



NC Chapter of the American College of Cardiology

Summer Newsletter

June 2010

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NCCACC

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Patent Foramen Ovale

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One fourth of us have a patent foramen ovale (PFO) and the vast majority will never have an associated symptom. However, not all PFOs are benign. PFO can contribute to stroke and other arterial thromboembolic events. In the rare platypnea-orthodeoxia syndrome, it produces substantial arterial hypoxemia upon standing. More commonly, right to left atrial shunting through a PFO can potentiate hypoxemia in the setting of pulmonary hypertension. In addition, some data suggest a potential contribution of PFO to decompression illness in scuba divers and migraine headache.

Paradoxical embolism and stroke

Three quarters of a million people suffer stroke each year in the United States. Even after extensive evaluation, about 16% remain unexplained. Among these patients with cryptogenic stroke, the prevalence of PFO is about 40% to 50%, twice that in the general population. In some of these, the PFO is clearly contributory. In a few patients with acute stroke, echocardiography has demonstrated a large thrombus in transit across the PFO. Based on this observation, it has been hypothesized that many cryptogenic strokes are caused by small emboli that travel across a PFO into the left atrium and then travel to the brain.

Stroke, particularly in a young otherwise healthy person, is obviously a devastating event and, once it occurs, we would like to do everything possible to prevent a recurrence. Treatment options include anti-platelet therapy, warfarin,

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endovascular device closure, and surgical closure. Unfortunately, data on which of these methods provides optimal protection from recurrent "cryptogenic" stroke associated with PFO is not definitive, as we have no randomized trials reported. No devices are currently approved for this use in the United States. When PFOs are closed today in the United States, they are done so either in the context of a trial or with the off-label use of a device approved for another purpose.

There is some observational data that device closure may substantially reduce the risk of recurrent stroke. A review of 10 studies of device closure and 6 of medical therapy totaling 2250 patients found an annual risk of recurrence of 3.8-12% with medical therapy and 0 - 4.9% with device therapy.[i] While these data are suggestive, they are likely substantially confounded by placebo effects, selection bias, and the absence of independently adjudicated outcomes. In an effort to clarify the field, four randomized trials are ongoing: RESPECT (Amplatzer PFO Occluder), PC-Trial (Amplatzer PFO Occluder), and REDUCE (Gore Helex). The CLOSURE-1 trial (NMT Starflex) has stopped enrolling but has not been reported.

Not all PFOs are the same. The French-PFO study followed 581 patients with cryptogenic stroke treated with aspirin and found the risk of recurrent stroke or TIA at 4 years was 4% in patients with no PFO, 2% in patients with PFO alone, and 15% in patients with PFO and atrial septal aneurysm. [ii] In addition to the prominently increased risk conferred by atrial septal aneurysm, other potential factors increasing the risk of recurrent neurologic event are larger PFOs, spontaneous right to left shunting, prominent Eustachian valves, and hypercoagulable states. Thus, PFO alone may carry a small risk of recurrence, but PFO associated with these other risk factors may confer a higher risk.

So, given the present state of knowledge, how should we manage patients with PFO and stroke due to presumed paradoxical embolism? Patients should be encouraged to participate in a randomized trial. Only with completion of these trials will we gain the knowledge necessary to treat this difficult group of patients. Should they not qualify for or refuse to participate in a trial, off-label closure can be considered or patients with recurrent events despite antiplatelet therapy or warfarin and for patients with PFO and associated high-risk features.

Migraine

Migraine headaches affect approximately 27 million people in the United States. Despite a number of effective preventative and abortive therapies, migraine often has a devastating impact on quality of life. Patients and physicians alike are

therefore eager for more effective therapies. Multiple observational studies have demonstrated a PFO in about 50% in migraine patients with aura. This observation led to the theory that vaso-active substances such as serotonin and/or micro-emboli bypass the pulmonary circulation and reach the central nervous system via the PFO, causing migraine.

Several observational studies have suggested significant improvement in migraine frequency in patients undergoing PFO or ASD closure for cryptogenic stroke. Reisman reported a series of 162 patients with migraine who had their PFO closed after a paradoxical cerebral embolism. 56% had complete resolution of their migraines and another 14% had a substantial improvement in the frequency of their headaches.[iii] Another similar study demonstrated resolution or significant improvement in migraine in 76% of patients after closure of PFO or ASD.[iv]

These data were met with great enthusiasm by patients and physicians alike. Unfortunately, a subsequent prospective randomized, sham-controlled, double-blind trial, MIST I, found no benefit of PFO closure with the Starflex device.[v] There was no difference in the primary endpoint of headache cessation and also no difference in the secondary outcomes of headache frequency or intensity. Some questions have been raised about the possibility of incomplete closure of the PFO with the Starflex device used in this trial. Therefore, several industry-sponsored studies of PFO closure to treat migraine are ongoing. In the interim, current evidence does not support closing PFOs as a treatment for migraine.

