are made by CMS’ local carriers. LCDs typically address coding updates, laboratory test results or similar factors. The carriers’ chief medical officers craft the LCDs with input from their Carrier Advisory Committee of physicians and other providers, as well as public comment. With the final LCD, carriers issue a supplemental instructions article that provides coding or other guidelines. Physicians must apply the article and LCD to properly submit claims for reimbursement.

NCDs are less common, tend to be more restrictive and usually are established when regional practice patterns vary greatly or robust clinical evidence does not exist. Unlike LCDs, anyone can request that CMS open an NCD, which may be reviewed multiple times as scientific evidence evolves. CMS solicits public comments when it opens an NCD and after it posts its draft decision memorandum. Decisions can result in coverage, coverage with restrictions or noncoverage.

ACC’s Role

ACC members, often in tandem with other societies, review national and local policies to ensure appropriateness and provide clinical references demonstrating medical necessity. When a draft policy could unreasonably restrict patient access, ACC submits comment letters with literature references and requests policy modifications to include all appropriate indications, patient groups, guidelines or model LCD language. The ACC also communicates informally with CMS and carriers to discuss practice patterns, coding changes, coverage and claims issues.

For example, CMS announced in December 2007 its proposal to limit Medicare coverage of Computed Tomographic Angiography (CTA) to only those instances where CTA is used as part of an ongoing clinical study meeting certain standards set by CMS. The ACC worked as part of a multi-society effort to successfully oppose CMS’ decision.

When local coverage varies extensively or carrier guidance is unclear, the ACC sometimes will request opening an NCD for clarification, although CMS may resolve ambiguity by issuing a determination that narrows coverage further than existing LCDs. ACC members balance this risk with available clinical evidence when requesting improved coverage for their patients.

Future Trends: Seeking More Evidence

It is expected that more NCDs could be opened around high-cost procedures where evidence is limited regarding the cost-benefits of their use. More “coverage with evidence” decisions are also likely. For example, the CMS decision on CTA may be short-lived and revisited. We, of course, want to do the right and best thing for patients, which may mean more studies.

In addition, the ACC is actively supporting comparative effectiveness research, particularly around diagnostic imaging, in order to meet CMS’ and other policy makers’ requests for evidentiary data. Understanding the comparative effectiveness of various cardiac imaging and diagnostic tests could help target the use of these beneficial technologies better and help inform policy decisions related to their use. The ACC continues to monitor national and local policy proposals closely to determine their impact on members’ practices, and to identify areas where ACC insight can improve coverage determinations made by CMS and others. For more information on coverage decisions, please contact Gretchen Wyatt at gwyatt@acc.org.
The Government Accountability Office (GAO) this month is expected to release a final decision on the controversial process that awarded contracts to 15 private companies to administer Medicare on the local level. The companies, called Medicare Administrative Contractors (MACs), are part of a program begun in 2003 to improve care delivery within Medicare by reducing variations in coverage and increasing efficiency in claims processing. However, problems have arisen with its implementation, which was supposed to be completed by October 2011, but the program has been under a federal stay since early 2009.

Transition Challenges

Under the program, MACs are chosen through a competitive bidding process, with the goal of significantly reducing the number of contractors needed and streamlining the program. MACs combine previously existing Medicare contractors: fiscal intermediaries that processed Medicare Part A claim and carriers that managed Part B administration. Their key responsibilities include: processing and adjudicating provider claims and appeals; establishing local coverage policies in the absence of national coverage policy; and implementing all Medicare transmittals, coding edits and policy guidance.

While the MAC transition has progressed smoothly in some areas, in others it resulted in contractors that had administered Medicare in a state or region for years being replaced by lower-bidding companies without local experience or institutional knowledge of established local practice patterns. This has resulted in lengthy delays in claims processing and payment challenges in adapting to new administrative practices and frustration with local coverage determination (LCD) review processes. For example, in Jurisdiction 1 (consisting of California, Nevada, Hawaii and the Pacific Territories), the transition from National Heritage Insurance Corporation to Palmetto GBA, based in South Carolina, has been slow and difficult because of a significantly heavier administrative burden and delays in claims processing.

In addition to the logistical challenges, physicians also must determine how they, as local practice experts, can provide formal guidance to and work informally with MAC officials to address budding administrative concerns or the impact of proposed coverage decisions. Formerly, Part B contractors maintained carrier advisory committees (CACs) in each state to advise on coverage policy, but it has yet to be determined whether MACs will combine state CACs into regional or state committees.

Next Steps?

The GAO’s decision this month will determine whether CMS will be required to rescind the most recent awards, make modifications to the program, redo the bidding process or take no action.

Meanwhile, the ACC continues to engage with national CMS officials to alert them of conflicts in the transition process. In addition, members of the ACC Carrier Advisory Committee (CAC) communicate regularly with their respective contractors on provider issues and cardiovascular-relevant LCDs. This committee is also working with ACC chapters to seek rational coverage policies and strengthen relationships with MAC medical directors in order to avoid an escalation of problems to the coverage determination level.

Cardiovascular professionals are encouraged to play an active role in the transition by strengthening communications with medical directors about how proposed changes may affect their ability to practice medicine. Successful transitions have involved solid working relationships that allowed for informal problem solving.

More information about the MAC in your area is available at: www.cms.hhs.gov/MedicareContractingReform.
Coding Alert: NCCI Corrects Echo ‘Add on’ Codes

On April 1, the National Correct Coding Initiative (NCCI) removed its restriction on billing the echocardiography “add-on” codes (CPT 93320 and 93325) together. The NCCI accepted the ACC recommendation to remove the coding edit retroactively and permit medical providers to bill these codes with the appropriate echocardiography CPT code during the same visit on the same day.

The College advises its members and office practices to resubmit any claims on or after Jan. 1, 2009, that were denied for using CPT 93320 and 93325 together. For more information about coding changes for 2009, see “The ACC 2009 Guide to Cardiology Coding and Payment Changes” available online at www.acc.org, under “Advocacy.”

+ 93320 Doppler echocardiography, pulsed wave and/or continuous wave with spectral display (List separately in addition to code for echocardiographic imaging)

+ 93325 Doppler echocardiography color flow velocity mapping (List separately in addition to code for echocardiographic imaging)

FTC Reprieve on Red Flags Rules

The Federal Trade Commission (FTC) has further delayed implementation of new “Red Flags” rules aimed at preventing identity theft until August 1, thanks to efforts by the ACC, the American Medical Association (AMA), Medical Group Management Association (MGMA) and other medical associations. The groups have challenged the inclusion of physicians as “creditors” because they regularly defer payment for goods and services.

