The mission of the MACVPR is to promote the practice of high standards of care in cardiovascular and pulmonary rehabilitation in Massachusetts

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Deborah Sullivan, MS, APN-BC

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Deirdre Proudman, MSN, RN, BC, CCRN

Membership:
Melissa Fox, RN, BSN

Administrative Assistant:
Ann Stone

A Publication of the Massachusetts Association of Cardiovascular and Pulmonary Rehabilitation

Co-President’s Message

“Coming together is a beginning; keeping together is progress; working together is success.” (Henry Ford)

Our web site offers a brief history of the MACVPR and states the following, the Massachusetts Society for Cardiac Rehabilitation (MSCR) was formed in 1984 by a group of clinicians to provide a source of communication throughout the Commonwealth. By networking with other health care providers in the field of cardiac rehabilitation, these individuals set out to prevent the demise of cardiac rehabilitation programs in Massachusetts due to the lack of third party payers. That was the beginning. Keeping together and expanding our scope to include pulmonary programs as well as affiliating with AACVPR provided opportunities to work together. As a result we have achieved success with expanding coverage to include selected heart failure patients and implementing measures to improve standards of care for our patients. We still face many challenges including the need to work together to foster the strong leadership roles that have lead us to our current successes.

I would like to thank my co-president Karen LaFond, MSN, RN for her exceptional leadership of our organization. I will be stepping down from my post as co-president in December, but she will stay on for another year. This is an ideal time to step in as president-elect now and have an opportunity to work with Karen in a mentee/mentorship role next year as co-president’s. Additional support is available through the AACVPR with their Annual Meeting and Leadership Forum offered to all affiliate presidents. Together with the networking opportunities from national leaders and the support of a strong MACVPR Executive Committee, you will gain invaluable insight to provide the ongoing leadership to our organization. This leadership will help the MACVPR maintain its strong presence on the national front and provide you with both personal and professional opportunities for growth.

Our May 22, 2014 General Meeting was a great success with over 50 members in attendance and several new members joining. Ginny Dow BSN, RNC, BSN and Deirdre Proudman, RN, MSN, CCRN, our Education Co-Chairs brought together 3 amazing speakers with topics that highlighted key issues pertinent to both Cardiac and Pulmonary Rehab. In addition to our speakers we had representatives from the American Heart Association, Penny McGuire, and Tobacco Free Massachusetts, Tina Grosowsky who shared resources and information relevant to all of us as well as our patient populations. Networking opportunities, an important benefit of membership, were built into a busy morning to give members a forum to discuss issues, concerns, and solutions for program management. Contact hours were awarded by the AACN (American Association of Critical Care Nurses). These contact hours not only address the licensing and certification requirements for nurses but are accepted by many other disciplines as well. This is a significant benefit of membership for our multidisciplinary organization. The Education Committee has nearly finalized the agenda for our New England Symposium, scheduled for October 23, 2014, with nationally recognized speakers, networking opportunities, poster session and several workshops to choose from. Kudos to our education committee.

Strengthening our organization, Membership Chair, Melissa Fox, RN, BSN is not only busy campaigning for new members, maintaining records of current membership, coordinating updates to the program directory but has taken on the added function of overseeing the Student Scholar Team. This new initiative, geared toward bringing students together, is off and running. As a matter of fact we have our first entry to the newsletter in our “Student Corner”. The goal is not only to increase student membership but to provide a forum for networking, easing the transition into the clinical setting and grooming future leaders.

Additional news is the announcement from the Executive Committee about the creation of the new Innovation and Best Practice Committee. The goal of this committee is to provide MACVPR with a combined strong foundation in technology.

Continued on page 2
I am once again happy to say we have another informative edition of MACVPR NEWS. Many thanks to all that have contributed.

Deirdre Proudman MSN,RN has contributed a clinical article, CHADS<sub>2</sub> versus CHA<sub>2</sub>DS<sub>2</sub>-VASc and Novel Anticoagulants in new AF Guidelines, which is a concise summary of the guideline changes and serves as a valuable resource to us all.

Holly Brassett MS,RD,LDN, has contributed another article in her new column “Tidbits From the Dietitian” This time she discusses ways to motivate new patients to start eating healthier. She is eager to answer any questions or will take requests for article topics that would be helpful to your programs.

We also have our first contribution to our Student Corner, where we are asking students to share their experiences i.e. in their internships and even job search etc. We also invite students to submit articles for consideration for the newsletter as well. If the article is long, we can publish an abstract in the newsletter but put a link with access to the entire article on the website!

We have contributions from Doreen Crowe who implemented a unique CPR education program in her community and updates from the AHA on their new product “Simple Cooking with Heart” which is free on their website. What a great idea to help everyone to learn to eat healthier!!

We also have our usual committee reports and summaries of the informative presentations at the May meeting.

I especially would love to have more contributions to the newsletter from more of our members. An easy way to get started is to contribute to our Tales From the Trenches column. Ideas might be:

• Highlighting an exceptional patient that has done very well despite difficult obstacles
• Transitioning patients to aftercare programs
• Interesting ideas for Process Improvement
• How does your program deliver education?

Feel free to email me at macdonald23@beld.net with your ideas or contributions. Thanks!

Lynne MacDonald, PT
Beth Israel Deaconess Hospital-Milton Cardiac Rehab
MACVPR Newsletter Editor
Reimbursement Update

With the arrival of spring and then summer comes rebirth and renewal. Promise is in the air with many significant Cardiac and Pulmonary Rehabilitation issues being addressed nationally, impacting us regionally and locally, including those listed below.