[i]

Khiary P et al. Transcatheter closure versus medical therapy of PFO and presumed paradoxical embolism. Annals of Int Med 2003; 139: 753- 60.

[ii] *Mas JL et al. Recurrent cerebrovascular events associated with PFO, atrial septal aneurysm, or both. NEJM 2001; 345: 1740.*

[iii] *Reisman M et al. Migraine headache relief after transcatheter closure of PFO. JACC 2005; 45: 493.*

[iv] *Azarbal B et al. Association of interatrial shunts and migraine headache: impact of transcatheter closure. JACC 2005; 45: 489.*

[v] *Dowson A et al. Migraine intervention with Starflex Technology (MIST) trial. Circulation 2008; 117: 1397.*

Reflections of a Female Cardiologist

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As I reflect on the first half century of my life, I recognize formidable changes that we all face in Cardiology. Many in our profession will be wondering if it will be a good time to retire or look at opportunities that involve less patient care. Many Medical Students and Internal Medicine residents will be discouraged from considering Cardiology due to recent reimbursement changes and increasing work demands, which frankly will make the profession less attractive.

To delay the inevitable shortage of Cardiologists with our aging baby boomer population, now more than ever, we need to be proactive in recruiting and retaining our ranks. Now more than ever, we need to get involved, band together, improve our political voice, and in that effort, improve our satisfaction with our profession. It is in our camaraderie and common efforts, we will relive and reinforce why we went into this profession, and find solutions to emerging dilemmas.

Looking at the emerging workforce, an ever increasing number of women are entering medical school and Internal Medicine residencies. It will be as important to encourage women as much as we encourage men to consider Cardiology as a profession. Although many women go through certain delays in their career, such as motherhood, that challenge their ability to speed through their career, I find that our newer physicians in training are used to a different life as well. Float systems and mandatory weekly work restrictions are changing the way our newer physicians see work, which our workforce will need to adjust to. The norm is no longer working till you drop, abandoning your family, and waiting till later for gratification. The key goals are balance, satisfaction, and working for the greater good.

I had quite a different routine earlier in my career. My focus was getting home, raising my child, being a wife, and getting work done. I remember being guilt ridden as a mother, and asked my son if he could forgive me for working all the time and missing so many events in his life. He looked at me and smiled, saying, "Of course, Mom. You have to work hard...you're a Cardiologist!" As my son grew older, I found time to be more involved with our hospital system and Quality Care Initiatives. Being urged by one of my female mentors, I then got involved with the [American College of Cardiology](#), which really has been a great experience. I find greater satisfaction in becoming part of the solution, rather than being a victim of change.

On Being A Doctor

A Family Affair - Revisted

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*Reprinted with permission: Annals of Internal Medicine
2010;152:612-613.*

Friday afternoon clinic was a classic rookie assignment, yet having completed my pulmonary fellowship 16 years ago I hardly felt like a newly minted physician. However, the changing winds of medical economics had shuttered the hospital where I had worked for 13 years and scattered the medical staff. I was fortunate to land at a prestigious and accommodating institution, but my former seniority carried little standing when it came to decisions of clinic space and time. My wife had hoped that someday soon I could change this assignment to be more available for family time on Friday evenings. Friday afternoon clinic did, however, provide an unexpected sense of solace. No matter how frenetic the week had been or how crowded the clinic was, the weekend's respite was within reach. Somehow this made it easier to focus on my patients' issues, along with the knowledge that it was too late to address other work-related concerns. Those would have to wait until Monday.

"Your next patient is in room 19," the clinic nurse informed me. "Stage IV lung cancer and shortness of breath." I reviewed the record and the radiographs. Mrs. Johnson was a 50-year-old nonsmoker with metastatic adenocarcinoma involving the pleurae, bones, and liver who had recently begun receiving chemotherapy. She was referred to me to assess her dyspnea. As the interview and examination progressed, it became clear that her shortness of breath was not caused by a physiologic impairment. The pattern of dyspnea was inconsistent with the pulmonary function test results, CT scan, and physical examination findings, all of which failed to implicate the usual suspects of fibrosis, bronchospasm, pleural effusion, or thromboembolism. I reassured her that her vital organ functions were fine and that the sensation of dyspnea probably reflected a combination of deconditioning from recent treatment and anxiety. Her next question was harder to address.