The FTC released rules in November 2007 requiring all financial institutions and “creditors” to develop and implement a written program to protect consumers by identifying potentially suspicious “red flags” that may signal identity theft. The ACC and others had successfully delayed the implementation until May 1. The ACC is taking advantage of this newest reprieve to continue efforts to have physicians removed from the “creditor” definition.

In the meantime, the ACC recommends that practices begin preparing a written identity theft detection and prevention program that complies with the new rules as a contingency plan. The AMA, MGMA and MedAxiom have developed Red Flags Rule guidance documents and sample policies that can be modified, which can be accessed via their Web site. Visit ACC.org for more information, or contact Gretchen Wyatt at gwyatt@acc.org.

ACC Signs Joint Letter on PTA of Carotid Artery with Stenting

The ACC, Society for Cardiovascular Angiography and Interventions and Society for Vascular Medicine recently responded to the Centers for Medicare and Medicaid Services’ (CMS) request for expedited reconsideration of coverage for PTA of the carotid artery concurrent with stenting. The letter urged CMS to expand its coverage policy to allow carotid artery stenting (CAS) in patients who are at increased perioperative risk for carotid endarterectomy (CEA) complications due to currently defined anatomic and comorbid factors and who have either symptomatic CAS of 50 to 99 percent or asymptomatic CAS of ≥80 percent.

The letter states that there is compelling scientific evidence justifying this expansion, thereby making the coverage expansion reasonable and necessary. The ACC anticipates CMS will release their proposed decision memo by July 2009 and will comment again at that time.
The main problem with communication is the assumption that it has occurred.
— George Bernard Shaw

As the medical community challenges patients to be more involved in their care, we need to improve our communications with them and ensure that we are educating our patients effectively. Studies have shown that patients who have higher levels of health literacy have better outcomes because they are more compliant with health instructions. For example, 23 HF patients with low health literacy received a low literacy education booklet as part of a three-month disease management program. Patients had pre- and post-knowledge tests. After the intervention, 100 percent of the patients reported weighing daily compared to 32 percent originally, and there was a mean improvement of 9.9 points on the Minnesota Living with Heart Failure scale.

Another example references a study cohort of 588 hypertensive patients, 78 percent of whom lacked adequate knowledge of their disease at baseline. The nurses caring for these patients approached the issue with tailored feedback and education. Of the 200 patients who were not adherent with their medications at baseline, 46 percent became adherent after a six-month education program compared with 34 percent of the control group (p = 0.08).

There are two ways to approach targeting health care communication at an appropriate level. One is to test and evaluate literacy levels and educate based on need. The other assumes that for everyone, communications should be communicated on a 4th to 6th grade level.

Improving Written Communications

The health care community is a “written” community, and practitioners often see it as the patient’s responsibility to read and understand the materials they are given. However, practitioners need to use materials that are developed from the viewpoint of the patient. This means setting realistic objectives for written materials, focusing on specific behaviors and skills that can improve outcomes and including an interactive component.

It is not surprising that when instructions are difficult to read, patient non-adherence is higher. Interestingly, the converse is true. With easy-to-read materials, patient adherence improves and — even among patients with high literacy skills — patients remember better and make fewer mistakes.

Writing easy-to-read patient communications begins with following some simple planning steps and good writing and format guidelines. First, you must define your audience — their age, gender and culture. What is their literacy level and what about their readiness to learn? It also helps to include a few patients in the planning and writing stages.

Determine your objective with this communication. Is it to explain heart failure or coronary artery disease? It is a good idea to limit the objective(s) and the message and create several smaller communication pieces. Decide on some minimum objectives and then list the topics that must be included to reach that objective.

While you are still in the planning stage, think ahead to the writing and production phases. Is the end product going to be a booklet, audio, video or multimedia product? Will you want to use a story format or a question-and-answer technique? Consider some examples that you could use to explain difficult words or concepts.
Also, in what way can you make this interactive? Maybe you could consider using patient testimonials?
Consider also these other basic writing guidelines —

- Use short sentences of no more than 15 words
- Write in active vs. passive voice, for example, “Take your medicines with your meal” instead of “Medicines should be taken at mealtime.”
- Repeat important information
- Summarize the important points at the end

Format and layout also play an important role in making a communication easier to read. Take a look at the suggestions in Figure 2 on creating a reader-friendly format.

Final Notes on Education and Communication

At an ACC.09 session, “Challenges in Health Communications,” ACC President Alfred A. Bove, M.D., Ph.D., F.A.C.C., discussed the importance of education as motivation for better outcomes. There are two types of patients, he said. One just follows orders and is not engaged while the second absorbs new information easily and seeks additional information.

He discussed a Temple University study to evaluate the effect of Internet-based communications systems for disease management. He found that the more engaged patients, who monitored their conditions and communicated regularly with their physicians, had better outcomes.

Engaged patients are typically those who search for additional information on the Internet. In the same session, Elizabeth Klodas, M.D., F.A.C.C., discussed the Internet’s role in the physician-patient relationship and the unnecessary complexity it can add if patients pick up incorrect or misleading information on the Internet. Physicians need to discuss appropriate Web sites with their patients and guide them in their selections.

To help counteract the online misinformation, the ACC launched CardioSmart, an online patient education portal. Klodas is the editor in chief. The goal is to enhance the physician-patient encounter by providing targeted information and providing self-management support. She stressed that the site is an adjunct to care and intended to ease the communication burden on providers. It is not a substitute for care. For more information and to see the new “Health Tracker: Blood Pressure” tool, visit CardioSmart.org.

Fletcher is clinical associate professor, School of Nursing, University of North Florida Jacksonville. Hughes is director, patient and community education and research, Robinson General Hospital, Ravenna, Ohio.

References

Several states this year have passed or are considering imaging-related bills. Below is a summary of the legislative activity in Arkansas, Connecticut, New Mexico and Washington.

**Arkansas**
An interim panel of the Arkansas General Assembly is considering a bill (H.B. 1108) that would permit only radiologists to perform MR, CT and PET diagnostic imaging and radiation therapy — before convening for its next regular session in February 2010. During the regular session, which ended April 9, the bill was withdrawn from consideration by its sponsor in the state House Public Health, Welfare and Labor Committee because a majority of the panel's members opposed it. The ACC's Arkansas Chapter worked closely with the state medical society to have the bill withdrawn. Both will continue to work together by presenting evidence to the interim panel showing the negative effects of limiting access to imaging.

