Greetings MACVPR members! It’s hard to believe, it is almost summer once again.

As we acknowledged in our last newsletter, 2011 was a year of change for MACVPR. Changes are continuing into 2012. The new website and forum are up and running thanks to the hard work of Ann Stone and Lynne MacDonald. You should be checking the website frequently to keep updated with the latest happenings in Cardiac & Pulmonary Rehab. The forum is an ideal place to share information and ideas with other members. This is a valuable tool that is available to all members.

HAIL AND FAIRWELL

It is with sadness that we are saying goodbye to our long-standing Administrative Assistant, Ann Stone, who has been an extremely valuable member of our team. She has been an invaluable asset to the Executive Committee as well the general MACVPR membership. Her contributions are too numerous to list in this little space. It would take the entire newsletter to list.

We welcome Donna Hawk who will be stepping into the Administrative Assistant role. Donna is an RRT working in Pulmonary Rehab at Baystate Medical Center. She comes with an extensive background in pulmonary rehab. She also has a considerable amount of experience volunteering with the American Lung Association (ALA) of Massachusetts where she has held the positions of Leadership Council member as well as Chairman of the Leadership Board. She is also a member of the ALA of New England Leadership Board. In addition, Donna is currently a member of the Council of Pulmonary Service Managers and has held the past positions of President and Secretary.

MACVPR is looking for you!! That is, if you are a person who cares about our organization and the great work that we do in promoting the practice of high standards of care in both cardiac and pulmonary rehabilitation. If you are this person, the MACVPR Executive Committee is the place for you. Experience is not required. We are still looking for a President Elect (or Co-Presidents) and a Treasurer. If you are interested in learning more information on any of the positions please contact any member of the executive committee.

Save the date: October 26, 2012. We will be returning to the Devens Common Center for our annual symposium. It promises to be even more informative and exciting than last year! Stay tuned for details.

Important Dates for the 2012 Certification Cycle

- December 3, 2012: Application opens
- February 28, 2013: Completed applications and payments due
- March - May 2013: Program Certification Committee Review of certification and recertification applications
- June - Aug 2013: AACVPR Board of Directors reviews and approves recommendations of Program Certification Committee
- Aug 31, 2013: AACVPR Certification Center notifies all programs of final decision

Draft applications for both Cardiac and Pulmonary certification/recertification are available on the AACVPR website. http://www.aacvpr.org/Certification/CertificationApplicationResourcePage/tabid/289/Default.aspx There have been changes in the data collection time frames. Of note the applications for certification and recertification are identical.

For all of you Pulmonary Rehab providers out there we hope you are all aware of the current reimbursement issues surrounding CMS payment cuts. Hopefully you are familiar with the AACVPR Pulmonary Rehabilitation Toolkit: Guidance to Calculating Appropriate Charges for G0424, http://www.macvpr.org/wp-content/uploads/2011/10/PR-Toolkit-20121.pdf and have started working with your finance department to look at what your institutions are charging CMS for Pulmonary Rehab. Read the Reimbursement Update on page 3 for more details.

We wish you an enjoyable summer and hope to see you all at the October symposium at Devens Commons.

Dennis O’Brien, RN and Robert Berry, MS RCEP
president@macvpr.org
We have another informative edition of MACVPR NEWS. Many thanks to all that have contributed.

Marissa Leigh Proudman BSN, has provided us with a comprehensive clinical article on Atrial Fibrillation.

Deborah Sullivan MS, ANP-BC has started a great new feature “The Beat Goes On...EKG Challenge” in which she discusses an interesting finding on a rhythm strip and presents it as a brief case study.

I continue to beg for more input from our members in submitting clinical articles or Tales from the Trenches articles. It is very frustrating that all of the ideas/input comes from the EC members. We have over 100 members and I am sure many of you have ideas to contribute. It would certainly make the NL more vibrant and fresh if we got input from as many people as possible.

To this end I have come up with 2 new ideas. The first one I have already implemented. I emailed you all a question and hoped for as many responses as possible. The responses are tallied and reported in the “Tales from the Trenches” column. Hopefully you all find this information helpful. I plan to continue this in future newsletters. Secondly, I was hoping to have different programs take turns contributing clinical articles for the newsletter. If we have to, maybe we can assign each program to contribute for the next newsletter….please let me know what you think of that idea.

Once again I encourage everyone to use the the new and improved MACVPR website. The forum is much more user friendly and a great way to share information with other members, and get your questions answered by others in your field. Hopefully more people will begin to utilize this great resource.

I would also like to welcome Donna Hawk, RRT, AE-C as our new Administrative Assistant. She comes with a wealth of experience and I am confident she will truly be an asset to the MACVPR.

Please feel free to e-mail me and share your ideas.

Lynne MacDonald, PT
Beth Israel Deaconess Hospital-Milton Cardiac Rehab

MACVPR does not accept responsibility for the accuracy of the information produced herein. The statements and opinions contained in the articles of the MACVPR Newsletter are solely those of the individual authors and contributors and not of MACVPR. We do encourage comments, articles, and other contributions while reserving the right to reject or edit the material. The articles in the newsletter are for readers to use as they deem necessary in their programs of clinical practice and are not necessarily standards of care by MACVPR.

