I am proud to say that as we finished 2012, our Chapter continued to hum. We held two successful conferences this year. Our inaugural CCA event was well attended and enthusiastically received. At our Annual Meeting, we had a record number of posters submitted by Fellows-In-Training. We continue to see our CCA and FIT memberships grow and look forward to their continued involvement.

During the election, both Dr. Anthony DeFranco and Dr. Peter Smith received great support. In the end Dr. DeFranco was elected as Incoming Governor-Elect, while Dr. Smith accepted the position of Secretary/Treasurer. I am excited to say both will help keep us strong. Over the coming year, you should see more of Dr. DeFranco as we make the transition to his leadership. I am also happy to announce that Mia Stone, of Aurora, will try to fill the shoes of Judy Nichols as CCA Liaison-Elect. Judy has been extremely successful and a true pleasure to work with. It is my honor to have served with her.

So, what’s in store for 2013? You can expect to see progress on SMARTCare throughout the year and maybe even movement from CMMI or Congress. We will continue to expand our Women in Cardiology program. Special emphasis will be on involving our Fellows-in-Training and early career colleagues in the activities of the Chapter. Our involvement in the Million Hearts Program will continue to evolve and we are also considering a statewide Hospital-to-Home (H2H) Collaborative.

As always, I encourage you to contact me for any reason. We want to hear from you! To that end, you will shortly be receiving a survey from the WC-ACC office about the future of our Annual Meeting. The survey will only take a few minutes. I hope you will each take the time to share your thoughts.

As I embark on my final year as Governor of the Wisconsin Chapter, I want to take a moment to thank each of you for your contribution. It has been my privilege to serve.

Humbly yours,

Thomas J. Lewandowski, MD, FACC, FASE
Governor, Wisconsin Chapter ACC
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Cardiac Care Associate (CCA) Spotlight
by Kelly S. Rasmussen, APNP; NP-C, AACC
Marshfield Center Heart Valve Clinic

Aortic stenosis is one of the most common forms of valvular heart disease, affecting up to 1.5 million people in the United States. It is a degenerative disease primarily of the aging and predominantly seen in those patients over the age of 70. With the rapid aging and increasing life expectancy of the United States population, this number is anticipated to increase significantly. Of these 1.5 million people diagnosed with aortic stenosis, approximately 500,000 people are diagnosed with severe aortic stenosis. Severe aortic stenosis is quantitatively defined as the presence of one of the following three criteria:

- An aortic valve area < 1.0 cm².
- A mean gradient across the aortic valve of ≥ 40 mmHg.
- A maximum velocity across the aortic valve of ≥ 4 m/sec.

Aortic stenosis has a long latency period in which patients do not report having symptoms. After the appearance of symptoms, there is a relatively rapid progression in the disease process. This rapid progression leads to a high rate of death in patients who have noted an onset of symptoms (approximately 50% within the first 2 years after symptom onset). Thus, careful clinical follow up and vigilant symptomatic monitoring is imperative in the longitudinal management of these patients.

The “gold standard” treatment for patients with severe, symptomatic aortic stenosis is surgical aortic valve replacement. However, not all patients are optimal candidates for this treatment modality. Many patients may be considered prohibitive risk for reasons such as:

- Advanced age
- Frailty
- Presence of comorbid conditions
- Severe left ventricular dysfunction
- Porcelain aorta
- Hostile chest

In patients whom the risk associated with traditional surgical aortic valve replacement is considered prohibitive, a less invasive option may be ideal.

The first transcatheter aortic valve replacement or transcatheter aortic valve implantation (TAVR or TAVI) was performed in France by Alain Cribier in 2002. Since that time, there has been a rapid advancement and adoption of this treatment modality in Europe, the United States and around the world. The Placement of Aortic Transcatheter Valves (PARTNER) trial is a multicenter trial which compared TAVR utilizing the Edwards SAPIEN Transcatheter Heart Valve (Edwards Lifesciences LLC; Irvine, Calif) with standard therapy in two separate groups of patients, Cohort A and Cohort B.