**Connecticut**
The Connecticut Senate soon will consider a bill (S.B. 1047) that would require the technical component of MR, CT or PET procedures performed under leasing arrangements to be billed either directly to the patient or to a third-party payer. The legislation also requires direct physician supervision of the personnel performing the procedure. The ACC's Connecticut Chapter has contacted the chair of the Senate Public Health Committee in support of the bill, but articulated concerns around possible floor amendments that could change the bill's intent. The Connecticut State Medical Society (CSMS) opposes the bill. Following the bill's passage, it will be sent to the Conn. House for consideration.

**New Mexico**
New Mexico Gov. Bill Richardson (D) on April 6 signed into law the Medical Imaging and Radiation Therapy Health and Safety Act (H.B. 498). This law mandates licensure for MR technologists, diagnostic medical sonographers, nuclear medicine technologists, radiographers and radiation therapy technologists. It also requires continuing education credits as a condition for licensure renewal and creates a medical imaging and radiation therapy advisory council. The law represents a significant step toward ensuring quality patient care and imaging safety by mandating minimum standards of education, training and continuing education for diagnostic imaging technologists and radiation therapy technologists. The New Mexico Chapter will work with ACC and stakeholders to ensure that the rulemaking process and the appointments to the advisory committee protect patient quality and imaging safety.

**Washington**
Washington Gov. Christine Gregoire (D) is expected to sign into law a bill (H.B. 2105) that would set quality standards for MR, CT and PET imaging tests and cardiac nuclear medicine services. If signed, the bill creates a stakeholder workgroup charged with identifying evidence-based guidelines for advanced diagnostic imaging by July 2009, to be implemented by state-purchased health care programs beginning September 2009. The bill also would require the adoption of accreditation procedures for advanced diagnostic imaging as mandated by the Medicare Improvements for Patients and Providers Act of 2008, a provision strongly supported by the ACC. The bill was passed by large margins in both the state House and Senate.

**State Advocacy Critical, BOG Chair States**
Board of Governors Chair John Gordon Harold, M.D., F.A.C.C., discusses the importance of state advocacy on ACC's online forum, The Lewin Report. Harold writes — “ACC chapters work together with the ACC to pursue critical state legislative initiatives, such as maintaining access to office-based imaging, ensuring appropriate STEMI care, championing health advocacy and promoting public safety.”

He gives an example from his home chapter of California on how partnerships can lead to legislative victories. Read the post in full at lewinreport.acc.org.
Senate Releases Policy Options Document

The Senate Finance Committee last month released the first in a series of policy options for health care reform. The document “Transforming the Health Care Delivery System: Proposals to Improve Patient Care and Reduce Health Care Costs,” addresses short- and long-term payment reform options and infrastructure investments to support delivery system reform. The committee is expected to release similar proposals addressing coverage and financing this month, with the goal of receiving input from the Senators and the public, including the physician community, before crafting a bipartisan health reform plan for the committee to act on in June. Highlights of the document include —

**Sustainable Growth Rate (SGR) Options**
The paper outlines options for a multi-year Medicare physician payment patch but no long-term reform. It states that the committee is continuing to explore physician payment options. The ACC will continue to advocate for a long-term solution to the flawed payment formula. Under the options proposed, physicians would face significant payment cuts following two years of positive updates.

**Physician Quality Reporting Initiative (PQRI)**
The paper proposes improvements to the PQRI, including an appeals process and more timely feedback. It also proposes a new maintenance of certification participation option, as well as options for continuing incentive payments for the next few years, followed by penalties for failure to successfully participate. While the ACC supports improvements to the PQRI program and continued incentive payments, there are serious concerns about imposing penalties under the current program.

**Imaging**
The paper proposes several new options to reform how imaging is delivered and paid, including:
- requiring disclosure to patients at the time of a referral about any financial interest in certain advanced imaging services
- establishing a diagnostic imaging exchange
- creating a confidential education and feedback program
- providing incentive payments based on adherence to appropriate use criteria
- using radiology benefit managers (RBMs) for certain imaging services.

The ACC supports efforts to help physicians order imaging appropriately but has significant concerns about the use of RBMs in the Medicare program.

**Primary Care and General Surgery Bonus**
The paper proposes bonuses of at least 5 percent for five years for primary care physicians, as well as for general surgeons serving in newly defined rural general-surgery-scarcity areas. This would be paid for by across-the-board cuts for all other codes or from other funding sources. The ACC supports efforts to bolster primary care but does not support doing so by cutting payment for other critical Medicare services.

**Quality Measurement**
The paper proposes providing increased resources for strengthening and improving the quality measurement and development processes and requiring the Secretary of Health and Human Services to develop a strategy for improving the public reporting of quality and performance information.

**Specialty Hospitals**
The Finance Committee policy options paper proposes limiting the growth of specialty hospitals. The ACC opposes efforts that undermine physicians’ ability to operate specialty hospitals; we support physician ownership in facilities, equipment or services that benefit patients through the delivery of appropriate, high quality, medical care.

**Physician-Industry Sunshine**
The paper proposes setting a plan for transparency in the relationship between physicians and manufacturers.

**Other Issues**
- Timeline for rolling out new policies related to bundling and re-admissions
- Options for addressing the workforce crisis
- Timeline and policy options for allowing groups of providers to share in Medicare cost-savings
- Long-term framework outlining national priorities for comparative clinical effectiveness research

The Finance Committee is accepting public comments on the document through May 15. The ACC will submit comments. The ACC continues to work with members of Congress and their staff to ensure that any draft legislation will strengthen, not hinder, the ability of practices to provide quality care to their patients. For more information on the ACC’s health reform efforts, visit qualityfirst.acc.org. You can also share your thoughts on this proposal at the ACC’s online forum, “The Lewin Report” (lewinreport.acc.org).
A New Era for Cardiac Care Associates

By Margo Minissian, A.C.N.P.-B.C., M.S.N.

Since its inception in 2004, the ACC’s Cardiac Care Associates (CCA) community has shown exceptional growth. Initially, it comprised registered nurses, nurse practitioners, clinical nurse specialists and physician assistants who are engaged in the treatment and management of cardiovascular medicine. In 2008, clinical pharmacists were also welcomed to this specialized group. From that small group of 100 to 150 members in 2004, the CCA community has grown to more than 4,000 members.

The original leaders on the CCA Committee worked hard with the College leadership to develop ideas and education initiatives that would meet the needs of all the members of the cardiac care team. CCA members have always attended the Annual Scientific Session, but in recent years, CCA members have sat on the Annual Scientific Session Program Committee, made presentations during the meeting and guided the development of and participated in the Cardiac Care Team Spotlight.

In Spring 2008, the College surveyed the CCA membership to further assess their needs and determine what the next steps might be for this vibrant community. The survey results helped to stimulate two important transitions for the CCA community.