Full Day Meeting
Friday October 26, 2012

MACVPR 2012 New England Cardiovascular & Pulmonary Rehabilitation Symposium

Featuring:

Chris Garvey, FNP, MSN, MPA, FAACVPR
Nationally known speaker on Pulmonary Rehab

Nandita Scott, MD
Women and Heart Disease

Linda Nici, MD
The Integrated Care of the COPD Patient

Margaret Wandrey, RD,LDN
What’s On Your Plate? Does it really Matter…?

Pamela Katz Ressler, MS, RN, HN-BC
Founder and President of Stress Resources

• Keep your programs current
• Network with clinicians throughout New England

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
to this important meeting coming soon
As we look forward to the warm days of summer, remember that there are several "hot" items noted below that continue to need our attention.

**Pulmonary Rehabilitation Toolkit: Guidance for calculating appropriate charges for GO424**

In response to the pulmonary rehabilitation payment reduction by Medicare that has been in effect since January 1, 2012, AACVPR has led a multi-society effort to provide an explanation of the issues and a strategy to reverse the payment aberration.

The new **Pulmonary Rehabilitation Toolkit: Guidance for Calculating Appropriate Charges for GO424**, the result of this collaboration, is designed to give hospital-based pulmonary rehabilitation (PR) programs detailed information regarding payment for PR services under the fee-for-service program of Medicare. In particular, the toolkit focuses on the hospital charge for GO424, the billing mechanism for PR services for patients with moderate, severe, and very severe COPD.

In its final rule announcing 2012 payment rates, CMS highlights GO424 as a primary example of hospitals’ failure to develop appropriate charges for new “bundled” codes that reflect a broad base of services that had been separately billable. The information provided in the toolkit is designed to ensure that hospitals carefully consider all the services, supplies, and equipment that are integral to the provision of PR services encompassed in GO424 and establish appropriate charges reflective of that scope of services.

While it is likely that the PR community will not see a substantive adjustment to payment rates as a result of this nationwide educational effort until 2014, payment rates are scheduled to be announced in July 2013. Consequently, it is imperative that hospitals act as swiftly as possible to review and adjust their charges for GO424 so that claims data submitted to Medicare, which includes a specific column for identification of hospital charges on the UB-04, is accurate. Without such an adjustment to charges, the payment rate will remain problematic.

The participation of each and every PR program in addressing this issue is absolutely critical to ensure that charges for PR services are accurate so that reimbursement is adjusted accordingly. The future of pulmonary rehab programs is at stake.

More than 1,000 hospitals submitted bills for GO424 in 2010. Please share this resource with your colleagues and contacts not only in your program but across the nation and help us implement these measures to correct the payment rates.

If you have any questions, please contact Judy or me. Wishing you all a healthy and wonderful summer!

Esther Burchinal, MS, CES, RCEP
Emerson Hospital Cardiac Rehab
Immediate Past Co-Presidents

Judy Flannery, RN, BSN
Harrington Hospital Cardiac Rehab

**Other Coding Clarification**

**Cardiac Rehab Coding:** CMS has reviewed the use of modifier 59 and clarified that it is necessary to use when one CPT 93798 and one 93797 are used for two sessions of cardiac rehab in one day.

**Pulmonary Rehab Coding:** CMS has determined that modifier 59 is not required for two pulmonary rehab sessions on the same day.

As an ongoing incentive to get members involved we would like to offer free CE’s for your contribution to the newsletter!!! Anyone who contributes an article for Tales from the Trenches or a Clinical Article can receive this......a $20 value!
Age as a Risk Factor for Stroke in Atrial Fibrillation
Marissa Leigh Proudman, BSN
Lowell General Hospital Intermediate Care

The prevalence of atrial fibrillation (AF) is related to age and is expected to rise as the population ages and the prevalence of cardiovascular risk factors increases. It is a common cardiac arrhythmia that confers substantial mortality and morbidity from stroke, thromboembolism, and heart failure, and a significant impairment on quality of life.

AF is a major risk factor for stroke, increasing the risk of ischemic stroke by approximately 5-fold, with approximately 15% of all strokes in the U.S. being attributable to AF. In a pooled analysis of 5 randomized controlled trials (AFASAK [Copenhagen Atrial Fibrillation, Aspirin, and Anticoagulation], SPAF [Stroke Prevention in Atrial Fibrillation Investigators trial], BAATAF [Boston Area Anticoagulation Trial For Atrial Fibrillation], CAFA [Canadian Atrial Fibrillation Anticoagulation study], and SPINAF [Stroke Prevention In Nonrheumatic Atrial Fibrillation]), age also emerged as an independent predictor of ischemic stroke in prospective cohort or case-control studies (Marinigh, et al, p. 828).

The absolute risk of stroke varies widely among patients with AF and is dependent not only on chronological age, but also on existing comorbidities and other clinical features. Other predictors of stroke among AF patients include diabetes, heart failure, left ventricular systolic dysfunction systolic blood pressure and coronary artery disease. Female gender is also emerging as a recognized, independent risk factor for stroke and thromboembolism.

