

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

2010 Executive Committee

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President's Message

June is here at last bringing the long awaited warm weather and equally anticipated announcement of our new Co-Presidents Elect—Esther Burchinal and Judy Flannery. The dedication, expertise and warm personalities of these professionals are the perfect combination to lead our organization in the upcoming year. Thank you for making the commitment to the MACVPR and your fellow practitioners.

Joining our executive committee as co chair of the education committee is Ginny Dow. Deb Sullivan, current chair and the members of this committee have done an excellent job arranging the programs for our meetings. It takes a considerable amount of time to arrange for locations, speakers and CEU's. Ginny's input will help lighten the ongoing responsibility of providing pertinent and informative presentations that meet our member's needs.

MACVPR "WANTS YOU!!!"

Speaking of "needs" –we will be voting in October for our 2011 Executive Committee. We are appealing to **each and every member of our organization** to consider a role on the committee. Of utmost importance is the President–Elect position. As a member of the MACVPR we are sure that you have seen the benefits of this organization especially in these confusing times of so many changes in our field. Without leadership our organization cannot remain strong and survive. It doesn't matter if you have been a member since its inception or a few months –if you have an interest in the position let us know. All of us are clinicians with busy work schedules and personal responsibilities –we don't come with "presidential " experience. All you need is a desire to work with the other EC members to make this the best state organization possible. It truly is a group effort –you are never alone. We encourage you to speak with us about the position so we can address any questions or concerns you may have. If serving as a "co-president " is more appealing let us know –we can help form a team! We eagerly await hearing from you!

Our MAC I4 committee is also in need of new representatives. This committee serves as the liaison to our Medicare J14MAC We would like to thank Wayne Reynolds, Stephanie DiCenso, Ann Marie Sadlowski and Kathy Bowers who played such a critical role in presenting the valuable role cardiac and pulmonary rehab services fulfill. At this time Stephanie and Ann Marie have tendered their resignations from the committee.

Anyone who is interested should address their questions regarding the committee responsibilities to Wayne Reynolds.

SURVEY RESULTS

Thanks to all of you who responded to our online survey. Of our 127 members, 28% (36) participated. All of the comments are appreciated and will be taken into consideration as we move forward towards making this an organization that effectively works for you –its members. A snapshot of the results follows:

- ♥ *What do you like about the website?* Current updates and information, the directory, the forum
- ♥ *Would you follow MACVPR on Facebook/Twitter?* NO!!
- ♥ *Would you be interested in a teleconference in lieu of one general meeting?* Split
- ♥ *If meeting locations rotated where would you be willing to travel?* Split Worcester/ Boston
- ♥ *Ideas to increase financial viability-* Online courses for CEU's, sponsorship, adjustment of dues, selling cardiac/pulmonary week products
- ♥ *Ideas to increase membership-networking* with other disciplines, contact programs with no representation, site visits to programs, colleges, link to AACVPR membership, regional organization vs. state, reach out to people
- ♥ *Comments-* Great resource, good continuing education, regional symposium "one of the best"

We would like to address one comment received that it seemed that there were some in the organization that want to increase membership but not have new people involved. If that impression has ever been given it was certainly unintentional. On the contrary we would like to see more involvement by the members. The EC committee is always available to you and appreciates feedback and ideas. Do not hesitate to approach us with any issues.

May 11 Meeting Update- Keeping Current in 2010 ITP's and AACVPR Certification / Recertification

It is quite evident that there are many concerns about the new Medicare requirement for an Individualized Treatment Plan. Frustration, confusion, anxiety are some of the emotions expressed. There seems to be more questions than answers but that tends to be

President's Address...cont'd

the norm when new ideas are implemented. There is no one 'template' that fits every program. The break out sessions allowed us to share the ITP's from various programs. The idea is to provide you with ideas to consider when developing the format that works best for you –the important thing is that you include all the required components in a way that is easily identified. We anticipate that once programs that have applied for certification/ recertification start receiving feedback from the AACVPR we may have a better idea of what is expected as well as more examples of "best practice". We know that this is a source of frustration for many but everyone is going through this together –just take in that deep breath and exhale through those pursed lips. You'll most likely go through many revisions this year before you settle upon the one that you are satisfied with and meets the requirements. The breakout sessions provided an opportunity to see a variety of ITP's.

Another quick snapshot of a full morning:

Individualized Treatment Plan:

- ♥ITP is required by CMS for both cardiac and pulmonary rehab effective 01/01/10.
- ♥Mandated Statutory requirement for Medicare reimbursement /Voluntary for AACVPR –required only for program certification but still must be CMS compliant .
- ♥Cardiac Rehab must have ITP established, reviewed and signed by a physician every 30 days
- ♥Pulmonary Rehab must have ITP reviewed and signed by the MEDICAL DIRECTOR prior to the initiation of pulmonary rehab. It has been clarified that" this does NOT mean that the ITP must be signed prior to the first session
- ♥AACVPR ITP requirements for certification must include assessment, goal setting, intervention reassessment and discharge in each of the domains of education, exercise, nutrition and psychosocial contained in a single document.

Online Certification / Recertification Process:

- ♥Streamlined- initial information that is requested is not as extensive as in the past
- ♥Narratives limited to 2000 characters so you have to be concise
- ♥A binder with the information for "potential submission" should be kept so that it is immediately available upon request
- ♥This is a good opportunity to take an objective look at your program
- ♥Start early-you should be looking at your programs now for 2011 applications-any documentation that you will be submitting will be from 2010. If you don't have easy access to your medical records once out of your department you might want to make copies of ITP's ,class documentation etc that you feel best display your program. Review and update your policies and procedures
- ♥Use the AACVPR guidelines –the 4th edition for pulmonary is expected out in the fall
- ♥This is a new process for all-more information will be available as we receive feedback from the AACVPR certification committee

KEEPING UPDATED WITH CMS

We encourage everyone to sign up for the J14 MAC updates by logging on to www.medicarenhic.com. You will receive e-mails as well as information about teleconferences. This is another way to gather information during this fluid time of change in addition to using the MACVPR and AACVPR forums. KNOWLEDGE IS POWER!!!