First, it was apparent from the survey that the CCA members wished to have an official member designation that recognized their education and national board certification. To that end, a work group was formed to research and develop an appropriate designation. In December 2008,
Meet Eileen Handberg, ACC’s First Nurse F.A.C.C.

More than 300 new Fellows were admitted to the ACC at the 58th Annual Convocation at ACC.09 in Orlando, and among them was the first nurse to receive the F.A.C.C. designation — Eileen M. Handberg, Ph.D., A.R.N.P. and now — F.A.C.C.

When she was interviewed after the ceremony, Handberg applauded the great opportunities that the College extended when it opened membership to nurses, nurse practitioners, physician assistants and pharmacists. She noted that bringing these disciplines together has added a new breadth of knowledge, expertise and perspectives on patient care to the College.

Handberg is associate professor of medicine in the division of cardiovascular medicine at the University of Florida (UF) in Gainesville. She served as the UF principal investigator for the National Heart, Lung and Blood Institute (NHLBI)-sponsored HF-ACTION trial and is a co-investigator of the National Institute of Health Women’s Ischemic Syndrome Evaluation Study. She recently completed a four-year term as chair of the Nurse Education Committee (NEC) for the ACC. During her time as NEC’s first chair, the NEC launched the Foundations for Practice Excellence: Core Curriculum for the Cardiovascular Clinician course and published the Scope and Standards of Practice for Cardiovascular Nursing, which was drafted by a task force of 16 nursing organizations focused in cardiovascular nursing and led by Handberg.

The CVT Section's goals will be to provide a point of identification and forum to engage associated health care professionals who already are key members of ACC.

Table 1

<table>
<thead>
<tr>
<th>AAAC Candidate Qualifications</th>
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<tr>
<td>State licensure and a nationally recognized board certification</td>
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<tr>
<td>Majority of their professional activities in cardiovascular (CV) disease</td>
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<tr>
<td>Three (3) sponsorship letters from current F.A.C.C. members, representing different institutions</td>
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<tr>
<td>Once A.A.C.C. qualifications are established, two peer-sponsorship letters</td>
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<tr>
<td>Employment in practice that is primarily (at least 75 percent) CV-focused</td>
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<tr>
<td>At least five years in CV practice</td>
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<tr>
<td>Two years as a CCA member</td>
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<tr>
<td>At least 12 hours of CV-related CE/CME/CEU credit hours annually</td>
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<tr>
<td>Membership in ACC’s Cardiovascular Team Section</td>
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The work group presented the designation of Associate of the American College of Cardiology (A.A.C.C.) to the ACC Board of Trustees (BOT) for approval. The A.A.C.C. designation is now official for CCA members who meet the initial criteria as seen in Table 1. The complete application process for A.A.C.C. is still being formulated and will be available later in the year.

In addition to the A.A.C.C., CCA members who are researchers and/or professors and hold doctorate degrees may qualify as a Fellow of the American College of Cardiology. Eileen M. Handberg, Ph.D., F.A.C.C., is the first CCA member to advance to Fellow of the American College of Cardiology.

The second step taken by the BOT was to move the CCA membership into a new, official section and council — the Cardiovascular Team (CVT) Section and Council. Through the CVT section, the ACC will provide the opportunity to reach out via education, science, research, quality and advocacy with programs and work groups for this membership. As with other ACC sections and councils, the CVT Council will report directly to the BOT.

The CVT Section’s goals will be to provide a point of identification and forum to engage associated health care professionals who already are key members of ACC. This will be done by encouraging educational opportunities and the advancement of quality initiatives that reinforce patient care and improve the outcome efforts of the College.
Colorado Chapter Holds Health Care Reform Forum

Forty Colorado Chapter members and health care leaders met on April 2 to discuss health care reform issues during a forum held by the ACC Colorado Chapter. The event was intended to empower local leaders and chapter members to participate in health care reform discussions by providing participants with the background knowledge needed to advocate successfully for change. Attendees included FACCs, Cardiovascular Team (CVT) members and practice administrators, as well as representatives of the Colorado Medical Society, Colorado Osteopathic Society and University of Colorado.

Reform Issues
Chapter President Eugene Sherman, M.D., F.A.C.C., began the evening with a presentation on the existing political realities in health care reform at the state and national levels. The realities present themselves as not only medical challenges, such as professional liability, but also as political challenges that will only be overcome by tremendous activism on the part of dedicated medical professionals, Sherman said.

ACC CEO Jack Lewin, M.D., spoke about the current system of health care delivery and the importance of meaningful, high-quality reforms. After his presentation, members held a candid discussion with Lewin to discuss their concerns for future health care reform.

“The discussion inspired many members in the audience to become more involved in the Chapter,” Sherman said. “Membership is more excited and motivated now than in any time in recent memory.”

Media Success
The Chapter expanded its educational efforts beyond forum attendees — taking its health care reform message to the general public as well. An audio recording outlining the College’s health care reform principles, the importance of reform and how it relates to Colorado was aired on 39 radio stations in the state, reaching 325,000 listeners. In addition, an opinion piece by Lewin appeared in the Denver Post, available at denverpost.com/opinion.

PAC Effects
The forum also served to increase participation in the ACC Political Action Committee (PAC). Several members at the forum contributed to the PAC, which will assist the College in supporting candidates who are committed to developing sensible health care policies. Nineteen Chapter members have donated to the PAC, and the Chapter is one of the top participants in the PAC’s new “$1,000 from 1,000 Doctors” campaign.

For more information on the ACC’s health care reform efforts, visit qualityfirst.acc.org. For information on the PAC, go to www.accpacweb.org.
New ‘Twinning Program’ Builds Bridge with United Kingdom

Under a three-year partnership agreement between the American College of Cardiology Foundation (ACCF) and the British Cardiovascular Society (BCS), the California Chapter of the ACC (CA-ACC) recently launched a pilot “Twinning Program” aimed at building relationships between cardiovascular professionals in the U.S. and the U.K.

The Twinning Program, which was formally launched in March at the ACC’s Annual Scientific Session in Orlando, is focused on fostering the exchange of knowledge between the CA-ACC and BCS through three main areas: education, journals and short-term “observerships.”

“This is an amazing opportunity to begin forging stronger relationships and sharing best practices with our cardiovascular colleagues abroad,” says ACC Board of Governors Chair John Harold, M.D., F.A.C.C. “There have been positive collaborations between U.S. and U.K. cardiologists in the past, but this formal partnership allows for even greater sharing of experiences and ideas.”