In Cohort A, TAVR (both trans-femoral and trans-apical approaches) is compared to surgical aortic valve replacement in those patients considered high risk for surgical aortic valve replacement. The results of PARTNER Cohort A will be available in the upcoming months.

In Cohort B, TAVR (trans-femoral approach) was compared to standard therapy (best medical management with or without adjunctive balloon aortic valvuloplasty [BAV]) in those patients considered prohibitive risk for surgical aortic valve replacement. The PARTNER Cohort B trial was completed in March 2009 and concluded the following:

- TAVR, as compared with standard therapy reduced the rate of death from any cause.
- TAVR, as compared with standard therapy reduced the rate of death from cardiovascular causes.
- TAVR, as compared with standard therapy reduced the rate of repeat hospitalizations.
- TAVR, as compared with standard therapy reduced symptoms.
- TAVR, as compared with standard therapy improved quality of life.

In the fall of 2011 the FDA approved the Edwards SAPIEN Transcatheter Heart Valve (THV) (Edwards Lifesciences LLC; Irvine, Calif) for clinical use in patients with prohibitive risk for surgical aortic valve replacement. Many experts feel that TAVR should be considered standard therapy in this group of patients.

Because of the complexity of TAVR and the complexity of the patients who undergo this procedure, the approval of sites in which TAVR can be performed has been limited. Currently, in Wisconsin, there are 5 sites which have been trained and approved to perform TAVR with the Edwards SAPIEN Transcatheter Heart Valve (Edwards Lifesciences LLC; Irvine, Calif) with a total of 60 patients having been treated. Edwards Lifesciences anticipates that by the end of the first year of launch, there will be 150-200 clinical sites across the United States trained and approved to perform TAVR.

A successful and safe TAVR program is based upon many factors. The Marshfield Clinic/Ministry Saint Joseph’s Hospital collaborative program was one of the first three to be approved in the state of Wisconsin. On review of our experience, we have found the following three factors to be the highest predictors of success and safety:

- Careful, vigilant, longitudinal follow-up in a comprehensive valve program with appropriate timing of treatment interventions.
- A comprehensive, multidisciplinary team of providers and ancillary staff with excellent technical skills and experience who are dedicated to providing the best patient-centered care. At the Marshfield Clinic/Ministry Saint Joseph’s Hospital collaborative Heart Valve Program this team includes several physicians from many different specialties: Anesthesia, Cardio-Thoracic Surgery, Echo-
What Do Cheeseheads, CoQ10, and Warfarin Have in Common?

by Bonita Wendel, RN, NP and Samuel Wann, MD, MACC
Columbia St. Mary’s Healthcare Milwaukee

All are products of the University of Wisconsin, of course. Warfarin is named after the Wisconsin Alumni Research Foundation, cheeseheads are a native species at UW and Coenzyme Q10 (ubiquinone) was discovered there. Professor Fredrick L. Crane and colleagues, working at the UW-Madison Enzyme Institute, described ubiquinone in 1957. Ubiquinone is an oil-soluble, vitamin-like substance is present in most eukaryotic cells, primarily in the mitochondria. It is a component of the electron transport chain and participates in aerobic cellular metabolism generating energy in the form of ATP. Organs with the highest energy requirements—such as the heart, liver and kidney—have the highest ubiquinone concentrations. Coenzyme Q10 (CoQ10) is produced by the human body and is necessary for the basic functioning of cells. CoQ10 levels are reported to decrease with age and to be low in patients with some chronic diseases such as heart conditions, muscular dystrophies, Parkinson’s disease, cancer, diabetes, and HIV/AIDS. Some prescription drugs may also lower CoQ10 levels.