**Heart Failure and Cardiac Rehabilitation:** CMS has verified that as of February 18, 2014 patients with the diagnosis of stable, chronic heart failure with an ejection fraction of 35% or less and New York Heart Association (NYHA) class II-IV symptoms, despite being on optimal heart failure therapy for at least 6 weeks, will qualify for CR coverage. Stable patients are defined as patients that have not had a recent (<6 weeks) or planned (<6 months) major CV hospitalization or procedure. CMS allows for some degree of interpretation of this eligibility criteria so that physicians and Medical Directors of CR programs are involved in determining “what constitutes a major CV hospitalization or procedure”. CMS has advised that further study of the benefit of CR for patients with heart failure and ejection fractions greater than 35% is needed before considering approval.

**CMS Payment Rates for 2014:** While CMS proposed payment rates for 2014 have increased to $102 for CR codes 93798/93797, the rates remain at $39 for PR code GO424 with a slight increase to $39 for the 15 minute increment codes GO237, GO238, and GO239. All CR programs are advised to continue to use the nonstandard cost center reporting to provide accurate cost assessments. All PR programs are strongly urged to use the Pulmonary Rehab Tool Kit to provide more accurate cost assessments that should lead to a higher payment rate.

**CMS 2015 Proposed Hospital Inpatient Prospective Payment System:** On April 30, 2014 CMS published the proposed hospital inpatient regulations for fiscal year 2015. As CMS continues to move towards a Value-based Purchasing System, a close review of Medicare data continues to reveal unplanned readmissions within 30 days of discharge. Financial penalties are been charged to hospitals with all cause readmission rates for AMI, HF, and pneumonia. It is anticipated that COPD will be added to the Hospital Readmissions Reduction Program on October 1, 2014. CABG will be included in this program in 2017. Of note is the value of CR and PR in helping to reduce these readmission rates and the need to ensure that your hospital administrators are aware of this value.

**S382 Bill:** AACVPR and its affiliates continue to seek Congressional support and legislation that allows non-physician providers the ability to supervise cardiac and pulmonary rehabilitation. This is very vital to the viability of many programs, particularly in the Critical Access Hospitals.

By being involved, informed, and an advocate for our patients and programs, the future should be promising for Cardiac and Pulmonary Rehabilitation.

Wishing you, your families, and your patients a wonderful and healthy summer,

Esther Burchinal, MS, CES, RCEP
Emerson Hospital Cardiac Rehab and Prevention Department
MACVPR Past Co-President

**Distinguished Service Award**

Bi-annually this award is presented to an active member of the MACVPR who has made outstanding contributions to the field of cardiac and/or pulmonary rehab, the MACVPR/AACVPR and /or has demonstrated commendable efforts toward clinical advancement in primary and secondary prevention of people with cardiovascular and /or pulmonary disease.

Nominations are now being accepted and should include a paragraph as to why this individual should be considered for this award. The recipient will be announced at the October meeting; and will receive a two year membership to the MACVPR, a plaque, and the fee for that October meeting is waived.

Nominations should be sent to admin@macvpr.org by September 1, 2014.
New guidelines for nonvalvular atrial fibrillation (AF) recommend dabigatran, rivaroxaban, and apixaban, as well as warfarin, and call on providers to use the more comprehensive stroke risk calculator CHA$_2$DS$_2$-VASc. The 2014 AHA/ACC/HRS Guideline for the Management of Patients with Atrial Fibrillation published in Circulation and in the Journal of the American College of Cardiology, focus on nonvalvular AF and feature a detailed dosing chart organized by anticoagulant type and renal function.

Warfarin was the only recommended anticoagulant in the 2006 guidelines. It is less expensive for patients but the guidelines note that the novel anticoagulants eliminate dietary limitations and the need for international normalized ratio (INR) monitoring, and have more predictable pharmacological profiles and fewer drug-drug interactions.

Assessing stroke risk in patients with chronic AF

CHADS$_2$ is a mnemonic that allows healthcare providers to quickly recall the major stroke risk factors. The CHADS$_2$ scoring system incorporates risk factors of congestive heart failure, hypertension, age 75 years or older, diabetes mellitus, and previous stroke or transient ischemic attack. The resulting score is based on the sum score of points that are assigned to each of these risk factors for stroke; and higher CHADS$_2$ scores are associated with increased stroke risk. The CHADS$_2$ system scores 1 point, up to a maximum of 6, for each of the risk factors, except for previous stroke or transient ischemic attack, which scores 2 (as indicated by the “S2” in the acronym). A score of “0” is classified as low risk, 1-2 as moderate risk and ≥ 3 as high risk. Although straightforward, the CHADS$_2$ score does not account for all known stroke risk factors for patients.

The CHA$_2$DS$_2$-VASc index incorporates additional risk factors, assigning additional points for age ≥75 years (2 points), history of vascular disease (1 point), age 65–74 years (1 point), and female gender (1 point). In the CHA$_2$DS$_2$-VASc scoring system, a score of ≥2 is considered high risk.

The risk associated with a specific risk stratification score depended on the risk factors composing the score. The rationale for CHA$_2$DS$_2$-VASc is that other risk assessment models omit important risk factors, have low predictive ability and categorize too many patients as intermediate risk, leaving the choice of anticoagulant or antiplatelet therapy to the discretion of the clinician (Lip, et al, 2011). CHA$_2$DS$_2$-VASc performed better than CHADS$_2$ in predicting patients at high risk, and those categorized as low risk by CHA$_2$DS$_2$-VASc were truly at low risk for thromboembolism. Although CHA$_2$DS$_2$-VASc readily identifies patients truly at low risk, it classifies more patients at high risk who would then receive anticoagulation therapy, weighing the risk for bleeding and the risk for stroke.