According to Harold — who played an instrumental role as past ACC governor of Southern California and as a member of the ACC’s International Council in the creation of the pilot — the program provides free access to member materials on the BCS Web site, as well as reduced or complimentary registration fees to CA-ACC and BCS educational programs and meetings. BCS and the CA-ACC will be able to contribute and have access to each other’s journals and newsletters.

The program also provides unique opportunities for institutional visits, lecture tours and mini-preceptorships in the U.S and the U.K. The ACC-BCS Fellowship in Cardiovascular Imaging will be part of the program and is designed as a cooperative training experience between Cedars-Sinai Medical Center and the Royal Brompton Hospital in London.

“It is hoped that this program will result in further ‘twinning’ between ACC Chapters and other international cardiovascular societies,” says Harold. “Greater collaboration will allow us to learn from each other and collectively benefit patients around the globe.”

For more information on the “Twinning Program” and the CA-ACC, visit www.caacc.org.
ACC Member Sections Grow and Take on New Initiatives at ACC.09

ACC.09 proved to be an exciting time for member sections and councils. Section membership provides a unique opportunity for participation in the College because it allows members with a specific clinical or professional interest to network with colleagues who have the same interest. Section members are able to discuss, identify and advance professional priorities together, and their work supports the progress of the College’s initiatives. At ACC.09, each Section met and shared perspectives on health system reform, quality and new initiatives within their specialty.

ACPC Expands Activities
The Adult Congenital and Pediatric Cardiology (ACPC) Member Section made some important decisions at their ACC.09 meeting. They agreed to expand the work group charge for Adult Congenital Heart Disease (ACHD) to include outreach to general cardiologists and will also include a general cardiologist in the work group to support the initiative.

Their meeting also included breakout sessions to discuss their group strategy for quality, health system reform and issues within the ACHD/Pediatric Cardiology specialties. As part of these breakouts, eight teams from the quality metrics workgroup presented new metrics proposals in topic areas across pediatrics. Most notably, the ACPC Section confirmed initiation of the new McNamara Lectureship series at ACC.10. The first McNamara Lecture will be given by Charles E. Mullins, M.D., F.A.C.C., from the Baylor College of Medicine, Houston, Texas.

Interventional Council Works on Two Themes
The Interventional Council’s ACC.09 meeting centered on two major themes: quality and collaboration. More than 160 interventionalists attended the meeting and heard updates on existing initiatives in addition to other College initiatives that will affect the Section members. Rick Nishimura, M.D., F.A.C.C., chair of the Lifelong Learning Portfolio work group, told attendees of the College’s work with the American Board of Internal Medicine on maintenance of certification (MOC) and discussed the role simulation can play in MOC. Attendees also learned about the College’s efforts to foster a mutually beneficial relationship between surgeons and interventionalists with E. Murat Tuzcu, M.D., F.A.C.C., and John G. Byrne, M.D., F.A.C.C., leading the discussion.
Other Highlights Related to Member Specialties

Other highlights from ACC.09 included the formation of the Practice Administrator Advisory Work Group, which was established to help the College meet the needs of its practice administrator members. More than 120 practice administrators attended ACC.09 sessions directed at meeting their needs. In addition, a White Paper on Practice Integration, Management Contracts and Hospital Integration was developed and distributed.

Additionally, the ACC Board of Trustees (BOT) approved a new professional designation offering for CVT members. The new designation, known as Associate of the American College of Cardiology, or A.A.C.C., will recognize registered nurses, nurse practitioners, clinical nurse specialists, physician assistants and pharmacist members who are board-certified nationally. (See pg. 14)

To encourage further participation by CCAs, the Chapter Liaison Work Group also met to discuss CCA recruitment and event activity at the chapter level.

CCA Members Reach New Milestones

The ACC’s CCA membership passed two major milestones at ACC.09 on their way to becoming fully integrated members of the College. The first marker was the formation of the new Cardiovascular Team (CVT) Council and Section. Through this Section, CCA members will form a collective voice speaking for their interests regarding education, research, promotion and career development. The Section will also ensure that all members of the cardiovascular care team are part of health system reform and quality discussions. Complimentary membership to the Section will be open to current CCAs in 2010.

Additionally, the ACC Board of Trustees (BOT) approved a new professional designation offering for CVT members. The new designation, known as Associate of the American College of Cardiology, or A.A.C.C., will recognize registered nurses, nurse practitioners, clinical nurse specialists, physician assistants and pharmacist members who are board-certified nationally. (See pg. 14)

To encourage further participation by CCAs, the Chapter Liaison Work Group also met to discuss CCA recruitment and event activity at the chapter level.

WIC Section Forms New Initiatives

The Women in Cardiology (WIC) Section hosted a lunch session at which Molly Carnes, M.D., spoke about taking an evidence-based approach to advancing women in academic medicine. The Section also started several new initiatives, one of which was the formation of a radiology safety work group. Later, WIC Section members were able to network and greet new female FACCs and fellows in training at their Section Reception.

FITs Listen to Career Advice

Fellows in training (FITs) at ACC.09 attended a standing-room only career session that included information on starting a cardiology career, passing the boards, selecting a practice and other pertinent information. The FIT Forum, also a popular event, included presentations about career options for FITs. The presentations will be posted on the CardioSource FIT page in the near future.
In the last 18 months, the field of cardiac computed tomography (CT) angiography has witnessed an impressive evolution of “high-end” CT scanners such as —

- Toshiba Aquilion 1 (320 slice) covering 16 cm of anatomy in a single gantry rotation
- Philips iCT (256 slice) with 8 cm coverage and only 270 ms per gantry rotation
- GE HD 750 (64 slice) with 100 fold increase in detector sensitivity, thus improving spatial resolution, reducing calcium blooming and permitting small stent evaluation
- Siemens Definition Flash, 128 slice dual source CT scanner delivering high temporal resolution at doses less than 1 mSv.

Most of these technologies are so recent that we lack clinical data on them and are forced to rely on information and data furnished by the manufacturer. This communication reports on what was presented at ACC.09 but does not comment on abstracts if a similar article has already been published in a peer-reviewed journal.

New Technologies

**Toshiba Aquilion 1**  Several small single-center studies have been reported using this scanner. Dewey et al examined 29 patients with coronary artery disease (CAD) who were referred for chest pain evaluation. In 19 patients, single heart beat CT acquisition was performed resulting in an effective dose of 4.3 ±0.9 mSv. In the other nine patients, because of higher heart rates (above 65 beats per minute), two or three beats were used for acquisition, resulting in an average dose of 16 mSv. The per-vessel sensitivity and specificity were 93 percent and 97 percent respectively. The average amount of contrast used was only 80 ml.