The antioxidant nature of ubiquinone derives from its energy carrier function. As an energy carrier, the ubiquinone molecule is continually going through an oxidation-reduction cycle. As it accepts electrons, it becomes reduced. As it gives up electrons, it becomes oxidized. In its reduced form, the ubiquinone molecule holds electrons rather loosely, so this molecule will quite easily give up one or both electrons and, thus, act as an antioxidant.

The synthesis of an intermediary precursor of ubiquinone, mevalonate, is inhibited by some beta blockers and statins. Statins can reduce serum levels of ubiquinone by up to 40%. Some research suggests the logical option of supplementation with ubiquinone as a routine adjunct to any treatment that may reduce endogenous production of ubiquinone, based on a balance of likely benefit against very small risk. However, there are still no conclusive data that support the role of ubiquinone deficiency in the pathogenesis of statin-related myopathy. Nevertheless, there are no known risks to this supplement and there is some anecdotal and preliminary trial evidence of its effectiveness. Some patients may respond, if only via placebo effect.

There are several reports concerning the effect of ubiquinone on blood pressure in human studies, a recent (2007) meta-analysis of the clinical trials of ubiquinone for hypertension reviewed all published trials of ubiquinone for hypertension, and assessed overall efficacy, consistency of therapeutic action, and side-effect incidence. Meta-analysis was performed in 12 clinical trials (362 patients) comprising three randomized controlled trials, one crossover study, and eight open-label studies. The meta-analysis concluded that ubiquinone has the potential in hypertensive patients to lower SBP by up to 17 mm Hg and DBP by up to 10 mm Hg without significant side-effects. 1

There is evidence of ubiquinone deficiency in heart failure. Recently, ubiquinone plasma concentrations have been demonstrated as an independent predictor of mortality in chronic heart failure, ubiquinone deficiency being detrimental to the long-term prognosis of chronic heart failure. 2

Prospective, randomized, placebo-controlled studies of the efficacy of CoQ10 have not been conducted.

Ubiquinone is available as medicine in several European countries however in this country is available as a nutritional supplement. The importance of how drugs are formulated for bioavailability is appreciated and in order to find a principle to boost the bioavailability of ubiquinone, a successful approach was to use the emulsion system to facilitate absorption from the gastrointestinal tract and to improve bioavailability. Therefore a gelatin capsule delivery system has been found to be the most effective delivery system.

Dietary sources of ubiquinone have not been well studied however in 2010 detailed reviews of dietary intake revealed that meat and fish are the richest source of dietary ubiquinone and levels over 50 mg/kg can be found in beef, pork and chicken heart, and chicken liver. Dairy products are much poorer sources of ubiquinone compared to animal tissues. Vegetable oils are also quite rich in ubiquinone. Broccoli, grape, and cauliflower are modest sources. Most fruit and berries represent a poor to very poor source, with the exception of avocado, with a relatively high content.

Cheeseheads, CoQ10, and Warfarin continued on page 6
ACHA and ACC have initiated the Provider Action for Treating Congenital Hearts (PATCH), a Program intended to create learning opportunities and collaboration between internal medicine general cardiologists and adult congenital heart disease specialists. The overarching goal of PATCH is to improve the care for adult congenital heart patients, and to do so through education, communication, and networking and by utilizing the organizational structure of ACHA, the ACC Board of Governors, Chapter infrastructure and its membership.

The Wisconsin Chapter’s own Michael Earing, MD will present the January webinar on CHD/PH Eisenmenger Syndrome. Check the Chapter website for further details as they become available.

The series aims to provide ACHD-specific topics for educational purposes to encourage discussion and collaboration among local, regional, general, pediatric and adult cardiologists with ACHD providers and programs to promote the highest quality coordinated ACHD care in the U.S. for adult patients with congenital heart disease.

All webinars are recorded and an archived version is available at www.patchheartprogram.org.