The acronym HAS-BLED represents each of the bleeding risk factors and assigns 1 point for the presence of each of the following: hypertension (uncontrolled systolic blood pressure >160 mm Hg), abnormal renal and/or liver function, previous stroke, bleeding history or predisposition, labile international normalized ratios, elderly, and concomitant drugs and/or alcohol excess. The HAS-BLED scores range from 0 to 9, with scores of ≥3 indicating high risk of bleeding, for which caution and regular review of the patient are recommended. HAS-BLED allows the clinician to identify bleeding risk factors and to correct those that are modifiable, i.e., by controlling blood pressure, removing concomitant antiplatelet or nonsteroidal anti-inflammatory drugs, and counseling the patient about reducing alcohol intake.
Stroke prevention treatment recommendations for AF based on CHADS₂ score. American College of Chest Physicians

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<th>Score</th>
<th>Stroke risk</th>
<th>Treatment recommendation</th>
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<tr>
<td>0</td>
<td>Low risk</td>
<td>No therapy. If therapy is chosen, aspirin.</td>
</tr>
<tr>
<td>1</td>
<td>Moderate risk</td>
<td>Oral antithrombotic therapy is recommended over aspirin or the combination of aspirin/ clopidogrel.</td>
</tr>
<tr>
<td>≥ 2</td>
<td>High risk</td>
<td>Oral antithrombotic therapy.</td>
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Case Presentation

A 68-year-old woman with a history of an inferior myocardial infarction presents to the emergency department with palpitations. ECG on admission documents atrial fibrillation (AF), which subsequently reverts spontaneously to sinus rhythm. She was discharged home from the ED with a 30-day event monitor. She returned to the cardiologist office 4 weeks later with a continued history of intermittent palpitations. Her average blood pressure was 140/86 mm Hg, and the 30-day monitor demonstrated AF, which coincided with diary entries of symptoms of palpitations. What is the most appropriate stroke prophylaxis for this patient, given her new-onset AF?

Identifying AF

AF is an atrial dysrhythmia characterized by chaotic, asynchronous electrical activity. It results from firing of multiple impulses from numerous ectopic pacemaker sites in the atria. P waves are absent and the ventricular response is irregularly irregular. It may be identified clinically, when taking a pulse, and confirmed by an ECG or electrocardiogram. In atrial fibrillation, the lack of an organized atrial contraction can result in some stagnant blood in the left atrium (LA) or left atrial appendage (LAA). This lack of movement of blood can lead to thrombus formation. According to the 2014 Guidelines, AF, whether paroxysmal, persistent, or permanent, and whether symptomatic or silent, significantly increases the risk of thromboembolic ischemic stroke. Nonvalvular AF increases the risk of stroke 5 times and AF in the setting of mitral stenosis increases the risk of stroke 20 times (over patients in sinus rhythm). Thromboembolism occurring with AF is associated with a greater risk of recurrent stroke, more severe disability, and mortality. Silent AF is also associated with ischemic stroke. The appropriate use of antithrombotic therapy, and the control of other risk factors including hypertension, and hypercholesterolemia, substantially reduces stroke risk (January, 2014, p.27).

Aspirin, Warfarin, and the newer anticoagulants OAC

The new recommendations discuss the diminished use of aspirin in preventing stroke. Most of the published data have shown that aspirin is not as effective as full anticoagulation. Overestimation of the risk of bleeding by physicians is a key barrier to OAC prescription, particularly among elderly patients, in whom aspirin is perceived as a safe and viable alternative. The relative benefit of antiplatelet therapy for protection against ischemic stroke decreased significantly as age increased, whereas the absolute benefit for OAC increased as the patients aged. The risk of serious hemorrhage was relatively low, and although it increased slightly with age, there was no significant difference in hemorrhage rates between patients on aspirin and those on warfarin. Thus, aspirin is not safer than warfarin in elderly people, but it is substantially less effective.

Warfarin, a vitamin K antagonist, has traditionally been the treatment of choice for stroke prevention for patients in atrial fibrillation. For patients with nonvalvular AF who are well controlled and satisfied with warfarin therapy, the guidelines say it is not necessary to change to the newer agents. Warfarin should also be used for valvular AF to manage patients with a mechanical heart valve or hemodynamically significant mitral stenosis because these populations were excluded from the major trials that led to the approval of the newer anticoagulants. The limitations of warfarin include that it requires considerable time for onset and offset of therapeutic effect; has a narrow therapeutic window that necessitates frequent monitoring; has many potential drug interactions which modify its metabolism; and is modified by variation in dietary vitamin K intake.

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Listed below are the newest agents in the two new classes of oral anticoagulants, the direct thrombin inhibitors (DTIs) and the factor Xa inhibitors. Given the underuse and suboptimal use of warfarin, and the large unmet need for adequate and sustained anticoagulation in patients with Afib, alternatives for the only oral anticoagulant of the last several decades, warfarin, have been the subject of active programs of intensive development. Large, pivotal clinical trials have been completed for each of these new agents:

- RE-LY with dabigatran (Pradaxa; Boehringer Ingelheim), direct thrombin inhibitor (DTI), and the first NOAC to be approved in the United States, twice-daily (bid) dosing.
- ROCKET AF with rivaroxaban (Xarelto; Janssen Pharmaceuticals) is the second of the novel oral anticoagulants to be approved in the United States and the first in this new class of anticoagulants, the factor Xa inhibitors, dosed once daily with largest meal.
- AVERROES and ARISTOTLE with apixaban (Eliquis; Bristol-Myers Squibb/Pfizer), factor Xa inhibitor twice-daily (bid) dosing.

The results of these trials have demonstrated efficacy and safety for all of these agents that equal or exceeds that of warfarin, for the intended use of reducing risk of stroke and thromboembolism in patients with nonvalvular atrial fibrillation. The guidelines advise physicians to evaluate renal function prior to initiating any of the direct thrombin or factor Xa inhibitors, and to reevaluate at least annually when clinically indicated. All 3 of these NOACs have interactions with the P-glycoprotein (Pgp) system, and the Factor Xa inhibitors have interactions with the cytochrome P450 3A4 (CYP3A4) system.