Chan et al examined 47 patients with a mean calcium score of 815. The per segment specificity, sensitivity, PPV and NPV to detect significant coronary artery stenoses were 98 percent, 80 percent, 89 percent and 97 percent respectively. The overall diagnostic accuracy was 96 percent.

This scanner’s technology allows imaging in patients with atrial fibrillation. Hirohata et al examined 87 patients with an average heart rate of 61 ±14 beats per minute. Reconstruction was performed from one cardiac beat in 55 percent of patients, two beats in 43 percent of patients and three beats in 2 percent of patients. There was no relationship between image quality and HR; low image quality was frequently seen with calcium scores over 700.

**CT Stress Perfusion**

All of these studies were performed on Siemens Dual Source CT. This promising approach can provide not only anatomic data but also functional information.

Ruzsic et al examined 10 patients with known or suspected CAD using adenosine dual energy CT (DSCT) and compared this technology with cardiac magnetic resonance imaging.
greater embolic material during SVG intervention. There was a good correlation between larger plaque volumes and embolic debris containing more thrombus and lipid components. Plaques with higher CT density tended to produce less embolic debris and demonstrated less lipidic content.

Halon et al investigated plaque morphology in asymptomatic patients aged 55 to 74 years with type II DM. Obstructive plaque (>50 percent) was less often calcified than minimal or intermediate degrees of non-obstructive plaques. In this patient population, progression of the plaque to the point of a significant luminal stenosis appeared to be caused by mechanisms unrelated to calcium deposition.

In a sub-analysis of the ACCURACY trial, Min et al demonstrated that those patients exhibiting ≥ 5 segments with mixed plaque had an obstructive disease rate of 53 percent, whereas individuals with ≥ 5 segments with calcified plaque did not have any obstructive disease.

Van Werkhoven et al assessed plaque burden and composition as well as the risk of adverse cardiac events in 474 patients. The extent of CAD (≥6 obstructive segments, HR 69) and the extent of noncalcified plaques (≥ 4, HR 47) or mixed plaques (≥ 4 HR, 3.9) were independent predictors of cardiac events, whereas the extent of calcified plaque did not predict cardiac events.

In another study, 77 patients with suspected variant angina underwent coronary CT angiography and ergonovine testing. CT detected atherosclerotic plaques in all coronary spasm sites. The absence of coronary artery plaque with cardiac CT effectively ruled out variant angina. (Kyohei et al)

**CT economics**

Coronary CT angiography (CCTA) was found to be a more cost-effective strategy than SPECT as an initial diagnostic test in clinical practice. For their initial diagnostic test, 913 chest pain patients underwent CCTA, while in 7,246 patients, SPECT was used as the initial diagnostic test. Potentially obstructive disease was diagnosed in 24.6 percent of patients in the CCTA group Thirty percent of the SPECT patients were referred for invasive coronary angiogram. In this specific large cardiology practice, an initial diagnostic strategy for chest pain using CCTA saved $567 over a strategy using SPECT as the initial diagnostic test. (Cole et al)

**Radiation issues**

Branch et al studied prospective triggering in a 64-slice CT scanner using 0–30 percent RR padding, an mA of 600 and a kVp of 120, which resulted in an average dose of 8.6 ± 4 mSv with a sensitivity and specificity for >70 percent lesions on a per-segment basis of 65 percent and 95 percent respectively. Both the radiation dose and the low sensitivity are disappointing and illustrate the challenges with using prospective gating in 64-slice CT systems.

continued on next page
Excellent long-term outcomes following surgery for mitral valve repair have led to efforts to improve repair techniques. Minimally invasive repairs have been described. However, few surgeons report success in making complex repairs due, in part, to the ergonomic difficulties of using long manual instruments and having to work with limited operative precision in the space-limited cardiac chambers.

One method gaining greater acceptance is the use of robotic assistance for minimally invasive surgeries. The da Vinci Surgical System was first approved by the U.S. Food and Drug Administration (FDA) in 2000 for general laparoscopic surgeries. Since then, approvals have expanded to include mitral valve repair and even coronary artery bypass graft surgery.

W. Randolph Chitwood Jr., M.D., F.A.C.C., senior associate vice-chancellor for health affairs and chief of the division of cardiothoracic and vascular surgery at East Carolina University in Greenville, N.C., performed the first robotic total mitral valve repair in the United States in 2000. He was the principal investigator of the FDA trials leading to approval of the da Vinci system in this area.

In computer-assisted, robotic valve repair surgery, a patient is placed on cardiopulmonary bypass via the femoral artery and vein, and then an incision (3 – 4 cm) is made in the right chest. The robotic arms are placed, and a high-definition, three-dimensional camera is inserted.

“It takes you into the operative topography — the surgeon sits at a console, and he or she is essentially walking in Joe’s heart,” said Chitwood. With 10x magnification, it’s easy to look at the subvalvular apparatus, the chords and the leaflets. “You can move chords around very easily,” he said. “It’s a whole new way to think of things; it’s a whole new vista.”

According to Chitwood, the main advantage of robotic-assisted surgery is that the minimally invasive approach leads to less blood loss, shorter intensive care unit stays and faster recovery. Conversely, cardiopulmonary bypass and cross-clamp times are slightly longer than with standard open heart surgery. Overall, his team reports very good results. For example, in one series of 300 patients published in 2008, 98 percent had no mitral regurgitation or only a trivial amount after leaving the operating room.

After training more than 400 surgeons to do these robotically-assisted surgeries, his team estimates that about 5,000 cases have been performed. For those with concerns about the procedure, Chitwood added, “I tell people that the robot does not do the operation — it’s the brain of the surgeon and the hands of the surgeon working through this device, through a new type of armamentarium.”

Lesser et al investigated whether dose reduction strategies have implications on image quality. This report studied three different approaches. In the first group, a pulse window of 30 percent to 70 percent of the RR interval, a kVP of 120s and an mA of 450-850 (adjusted to chest diameter) were used. The average dose in this group was 19.5±7 mSv. In the second group, kVP was decreased to 100 for patients < 85 kg, and the pulsing window was reduced depending on heart rate. This resulted in average radiation dose of 9.8± 5 mSv. In the third group, a weight-based protocol for kVP and injection rate was used. The average radiation dose in this final group was 7.3±4 mSv. The signal-to-noise ratio in the left main coronary artery was equal in groups one and two and was reduced by 30 percent in group three. The contrast to noise ratio, however, was improved by 10 percent in group three compared to groups one and two. The concordance among the CT angiography and invasive angiography readings was similar.