AACVPR NEWS:

The National Quality Forum is set to announce their official endorsement of the cardiac rehabilitation referral performance measures. This is an important step toward referring eligible patients to cardiac rehab programs. More information will be forth coming as the AACVPR continues in their discussions with the CMS. This is a great achievement for cardiac rehab!

We want to wish you all a very safe and happy summer and look forward to seeing you on October 23 at the MACVPR Symposium at Lahey Clinic.

Priscilla Perruzzi BA, RRT and Kate Traynor, RN, MS president@macvpr.org

Reimbursement Update

On May 19 NHIC held an educational session via tele-conference, covering the 2010 Medicare regulations for Cardiac and Pulmonary Rehabilitation.

The following are some highlights to take note of:

- Each session must last a minimum of 31 minutes to be reimbursed.
- The ITP must be reviewed, updated and signed by the supervising physician.
- Up to 36 sessions is covered with a provision for more-up to a total of 72 sessions if medically reasonable and necessary. Medicare will NOT precertify or otherwise deal with this in advance so it is up to the program clinicians to determine that further sessions are needed and submit as per Medicare guidelines. For sessions beyond 36, a K X modifier is to be used when coding which will alert reviewers that those sessions are beyond the customarily allowed 36. (The "hint" is that this is considered a rare occurrence and documentation needs to support the decision of going beyond 36 sessions or those sessions will be denied).
- Though there now is a provision for covering non exercise (educational) sessions, all sessions 93797 and 93798 are each counted towards the 36 and 72 session thresholds, whether or not they include exercise.
- The ITP is to contain measurable outcomes and expected timetables.
- The PR MD must review and sign the ITP as well as have direct patient contact once in each 30 day period. This does not mean an office visit, it can simply be a brief visit to an exercise session and answering a patient's questions, etc.
- The only diagnoses currently covered for PR are the GOLD classifications of II-IV.
- Non COPD Dx's that are to be coded with GO237-GO239. This is for those non COPD Dx's that were previously covered.
- For CR the effective date is 1/1/2010, Implementation date is 7/6/10.
- The PR effective date is 1/1/2010 and was finalized 5/7/2010.
- All regulations are contained in the Claims processing Manual 100-04 www.cms.gov/manuals chapter 32, section 140.4
- The NHIC listserv: www.medicarenhic.com/index.shtml
- For those "MAC Orphans" that continue to be covered by the FI, all regulations pertain to you as well, though you will be dealing with the FI for clarification, as you have in the past.
- For those of you covered by J-14 (NHIC), Please direct questions through your MAC Committee in order to avoid duplicate questions and consistency of answers.

Wayne Reynolds RN
Chairman, J14 MAC A/B Committee
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How to Run a Mock Code by Ginny Dow RN, BSN, BC

I was asked to write this article to give some tips on running mock codes. Experience, certifications and titles do not save a patient's life, properly applied CPR and defibrillation does. I will be explaining why we should run regularly scheduled mock codes and give a few tips to improve quality of the resuscitation efforts.

Planning mock codes in your department need not be complex. Here are some suggestions:

1. Equipment

I had the advantage working in the education department to run mock codes with a traveling road show of equipment: manikin, defibrillators, ambu bag and teaching code cart. This is not always available or practical for a cardiac or pulmonary rehab department. If you have access to a CPR manikin, it is helpful to practice the compressions, or if you can purchase an AHA family and friend's kit, then a **manikin** is always available. An old **ambu bag** helps or your team can use a barrier device (**pocket ventilator**). Becoming familiar with your own code cart and equipment is most important. I also like to have expired **defibrillator electrode pads** so the team can practice attaching them to the defibrillator and to the manikin.

2. Scheduling:

Our team **schedules 4 mock codes a year** (required for certification from AACVPR) to occur for 30 minutes immediately following our monthly team meetings to assure the best attendance from the entire staff (RN's EP's, PT's, dietitian, social worker, administrative assistant) The medical director is always invited and the mock code coincides with the regularly scheduled time he meets our team. We record staff attendance on our mock code review sheet.

3. Roles:

The role of the **RN coordinating** the code is to plan a scenario, to appoint team members to roles, and to lead the critique after the mock code. This RN will look at the last few codes to review what type of scenario has been previously covered, rotate team members and plan the code.

The team members who actually perform the code are usually two clinical staff members (RN and EP or PT) who work together as the **first and second responder** and we rotate staff experiencing "saving" the patient. If we do not have a manikin, a team member acts as the patient (and of course we are careful to not defibrillate our friend and co worker).

The remaining staff acts as "patients" to make the scenario "real" and to observe. One staff person is the **recorder**, this person also keeps time.

4. Evaluation: At the end of each mock code the team does a critique with the recorder writing ideas for improvement and sharing difficulties noted. Benchmarks should be looked at to assure quality and the most important is **CPR in less than one minute, and defibrillation in less than 3 minutes from start of resuscitation**. Examples of performance measures in evaluation the mock code response are:

Time to beginning CPR (assess, open airway, asses for breathing, give two breaths, check for pulse, no pulse, start CPR)

Time code called

Time to bring code cart and defibrillator

Time to defibrillation

If a "real" mock code is called which brings your code team, then **time code team arrives** should be recorded.

I was fortunate to have recently attended the American Heart Association's 20th Annual conference on Cardiovascular Nursing and one of the speakers was Dr. Charles Pozner (from Brigham and Women's Hospital), on "Maximizing Quality in In-Hospital Resuscitation". He began his talk by sharing the survival from cardiac arrest statistics by location and the GOOD NEWS is **90% of patient who arrest in cardiac rehab survive** and the bad news is only 17% of patients who cardiac arrest in-hospital survive. Casinos (74%) and airports (66%) have better survival rates than in-hospital! He feels that certification does not matter, as evidenced by the above statistics ("I've never seen a CPR or ACLS Card save a person's life"), properly applied CPR, and early defibrillation does. He shared stories of in hospital arrests where the "team Leader" shows up and stops CPR while trying to start IV lines or intubate, both complex and time consuming procedures that delay the more life saving steps. Dr. Pozner repeated that **MEDICATIONS ARE NOT AS IMPORTANT AS CPR AND DEFIBRILLATION**.