The heart is a pump with four chambers. The rate and rhythm of the heartbeat is controlled by the electrical system. Each heartbeat is initiated from the top of the heart by an electrical stimulus that travels down and across the heart causing the organized contraction and relaxation of the chambers. The sinoatrial (SA) node- a group of cells in the right atrium- fires off a signal to initiate a new heartbeat and contract the atra. As the atria contract, blood is forced into the right and left ventricles. The signal then passes to the atrioventricular (AV) node, which slows it slightly, allowing the ventricles to finish filling before they also contract and pump blood to the lungs (right ventricle) and around the body (left ventricle). The process is repeated with each heartbeat. In a healthy heart this occurs in a regular, rhythmical fashion, so that the heart muscles are stimulated to contract, and then have time to recover before the next heartbeat starts.

“Fibrillate” means to contract in a fast and irregular fashion. In AF the normal electrical stimulus from the SA node is disrupted. The chaotic, usually rapid atrial activity means that the atria fibrillate instead of contracting regularly. This results in a loss of active ventricular filling, a reduction in cardiac output, and stagnation of blood within the atria. The stagnation can lead to thrombus formation with resultant risk of embolism and stroke. Atrial flutter is similar to AF arising from abnormally rapid pulsation, of the atria of the heart.

Atrial fibrillation in the rehabilitation setting may occur in patients with established diseases such as: hypertension, valvular disease, ischemic heart disease, chronic obstructive pulmonary disease, or structural heart disease. The explanation for why AF occurs in these patients centers on an initiation of electrical activity outside the normal SA node area (ectopic) plus abnormal atrial tissue maintaining that activity. In hypertension, for example, the cardiac muscle becomes abnormal as a result of hypertrophy. There are some familial predispositions in AF including long and short QT syndromes, Brugada syndrome, and some cardiomyopathies, especially in younger patients. Other conditions that may trigger AF to develop include: hyperthyroidism, pneumonia, pulmonary embolus, obesity, and excessive alcohol and caffeine intake. Atrial fibrillation (AF) and atrial flutter occur frequently after most types of cardiac surgery. AF has been reported in up to 15 to 40 percent of patients in the early postoperative period following coronary artery bypass graft surgery (CABG) , in 37 to 50 percent after valve surgery, in as many as 60 percent undergoing valve replacement plus CABG, and in 11 to 24 percent after cardiac transplantation (Bharucha & Marinchak, 2012).

Some patients with AF are asymptomatic, particularly if the ventricular rate is not particularly fast. These patients in the rehabilitation setting may be identified by an opportunistic pulse check. Other patients present with syncope, angina, dizziness, palpitations, or shortness of breath. Classification of atrial fibrillation (AF) begins with distinguishing a first detectable episode, irrespective of whether it is symptomatic or self-limited. Published guidelines from an American College of Cardiology (ACC)/American Heart Association (AHA)/European Society of Cardiology (ESC) committee of experts on the treatment of patients with atrial fibrillation recommend classification of AF into the following 3 patterns:

- **Paroxysmal AF** – Episodes of AF that terminate spontaneously within 7 days (most episodes last less than 24 hours)
- **Persistent AF** - Episodes of AF that last more than 7 days and may require either pharmacologic or electrical intervention to terminate
- **Permanent AF** - AF that has persisted for more than 1 year, either because cardioversion has failed or because cardioversion has not been attempted.

This classification schema pertains to cases that are not related to a reversible cause of AF (eg, thyrotoxicosis, electrolyte abnormalities, acute ethanol intoxication). Atrial fibrillation secondary to acute myocardial infarction, cardiac surgery, pericarditis, pulmonary embolism, or acute pulmonary disease is considered separately because, in these situations, AF is less likely to recur once the precipitating condition has been treated adequately and has resolved.
Atrial Fibrillation....continued

The Atrial Fibrillation Competence Network/ European Heart Rhythm Association (AFNET/EHRA) consensus group concludes in a conference report published online July 26, 2011 in Europace a new consensus statement on the latest advances in atrial fibrillation (AF) treatment. The report proposes classifying AF based on the underlying mechanisms rather than just the symptoms or duration of AF. The report proposes five classifications of AF: Monogenic AF includes inheritable cardiomyopathies, such as short QT, Brugada, or hypertrophic cardiomyopathy. These causes may be amenable to pharmacological reversal as short QT, Brugada, or hypertrophic cardiomyopathy. The consensus document separately classifies postoperative AF, which may be prevented by beta blockers, steroids, or antiarrhythmics. Finally, the consensus includes a category of complex AF, which is "a large box of things where we all have to accept that we don't understand what the true pathophysiology is in this group of patients," (Heartwire, 2011).