Selection of agents for antithrombotic therapy depends on a large number of variables, including clinical factors, clinician and patient preference, and, in some circumstances, cost. The newer agents are currently considerably more expensive than warfarin. Dietary limitations and the need for repeatable INR testing are eliminated with the newer agents. All three new oral anticoagulants represent important advances over warfarin because they have more predictable pharmacological profiles, fewer drug–drug interactions, an absence of major dietary effects, and less risk of intracranial bleeding than warfarin. They have rapid onset and offset of action such that bridging with parenteral anticoagulant therapy is not needed during initiation, and bridging may not be needed in patients on chronic therapy requiring brief interruption of anticoagulation for invasive procedures. However, strict compliance with these new oral anticoagulants is critical. Missing even one dose could result in a period without protection from thromboembolism. As a result, the FDA issued black box warnings regarding discontinuation of these newer agents that can increase the risk of thromboembolism, and coverage with another anticoagulant may be needed. In addition, reversal agents, while under development, are not presently available, although the short half-lives lessen the need for an antidote. Although dose adjustments may be warranted for those with CKD or body weight extremes, these new agents do not require regular INR or activated partial thromboplastin time monitoring (January, p.37).

Faced with that wealth of choices, clinicians will need to pay unique attention to patient characteristics, especially CHAD score when making a choice among dabigatran (Prada), rivaroxaban (Xarelto), apixaban (Eliquis) -- the already approved NOACs -- or warfarin. Also noted in the new document is the emphasis on the increased role for using radiofrequency ablation in the treatment of atrial fibrillation reflecting the evolution of technology as an AF therapy.

**Case disposition: What is the most appropriate stroke prophylaxis for this patient, given her new-onset AF?**

The case study illustrates the implications of the choice of stroke risk stratification tool on the patient's treatment. Her HAS-BLED score is 1 (because of age of 68 years), indicating that her risk of bleeding on OAC is low. If this patient's stroke risk were assessed with the CHADS₂ score, she would score 0 and therefore be prescribed either aspirin or no antithrombotic therapy. In contrast, with the use of the CHA₂DS₂-VASc score, this patient would score 3 (female sex, age of 68 years, and vascular disease; 1 point each), placing her at high risk of stroke and therefore making her a candidate for OAC. Utilizing the latter scoring system, it would be appropriate to start her on OAC for stroke prevention.

**References**


CHADS<sub>2</sub> versus CHA<sub>2</sub>DS<sub>2</sub>-VASc .... continued

Complete the crossword below. Allow a blank space between two words.

**Across**
3. In the CHA2DS2-VASc score, the V stands for ______ disease such as MI, PAD, or aortic plaque.
5. International Normalized Ratio
8. The CHADS2 index looks at the following variables: CHF, ______, age, diabetes, and stroke.
9. Vitamin K antagonist
10. The strongest warning the FDA requires signifying a significant risk of serious or life threatening adverse effects.
11. The guidelines advise physicians to assess ______ function prior to initiating any of the direct thrombin or factor Xa inhibitors.
12. Factor Xa inhibitor

**Down**
1. Direct Thrombin Inhibitor (DTI)
2. The acronym HAS-BLED represents risk factors for ______.
4. The CHADS2 score has a maximum score of 6 while the CHA2DS2-VASc has a maximum score of ______.
6. Atrial arrhythmia which increases risk of stroke
7. Risk index in which women will never have a score of 0.

Answers on page 11
The MACVPR committee is pleased to announce the formation of the Student Scholarship Team. It is being formed to provide a means of communication for students who share an interest in Cardiovascular and Pulmonary Rehabilitation from colleges and universities across the state.

Interested students will work with Membership to enhance means of communication (Facebook, Twitter, LinkedIn, etc.) They will also be asked to submit a brief article for the “Student Corner” a new column for the MACVPR newsletter (include items such as helpful hints and pearls for fellow students, success and challenges with internships).

- Students should submit a one paragraph bio indicating why feel they are a candidate. Students should also submit 2 objectives as to what they hope to gain from the team experience.
- A student commitment of 9 months or the academic school year will be expected.
- Students must also submit a statement from a student advisor/preceptor indicating why they are a good candidate for the team.
- A certificate will be awarded to students at completion of the year.

Potential benefit to the MACVPR organization is to gain an increase in student membership, the ability to provide mentorship of future leaders and identify ways to ease the student transition into clinical settings (your programs will benefit).

Any interested student should send an email to Melessa Fox-Membership Chair @capemda@gmail.com and further details will be provided.

Melessa Fox, RN, BSN
Falmouth Hospital Cardiac Rehab
MACVPR Membership Chair

Treasurer’s Report

I am pleased to announce that we now have a PayPal account. You will see options to pay for CEU’s and membership fees by credit card if you so choose. For those unfamiliar with Paypal, it is an easy and SAFE way to pay for any online transaction without having to give your credit card to each website. Check it out online. There is a small fee per transaction for this option to our organization but we are willing to absorb this fee to provide convenience and safety to you!

Current balances as of June 8, 2014:

- Citizen’s Bank checking: $ 8,344.22
- Citizen’s Bank Money Market fund $ 2633.69
- Total $10,977.91

Donna Hawk, RRT, AE-C
Baystate Medical Center Pulmonary Rehab
MACVPR Treasurer

MACVPR Forum Update

The MACVPR Forum is currently under construction as Ann diligently continues updating our website to provide greater ease of access to update and change the website that Ann can do (which saves the MACVPR and YOU a great deal of money!) We will notify you when the forum is up and functioning.
Upcoming Webcasts:

July 17, 2014  Meeting Patients Where They Are: COPD Education for Lasting Change  Scott Ceretta, RRT

Ongoing:

Program Leadership in the New Era (PLINE) virtual Conference: 8 Great Speakers, 7 Great Topics, 1 Power-Packed Program!