Dr. Pozner said that the most common **mistakes** in a code are:

- 1. COMPRESSIONS: Failure** to push **hard and fast** (30:2 at **100** a minute, remember the beat to the song "**Staying Alive**") and failure to completely recoil the chest
- 2. BREATHING: Hyperventilating** with an ambu bag; 12 breaths a minute is sufficient or one breath every 5 seconds
- 3. INTERRUPT CPR too often** or for **too long**: even while charging the defibrillator the compressions should continue; stop CPR just before shock. Only stop CPR every two minutes to defibrillate.

Have any of you ever read a book first published in 1978 called "The House of God"? It is a satirical novel written by Samuel Shem to portray the life of a medical intern in the early 1970's. One law from the "Laws of the House of God" (rules of wisdom provided to the interns to save the patients and themselves), is **AT CARDIAC ARREST, THE FIRST PROCEDURE IS TO TAKE YOUR OWN PULSE**". This "advice" means slow down and the important steps will be clear. One of the most common errors in a code is hyperventilation with ambu bags because of the health care provider's anxiety and incredible urge to squeeze! Resuscitation is a low frequency (unless you work in the emergency department) and high acuity activity where the stakes are high with a life or death outcome. **Practice** is important, but most importantly practicing as a team assures teamwork and communication.

The best experience that can come from these mock codes is when mistakes are made, since this is the time to make them! Becoming familiar with your own equipment is a big plus to these drills and knowing your defibrillator is the most important! Dr. Pozner said "**DON'T WAIT, DEFIBRILLATE**". Dr. Pozner shared that his facility (BWH) now schedules "unplanned in situ mock codes" that allow for the entire code blue team to train together for enhanced quality resuscitation efforts.

To maximize success, you need knowledge, decision making, skills and most importantly **TEAMWORK**. Your team can be BLS and ACLS certified, but you must train as a team for effective communication and great results!

Stay tuned for the upcoming issues will showcase resuscitation scenarios.

Reference:

http://www.zoll.com/codecommunicationsnewsletter/ccn112_09/ZollMockTrainingArticle12_09.pdf

Understanding Thrombosis and the Management of Anticoagulation Therapy in the Rehabilitation Setting

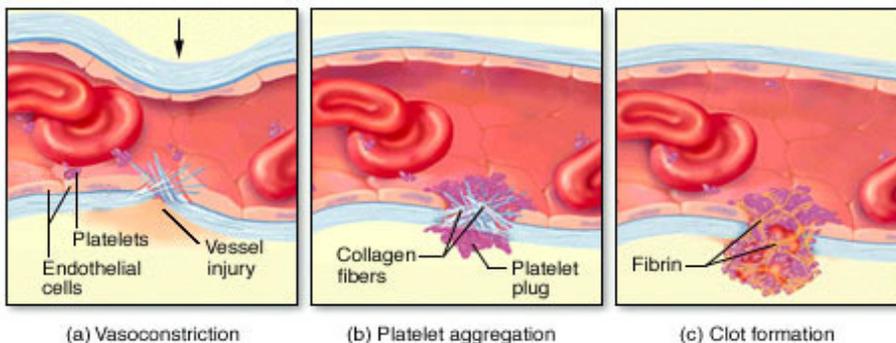
By Ann Marie Pianka, RN, FNP, MSN, ACCP

Anticoagulation management has received unprecedented attention from the media, hospital management and accrediting organizations over the past few years. The emphasis on patient safety has prompted new patient safety goals related to high risk medications and practices from the Joint Commission. Since anticoagulants are one of the highest risk drugs widely used today in America, it makes sense that they would receive the added attention. This article is intended to provide a review of the anatomy and physiology of hemostasis, the pathophysiology of thrombosis, an overview of the most common anticoagulants seen by rehabilitation nurses, discuss the indications and contraindications of these agents and discuss the nursing implications when caring for these patients in the rehabilitation setting.

Anatomy and Physiology:

The ability of the body to prevent blood loss following vascular injury is fundamental to survival. The body's ability to clot and subsequently dissolve the clot following healing of injured tissue is termed hemostasis. Hemostasis occurs in response to a loss of integrity of the vascular system and consists of four major steps.

1. When an injury is sustained resulting in blood loss, the initial response of the body is vascular constriction. This limits the flow of blood out of the body through the injury.
2. Endothelium disruption caused by the injury, exposes collagen which results in platelet aggregation at the site. This results in a loose platelet plug formation at the site of injury. Platelets clump by binding to collagen that has been exposed by the injury. A complex interaction of clotting factors is triggered.
3. A fibrin mesh develops to insure stability of the platelet plug by trapping it.
4. As the injury heals, the body must break down the clot in order for normal blood flow to resume.



<http://www.biologycorner.com/anatomy/blood/plateletplug02.jpg>

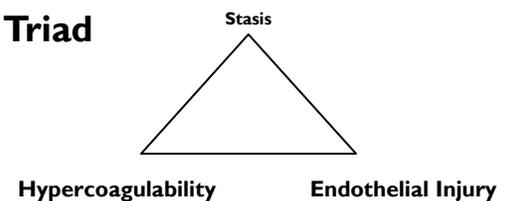
The clotting cascade is a complex biochemical reaction that occurs in response to injury. It is often defined by two pathways which come together as a common pathway. Both pathways are complex and involve a variety of clotting proteins. The extrinsic pathway is the most relevant in the event of hemostasis under normal physiological conditions and is defined by fibrin clot formation in response to tissue injury. The intrinsic pathway has less significance under normal conditions and activates in response to lipoproteins coming into contact with the vessel wall. This is demonstrated in hyperlipidemia in the development of atherosclerosis. This pathway can also be activated by bacterial contact with the vessel wall.

Pathophysiology of Thrombosis:

More than 150 years ago, a German pathologist, Rudolf Virchow identified a triad of risk factors that predispose an individual to the development of thrombosis. Virchow's Triad still holds value today in describing thrombotic risks. Thrombosis or excessive blood clotting places patients at risk for increased mortality and morbidity. Recognizing the risk of thrombosis is critical in reducing adverse outcomes. When pathological clot formation occurs, early identification and treatment can improve outcomes. The nurse working in the rehabilitation setting is in an ideal position to educate the patient and family regarding the signs and symptoms of thrombosis and to facilitate appropriate assessment and intervention when they occur.