The underlying nature of the AF is key to the selection of medication and treatment depending on whether AF is newly diagnosed, paroxysmal or persistent, and whether it is a longstanding diagnosis and permanent. This is an opportunity for healthcare professionals to better inform patients about AF and their risk for stroke. Anticoagulation reduces the risk of AF-induced stroke by 68% and mortality by 33% (AHA/ACC 2011). One of the most difficult aspects in the management of atrial fibrillation is deciding which type of anticoagulation to use to prevent thromboembolic events. Over the past decade there have been several published risk factor based approaches to deciding which type of oral anticoagulation to use. The two most widely used are the CHADS2 and the CHA2DS2-VASc risk score. The CHA2DS2-VASc score complements the CHADS2 by the inclusion of additional stroke risk modifier factors. It adds age 65-75 years, vascular disease, and female sex.

The CHADS2 score allows the prediction of the risk of stroke in patients with atrial fibrillation and is a guide in the use of oral anticoagulants. The CHADS2 score was validated in a study published in JAMA in 2001 using 1,733 atrial fibrillation patients tracked through Medicare claims. In patients with a CHADS2 score of 0 to 1 aspirin is acceptable therapy. With a CHADS2 score of 2 or more, oral anticoagulation with warfarin or dabigatran is recommended. The CHADS2, while easy to use, does not include all of the potential stroke risk factors. Major risk factors are: previous stroke or thromboembolism and age ≥75. Minor risk factors are: diabetes, hypertension, age 65-74, systolic heart failure (or moderate-severe left ventricular dysfunction), female gender and vascular disease. These factors are expressed in the CHA2DS2-VASc score. Patients with a CHADS2 score of 2 or greater should be treated with oral anticoagulation (warfarin or dabigatran). In patients with a CHADS2 score of 1, aspirin or oral anticoagulation is recommended, and for a score of 0 aspirin alone is recommended.

Optimum selection of patients with AF for anticoagulation therapy depends not only on assessment of their risk of stroke but also on identification of those at increased risk of developing bleeding complications. HAS-BLED provide guidelines where there is a concern of bleeding due to anticoagulation. HAS-BLED stands for hypertension, abnormal renal/liver function, stroke, bleeding history or predisposition, labile INR, elderly (age over 65), and drugs/alcohol concomitantly; the maximum possible score is 9—with 1 point for each of the components (with abnormal renal/liver function, for example, possibly scoring two if both are present and similarly drugs/alcohol possibly contributing 2 points). "Drugs" refers to any medications that increase bleeding risk during anticoagulation, such as aspirin, nonsteroidal anti-inflammatory drugs (NSAIDs), or even steroids on top of warfarin, and "alcohol" refers to alcohol abuse. The HAS-BLED scoring system score of 3 or higher indicates high risk and the need for caution.

Assessment of bleeding risk is mandatory before starting anticoagulation. In best practice, primary care providers refer their atrial fibrillation patients to the anticoagulation clinic for monitoring of INR (International Normalized Ratio) which measures the time it takes for blood to clot and compares it to an average. In healthy people, the INR is about 1.0. For patients on Warfarin, the INR typically should be between 2.0 and 3.0 for patients with atrial fibrillation. The patients’ anticoagulation becomes the responsibility of the clinic. With the advent of newer oral anticoagulant agents, anticoagulation has migrated to become the responsibility of the cardiologist. One of these newer agents, dabigatran (Pradaxa, Boehringer Ingelheim), has been approved for the prevention of stroke in patients with AF.

Providers may be apprehensive about prescribing oral anticoagulation (OAC) to elderly patients, given concerns about a higher risk. The relative risk reduction by OAC for ischemic stroke persists in the oldest patients with AF. Matching CHA2DS2-VASc score and HAS-BLED score allows
The goals of medical therapy for patients with atrial fibrillation are to maintain sinus rhythm or control rate, avoid the risk of complications (e.g., stroke), and minimize symptoms, and may be combined with nonpharmacological management such as ablation and cardioversion. Warfarin represents the cornerstone of anticoagulant therapy for patients at moderate to high risk of thromboembolic events. Warfarin interferes with the hepatic synthesis of vitamin K–dependent coagulation factors. The dose is titrated to maintain an INR of 2-3. Patient education in the rehabilitation setting includes teaching regarding warfarin interactions with medications and foods. Many drugs can change the INR such as: aspirin, ibuprofen, antibiotics, birth control pills/progesterone-estrogen combination pills, and multivitamins. Patients should not take any prescription or nonprescription medicines without first talking to the provider who tracks their INR test results. Foods high in vitamin K, a natural blood-clotting factor, can alter an INR. Broccoli, lettuce, spinach and liver are all high in vitamin K. Providers usually encourage patients to include these nutritious foods in a healthy diet. It is important, however, to consume a consistent amount of these foods and not drastically change eating habits. It is important to have follow-up blood tests as scheduled and to know individual Warfarin (Coumadin) dosage and INR. It is important to report any unusual bleeding or bruising to the prescribing provider or rehabilitation staff. Aspirin irreversibly inhibits platelet aggregation and is very effective in reducing the risk of stroke. Anticoagulation with either aspirin or warfarin should be initiated for all individuals with AF, except those with contraindications.