AACVPR Innovation Award

The Innovation award was designed to recognize a program that used outstanding creativity in patient care and program design to maintain excellence and expand services today and in the future.

The 2015 Innovation Award process will be a bit different than it has been in the past. Each affiliate will host its own regional competition, with each regional winner representing the affiliate in the national contest. Consider applying next year and/or be thinking of creative ideas to improve your program and possibly apply to receive the award!!!

Welcome New Members

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The May General Meeting held Thursday May 22 at the American Cancer Society in Framingham opened with a warm welcome from our co presidents, Karen LaFond, MSN, RN and Deb Sullivan, MS, APRN-CC. Recognized was the diversity of the professions represented in the audience, an update on DOPTH, CHF and Pulmonary Reimbursement, and the AACVPR National Conference and Certification Exam.

Joan Doody, MS, ANP-BC, CHFN, Manager, Heart Failure Program Nurse Practitioner, from Lahey Clinic Medical Center opened the clinical talk series with her presentation titled Including Patients with Heart Failure into Phase 2 Cardiac Rehabilitation. Joan’s knowledge of heart failure was evident and she provided a dynamic review of the pathophysiology of heart failure, its classification and management strategies, pharmacology and optimal medical therapy, and the rationale for cardiac rehabilitation in patients with Heart Failure. Her presentation was further illustrated with a Case Study as she identified exercise training or regular physical activity is recommended as safe and effective for patients with HF who are able to participate to improve functional status as a non pharmacological intervention. Phase II cardiac rehabilitation is approved for stable chronic heart failure patients with: LVEF < 35%, NYHA FC II-IV symptoms despite optimal medical therapy for at least 6 wks, and no recent (<6 wks) or planned (>6 mos) major cardiovascular hospitalizations or procedures. Cardiac Rehab referral considerations for HF patients include knowing that hypotension is a heart failure patient’s baseline! Consider revised referral forms to reflect new Phase II HF criteria and differentiation between HFrEF and HfPEF, and note EF%. Patients who do not meet Phase II criteria may still have coverage and/or benefit from “maintenance” programs.

Diane Carrier RN, BSN, and Director, Lawrence General Cardiac Rehabilitation followed with her informative presentation: Clear as Mud: New 2013 Lipid and Hypertension Prevention Guidelines. Diane reviewed this very dry subject matter as applicable to our patients in cardiac and pulmonary rehab in a very humorous manner. The 2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults identifies four groups of individuals who could benefit from statin therapy. No recommendations are made to inform treatment decisions in selected individuals who are not included in the four statin benefit groups. This guideline recommends use of the new Pooled Cohort Equations to estimate 10-year ASCVD risk in both white and black men and women. High-intensity statin therapy is defined as a daily dose that lowers LDL-C by ≥50% and moderate-intensity by 30% to <50%. Those with an LDL-C ≥190 mg/dl should receive high-intensity or moderate-intensity statin therapy, if a candidate for high-intensity statin therapy. Diabetics with a 10-year ASCVD ≥7.5% should receive high-intensity statins and <7.5% moderate-intensity statin therapy. Persons 40-75 years old with ≥7.5% 10-year ASCVD risk should receive moderate- to high-intensity statin therapy. Treat to target, lower is best is no longer considered an appropriate treatment strategy. The new guideline recommends that level of ASCVD risk, based upon estimated 10-year or lifetime risk of ASCVD. In primary prevention, the cholesterol guidelines recommend not only the risk calculation, but also the physician–patient review of the risk and the decision to take a statin.

New recommendations for hypertension management written by panel members appointed to the Eighth Joint National Committee, notes there is strong evidence to support treating hypertensive persons aged 60 years or older to a higher BP goal of less than 150/90 mm Hg. This is based on the randomized controlled trial (RCT) evidence showing no benefit in older patients for SBP goal <140 mm Hg lowering of BP with drugs in reducing lifelong risk. For hypertensive persons 30 through 59 years of age the panel recommends a BP of less than 140/90 mm Hg. The same thresholds and goals are recommended for hypertensive adults with diabetes or nondiabetic chronic kidney disease (CKD) as for the general hypertensive population younger than 60 years. AHA guidelines for treating hypertension (HTN) recommend blood pressure (BP) goals of <140/90 mm Hg in most adults, and <130/80 mm Hg for adults with diabetes mellitus (DM) or chronic kidney disease (CKD). Guidelines that recommend a SBP goal <150 mm Hg for older individuals do not recommend necessarily “backing off” of therapy if SBP is <140 mm Hg if such a patient is already taking a relatively simple well-tolerated regimen. Also in the report, the authors note there is moderate evidence to support initiating drug treatment with an angiotensin-converting enzyme inhibitor, angiotensin receptor blocker, calcium channel blocker, or thiazide-type diuretic in the nonblack hypertensive population, including those with diabetes. In the black hypertensive population, including those with diabetes, a calcium channel blocker or thiazide-type diuretic is recommended as initial therapy. Additionally, there is moderate evidence to support initial or add-on antihypertensive therapy with an angiotensin-converting enzyme inhibitor or angiotensin receptor blocker in persons with CKD to improve kidney outcomes.