CCA Spotlight continued from page 2

cardiology, Interventional Cardiology, Radiology and Vascular Surgery. It also includes Nurse Practitioners specializing in valvular heart disease as well as designated appointment coordinators, cardiovascular technicians, echocardiography technicians, medical assistants, perfusionists, radiology technicians, registered nurses and surgical technicians

- A thorough evaluation and patient screening which leads to optimal patient selection. At the Marshfield Clinic/Ministry Saint Joseph’s Hospital collaborative Heart Valve Program, a complete TAVR evaluation comprises the following diagnostic procedures:
  - Trans-thoracic 2D echocardiogram.
  - Coronary angiography with aortogram.
  - Right heart catheterization.
  - Dobutamine stress echocardiogram as indicated.
  - Trans-esophageal 2D and 3D echocardiogram.
  - Gated CT angiography of the chest.
  - CT angiography of the abdomen and pelvis.

TAVR will continue to evolve rapidly. With the development and advances in transcatheter heart valves and delivery systems as well as the improvement and perfection of procedural technique, improvement in outcomes is anticipated which may lead to a broader use and role of TAVR.
On November 10th, sixty of our fellow Wisconsin Chapter Cardiologists gathered at The American Club in Kohler, Wisconsin for our Annual Meeting and scientific session. I was honored to again serve as Program Chair for this highly informative event. This year our meeting was organized into two mini-symposiums. The first focused on Adults with Congenital Heart Disease, while the second addressed Cardiotoxicity with Cancer Treatments. Our speakers included Michael Earing, MD; Luke Lamers, MD, Julie Kovach, MD, FACC, Joshua Me-skin, MD, FACC; Sailaja Kamaraju, MD, Nathan Munson, MD; Steven Ewer, MD and Thomas Lewandowski, MD, FACC, FASE. Overall the content of the symposiums were of superb scientific quality. Also again it was great to see that there are many dedicated experts in our state who are providing their services in these complex fields. I was impressed how Dr. Earing was able to get his Fellows highly engaged both in clinical and scientific activities. It also became obvious that with improvements of cancer treatments cardiologists will be integral part in care of short and long term treatment complications. I greatly appreciated the in-depth interviews and discussion related to the topic.

In 2012 we also had a record number of posters presented by Wisconsin’s Fellows in Training. Eighteen posters were on display from Fellows across the state and three took the stage to present their research to our colleagues. The Annual Meeting continues to be rated very highly by those in attendance. I would like to thank MetaStar, Inc. for providing CME credits and to our exhibitors AstraZeneca, GE, Janssen pharmaceutical, The Medicines Company, Merck and Thoratec Corporation.

Despite the high rating amongst attendees, the number of attendees in our meetings has remained low. Therefore, we will be conducting a survey of member’s wishes about the future activities. We hope to be able to provide the best possible format - watch your inboxes for announcements.
Bottom line:

- CoQ10 is a natural substance with no known adverse side-effects or drug interactions.
- CoQ10 is widely used and does not require a prescription.
- It is difficult to separate potential beneficial pharmacologic effects of CoQ10 from beneficial placebo effects.
- CoQ10 is used to treat muscle aches in patients taking statins.
- CoQ10 is also taken as an adjunct treatment for hypertension, heart failure and a wide variety of other diseases and for non-specific somatic symptoms.
- The UW basketball team might benefit from CoQ10.

References


Pulse oximetry screening has emerged as a way to detect critical congenital heart disease in its pre-symptomatic state in babies that might otherwise be discharged from newborn care before their heart disease was recognized. Since being recommended by the US Secretary of Health and Human Services and endorsed by the American College of Cardiology, the American Heart Association, and the American Academy of Pediatrics, pulse oximetry screening for critical congenital heart disease has become the new standard of care in Wisconsin.

The Wisconsin SHINE (Screening Hearts In Newborns) Project was created to foster implementation of pulse oximetry screening and to evaluate the effectiveness of and the costs associated with pulse oximetry screening for critical congenital heart disease in newborns. The SHINE project is a collaborative effort of the University of Wisconsin, Medical College of Wisconsin, Wisconsin Department of Health Services, and Wisconsin State Laboratory of Hygiene and is funded by a grant from the US Health Resources and Services Administration, a branch of the US Department of Health and Human Services. The SHINE Project hopes to collect information on all pulse oximetry screening for all of Wisconsin’s births, including hospital, birthing center, and home deliveries.