Some patients may not be able to take anticoagulants such as warfarin because of contraindications or comorbidities. Clopidogrel selectively inhibits adenosine diphosphate (ADP) binding to the platelet receptor and subsequent ADP-mediated activation of the glycoprotein GPIIb/IIIa complex, thereby inhibiting platelet aggregation. In patients unable to take warfarin, the addition of clopidogrel to aspirin has been shown to reduce the risk of major vascular events. Dabigatran (Pradaxa) is a thrombin inhibitor which prevents clot formation. It requires no international normalized ratio monitoring and has no dietary restrictions, making it an attractive option for stroke prevention and thromboembolization in patients with nonvalvular atrial fibrillation.

The goal of antiarrhythmic drug therapy is to reduce the duration and frequency of atrial fibrillation episodes, thus improving patient quality of life and symptoms. If successful, rhythm control can eliminate or delay the need for long-term anticoagulation with warfarin in some patients. Restoration of sinus rhythm with regularization of the heart’s rhythm improves cardiac hemodynamic and exercise tolerance. By maintaining the atrial contribution to cardiac output, symptoms of heart failure and overall quality of life can improve. However, several randomized controlled trials have demonstrated that a strategy aimed at restoring and maintaining sinus rhythm neither improves survival nor reduces the risk of stroke in patients with AF. AFFIRM found no difference in all-cause mortality or stroke rate. AF-CHEF showed no difference in cardiovascular mortality, and RACE found no differences for the prevention of cardiovascular morbidity or mortality in preference to either strategy. Rhythm control should be considered for patients who are symptomatic, are younger, are presenting for the first time, have AF secondary to a treated or corrected problem, or have evidence of congestive heart failure.

During an episode of AF, restoration of sinus rhythm may be achieved through direct current (DC) electrical cardioversion. The aim of DC cardioversion is to terminate the arrhythmia by the delivery of a dose of electrical current to the heart at a specific and safe time in the cardiac cycle. Electrical cardioversion has an acute success rate of 90% in selected patients (Lip and Tse, 2007). Antiarrhythmic drug therapy can be given in conjunction with DC cardioversion to help prevent recurrence of AF (Fuster et al. 2006). Pharmacological or chemical cardioversion using antiarrhythmic drugs is an alternative to electrical cardioversion and is particularly useful in patients with AF of recent onset. Flecainide and amiodarone are examples of antiarrhythmic agents that are usually given intravenously as an infusion to treat acute onset AF. They should only be administered under continuous ECG monitoring in a hospital setting as they are associated with potentially life-threatening side effects such as QT prolongation and torsades de pointes ventricular tachycardia. Evidence also suggests that amiodarone is the best drug to help maintain sinus rhythm in the long term (AFFIRM Investigators 2003). However, amiodarone has potentially serious, irreversible, long-term side effects, such as pulmonary fibrosis, thyroid dysfunction, liver disorders and corneal micro deposits, and should only be used in the long term in carefully selected individuals.

Class II beta blockers such as bisoprolol, atenolol, metoprolol or propranolol, or rate limiting class IV calcium antagonists such as diltiazem or verapamil are the primary drugs...
Atrial Fibrillation....continued

of choice in rate control (NICE, 2006). Adequate heart rate control, both at rest and during activity, can be achieved in some patients with AF using rate control drugs. These drugs prolong the conduction of electrical impulses through the AV node thus slowing the transmission of impulses to the ventricles. Consequently, this reduces the heart rate, improves symptoms and can reduce the future risk of adverse cardiovascular events (Dorian 2010). The aim is to produce a resting heart rate of <90 beats per minute and an exercise heart rate of <110 beats per minute while inactive and 200 minus age when active (Kirchhoff, et al, 2007). Digoxin should only be considered in predominantly sedentary patients as a result of its inferior rate controlling capacity. Rate control is recommended as first line in patients (nice.org) >65 years old, with coronary artery disease, with contraindications to antiarrhythmics drugs, or are unsuitable for cardioversion, and in patients with permanent AF.

Catheter ablation and pulmonary vein isolation are treatments used for symptomatic patients whose pharmacologic treatments have failed or are intolerant or have contraindications to them. It involves ablating areas within the atrium that may be triggering ectopic beats or causing the atria to fibrillate, particularly in paroxysmal AF. Radio frequency energy waves are applied to form scar tissue either by burning or freezing areas around the pulmonary veins.

The Maze Procedure is surgery performed to treat atrial fibrillation. During the procedure, a number of incisions are made on the left and right atrium to form scar tissue, which does not conduct electricity and disrupts the path of abnormal electrical impulses. The scar tissue also prevents erratic electrical signals from recurring. The result is what looks like a children's maze in which there is only one path that the electrical impulse can take from the SA node to the AV node. The atrium can no longer fibrillate, and sinus rhythm is hopefully restored. Maze can be performed either through an open chest procedure or a minimally invasive procedure. Ninety percent of Maze surgeries are done in conjunction with other open chest surgery, such as coronary artery bypass grafting, mitral valve repair and/or valve replacement.