A common theme recurred through all sets of guidelines in that heart healthy lifestyle habits are the foundation. Lifestyle modification (i.e., adhering to a healthy diet, regular exercise habits, avoidance of tobacco products, and maintenance of a healthy weight) remains a critical component of health promotion and ASCVD risk reduction, in both primary and secondary prevention in concert with the use of cholesterol-lowering and/or antihypertensive drug therapies. These lifestyle treatments have the potential to improve BP control and cholesterol levels and even reduce medication needs.
Concluding our trio of clinical talks was Donna Hawk RRT, A-EC, Pulmonary Rehab Clinician Bay State Medical Center and MACVPR Treasurer presenting *Pulmonary Rehab for the Patient with Pulmonary Fibrosis*. Donna’s clinical expertise was evident as she presented an informative overview of the definition and pathophysiology of Pulmonary Fibrosis. Donna walked us through the care of the IPF patient including presentation, pulmonary and exercise assessment, oxygen requirements, psychosocial interventions, and nutrition. Emphasis in exercise was energy conservation and pacing and use of the oximetry for adjusting oxygen therapy for rest and exercise as these patients may desaturate after exertion or may not be symptomatic with hypoxemia. Patients require continuous physical training to maintain the gains met in Phase 2. This presentation illustrated the opportunity provided by MACVPR membership with its example of sharing innovative ideas and practices with colleagues and successful approaches to patient care.

The opportunity for networking was provided by a brown bag lunch session. 55 attendees from 26 different locations and variety of professions including RN, RT, EP, PT, and social work were invited to discuss issues and share ideas in this free forum. This year’s meeting offered 3.0 continuing education hours through AACN. Evaluations were paper post conference survey and forty were returned. There was a united response that all speakers were knowledgeable and well spoken and topics were interesting and pertinent. Suggestions for further programs included:

- More info on integrating CHF and reimbursement
- Separate breakout meeting.
- High Intensity exercise with CAD and heart failure and athletes.
- Use of exercise testing for CR/PR, risk stratification, exercise prescription.
- Use of outcomes measurement, dealing with difficult patients.
- Oxygen titration in Cardiac and pulmonary rehab.
- Pulmonary HTN
- **More networking time!**

Deirdre Proudman MSN, RN-BC, CCRN
MACVPR Education Co-Chair

**ANSWERS FROM PAGE 7**
Save the Date

2014 MACVPR New England Symposium
Thursday · October 23, 2014

Featuring:

**Cardiac Rehab with the Competitive Athlete**
Aaron Baggish MD FACC, FACSM  Director of Cardiovascular Performance Program working with Athletes with Cardiovascular Disease at MGH, Co-Medical Director of Boston Marathon

**Cardiac Referral and Enrollment: A Value Proposition & AACVPR National Updates**
Ann Gavic MPA, RCEP,FAACVPR  Immediate Past President of AACVPR

**Models of Cardiac Rehab in an Era of Accountable Care & Caring for the Geriatric Population**
Dan Forman, MD MGH

**Eating Vegetarian including a Cooking Demo**
Ben and Julia Elliott, RD  Emerson Cardiac  Rehab and Prevention Dept

**Lung Transplants**
Phil C. Camp Jr. , MD, Director of Lung Transplant program at Brigham and Women’s Lung Transplant Program

Devens Commons
31 Andrews Parkway
Devens, MA 01434
(located on Route 2, convenient to I-95 and 495)

Watch your emails for the on-line registration link
Cardiovascular and pulmonary professionals are cordially invited to participate in our annual poster presentation session which will be held during the MACVPR 2014 New England Cardiovascular & Pulmonary Rehabilitation Symposium Thursday, October 23, 2014

The purpose is to provide a forum to highlight innovative ideas and projects from your programs or showcase successful approaches to patient care, and/or share original research findings.

This session will also provide an opportunity to disseminate important practice strategies, network with colleagues, and receive feedback from your peers on your work.

To participate in the poster session you must be registered for the conference and submit an abstract online. Please go to our website under Regional Symposium for the link to submit your abstract.

The form will request the following:

- Name
- Credentials
- Affiliation
- Project Title
- Abstract text of 300-400 words or less describing your poster.
- Provide (2) Learning Objectives that complete the sentence  
  At the end of this poster session the participant will be able to…

The deadline for abstract submission is September 26, 2014.

Abstract submissions will be reviewed by the MACVPR Education Committee.

Authors will receive a notification confirming the acceptance of the abstract no later than October 13, 2014.

Posters will be displayed throughout the meeting. Specific space assignments will be given out at registration – poster numbers will be indicated on the poster schedule.

Posters should be no wider than 40" and no taller than 48". The poster must be attached to a foam board or poster board, available at most drug stores, as the poster will be displayed on an easel provided by MACVPR.

Posters should be ready to be on display between 0730 and 0800, the morning of the event.

Direct any questions you may have to admin@macvpr.org
Heart healthy eating does not have to be as daunting of a task as it sounds. Many individuals find that making SMALL changes that are flexible will create more of a “lifestyle change,” vs. a temporary change in habits. It is recommended to begin making changes gradually so that you will be able to slowly progress to better eating habits.

These are the suggestions I give to my patients in order to help them get started:

- Write down 3 nutrition goals that you have and would like to pursue
- Underneath these nutrition goals write 3 ways to attain these goals
- Then, pick one nutrition goal and begin working towards it

For example, cutting back on fast food may be a goal that you would like to achieve over the next few months. Fast food is high in saturated artery clogging fats and sodium. It also does not help one maintain a healthy weight. This would be a very good goal and something to consider if it is something you struggle with on a daily basis.

**Goal: Cutting Back on Fast Food**

**3 ways to achieve goal as below**

A. Ask yourself how many times in a day you have fast food. If it is 3x a day cut it down to 2x a day and then 1x a day.
B. Pick the meal that you would like to focus on first (breakfast, lunch or dinner) and create a weeks worth of menus for that meal.
C. Go to the grocery store with your food menu and purchase these new items
D. Once you have done this for a couple of weeks and feel comfortable begin with the next meal and follow step A-C.

By creating this small and attainable goal you will be cutting down initially on fast food by 25%, with an overall goal of 100%. Once you have attained this goal create another one. By breaking down your goals you are creating lifestyle changes that can become permanent ways of life.