New applications of cardiac CT
Helle-Valle applied multimodality tissue tracking — a novel, automated, pixel-based pattern-matching software that allows quantification of cardiac deformation in post-MI patients. Significant differences were noted in radial strain between remote, border zone and infarcted segments. This is a very promising technique that allows for objective assessment of regional myocardial function.

Mazur and Pelberg are with Advanced Cardiac Imaging, The Christ Hospital, Cincinnati, Ohio.
Wu Named Douglas P. Zipes Distinguished Young Scientist

This year’s winner of the Douglas P. Zipes Distinguished Young Scientist Award, Joseph Wu, M.D., Ph.D., F.A.C.C., is recognized as an extremely productive and innovative young physician scientist. He is also one of the pioneers in cardiovascular molecular imaging.

Wu’s research has shed valuable insights in the fields of cardiac gene therapy and stem cell transplantation. In a seminal paper, he demonstrated the feasibility and reproducibility of imaging gene expression in the heart using positron emission tomography (Circulation, 2002). He later showed that adenoviral-mediated delivery of vascular endothelial growth factor (VEGF) is bound for failure due to the host cellular immune response against the adenoviral vector (Circulation, 2003).

Applying the same PET imaging concept to monitor the pharmacokinetics of gene expression in vivo, he was able to demonstrate that the adenoviral-mediated VEGF gene expression lasted two weeks only and re-administration of the adenovirus at two months did not lead to further gene expression due to host humoral immune response. This study helped explain why clinical phase II and III trials involving cardiac adenoviral delivery of VEGF have so far failed.

Wu and his colleagues have further validated the application of multimodality imaging (bioluminescence, fluorescence and positron emission tomography) of embryonic stem cell transplantation in the heart (Circulation, 2006). Contrary to findings by other investigators showing beneficial effects of embryonic stem cell transplantation, they discovered that these cells can actually cause both intra-cardiac and extra-cardiac teratoma formation.

Thus, their results caution against the indiscriminate transplantation of undifferentiated embryonic stem cells and call for further investigation into the biology, safety and efficacy of stem cell transplantation. To address these issues, Wu and coworkers recently have shown that embryonic stem cells can be successfully pre-differentiated into endothelial cells (ESC-ECs), that these ESC-ECs express mature endothelial cell markers and that these ESC-ECs can improve cardiac contractility following transplantation. More important, cell fate can be monitored by molecular imaging without any evidence of teratoma formation (Circulation, 2007, In press). Wu’s research is both innovative and provocative as it often challenges the conventional paradigm.

Wu received his bachelor’s degree from University of California-Los Angeles (UCLA) and his medical degree from Yale University. He completed a residency in internal medicine at UCLA, and while training there as a cardiology fellow, he also completed his doctoral degree in molecular pharmacology. Wu also trained for two years at UCLA as a fellow in adult congenital heart disease (ACHD). Wu is presently an assistant professor of medicine at Stanford University.
New MACCs Recognized for ACC and Professional Contributions

The designation of Master of the American College of Cardiology (MACC) recognizes long and distinguished service to the ACC. In addition to Immediate Past President, W. Douglas Weaver, M.D., M.A.C.C., three other candidates received the MACC designation at ACC.09. They are —

Kim A. Eagle, M.D., M.A.C.C., is probably best known by many ACC members as a member of the ACC Board of Trustees and as the person who has guided the now-online Cardiosource Review Journal through its many iterations, beginning with the Current Review Journal, during the last few years. However, there are many other outstanding factors in his career that have led to his receiving an MACC designation.

Eagle is a superb teacher whose lectures are uniformly rated extremely high by students. He is able to distill complex data sets into understandable pieces of information that can be assimilated by medical students, internal medicine residents, cardiology fellows and peers in the field of cardiovascular disease.

Published widely, he has been involved with single center, as well as multicenter, clinical trials and has run multicenter registries. He has a reputation as a superb administrator at the University of Michigan Hospitals and Health Centers, where he is Albion Hewlett Professor of Medicine. He has received much recognition for the program he has built there. The MACC recognizes his distinguished career and many contributions to the ACC and the profession.

David Jan Skorton, M.D., M.A.C.C., known as a master clinician, a superb educator, and a creative and productive scholar, has been an FACC for 27 years. During that time, he has served on numerous committees, advisory groups, and task forces.

Skorton is considered one of the pioneers in the care of adolescents and adults with congenital heart disease, establishing one of the first and finest programs in the U.S. While serving as university vice president and president, he remained active in the Adolescent and Adult Congenital Heart Disease Clinic and worked with a medical geneticist to establish the Adolescent and Adult Connective Tissue Disorders Clinic at The University of Iowa. He is now at Cornell University, Ithaca, N.Y.

He an accomplished investigator whose work in cardiology and applications of electrical and computer engineering have increased our understanding of heart disease, including cardiac imaging. In addition, his contributions to improving the care of adolescents and adults with congenital heart disease are especially noteworthy. Skorton is the author of numerous peer-reviewed publications and book chapters, and he edited one of the seminal texts on cardiac imaging.

Nanette K. Wenger, M.D., M.A.C.C., is professor of medicine (cardiology), Emory University School of Medicine;
chief of cardiology, Grady Memorial Hospital, and a consultant, Emory Heart and Vascular Center, Atlanta. She has provided dedicated service to ACC and her profession for almost 40 years, including serving as Governor of the Georgia Chapter and as a member of the ACC Board of Trustees, where she was Secretary. Wenger has also contributed in many other ways to ACC, including serving as ACC representative to the Social Security Administration and numerous other national programs, working on and sometimes serving as co-chair for various guideline committees and task forces.

Her major contributions are probably those that relate to women. She has advocated for women in cardiology and has played a key role in the development of the ACC Women in Cardiology Section and Council. Two awards are actually given in her name to recognize her leadership in this area: The Wenger Award for Service given by Emory School of Medicine and The Wenger Awards for Excellence given by WomenHeart, a national patient-led organization that educates and advocates for women with heart disease. Looking at women as patients, her textbook, *Women and Heart Disease*, is the standard medical textbook on this topic.

Wenger is recognized globally for her outstanding contributions as a clinician and a gifted teacher.

### 2009 ACCF/Merck Fellows

Pictured, left to right, W. Douglas Weaver, M.D., M.A.C.C.; Yolanda Y. Hendley, M.D.; Ivy Ku, M.D.; Neal K. Lakdawala, M.D.; Pam Rajendran Taub, M.D.