Virchow's

Triad



Arterial and venous thrombosis, are separate problems with different risk factors, treatments and prevention strategies. Identifying whether a patient is at risk for arterial or venous thrombosis, and understanding the pathogenesis of these clots helps us understand the signs and symptoms and management options. Patients with risk factors for both venous and arterial thrombosis are often placed on dual therapy (antiplatelet and anticoagulant therapy), to address the appropriate clot activation process.

Arterial Thrombosis

Anatomy: Firm, thick walled, high pressure (shear), rapid flow

Risk Factors: Family history, HTN, DM, smoking, high cholesterol

Microscopic image: Made up mostly of platelets

Prevention & Treatment: Risk factor modification & anti-platelet medications (ASA, clopidogrel, Aggrenox, prasugrel)

Venous Thrombosis

Anatomy: Floppy, thin walled, low pressure

Risk factors: Stasis, hypercoagulability, endothelial injury (Virchow's triad)

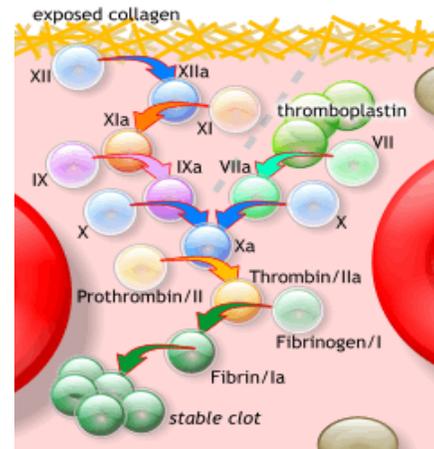
Microscopic image: Clot consists mostly of fibrin

Prophylaxis: Risk assess, mechanical and/or pharmaceutical prophylaxis

Common Anticoagulants:

Anticoagulants are used to slow the clotting process for patients who have active thrombosis or who are at high risk for thrombus formation that develop from activation of the extrinsic pathway of the clotting cascade resulting in fibrin clot formation. A variety of different agents are routinely used both in and out of the hospital setting. It is important to remember that anticoagulants do not break down clots that are present in the body; the natural fibrinolysis response of the body does this. Anticoagulants slow the clotting process so that fibrinolysis can occur without further clot burden.

Unfractionated heparin (UFH) is the most common anticoagulant used to treat high acuity patients. UFH has a short half life; when stopped, allows the clotting processes to return to normal function in a short period of time. Heparin has a half life of 1½ hours and acts by binding to the enzyme antithrombin III, the activated antithrombin inactivated thrombin and factor Xa. Heparin is inexpensive, but requires frequent monitoring and a higher level of nursing care. Therapeutic intravenous heparin is monitored using the activated partial thromboplastin time (aPTT) using a goal range derived by the laboratory; goal ranges will vary from institution to institution depending on the equipment and reagent used by the lab running the test. UFH is used in therapeutic levels for patients with acute myocardial infarction (AMI), treatment of acute venous thromboembolism (VTE) which includes deep vein thrombosis (DVT) and pulmonary embolism (PE), Atrial fibrillation (AF), heart surgery and many other conditions requiring full anticoagulation with the benefit of the short half life. Unfractionated heparin is used in lower doses and administered subcutaneously for venous thromboembolism (VTE) prophylaxis.



www.blobs.org/science/cells/clottingcascade.gif

The obvious risk of heparin and all anticoagulants is bleeding. Even therapeutic doses of anticoagulation can precipitate bleeding complications. Additionally, patients on heparin are at risk for heparin induced thrombocytopenia (HIT), an allergic immune response to heparin that results in platelet activation, clumping and ultimately thrombosis. HIT is recognized by a sudden drop in platelets by 50% after exposure to heparin.

Other parenteral anticoagulants are used in inpatient and outpatient settings. Low molecular weight heparins and fondaparinux are parenteral medications that are seen more often in the outpatient, rehabilitation and long-term care settings. These products are administered subcutaneously and remain active for 12-24 hours in most patients. They include products such as enoxaparin, fondaparinux and dalteparin. Many of these products are used to “bridge” patients as they start or re-start warfarin therapy until a therapeutic international normalized ratio (INR) is achieved.

As the only oral anticoagulant available in the United States, approximately 20 million prescriptions of warfarin (Jantoven, Coumadin) are written in the United States each year. Inexpensive with a long half-life, warfarin has some of the key attributes for an oral medication for long-term use. Unfortunately, warfarin also has many undesirable attributes due to its numerous food and drug interactions. Careful monitoring of the therapeutic response is an important aspect of successful warfarin management. The half-life of warfarin ranges on average from 25-60 hours (average 40 hours) and a duration of 2-5 days. Genetics, other routine medications, metabolism and diet are key factors that affect the warfarin dose when a patient starts on oral anticoagulation therapy. While little evidence exists to support various initiation algorithms for warfarin, a methodical approach that includes frequent monitoring is recommended.

INR goal ranges vary depending on the indication for therapy. It is important to know the intensity of anticoagulation necessary to maximize the risk reduction for patients. The primary INR goal range for most indications is 2.0-3.0. Mechanical Mitral valve patients are at higher risk for thrombus formation thus will often have a higher INR goal range (2.5-3.5). Generally, sole mechanical aortic valves require an INR intensity of 2.0-3.0 unless additional risk factors for thrombosis exist (i.e. co-existing atrial fibrillation). Patients who are very high risk for thrombosis or who have experienced treatment failure (thrombosis while anticoagulated with a therapeutic INR) may have a higher INR goal range (3.0-4.0). The bleeding risks increase accordingly with higher INR goal ranges. Lower goal ranges (1.5-2.0), used for long-term prophylaxis of VTE in patient's with prior history, have shown to have no benefit over full anticoagulation to a goal of 2.0-3.0.

Risk Factors for Pathologic Clot Formation:

There are many conditions that result in pathologic clot formation. Anticoagulants are used to treat or prevent many of these conditions to reduce the mortality and morbidity of thrombosis. The most common indication for oral anticoagulation therapy is the prevention of stroke in patients with AF. More than 5% of the American population is affected by AF, a number that is growing rapidly as the population ages (1). One in six Americans will develop AF during their lifetime (2); however the unprecedented increase in hypertension, diabetes and obesity is likely to increase these numbers as Americans undergo unhealthy aging.