If you are someone who lives alone and does not enjoy cooking try making better choices when dining out. Sometimes ordering food out is unavoidable and so you can still make excellent choices without ruining your meal plan. Try to avoid foods that contain the words: fried, creamy, alfredo, au gratin, buttery, bisque, hollandaise, crispy, breaded, flaky or crusty. Instead, aim for foods that contain these words: steamed, grilled, baked, broiled, poached and roasted. Ask for dressing and sauces on the side. Use MY PLATE as a guide. Purchase smaller dinner plates and aim for ½ the plate being vegetables, ¼ of the plate is your protein (palm of hand) and the other ¼ of your plate is a starch (small woman’s fist).

It is important to remember that it would take 7 hours of walking to burn off a super size coke, fries and a big mac. Picture this image the next time you may want to swing through the drive thru. It is a lot easier to make better choices than to exercise for 7 hours.

Other strategies to make heart healthy eating easier would be to revise some old recipes. For instance, if a recipe calls for butter see if you can substitute with canola or olive oils. Perhaps you can use a lean 95% beef vs. 85% beef. Try avoiding salt and spice up your entrée with fresh seasonings and salt-free spices. Taste food before you season with salt and butter. Sometimes we add these condiments to foods without seeing if we actually need them. Ask friends for heart healthy recipes. Sometimes this is easier than navigating the internet.

Some other quick ideas would be to add more vegetables to your meals and choose smaller protein and starch portions when serving yourself. These are a few ways to get you started on a heart healthy eating plan. Lastly, try to aim for 5 servings of fruits and vegetables a day. Sometimes if you have a target number in mind it will help you to achieve your goals. A serving of vegetables is ½ cup cooked or 1 cup raw. A serving of fruit is the size of a small tennis ball.

If you can begin with making small changes you will start to see differences in your overall health and will continue in your daily life.
Going into an internship can be extremely intimidating. Let's face it, you really don't know what to expect going into an internship. As a senior Exercise Science major at Fitchburg State, I am obligated to select an internship in order to complete my degree requirements. I wanted to do something that really sparked my interest and put me into a clinical setting as I plan on pursuing a second degree in nursing. The cardiovascular system has also fascinated me and after taking a course in exercise prescriptions for special populations I knew that Cardiac Rehab exactly where I wanted to be.

My first day was nerve racking to say the least. I was taking vital signs 20 minutes into my internship, which was not what I was expecting at all. Everything has been very hands on since day one, which I absolutely love. I was placing ECG leads on patients and leading resistance training sessions of cardiac rehab classes during the first week. Also, I have been able to expand my knowledge of arrhythmias and learn more about the different medications that patients use to control various conditions. As I've spent more time in cardiac rehab, I have been able to help with blood pressures during exercise testing, become more familiar with lead placement with different testing, and have had the opportunity to walk new patients through their first day in the program. Personally, my favorite part has to be the patient evaluation process that I have been able to witness. These patients visit social workers, cardiologists, dietitians, and the registered nurses of the cardiac rehab program to assess their current health status. As you go through this process, you start to form a personal connection with the patients, which is incredible.

Although my internship is far from over, I have learned more during my first few weeks at Lahey than I would have thought ever possible and there is still so much more for me to experience! Now, I'm extremely confident in my ability to be successful in a clinical setting. I strongly believe that an internship that is more hands on makes you more prepared and ready for what the real world has in store for you!

My email is malloryanneperron@gmail.com.

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Simple Cooking with Heart

The obesity crisis in America has no one single cause, but usually it comes down to the fact that we eat more food than our bodies need. Why? There are many reasons, including the fact that we've become an extremely inactive society. We spend long hours sitting at computers, televisions and in cars. We eat nearly half of our meals in restaurants or from packages – food that generally has more calories, and fewer fruits, vegetables and fiber-rich whole grains. Also, these foods often contain unhealthy nutrients such as saturated fat, trans fat, cholesterol, sodium and added sugars. All those things suggest that we're not shopping for healthy foods and cooking in our own kitchens, or eating at home. As a nation, we simply no longer have the time or skills to cook healthy meals. It's such a crisis that the American Heart Association, with the help of Walmart, is prioritizing a return to the kitchen as a part of our mission to improve the cardiovascular health of all Americans, through programs like Simple Cooking with Heart.

Home-prepared meals have heart-health benefits that'll help keep your family fit, lower the risk of heart disease and stroke for your family and loved ones, and help balance your food budget. The American Heart Association’s Simple Cooking with Heart program helps individuals learn how to prepare easy, affordable, tasty meals using our dozens of free recipes. Recipes are simple, nutritious and each has a preparation video so you won’t miss a step.

Simple Cooking with Heart is teaching Americans how to cook more at home by giving them tools, basic skills and techniques to get started and inspired – and have fun. You can use Simple Cooking with Heart to hold in-home cooking parties for friends and neighbors, or at live cooking demonstrations at community events, for employees, patients and staff at your place or employment. Host kits are available digitally for download at: www.heart.org/simplecooking. For more information and to request the free materials, contact Penny McGuire at 781.373.4510 or at penny.mcguire@heart.org

Penny McGuire, MPH
Director Community Health Strategies
American Heart Association | American Stroke Association
Heart Safe Community Project

By Doreen Crowe, MEd, BSN, RN, Nurse Leader of Health Services, Wilmington Public Schools

According to the American Heart Association, Sudden Cardiac Arrest affects 350,000 Americans each year. The heart stops beating abruptly and the victim is unconscious with no pulse. The most common cause is a lethal abnormal heart rhythm called Ventricular Fibrillation. The only treatment is early defibrillation by electric shock. In 1990, the American Heart Association developed the “Chain of Survival.” This protocol addresses the fact that most Sudden Cardiac Arrest episodes occur outside of a hospital, with death occurring within minutes of onset. With each minute that passes, the likelihood of survival decreases 7-10%. To provide the best opportunity for survival, each of these four links on the Chain must be put into motion within the first few minutes of Sudden Cardiac Arrest onset:

- **Early Access to Emergency Care** must be provided by calling 911.
- **Early CPR** should be started and maintained until emergency medical services (EMS) arrive.
- **Early Defibrillation** is the only one that can re-start the heart function of a person with ventricular fibrillation (VF). If an automated external defibrillator (AED) is available, a trained operator should administer defibrillation as quickly as possible until EMS personnel arrive.
- **Early Advanced Care**, the final link, can then be administered as needed by EMS personnel.