### ACCF/Merck Research Fellowships in Cardiovascular Disease and Cardiometabolic Disorders

Four one-year fellowships were awarded to support research in adult cardiology. Preference is given to individuals who have had no more than two years of prior full-time experience either in clinical or basic research. Recipients are expected to pursue a full-time project in clinical research during their year of supported training.

### 2009 ACCF/GE Awardees

2009 ACCF/GE Healthcare Career Development Award winners (l. to r.) Sandeep Das, M.D., M.P.H., and Soo Hyun Kim, M.D.

### ACCF/GE Healthcare Career Development Awards in Cardiovascular Imaging Technologies and Targeted Imaging Agents

Two awards to foster the early research career development of junior cardiovascular faculty in the research area of imaging technologies and targeted imaging agents were awarded. These awards furnish a portion of the faculty member's total salary support.

For more information about the ACC's research award opportunities, please contact Kelli Bohannon in ACC's Member Strategy Department at kbohannon@acc.org.
ACC Goes WWWild Online at ACC.09

The ACC took meeting coverage online in a whole new way for ACC.09, using a variety of online social media tools, such as blogging, Twitter and Flickr, to build community and engagement among meeting attendees and among members unable to attend but still highly engaged.

ACC’s blog, The Lewin Report, featured live coverage from ACC.09. ACC CEO Jack Lewin, M.D., used the blog to discuss new ACC quality initiatives, such as Hospital to Home and the second phase of “D2B: An Alliance for Quality,” as well as meeting highlights and observations. Hundreds of members visited the blog every day to find out the latest news from ACC.09, watch videos from the meeting and participate in interactive polls. Visit The Lewin Report at: lewinreport.acc.org.

Meanwhile, on Twitter, a real-time messaging service, ACC staff “tweeted” about breaking science, important events, media coverage and meeting news. Those connecting through one of three Twitter accounts were kept abreast of up-to-the-minute developments from the meeting and could connect with other meeting attendees.

Completing the online activities was a Flickr account for photographs from the meeting, so those not attending could still see ACC.09’s presence in Orlando. The group, called ACC_09, is still collecting pictures, so please contribute personal photographs if you have them! Simply search for the ACC_09 group, request to become a member and then upload your pictures to the photostream.

The College is looking for more ways to use emerging social media in the future. If you have ideas, suggestions or want to get involved, please contact Emily Zeigenfuse at ezzeigenf@acc.org.

New ACC Newsletter Focuses on Strengthening Practices, Promoting Patient Access

The ACC this month launched a new bi-weekly newsletter, The ACC Advocate, dedicated to providing cardiovascular specialists with regular updates about the College’s day-to-day efforts to ensure a strong practice and provide patients with access to quality care. The ACC Advocate includes “news you can use” regarding key issues like physician reimbursement, medical liability reform, imaging, regulatory and coding changes and much more. The ACC Advocate comes in two flavors — e-mail and fax. To start receiving this newsletter, e-mail advocate@acc.org and provide your first name, last name, e-mail address and/or fax number.

Help Select the College’s Future Leaders

Fellows in good standing are invited to take an active role in the College’s future by submitting their recommendations to the Nominating Committee for the next slate of officers and trustees for the American College of Cardiology (ACC) and the American College of Cardiology Foundation (ACCF). Nominees will be elected at the Annual Business Meeting in March 2010 in Atlanta. The elected officers and trustees may serve in both organizations for the duration of their terms.

Send your recommendations for candidates for the positions of Vice President, President-Elect, and up to four ACC/ACCF Trustees. The Vice President serves a one-year term and traditionally advances to the office of President-Elect. Trustees serve a five-year term.

The process for nominating a candidate, the job descriptions for Officers and Trustees, and the Conflict of Interest policy are available on www.acc.org. The deadline for receipt of recommendations is July 31, 2009.

The Nominating Committee will meet Fall 2009 to consider all recommendations and will then present a slate of nominations to the ACC/ACCF Board of Trustees for approval.

Members of the Nominating Committee are:

James T. Dove, M.D. M.A.C.C. (Chair);
Paul L. Douglass, M.D., F.A.C.C.;
Richard J. Kovacs, M.D., F.A.C.C.;
Howard S. Rosman, M.D., F.A.C.C.;
C. Michael Valentine, M.D., F.A.C.C., and
Stuart A. Winston, D.O., F.A.C.C.

For more information, contact Marthea Wilson at (202) 375-6230 or mwilson@acc.org, with your questions.
As the field of cardiovascular medicine continues to evolve, so, too, does the number of subspecialties that have emerged within its confines. Interventional cardiovascular medicine is one such area where the depth of knowledge and experience required have led to specialized training and certification as clinicians translate the extraordinary technological advances and heightened clinical developments in this field to increased benefits in patient care.

The American College of Cardiology recognized the need for specialized coverage of this new discipline and, in 2008, expanded its family of publications by launching JACC: Cardiovascular Interventions, sister publication to the Journal of the American College of Cardiology. At the same time, the College added a third journal, JACC: Cardiovascular Imaging, to provide in-depth coverage of this important area, too. Both new journals were published initially bimonthly in 2008, but went to monthly publication schedules in 2009.

According to Spencer B. King III, M.D., M.A.C.C., editor-in-chief of JACC: Cardiovascular Interventions, journal circulation now tops 10,000 subscribers, and submissions have been robust, which explains the decision to increase the number of issues published. “The goal is to decrease the time to publication so that once papers are submitted and accepted, we can get them into print as soon as possible.” Currently, the acceptance rate on submitted articles stands at about 15 percent.

The primary focus of the journal is to publish papers “of high academic quality that reflect randomized trials and large registries in studies that have strong clinical application. We’re looking for papers not only from cardiology, but also vascular surgery, cardiothoracic surgery, radiology, neurology and a host of related disciplines,” noted King. King is executive director of Academic Affairs, Saint Joseph’s Health System, and interim president, Saint Joseph’s Heart and Vascular Institute, Atlanta.

The journal also accepts a limited number of pre-clinical papers with strong potential clinical impact as well as comprehensive state-of-the-art reviews. The key qualities sought in a submission are high merit, scientific interest and a novel approach in terms of its findings or what it adds in advancing the field. “We’re really not interested in ‘me too’ articles, articles that simply iterate what has been published before, either in our journal or in other journals,” King said.

Currently about 80 percent of the papers received and accepted by JACC: Cardiovascular Interventions are submitted directly to the journal. Author instructions and other submission information are available at interventions.onlinejacc.org. However, he noted, the three JACC publications are “a family. We’re all housed in the same offices and have the same staff.” This structure allows for greater flow among the journals in terms of consideration of submissions such that “papers that are sent to JACC can, if they are more specialized, be moved over to JACC: Interventions.”
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