The first group of hospitals and midwives will start gathering pulse oximetry on 1-1-13 and continuing enrollment of hospitals and midwives will continue until the conclusion of the project in summer 2015. If you have any questions regarding the SHINE Project, please call (608)262-2122 and ask for the SHINE personnel on call. Educational materials and contact information regarding the SHINE Project are also available at www.wisconsinshine.org.
Big Changes in Certification Process for All Cardiologists

by Thomas J. Lewandowski, MD, FACC, FASE
Governor, Wisconsin Chapter ACC

While not yet officially announced, in April the American Board of Internal Medicine (ABIM) will release new requirements for Board Certification and Maintenance of Certification (MOC). These will affect all Internists and Specialists, including those “grandfathered.” Beginning January 2014, all practitioners will need to list their Board status as well as whether they are Certified or not and their compliance with MOC. “Grandfathered” physicians won’t have to take an exam again, but will need to complete MOC.

One hundred points of MOC will be required every five years broken down as follows: 20 points - medical knowledge, 20 points - patient safety, 20 points - patient satisfaction, and 40 points - practice improvement, based on practice data such as PQRS. Additionally, everyone must submit some activity every two years. It is expected these requirements will parallel a standard national process for Maintenance of Licensure.

ABIM is accountable to the public and acts as a certifying organization. Therefore, the American College of Cardiology and the American Medical Association are not responsible for, nor can they change these requirements.

However, many changes are being made to the NCDR to make it as simple as possible for clinicians and groups to use Cath-PCI, ACTION, and PINNACLE to meet MOC requirements. Similarly, the inclusion of registries as a qualifying reporting mechanism for PQRS brings us all closer to gaining credit simply by documenting the work we do, when we do it. ACC continues to expand the number of Electronic Health Records with integration of FOCUS, PINNACLE, and Cath-PCI, allowing automatic population of registries without additional work by clinicians. With the assistance of institutions around the country, including Wisconsin’s own Aurora Healthcare, major progress is also being made with EPIC.

Advocacy

by Thomas J. Lewandowski, MD, FACC, FASE
Governor, Wisconsin Chapter ACC

As hinted above, the cost to eliminate the SGR is down to $138 Billion – down $100 billion due to the slow to recover economy combined with the movement of in-office imaging which occurred with the massive shift from private practice to hospital integration. Subsequently, Congress is in a selling mood to finally eliminate the SGR. Ironically some are predicting the SGR would mandate an increase in rates within five years if current trends continue. ACC continues to explore ways to reduce cardiovascular cost, and SMARTCare, combined and integrated with the Lifelong Learning process has more than peaked interest on the Hill. It is beginning to set the standard for expectations in healthcare delivery reform. ACC continues to fight the reduction from sequestration on GME and the NIH, both of which have a major impact on our teaching institutions. Unfortunately, the cuts look like they will remain in effect. Work on programs like SMARTCare and FOCUS that reduce cost without impacting care are imperative.
Wisconsin Chapter at ACC.13

Wisconsin Chapter Governor Thomas J. Lewandowski, MD, FACC, FASE spoke at ACC.13 Session #613 “Quality of Care and Outcomes Assessment – Symposium: What’s Next for Health Care Reform after the Supreme Court Decision on the Affordable Care Act and the 2012 Election” on Saturday, March 9. Chaired by Scott Wright, Dr. Lewandowski was joined by James W. Fasules and Eileen P. Pummer.

Dr. Lewandowski spoke on “SmartCare – Is Delivery Reform a Dream or Reality?” and was highlighted in the Sunday, March 10th edition of CardioSource News.