According to the United States Census bureau, seventy-six million American children were born between 1945 and 1965, representing a cohort that is significant on account of its size alone. Atrial fibrillation is a common cardiac arrhythmia whose prevalence is expected to rise as the population ages. The risk of ischemic stroke is significantly increased in AF patients, and there is evidence of a graded increased risk of stroke associated with advancing age. Goals of treatment in patients with AF are accurate assessment of an individual’s risk of stroke and treatment with an anticoagulant or antiplatelet agent as appropriate; treatment of symptoms utilizing rate or rhythm control; and prevention of complications.

References

2011 ACCF/AHA/HRS Focused Update on the Management of Patients With Atrial Fibrillation (Updating the 2006 Guideline) http://circ.ahajournals.org/content/123/4/e18.full

Anticoagulation management in clinical practice: Preventing stroke in patients with atrial fibrillation. (includes abstract); Hickey, Kathleen; Heart & Lung, 2012 Mar; 41 (2): 146-56 (journal article - pictorial, review, tables/charts) ISSN: 0147-9563 PMID: 22047781 CINAHL AN: 2011472127


Greetings MACVPR Members,

Memorial Day Weekend has officially passed and we can now say Hello to summer. It is a great time for rest, relaxation and time away from every day commitments. The MACVPR committee will continue to work towards the goals of our members. We will meeting to prepare for the Fall Symposium. Hope to see you all at our October meeting at Devens. Please take time to renew your membership if your name is included on the list on the last page of this newsletter.

Have a safe and happy summer!

See you in the fall!

Melessa Fox
Membership Chair

Falmouth Hospital Cardiac Rehab

membership@macvpr.org

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Check out the new Forum….it is a lot more user friendly. We created various categories to organize the posts and make it easier to participate. Currently we have posts on these topics:

- Question re: maintenance fees charged in CR
- Recommendations for new telemetry unit...what are pros and cons
- Info re: self pay PAD/PVD programs anyone is currently using
- Can we charge for a 6 MWT if patient is not Medicare?
- Approval, proper coding for PR with Mass Health patients
- Ability to charge for PR if they have already had 30 visits elsewhere
- What key outcomes are programs using for PR performance measures?
- Post re: internship opportunities at Harrington Hospital

Try to make it a habit to check out the Forum at least once a week. One new feature that you may not have noticed is the ability to watch or subscribe to the topic. If you subscribe to the topic when a new post is posted you are automatically sent an email alerting you to go to the forum to read the new post. So easy to track! This is a great but underutilized resource...so please start to take advantage of it. Sharing our thoughts and experiences with one another helps all of our programs improve the care we provide to our patients.

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Current balances as of February 8, 2012:

- Citizen’s Bank checking: $7,067.96
- Citizen’s Bank Money Market fund: $2,630.96
- Total: $9,698.92

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The Executive Committee is still looking for someone to take over Susan’s position as Treasurer for 2012. Please get involved!

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MACVPR Forum Update

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Welcome New Members

Bruce Moore RN, BSN,- Cooley Dickinson Hospital
Heather Rugg BS, – Health Alliance Hospital
Michele Hart RN,BSN,AE-C, - Baystate Medical Center
The MACVPR 2012 Half Day Member Meeting provided a lecture on *The Science of the Broken Heart: Tako-Tsubo Cardiomyopathy* presented by Colleen Heafey MSN, RN, CCRN-CMC, and Clinical Nurse Specialist from Lowell General Hospital. Colleen answered the questions:

- “Can you really break your heart?”
- Can you be scared to death?
- What does an octopus and the left ventricle have in common?”

Treatment emphasized stress management as one of the core components of cardiac rehab. There was unanimous positive feedback that Colleen was an excellent speaker, related to the audience, “witty”, and information was well presented and pertinent to the rehabilitation setting.

Following Colleen was a breakout session of the Regional Groups discussing the topic of “How Does Your Program Deliver Education? The participants discussed many different approaches:

- Education classes running in 12 week rotation
- Charging vs. non charging
- Education time varied from 15 minutes to an hour
- Specific days of the weeks and times between classes or during exercise
- Monthly support group run by RN with psych background
- Integration of collaborative services such as pharmacy, dietician to deliver education
- “Walking rounds” during exercise
- Education book presented at initial visit
- Handouts and/or lecture, posters
- Expectation set that education is part of program
- How to tailor program to patient staying only a few visits
- Channing Bete: Living with Heart Disease Self Care Handbook
- Resources from PCNA
- ITP: What education does the individual need?
- TV Channel with most crucial information from each lecture
- Adult Learning Theory: Adults will commit to learning when the goals and objectives are considered realistic and important to them.

Ginny Dow RN, BSN, BC
Deirdre Proudman, MSN, RN-BC, CCRN
Education Co-Chairs

**Upcoming Webcasts**

**July 12, 2012**

**The “Why’s” and “How’s” of Tracking and Enhancing Enrollment in CR**
Presented by: Randal J. Thomas, MD, MS and Marjorie King, MD

**Aug 22, 2012**

**How to Survive and Grow Your PR Program Through 2013**
Presented by: Rebecca Crouch, PT, DPT, MS, CCS, FAACVPR

**Ongoing**

**Program Leadership in the New Era (PLINE) Virtual Conference**
8 Great speakers, 7 Relevant Topics, 1 Power-Packed program!
Cardiovascular and pulmonary professionals are cordially invited to participate in our annual poster presentation session which will be held during the

MACVPR 2012 New England Cardiovascular & Pulmonary Rehabilitation Symposium
Devens Commons, Devens MA
Friday, October 26, 2012

The purpose is to provide a forum to share original research findings, showcase successful approaches to patient care, and highlight innovative ideas and projects. 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 ~
http://www.macvpr.org/?page_id=609&ee=4

The form will request the following:

- Name, Credentials, and Facility 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 the poster session the participant will be able to…..”