Non-valvular AF, the most common type of atrial fibrillation, increases the risk of stroke among the elderly by nearly five times, accounting for as many as 15% of all strokes in the United States (3). Risk for stroke increases dramatically with additional risk

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factors; stroke risk can be quantified to some degree using the CHADS₂ scoring system. Much research investigating the efficacy of anticoagulation to reduce stroke risk in AF resulted in iron-clad evidence that stroke risk is dramatically reduced when patients are treated with vitamin K antagonists (VKA) such as warfarin. A recent meta-analysis suggests that there is a 68% reduction in stroke risk with minimal increase in the frequency of major bleeding including intracranial hemorrhage when patients are treated with VKAs. This translates to 20 fewer strokes for every one additional major bleeding complication (4). Study after study has re-affirmed the value of VKA at fixed dose (INR goal 2.0-3.0) over alternative goal or aspirin (except in low risk patients), without a significant increase in major bleeding complications (4).

CHADS ₂ Stroke Risk Factors	Score
Congestive heart failure	+1
Hypertension	+1
Age 75 years or older	+1
Diabetes mellitus	+1
History of stroke or TIA	+2

CHADS₂ Scoring System for AF stroke risk (5)

Score	Risk of a Stroke
0-2	Low
3-5	Medium
6	High

Score	Est. % with stroke at 1 year
0	1.4
1	3.1
2	3.7
3	6.2
4	7.2
5	7.7
6	33.3

Another thrombotic complication seen by the rehabilitation nurse is Venous Thromboembolism (VTE). Affecting approximately 2 million people in the United States, VTE accounts for an estimated 300,000 deaths each year. Encompassing Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE), VTE is a medical emergency requiring rapid assessment and management to reduce mortality and long-term sequelae. Venous thrombus formation occurs typically in the deep veins of the lower extremities along the valve cusps. Proliferation often occurs as the pathophysiologic process continues, extending clot formation along the initial vein, extending into additional deep veins. The highest risk time for embolization is during the "loose" clot formation that occurs within the first week of development. It is important for the rehabilitation nurse to know the signs of VTE as many of their patients are at increased risk.

RISK FACTORS FOR VTE

- Acute Medical Illness
- Cancer (active or occult) & Cancer Therapy (hormonal, chemotherapy, angiogenesis inhibitors, radiotherapy)
- Central Venous Catheterization
- Erythropoiesis-stimulating agents; Estrogen-containing oral contraceptives or Hormone Replacement Therapy
- Increasing age
- Inflammatory Bowel Disease
- Immobility, lower extremity paresis
- Inherited or acquired thrombophilia
- Myeloproliferative disorders
- Nephrotic Syndrome
- Obesity
- Paroxysmal nocturnal hemoglobinuria
- Pregnancy & the post-partum period
- Previous VTE
- Selective estrogen receptor modulators
- Surgery or Trauma (major trauma or lower-extremity injury)
- Venous Compression (tumor, hematoma, arterial abnormality)

While VTE often has subtle or non-specific symptoms, it is important for the rehabilitation nurse to have a high index of suspicion when assessing patients in the rehabilitation setting as risks are higher with immobility, medical illness or recent surgery. Generally the risk of provoked VTE (associated with hospitalization, surgical procedure or injury) is generally considered to extend for three months.

Clinical manifestations of DVT are often non-specific and subtle. Pain in a limb, made worse by standing or walking and unilateral swelling of the extremity, are sometimes the only identifiable signs and symptoms of DVT. Homan's sign, (pain in the calf with dorsiflexion) is an unreliable and non-specific assessment tool in identifying DVT. While the clinical presentation of pulmonary embolism is just as non-specific in many cases, the nature of the complaints may result in evaluation if identified by a nurse or practitioner. Chest pain occurs in 80-90% of the cases and is frequently described as pleuritic in nature. Dyspnea, hemoptysis, palpitations and a feeling of impending doom are other described signs or symptoms associated with PE. Oftentimes, the first indication of PE is sudden collapse and death if massive PE occurs. The key to effective management is prevention and early recognition.

The Rehabilitation Nurse is in a prime position to affect intervention for patients at risk for thrombosis or who are experiencing complications of anticoagulant therapy. Understanding the risks of thrombosis and assessing accordingly, the rehabilitation nurse can make the difference in a rapid and effective intervention and prevent progression to a medical emergency. The same is true for identifying bleeding complications. Communicating concerns to the appropriate provider can facilitate a more comprehensive assessment, significantly reducing patient risk and long term disability associated with these conditions.

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Follow Up Q & A to Ann:

Thrombophlebitis/DVT is a contraindication to exercise according to the ACSM, at what point after the acute diagnosis is it safe to resume/begin an exercise program? What is the incidence of an embolism in the patient with a therapeutic INR?

Generally we do not place restrictions on patient activity, rather, encourage ambulation immediately with limitations based on how the patient is feeling. Numerous studies show the benefit of early ambulation on significantly reducing the incidence of extension or embolization following DVT. Generally, ~5-10% of DVT will progress to PE during initial 7-10 days of therapy however often these are asymptomatic pulmonary emboli. The incidence is much higher ~13-28% for those who remain on bedrest during the initial treatment for DVT. Much of this is dependant on which short acting anticoagulant is used in conjunction with warfarin during the initial treatment. Once therapeutic, it is not clear how many patients will experience treatment failure and extend their DVT or progress to PE during treatment. Often times it is impossible to know whether these patients were therapeutic at the time of their complication; treatment failures are often symptoms of hypercoagulable states such as undiagnosed cancer or antiphospholipid antibody syndrome. Generally I clear patients for return to previous level of activity including exercise within 7-10 days following their acute VTE. Considerations for this include the size of PE and whether it is complicated by pulmonary hypertension or not.

What is the expected length of anti-coagulation treatment?