"Why did I get cancer?"
Earlier in my career I would have interpreted this as a request for a scientific rationale, an explanation of the environmental

and genetic factors that contribute to lung cancer. I have since learned that my interpretation reflected the vain hope of the rationalist that knowledge would lead to comfort. Mrs. Johnson of course was not really asking "Why?" but "Why me?" I internally debated whether to move from the professional to the personal and share what was currently happening in my life as a reply.

One year before I met Mrs. Johnson, my wife was diagnosed with a particularly aggressive form of mantle cell lymphoma. The mean age for this diagnosis is the seventh decade of life; my wife, at age 45, was unfortunate to be on the wrong end of this bell-shaped curve. With a fearlessness driven by the dreams of graduations yet to attend and weddings yet to plan, she selected the most aggressive treatment strategy offered: intensive chemotherapy followed by a myeloablative allogeneic stem-cell transplantation. Nonetheless, her tumor progressed.

As a rule, despite working at a cancer center, I did not share this information with patients, believing that the optimal practice of medicine required objectivity and some patient-physician distance. Besides, whereas many details of my medical school training are patchy recollections at best, I still at least remember the general content of my courses-and none of them focused on when or whether to share personal details with patients. However, I already had crossed this boundary a few months before Mrs. Johnson's visit during a telephone call I had placed to the wife of a patient who had died after complications of a lobectomy of the lung. He had had an early-stage tumor, good lung function, and no significant comorbid conditions but nonetheless died of acute respiratory distress syndrome shortly after surgery. His wife was inconsolable and angry, unable to comprehend how such a tragedy could happen. The more I tried to explain that acute respiratory distress syndrome occurred as an unpredictable event without a clear precipitant in a small proportion of patients undergoing chest surgery, the more distraught she became.

Finally, I briefly mentioned my wife's illness and offered commiseration, saying that although I could not fully understand her current pain, I was particularly sympathetic to her distress, as I was facing the possible loss of my own spouse. Immediately her tone softened, the anger subsided, and the conversation ended with her promise to keep my wife and family in her prayers. I subsequently discussed this exchange with a colleague and asked his opinion as to whether it was acceptable as a physician to bring one's home life into the workplace. "It depends less on what you say than

why you are saying it," he replied. He elaborated that sharing a personal experience was appropriate as long as the goal was to provide therapeutic benefit for a patient rather than to accommodate a physician's need to vent. I felt Mrs. Johnson's question opened a door for me to step inside.

I discussed my wife's illness with Mrs. Johnson. I explained to her that my wife never questioned why she had developed this terrible disease. Instead, she was content to ask the inverse: Why shouldn't she be afflicted with terminal cancer? She would rhetorically muse: What made her unique, blessed, or particularly deserving, such that she should be immune to the misfortune that others faced? Of course, she knew in her heart that her life had no greater intrinsic value than anyone else's. And with this deft frame shift, she put the question of "why" immediately behind her, enabling her to focus her energies instead on the "how." How could she beat this disease? If she couldn't beat it, how would she impart meaning to her remaining days? And, most important, how could she ensure that our 4 children at home understood the life lessons she wished to share before dying?

In the end, my wife succumbed to her cancer, but it never defeated her spirit. She found meaning in her days by reveling in the details of life all around her: the sitcom escapades and soap-opera dramas of our children's school lives, my work successes and struggles, the dynamic repartee that existed with her siblings and friends, and her loving relationship with her mother. When hospitalized, my wife would remember the names of not just her nurses and physicians but also transport orderlies, x-ray technicians, and food-service personnel. And not just their names, but whether they had families and, if so, what were they up to. I thought naively that this was her way of currying favor with the people on whom her life depended-that she was more likely to obtain palatable food if she befriended the dietitian or that the physical therapy service would work harder to prevent muscle atrophy if my wife chatted up the therapist. My wife gently corrected me when I suggested this as her motivation. "No," she said simply. "I just want to capture the color of life around me." Being welcomed into the lives of even casual contacts fueled my wife's passion to continue her own story. Finally, as for teaching our children meaningful life lessons, this was accomplished years ago. Observing my wife facing death was simply an extension of how she approached life- both were object lessons in setting goals and striving to achieve them while demonstrating selflessness; steadfastness; courage; love; and, perhaps most notably, grace under fire.