The deadline for abstract submission is August 17, 2012.

Abstract submissions will be reviewed by the MACVPR Education Committee.

Authors will receive a notification confirming the acceptance of the abstract no later than September 07, 2012.

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.

Click here for the checklist for the makings of an Effective Poster.
Direct any questions you may have to education_chair@macvpr.org
A regular column designed to help you better understand your patients’ needs and promote self healing during rehabilitation and beyond...

Connections: Mind/Body/Spirit
By Pamela Katz Ressler, MS, RN, HN-BC

Editors note: Pam was unable to contribute a full column due to time constraints but she has shared an excerpt from her own newsletter from Stress Resources.

"Perhaps there is a language which is not made of words and everything in the world understands it." ~Frances Hodgson Burnett

As we enter the summer months, there is a different rhythm and sound to our days...perhaps a universal language without words that allows us to slow down to the speed of life a bit differently? Mindfulness allows us to tune in to what is happening in the present moment through all of our senses.

What is your language of summer...the buzzing cicadas, the rhythmic creak of a porch swing, the familiar tinny jingle of the ice cream truck, the whirring of a fan, the repetitive cadence of a sprinkler, the sound of ice cubes cracking in a glass of lemonade, or perhaps the surprising roar of an ocean wave? Take a moment and close your eyes and simply pay attention to what you hear...the world around you is speaking in the language of summer, but are you listening?

May you listen for the language of summer this month,

Pam
Stress Resources LLC

Pamela Katz Ressler, MS, RN, HN-BC is the founder and president of Stress Resources (www.StressResources.com) located in Concord, MA. Stress Resources specializes in stress management, holistic healthcare education, and health communication for healthcare providers, organizations, and individuals. Pam is a frequent speaker to local, national, and international audiences on topics relating to stress management, mindfulness, resiliency strategies, therapeutic communication, patient advocacy through social media, and holistic healthcare. She is an adjunct faculty member at the Tufts University School of Medicine and the University of Massachusetts Boston, College of Nursing and Health Sciences, serves on the board of directors of the Integrative Medicine Alliance and is a founding member of the Society for Participatory Medicine. Pam’s CD, Opening the Door to Meditation, featuring tools of relaxation and meditation is available on www.StressResources.com and www.amazon.com.

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 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 10, 2012.
Mr. A is a 64 year old male admitted to your phase III program with the diagnosis of syncope which required the insertion of a pacemaker. Pacemaker settings included the following: *DDDR, lower set rate at 50, sensing and upper rate tracking at 130. He arrived for his 5th session with a baseline heart rate of 64 beats per minute, sinus rhythm with a known RBBB. His BP was 132/80. He reports 2/10 chronic shoulder discomfort and has taken all his medications this morning as prescribed which include aspirin 81 MG daily, Atorvastatin Calcium 20 MG daily, Fish Oil 1200 MG daily, Lisinopril-Hydrochlorothiazide 20-25 MG daily.

He felt well with exercise, reaching a max heart rate of 106 beats per minute and BP of 158/70, RPE (rate of perceived exertion) was reported at 11. As he was cooling down on the treadmill his monitor pattern changed to a wide complex tachycardia to a rate of 127. He was asymptomatic with a stable blood pressure. His rhythm abruptly dropped back down to 100 beats per minute with atrial paced beats. What is your interpretation of his tachycardia?

A. Rate related left bundle branch block
B. Ventricular tachycardia
C. Pacemaker induced tachycardia
D. This is a normal response in the rehab setting in the patient with a pacemaker

(C) The correct answer is pacemaker induced tachycardia. This abnormal pacemaker response was triggered by the ectopic beat (PVC with retrograde p wave) that you can see in line 2. This patient was sent to the pacer clinic where he had his pacemaker interrogated and reprogrammed. Subsequent monitoring showed that this problem was successfully corrected in the presence of his intermittent ectopic beats.

(A) Rate related bundle branch block is not the correct answer for several reasons. The rate change is inconsistent with a rate related bundle branch block and you can see the small pacing spikes before the QRS complex which gives the appearance of a left bundle.

(B) Ventricular tachycardia is incorrect as well but at first glance (fast rate and wide complex) may give the appearance of ventricular tachycardia and must be ruled out quickly. The patient was completely asymptomatic and this helps to guide your response in this situation.

(D) Is incorrect as well. This is an abnormal pacemaker response.