For most patients with provoked VTE (hospitalization, surgery, injury or other identifiable cause for VTE within previous 3 months), 3 months of treatment is usually adequate. Some providers prefer 6 months of therapy for patients with PE, especially if they have developed pulmonary hypertension. For patients with known cancer and VTE, generally we treat for the duration of their cancer treatment.....during active treatment with chemo therapy or radiation, LMWH is the preferred mode of anticoagulation. Unfortunately, many patients find the cost prohibitive, so many are transitioned to warfarin with close monitoring as many of these treatments cause significant changes to the INR. Patients with unprovoked VTE are typically treated for 3-6 months and then re-evaluated. Whether a hypercoagulable condition is identified or not, an assessment needs to be made evaluating the risks and benefits of long-term treatment. Many patients in this group are kept on indefinite anticoagulation until a bleeding complication develops and their risk profile changes.

Patients in the rehab setting are assessed on a routine basis and are told to inform us of medication changes. What medication changes would necessitate a FU with their anticoagulation specialist? i.e. antibiotics

Pretty much any medication change can affect the INR for someone on warfarin. Antibiotics certainly are the most common intermittent medication changes that occur, but even changes to long-standing medications such as statins or beta-blockers can have an affect as they can impact liver metabolism and/or increase cardiac output. Other conditions such as an exacerbation of CHF can also have an affect on the INR, so changes to the amount or frequency of diuretic use can alter the INR. Generally we ask patients to let the Anticoagulation Clinic know if they start, stop or change any medication or dietary supplement. Obviously dietary changes can also have an affect, including nutritional supplements such as Boost or Ensure.



*“...the process
has changed to
an online
submission”*

*...congratulations
in your pursuit
of program
excellence!*

Certification

Congratulations to all the programs that applied for AACVPR Program Certification/Recertification in May! According to our MACVPR survey, six programs have applied for certification and five programs have applied for recertification. Per the AACVPR website, the program reviews will be completed by July 1st and the AACVPR Board of Director recommendations will be finalized in August. AACVPR notifications should be set out by late August or early September. So by the fall, we should see the total number of certified MA programs increase from our current number of 19, consisting of 14 Cardiac Rehab programs and 5 Pulmonary Rehab programs. Best wishes to you all and again congratulations in your pursuit of program excellence!

For those programs considering certification, as of this year, the process has changed to an online submission. To begin, log onto the AACVPR website at www.aacvpr.org/certification for the application, instructions, and recommendations. According to our panelists from the May 11th 2010 Member Meeting, the application process is simpler but requires time to complete. Consequently, it is never too early to start. Recommendations include the following: thoroughly read through the application and see what you need to implement in order to meet all the requirements. Acquire all the recommended resources and begin one tab at a time. The application consists of check boxes and required narratives and an ITP. Submissions can be faxed or uploaded to AACVPR. However, per Robert Berry (see the May 11th Meeting summary), the narratives must be less than 2000 characters to be received. If you have questions, there is a help button to assist you. Several members stated that they received timely helpful responses. Priscilla Perruzzi also noted during our May 11th meeting that there are a few changes to the Pulmonary Rehab Recertification emergency protocol tab.

All the panelists recommend that, despite the online submission, all certification/recertification applications and work should be kept in a binder within your department. They found that the binder can facilitate this process and be essential since AACVPR can make unannounced visits to verify your submissions.

It has been a pleasure and an honor to serve as your Certification Chair for these past years. Thank you for all your assistance and support, and I look forward to my new role as Co-president elect with Judy Flannery. During this transition, if you have any questions regarding AACVPR Program Certification/Recertification, please contact me at esther@macvpr.org.

Best wishes to all for a healthy, enjoyable summer!
Esther Burchinal, MS, CES, RCEP
Emerson Hospital Cardiac Rehab
Certification Chair

Letter from the Editor

In developing this newsletter I was happy to have the problem of fitting in **two** clinical articles as well as a featured article “How to run a Mock Code” in our Tales from the Trenches column. It is a nice problem to have too much information to fit into this newsletter to help keep all of our members as up-to-date as possible on rehab issues.

We are also lucky to have another installment of our feature: **Connections: Mind/ Body/Spirit** by Pamela Katz Ressler RN, BSN, HN-BC of Stress Resources. This time the focus is on *Mindful Eating*, which includes a helpful exercise to demonstrate the technique.

I have omitted a MACVPR Forum Update, but want to remind you of the value of the forum. If you still haven't signed on and given it a try, please do—you won't regret it. It is a great way to have your clinical questions answered by your colleagues in the field. There have been many questions posted on the **ITP** which have been personally answered by Robert Berry, providing lots of useful information. Even if you don't want to ask a question—you can benefit from reading the questions and answers of others. If you need assistance signing on please contact Ann at admin@macvpr.org.

Please feel free to e-mail me as I am always interested in ideas for clinical articles or developing a new regular feature in the newsletter. I need feedback and ideas in order to keep this newsletter vibrant and continue to be a helpful tool to you and your individual programs.

Lynne MacDonald, PT
Milton Hospital Cardiac Rehab
Newsletter Editor
newslettereditor@macvpr



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 AACVPR.

Membership

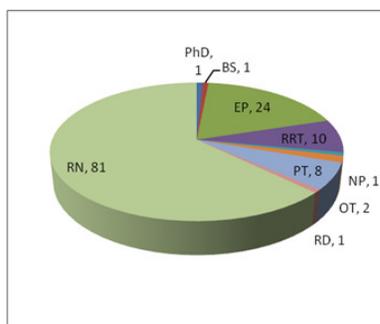
We currently have 129 MACVPR members. As always we are looking to increase membership and welcome ideas, suggestions and projects on the most economical way to do this. Looking back over records since 1997 membership statistics have decreased but still remain approximately 115-140 members per year.

Getting "the word" out to Exercise Physiology Programs and Nursing schools in the state appears to be the next step. Letters, posters and applications mailed to Department Chairs of these institutions, followed up by a telephone call will start the process. Students in these programs represent the future of the field of cardiac and pulmonary rehabilitation. They are also the future of the MACVPR.

Melessa Ashworth, RN, BSN
Falmouth Hospital Cardiac Rehab

membership@macvpr.org

PhD	1
BS	1
EP	24
RRT	10
NP	1
OT	2
PT	8
RD	1
RN	81
	129



Treasurer's Report

Sponsorship of our meetings and this newsletter continues to be critical to offset our expenses, provide up-to-date and informative meetings, and keep our membership and meeting fees low. We would like to thank **Craig Strok** of Forest Hospital Specialty, who market and distribute **Bystolic** (nebivolol), for their support of MACVPR at our May Half Day meeting.