Having breached the divide between the professional and the personal by sharing my wife's outlook with Mrs. Johnson, I wondered whether she benefited from the telling and felt at all less burdened by her own misfortune. I was not comfortable posing this inquiry, but an answer was forthcoming nonetheless. As is my custom at the end of a clinic visit, I asked Mrs. Johnson if she had any further questions. "Just one," she replied, both tearful and thankful. "Can I give you a hug?"

Special thanks to NCCACC member, Dr. Robert Haber of Sanger Heart and Vascular Institute who is his brother.

Disclaimer: the American College of Physicians is not responsible for the accuracy of the translation.

Medicare Update

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In the 15 years during which I have served as the ACC representative to the Medicare carrier advisory committee, there has never been a time when Medicare issues have had more importance for our members.

Sustainable Growth Formula

Virtually all physicians are currently concerned with the recurrent emotional trauma engendered by Congress by the manner in which they have handled the sustainable growth formula and a potential 21% reduction in Medicare payments for all services valued in RVUs. Since June 1, this decrease in reimbursement has theoretically been in effect; however, the Centers for Medicare and Medicaid (CMS) have deferred implementation due to expected congressional action. That grace period will expire on June 18. The House of Representatives has already voted to delay application of the sustainable growth formula until 2011 with plans for modification of the SGF concept prior to that date. They also have proposed a 2.2% increase in payments to start on July 1 of this year. The Senate has yet to act, but hopefully will do so prior to June 18.

Nuclear Cardiology and CT Scanning

Cardiologists who perform outpatient nuclear stress testing and CT are well aware of draconian decreases in payment for these procedures that were implemented on January 1 of this year. CMS has announced an error in calculation of the fees for this calendar year and has proposed an increase in payment. For a typical nuclear stress test involving both rest and stress imaging, additional compensation of approximately \$60 is expected. CIGNA, the North Carolina part B carrier, has no further information about when this change is to be effected, whether it will be retroactive and what action, if any, will be required of physicians in order to receive it.

Recovery Audit Contractor (RAC)

The RAC program has been initiated in North Carolina with contractors visiting many hospitals in the state. To date nearly all attention has been directed to institutional billing. Recoveries have primarily been based upon technical errors, such as incorrect diagnostic codes, and inadequate documentation. There has been no indication that significant audits of physicians are likely in the near future.

Provider Signatures

CMS in its infinite wisdom has determined that inadequate attention has been paid to the manner in which documents have been signed during the past 50 years. Accordingly, guidelines have been issued concerning this important topic. As has been the case in the past, valid signatures cannot be stamped nor mechanically reproduced. The signature of the individual providing the service is the only one acceptable; neither partners nor covering physicians may sign in his absence. Anyone reviewing the document must be able to determine the identity of the signatory. This capability is deemed to be provided if the signature is actually legible, if there is a typed or legibly printed version of the signature below it, if the signature is in valid electronic format, or if a signature log is included with the document that identifies the otherwise illegible signature. Initials are considered inadequate unless one of the other forms of identification noted above is provided. If a signature has been omitted or is illegible, a document attesting to the correct and true signature can be submitted after the fact. The format for such statements is available on CIGNA Medicare's website: www.cignagovernmentservices.com/partb/index.html.

In the case of orders without signature or with illegible signatures, retrospective modifications are not accepted. Signatures cannot be added after the service has been

completed nor can attestations be submitted. Such orders are deemed by Medicare to have never been issued. Thus, CMS will request reimbursement of payments made for any service for which an order with a valid signature cannot be produced.

CMS Director

CMS has not had a permanent director since 2006. Two months ago President Obama nominated Dr. Donald Berwick, MD, MPP, FRCP, to assume this position. Dr Berwick is one of the nation's leading authorities on health care quality and improvement, a Clinical Professor of Pediatrics and Health Care Policy at the Harvard Medical School, and Professor in the Department of Health Policy and Management at the Harvard School of Public Health. Dr. Berwick has served as vice chair of the US Preventive Services Task Force, the first "Independent Member" of the Board of Trustees of the American Hospital Association, and chair of the National Advisory Council of the Agency for Healthcare Research and Quality. An elected member of the Institute of Medicine (IOM), Dr. Berwick served two terms on the IOM's governing Council and was a member of the IOM's Global Health Board. He served on President Clinton's Advisory Commission on Consumer Protection and Quality in the Healthcare Industry. He appears to have the credentials, experience and motivation for the job. Republican members of Congress oppose Dr, Berwick's appointment, portraying him as a proponent of rationing and government Medicine, which seems like reasonable views for an individual who is to direct a government run system that is inadequately funded. Expect continued delay and continuing malfunction of a huge bureaucracy that has been without a leader for nearly 4 years.