Full coverage of ACC.13 can be found at www.cardiosource.org/News-Media/Meeting-Coverage/ACC/ACC-2013.aspx

Claim Your Credit from ACC.13 or Get your Certificate of Attendance:

www.abstractsonline.com/CMEd/Survey.aspx?mKey=%7b2D4AF5D2-D76A-442C-A7E1-1D1A97D0251D%7d&cbKey=dfae4209-9c1d-4d48-ae49-698174fc41c1

Thomas J. Lewandowski, MD, posed the question, “Is delivery reform a dream or reality?” He shared how SmartCARE, a collaborative pilot convened by the ACC in Wisconsin and Florida, is moving toward true reform. The hope is that this innovative program will serve as a payment and care delivery model that can be expanded more broadly to not only achieve health care cost savings, but also improve coordination across sources and sites of care.

Acc Central (booth 2032 in Moscone South) -- the College’s home away from Heart House -- welcomed ACC.13 attendees to learn more about all of the ACC’s offerings.

ACC leaders and hundreds of cardiovascular professionals enjoyed an exciting Opening Session at ACC.13

Fellows-in-Training meet and greet during Saturday’s FIT Forum.
April 5-6, 2013
Best of ACC.13: Take Home Messages for the Clinician
Robert O. Bonow, MD, MACC
Radisson Blu, Chicago, IL.

April 26-27, 2013
Best of ACC.13: Take Home Messages for the Clinician
G. William Dec, Jr., MD, FACC
Fairmont Copley, Boston, Mass.

May 2-4, 2013
35th Annual Recent Advances in Clinical Nuclear Cardiology and Cardiac CT
Daniel S. Berman, MD, FACC, FASNC, FSCCT
Guido Germano, PhD, MBA, FACC
Jamshid Maddahi, MD, FACC
James K. Min, MD, FACC, FSCCT
Omni Shoreham Hotel, Washington, D.C.

August 15, 2013
ACCF Study Session for ABIM Maintenance of Certification: Interventional Cardiology Updates 2012 and 2013
Joseph D. Babb, MD, FSCAI, FACC
Frederick Welt, MD, MSc, FACC
The Ritz-Carlton, Amelia Island, Fla.

August 16-18, 2013
ACCF/SCAI Premier Interventional Cardiology Overview and Board Preparatory Course
Joseph D. Babb, MD, FSCAI, FACC
Frederick Welt, MD, MSc, FACC
The Ritz-Carlton, Amelia Island, Fla.

August 27-31, 2013
The ACCF Cardiovascular Board Review for Certification and Recertification
Kim A. Eagle, MD, MACC
Patrick T. O’Gara, MD, FACC
The Fairmont Hotel, Millennium Park, Chicago

August 28-30, 2013
Arrhythmias in the Real World 2013
Peter N. Smith, MD, FACC
Heart House, Washington, D.C.

August 31, 2013
The ACCF Cardiovascular Board Review for Certification and Recertification Maintenance of Certification Cardiovascular Disease Updates 2012 and 2013
Rick A. Nishimura, MD, MACC
Patrick T. O’Gara, MD, FACC
The Fairmont Hotel, Millennium Park, Chicago

September 26-28, 2013
AATS/ACCF Heart Valve Summit: Medical, Surgical and Interventional Decision Making
David H. Adams, MD, FACC
Steven F. Bolling, MD, FACC
Robert O. Bonow, MD, MACC
Howard C. Herrmann, MD, FACC
Marriott Chicago, Magnificent Mile, Chicago

October 3-5, 2013
2013 Foundations for Practice Excellence: Core Curriculum for the Cardiovascular Clinician
Eileen M. Handberg, PhD, ARNP, BC, FACC; Joseph S. Alpert, MD, FACC
Washington, D.C.
December 6-7, 2013
How to Become a Cardiovascular Investigator
Valentin Fuster, MD, PhD, MACC
Heart House, Washington, D.C.

December 13-15, 2013
46th Annual New York Cardiovascular Symposium
Valentin Fuster, MD, PhD, MACC
New York