Since more than 70% of Sudden Cardiac Arrest cases occur at home, and another 10% to 15% occur at work, trained Emergency Medical Services personnel are unlikely to be at the scene at onset. Therefore, trained lay responders with quick access to defibrillation units can be a vital asset when Sudden Cardiac Arrest strikes. In certain environments, where the Chain is strong and when defibrillation occurs within the first few minutes of cardiac arrest, survival rates can approach 80% to 100%.

The Town of Wilmington currently has Automated External Defibrillators strategically located in the following places: all public schools, senior citizen center, public library, town hall and most police cruisers. The Massachusetts Department of Public Health, Office of Emergency Medical Services and the American Heart Association encourage and promote community awareness of the potential for saving the lives of sudden cardiac arrest victims through the use of CPR (cardiopulmonary resuscitation) and increased public access to defibrillation. The Community Health Assessment Report for CHNA 15 (Community Health Network Area) identified public safety as a top priority.

In 2010, a Sutton High School student suffered a sudden cardiac arrest and subsequent death. As a result, Governor Patrick signed legislation called “Michael’s Law” requiring all MA school districts to develop medical emergency response plans. In an effort to enhance compliance with the current legislation, Wilmington High School collaborated with the Wilmington Board of Health and Wilmington Police and Fire Dept to become a Heart Safe Community. One major component of the project was to add a requirement to the high school health curriculum for students to become certified in American Heart
Heart Safe Community Project….continued

The goals and objectives of the Wilmington Heart Safe Community project include the following implementation strategies:
1) CPR/AED/First Aid Instructor Training for High School Health Teachers
2) CPR/AED Training for all members of the Wilmington Community
   a. for High School Students
   b. for Municipal Employees
   c. for Wilmington Public School Employees
   d. for Wilmington Citizens
3) Submission of Heart Safe Community Application

The target population will learn to recognize signs and symptoms of sudden cardiac arrest, will call 911 immediately, begin early CPR and early defibrillation with an automated external defibrillator. The Wilmington community as a whole has been very responsive to the project. High School sophomores benefited the most from the Heart Safe Community project. The most important lesson they have learned in becoming CPR certified is the importance of giving back to the community and becoming an active participant in the Chain of Survival.

References


Day on the Hill Summary March 14, 2014
by Wayne Reynolds, RN, FAACVPR

Attending: Karen LaFond, Kate Traynor, Carol McNally, Dennis McNally and Wayne Reynolds

There was a preparatory meeting the evening before with AACVPR and HPP leadership and GRQ Consultants. During this meeting they reviewed talking points and importance of Senate bill S382 to programs around the country.

The next day we met with health care staffers from both Senator Warren’s and Senator Markey’s offices. Both were very supportive and had strong opinions on the need for improving access to our programs, especially for our seniors. Since Senator Warren was already a co-sponsor of the bill, we asked that she or her staff ask other senators/staffers to request a speedy scoring of the bill by the Congressional Budget Office since other members of the senate had refused to even discuss the bill without scoring, regardless of AACVPR stating that the ask was a no cost technical correction. Senator Markey signed as a co-sponsor within two days and his staffer was also on board with assisting us in pursuing a CBO score.

Massachusetts again showed up strongly on the “national scene” with all three professionals working in concert to articulate our purpose and needs with an added boost from a well-spoken patient perspective.

The plan is to continue to follow up with both staffers regarding CBO scoring. On the afternoon of the 14th we received word that the correction had been modified and was currently only including wording regarding critical access hospitals; which had been identified as a possible outcome. (“Half a loaf is better than none” - M. Low) This bill should be voted on during the current session, unless it is further cut prior to going to the senate floor.
PLEASE RENEW YOUR MEMBERSHIP

The following individual memberships have either expired since May 2014 or will expire before the next newsletter. Please take a moment to renew now to avoid missing benefits such as announcements, updates and the “Members Only” section of the web site which includes the newsletter and on-line forum.

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Reminder:
The Executive Committee is still trying to fill the President Elect position for 2014. It is a great opportunity for you to get involved with your organization. Remember we always work together as a team.

Consider joining the EC… you won’t regret it!!

MEMBERSHIP APPLICATION

Or
Download application from www.macvpr.org

Name (with Credentials):
______________________________________________________

Mailing Address you want the card sent:
Home/Work (Please circle)
______________________________________________________

Work #:

Home #:

E mail: _____________________________

Profession:

Institution:

[ ] Cardiac [ ] Pulmonary
[ ] New or [ ] Renewing Membership

[ ] $100 Two year membership (begins on the first day of the month joined and ends two years from that date)

[ ] $25 for a One Year student membership
(Students must be enrolled in a minimal of 12 credits per quarter and provide copy of schedule with membership application.)

How did you learn about the MACVPR?
______________________________________________________

Are you currently a member of the American Association of Cardiovascular and Pulmonary Rehab (AACVPR)?
[ ] Yes [ ] No

If you do not want your email and/or mailing address shared with the AACVPR please check here ______

Mail check or money order to:
MACVPR  C/O Ann Stone
33 Oakwood Ave Falmouth, MA 02540
05/2013AES/aes