*DDDR Dual chamber, sensed, paced and inhibited with rate responsive feature
As I have mentioned, there is very little input for articles for the newsletter. As a result I decided to try a different approach to get more members involved and put out an email question regarding maintenance fees charged. This is currently a topic of interest for my program as we are looking to increase revenue. I know we are not alone and thought everyone could benefit from this information. I posted the question on the MACVPR Forum but sadly only had two responses. This gave me the idea to do the email question. Since the response was fairly good I will continue to pose a question before each newsletter goes out and publish the responses. I hope even more members get involved.

<table>
<thead>
<tr>
<th>Facility name</th>
<th>Monthly Charge $</th>
<th>Number of Days /week</th>
<th>Quarterly Charge</th>
<th>CR or PR</th>
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<tbody>
<tr>
<td>Anna Jaques Hosp.</td>
<td>36</td>
<td>5</td>
<td>CR</td>
<td></td>
</tr>
<tr>
<td>Baystate Franklin Medical Center</td>
<td>45</td>
<td>3</td>
<td>CR</td>
<td></td>
</tr>
<tr>
<td>Baystate Medical Center</td>
<td>50 ($45 if over age 55)</td>
<td>unlimited</td>
<td>CR</td>
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<tr>
<td>Berkshire Medical Center</td>
<td>44</td>
<td>unlimited</td>
<td>CR and PR</td>
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<td>Beth Israel Deaconess Hospital-Milton</td>
<td>56</td>
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<td>Brigham &amp; Women's Hosp.</td>
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<td>PR</td>
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<td>CR</td>
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<td></td>
<td>40</td>
<td>2</td>
<td>PR</td>
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<td>CR and PR</td>
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<td>50</td>
<td>1</td>
<td>CR</td>
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<td></td>
<td>90</td>
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<td>Falmouth Hosp.</td>
<td>63</td>
<td>3 (for 1 hour)</td>
<td>CR</td>
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<tr>
<td></td>
<td></td>
<td>2 (for 1 ½ hours)</td>
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<tr>
<td>Harrington Hosp.</td>
<td>35</td>
<td>3</td>
<td>CR</td>
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<td></td>
<td>34</td>
<td>2</td>
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<tr>
<td></td>
<td>50</td>
<td>3</td>
<td></td>
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<td>Holy Family Hosp.</td>
<td>42</td>
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<td>CR</td>
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<td>69</td>
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<td></td>
<td>89</td>
<td>5</td>
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<td>Faulkner Hosp.</td>
<td>Not offered</td>
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<tr>
<td>Lahey Clinic Medical Center</td>
<td>9 per session</td>
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<td>CR</td>
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<td>Lowell General Hosp.</td>
<td>40</td>
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<td></td>
<td>2</td>
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<td>3</td>
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<td>3</td>
<td>CR and PR</td>
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<td>Milford Regional Medical Center</td>
<td>28</td>
<td>2</td>
<td>CR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>Nashoba Valley Medical Center</td>
<td>8 per session</td>
<td></td>
<td>CR or PR</td>
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<td>N.E. Sinai Hosp.</td>
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<td>PR</td>
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<td>NSMC Salem Hosp.</td>
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<td>CR</td>
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<tr>
<td></td>
<td>420</td>
<td>11 sessions</td>
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<td></td>
<td></td>
<td>Full year</td>
<td></td>
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<td>NSMC Union Hosp.</td>
<td>35</td>
<td>2</td>
<td>PR</td>
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<tr>
<td>Signature- Health Care</td>
<td>Not offered</td>
<td></td>
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<td>South Shore Hosp.</td>
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<td>CR and PR</td>
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<td>St. Luke's Hosp.</td>
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<td>3</td>
<td>CR</td>
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<td></td>
<td>40</td>
<td>2</td>
<td>PR</td>
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<tr>
<td>Tobey Hospital</td>
<td>40</td>
<td>2</td>
<td>CR and PR</td>
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</table>

Note: a few programs also mentioned that they charge to save the spot if someone is absent, make patients sign a contract.
**PLEASE RENEW YOUR MEMBERSHIP**

The following individual memberships have either expired since May 2012 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.

<table>
<thead>
<tr>
<th>Scherrie</th>
<th>Awtry</th>
<th>5/1/2012</th>
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<tbody>
<tr>
<td>Lisa</td>
<td>Falsone-Jones</td>
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<td>Jessica</td>
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<tr>
<td>Sue</td>
<td>Janson</td>
<td>8/1/2012</td>
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<td>Bussiere</td>
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<td>Jennifer</td>
<td>Morin</td>
<td>8/1/2012</td>
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<tr>
<td>Carol</td>
<td>Robertson</td>
<td>8/1/2012</td>
</tr>
<tr>
<td>Barbara</td>
<td>Yee</td>
<td>8/1/2012</td>
</tr>
</tbody>
</table>

**Call to Action**

The Executive Committee is still trying to fill the (Co)President Elect and Treasurer positions for 2012-2013. We would like to invite members to get involved with your organization. It is a great opportunity for professional growth in a supportive environment. The Executive Committee always works together as a team. If interested or you just want more information please contact president@macvpr.org or any of the current EC members. Consider joining the EC... you won’t regret it!!

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**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 (Begin 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 Donna Hawk
44 Park Circle • Westfield, MA 01085-3411
admin@macvpr.org