As always, if you have any ideas for sponsors (i.e. vendors that you do business with) please give the information to Ann at admin@macvpr.org.

Current balances as of May 29, 2010:

Citizen's Bank checking:	\$4974.88
Citizen's Bank Money Market fund	\$2,627.34
CD @1.75%, maturity date 4/7/10	<u>\$2,163.89</u>
Total	\$9766.11

State and Federal Taxes filed and accepted before the May 15th deadline.

Susan Carrigan, BSN, RN C
UMass Memorial Med Ctr., Cardiac Rehab
treasurer@macvpr.org

Thanks
to our
sponsor
Bystolic



Welcome New Members

Heather Chelak, MS MetroWest Medical Center
Jessica Mason, RN,MPH,AE-C Baystate Medical Center

SAVE THE DATE

AACVPR 25th Annual Meeting

*A Look to the Past
A Road to the Future*

Milwaukee, Wisconsin
Oct. 7-9, 2010
Midwest Airlines Center

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 June 30, 2010.



Education

Education Committee

Let me take this opportunity to welcome Ginny Dow, RN, BSN, BC, Manager, of the Cardiac Rehabilitation Program at Emerson Hospital, Concord MA as the new Education Co-Chair. Ginny brings many positive attributes to the committee that will help ensure the continued high quality of our educational offerings. Her leadership will also help direct the committee with several new endeavors to better help you achieve your educational objectives as well as stay current in the arena of cardiovascular and pulmonary rehabilitation. Please join me in welcoming Ginny into her new role.

I would like to thank Esther Burchinal, MS, CES, RCEP for once again spearheading the certification workshop which took place this past May. The speakers, panelists and moderators did a superb job in coaching us through the certification application and process. (See recap on this half day meeting in the next article).

Our committee is currently busy planning the *2010 New England Cardiovascular and Pulmonary Rehabilitation Symposium* to be held on October 23, 2010 at Lahey Clinic in Burlington, MA. Pat Comoss, RN, BSN is one of our featured speakers and will offer information on program and practice priorities which is an ever evolving topic. We are offering a preconference yoga session, clinical updates, food for thought, and much more. Stay tuned for more information.

Our October 23, 2010 agenda will also include a poster presentation session. Individuals are welcome to submit an abstract for which the invitations as well as information has been sent to you. The purpose of the poster session is to provide a forum to share original research findings, showcase successful approaches to patient care and highlight your innovative ideas and/or quality improvement projects. We look forward to providing this unique networking opportunity to you and your colleagues.

We are actively recruiting new members for our committee to assist not only with planning our half day and full day meetings but also in providing CEs for the clinical articles in our future newsletters. This is an ambitious goal for our current committee members and in order to be successful it requires the assistance of members like you. Please consider volunteering your time, you won't regret the opportunity for professional growth.

Education Committee Co-Chairs

Deborah Sullivan, MS, APRN, BC
Ginny Dow RN, BSN, BC

May Half Day Meeting Update

"Excellent networking!" and "Articulate speakers!" are a few of the positive comments we received about our May 11th meeting entitled **Keeping Current in 2010: Focus Groups to Guide You Through the Individual Treatment Plan and the AACVPR Online Certification/Recertification Process**. The program was well attended and was well received with over 93% of members, who completed the evaluation surveys, indicating that the program met their needs. Robert Berry, MS, RCEP, FAACVPR, current liaison to MAC Jurisdiction 11, and manager of Cardiovascular Rehab at Baystate Medical Center was our first speaker. Robert provided another informative update on "The Must Have's of the ITP". His presentation focused on the two sets of "rules" for the ITP, which include the CMS regulations and the AACVPR Program Certification requirements. (His power point presentation is available in the member's only section of our MACVPR website at macvpr.org.) Following Robert's talk, members formed small groups to share and discuss their ITP samples. In addition to Robert Berry, leading the Focus Groups were Ann Marie Sadlowski, RN, BSN, director of Berkshire Medical Center's Cardiac and Pulmonary Rehabilitation and Kathy Bower, M.Ed., BSN, RNBC, manager of Cooley Dickinson Hospital Cardiopulmonary Rehabilitation. The program ended with a panel presentation on the AACVPR Online Certification/Recertification Process. Joining Robert Berry and Kathy Bowers as the panelists were Meredith Jefski, MS, RCEP and Priscilla Perruzzi, BA, RRT, current MACVPR Co-President. Topics discussed included the "how to" of applying for certification or recertification online, recommendations to facilitate this process and the "easy to do's", the challenges, and the differences compared to the former process. Many members stated that they found it helpful to share these ideas and gain "actual insight into the online process." The strength of our organization and benefit of being a MACVPR member was clearly evident in this program with members of exceptional expertise and experience sharing essential information and practical suggestions to ensure the continuation and success of our programs. Our goal is to continue to provide quality and pertinent programs to meet your needs in this challenging environment so we appreciated receiving all your feedback especially suggestions for future programming and means to continually improve our meetings

Thank you to all for making our May 11th meeting such a success.

Esther Burchinal, MS, CES, RCEP

May 11th Meeting Coordinator/ Certification Chair



"We are actively recruiting new members for our committee..."

AACVPR Webcast:

Specificity of Training for the Industrial Athlete in a Cardiovascular Rehab Setting

Presented by AACVPR 2009 Innovation Award Winners:

Danielle Strauss & Jenny Adams
Baylor Heart and Vascular Institute,
Dallas TX

June 24, 2010 1-2PM ET

Enculturating Evidence into Practice across the Disciplines

By Nancy Phoenix Bittner, PhD, RN, CCRN

Enculturating evidence based practice (EBP) is a challenge to health care provider teams and healthcare organization. Whether one describes evidence based practice as a paradigm shift, or merely an evolution of patient care, all disciplines need to identify and critically appraise the evidence upon which to base their practice. There is a need for change from ritual care to evidence based care but it requires resources within the organization to accomplish this goal. Evidence based practice has been a topic in the forefront of many scholarly and research journals. The term evidence based practice most widely used in both professional journals is by Sackett and his colleagues (2000). They describe evidence based medicine as "...the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients." Sackett continues to discuss strategies in which this is accomplished including combining the best available evidence with a practitioner's clinical expertise through systematic review.