NC/SC Chapters of the ACC 17th Annual Joint Meeting

**October 1-3, 2010
Wild Dunes Resort
Isle of Palms, SC**



This year, the South Carolina Chapter of the ACC is hosting the North Carolina/South Carolina Chapters of the ACC Annual Joint Meeting at the [Wild Dunes Resort](#) on the [Isle of Palms](#) in South Carolina. The meeting will kick-off with a series of talks on the impact of current health care reform on cardiology practices. This will focus on national and regional issues of importance to physicians.

The remainder of the conference will use a novel interactive case-based format to explore a variety of common clinical conditions. Short clinical case scenarios will be presented to the attendees. They will then be given an opportunity to answer a series of clinical questions electronically directed at the key issues of the case. The tabulated audience responses will be immediately reviewed in order to share as a group the various approaches to clinical management. Following this, there will be focused commentary presented by the expert panelist. These nationally recognized experts will give short reviews highlighting the key issues generated by each case.

General topics will include management of atrial fibrillation, management of valvular heart disease, diastolic heart failure, noninvasive evaluation and treatment of coronary disease and the invasive management of coronary disease. We are confident this case based approach will be informative, clinically relevant and ensure lively interaction between the attendees and the expert panelists.

We look forward to seeing you at Wild Dunes!

Registration Information

[Click here for the registration form.](#)

[Click here for the meeting agenda.](#)



Accommodations

Two options are available for the nights of October 1-3 at the special rate of \$209.00 per night*. Choose between a room at the AAA four-diamond Boardwalk Inn or a 1 Bedroom Village Condo. A limited number of 2 Bedroom/2 Bath condos at The Village are available at this rate, as well as a limited number of Village 1 Bedroom Suites (with pull-out sleeper sofa) available at \$219.00 per night*.

Reservations may be made between the hours of 7 am and 11 pm (EST) Mon - Fri, and 8 am - 9 pm weekends. The toll-free reservations line is 800-845-8880. **Refer to the SC Chapter American College of Cardiology to obtain group rate.** The cut-off date for the discounted rate is August 31, 2010. Reservation requests received after August 31 will be accepted on a space available basis at the best available rate. A one night deposit is required and is fully refundable if reservation is cancelled more than 7 days prior to the scheduled arrival date.

**Taxes, Resort Service and Amenity Fees not included.*

For more conference information and updates, visit us at: www.nccacc.org

Practice Administrator Membership

The Practice Administrator membership category of the ACC was established to address the business aspects of practice management. This is an initiative set forth by Dr. Dove to address concerns unique to non-physician members of the cardiac care team involved in managing practices. The membership category is supported by the Board of Governors and approved by the Board of Trustees.

Practice Administrators are important to ACC Physician Members as they are non-clinical cardiovascular care management team members who administer workplace and healthcare practice success for the majority of ACC members in private practice settings. Practice administrators impact the efficiency and success of cardiology practices. They are the link between the private practice cardiovascular care management team and the ACC.

Goals of the member category are:

- To engage all participants of the cardiovascular care team in ACC initiatives.
- To provide Practice Administrators with key advocacy, clinical, and other practice-related news that affects how doctors practice medicine.
- To provide Practice Administrators with a forum to discuss issues and solutions with other colleagues.

Benefits of Practice Administrator Membership are:

- Cardiovascular medicine's news and developments through online Cardiosource- the premier clinical resource in the field, the online version of Journal of the American College of Cardiology, Cardiology magazine, and a dedicated practice management website.
- Cardiology Careers online in partnership with HealthCareers, the one-stop solution for a practice's job recruitment needs.
- Practice guidelines and quality standards for cardiovascular medicine.
- Professional meetings, including the ACC practice management programs; and the Advanced Cardiology Leadership Workshop in partnership with MedAxiom.
- Workforce information on physician supply and demand, and team-based care.
- Advocacy and reimbursement news directly affecting cardiology practices.
- Leadership opportunities to bring practice administrator perspectives to ACC initiatives.

New initiatives in the developing stages include:

- Practice Administrator online member-only community with discussion board, document library, and message board
- Practice Administrator Advisory Committee
- Practice Administrator Town Hall Meetings
- Practice Administrator Online Community

[Click here to join online.](#)