Defining the Terms: Evidence Based Practice Process, Research and Quality Improvement

Evidence based practice involves a total process beginning with knowing what clinical question to ask, how to find the best practice, and how to critically appraise the evidence for validity and applicability to the particular care situation. It begins with the identification of a problem that is a clinical issue or challenge brought forward or it may arise from a clinical situation in which there is a knowledge gap or uncertainty. Often it is necessary to assemble an interdisciplinary team of stakeholders to discuss and clearly identify the problem.

Once identified, the next step is to search for and assemble evidence that currently exists regarding the issue. Several types of data should be gathered and should include the review of internal evidence such as quality improvement data, risk management data, utilization data, staff performance surveys, customer satisfaction surveys, agency resources and strategic priorities. The examination of the external evidence includes appraising research studies, clinical trials and EBP guidelines for clinical practice. It includes comparing internal data with external data in an attempt to determine best practices related to the clinical question. An assessment of the potential for implementation of new practices or policies for best practice may reveal that there is sufficient evidence to support a best practice change at a particular institution. If there is insufficient evidence available, there is support for conducting further examination through research studies or quality improvement projects (Melynk & Fineout-Overholt, 2005).

When reviewing EBP and its associated literature, readers are often faced with some confusing use of terms related to EBP. Research and quality improvement processes are often confused. Research is the process of systematic inquiry investigating a problem to develop new knowledge about issues of importance (Polit & Beck 2008). Quantitative research is identified as the scientific framework utilized to test hypothesis for identification of improved patient outcomes in a variety topics. The highest level of research ensures the quality and rigor is in place to generalize the findings of studies to other patients. Research findings are import types of evidence that are used in determining how health care providers establish best practices in their disciplines.

Quality improvement (QI) may involve the use of research activities and methods, but it is initiated not to answer a clinical question or to generate new knowledge in and of itself. QI is a process undertaken to assess clinical processes that are already in place and uses outcome indicators to measure the effectiveness of those particular processes. Quality improvement is necessary to demonstrate that the expected standard and quality of care is provided. The clinical indicators used in QI projects are pre-determined and used to measure performance in the institution. Examples of clinical indicators include infection rates, patient falls, and length of stay, and morbidity and mortality rates among others. The information generated by a QI project is used to develop and implement clinical action plans. Balady et al. (2007) and Thomas et al. (2007) have outlined outcomes and performance measures for cardiac rehabilitation respectively.

Both research and QI projects are used to address ways to achieve desired patient outcomes and stimulate quality improvement. The differences between these two types of projects involve the implementation of the process, the type of data used and the uses of the findings of the project. In research projects or studies, the focus is on the determination of the intervention that will be most effective in dealing with the clinical problem and produce positive patient outcomes. The focus for QI is similar but the aim of QI studies are to look at institution specific issues mostly focused on processes and not interventions specifically. The information and data collected in research studies requires that participants provide consent to participate and are required to be approved by the Investigational Review Board (IRB). In QI projects, data is collected most often as part of institutional data, de-identified and presented in aggregate manners and does not require consent. Because of these differences, the results and findings from QI projects are for internal use and not generalizable to other patients.

Embracing EBP

Embracing a culture of evidence based practice requires change at many levels for a discipline. The two largest challenges are to provide the resources at the organizational level necessary for the change to take place and instilling the belief in disciplines at all levels that using empirical evidence to guide practice is essential. Organizations have been altered by cataclysmic changes and a surge of restructuring has placed practitioners in constraining situations, often affecting the way patients are care for. Nurses, therapist and others in practice are faced with daunting tasks due to increasing acuity of patients, an aging population, multiple co-morbidities, time constraints, limited resources, and suboptimal reimbursement. Starting this journey for any practitioner is an honest assessment of the resources available to access the evidence. For each discipline, it is

Enculturating Evidence into Practice across the Disciplines....cont'd

essential to know the sources for evidence within your profession. The sources of evidence are not just the formal empirical research studies that formerly represented the proof. The uniqueness of EBP is that it incorporates a process of steps of decision making regarding what will constitute best practice for this particular patient. This means using the current best evidence and integrating expertise along with the evidence. This is not a cookbook approach but much more accurately described as a process that uses external evidence to “inform” not “replace” clinical expertise.

The most valuable component to EBP once access to evidence is provided is the essential skill of appraisal of the evidence. Access, while important, is only one portion of the puzzle. It is important that practitioners have the skills necessary to appraise the quality of the evidence once they access it. This is often a challenge if there are a variety of levels of practitioners within the profession. Nursing, specifically faces multiple challenges as these skills are not taught in all levels of nursing education. Further education needs to be provided to practitioners to ensure that they have the ability to evaluate evidence for the quality of it as well as the application to their patient population.

Barriers to EBP- Challenges and Opportunities

There are many barriers to implementing EBP identified in the literature (Polit & Beck 2008, Melnyk & Fineout-Overholt, 2005). The barriers can be embedded deep within the organizational culture such as a lack of value for research in practice or support for research practices or that EBP will result in more positive patient outcomes (Larrabee, 2004). Others can be more pragmatic as in those related to access to evidence including a lack of understanding of organization or structure of electronic data bases, difficulty accessing research materials and individuals lack of computer skills.

Establishing adequate access to the evidence is the first essential step in promoting EBP. While this may be challenging for the organization, the next step is much more difficult. Ensuring that practitioners of all disciplines have the essential skills to appraise the evidence is a more complex obstacle to overcome. The challenges are that there will be a variety of disciplines with many levels of educational preparation and years of practice experience to prepare. Very often a needs assessment of the staff provides valuable information regarding their previous knowledge, perception of skills and levels of confidence regarding appraising and evaluating evidence.

The most common issue identified is practitioner’s lack of confidence in searching for evidence through the data bases and an understanding of the research articles if they have not had research courses involving critical analysis before. Resources for providing how to develop search strategies are available on line, through hospital library and academic research resources.

In addition, often identified is a lack of skills to critique evidence and individuals may not have knowledge of ways to synthesize literature. There are many examples in a variety of sources regarding critiquing research reports for quality. Some are very basic while others are extremely complicated to use. There are rating systems for the hierarchy of evidence which provide guidance as to the levels of evidence based upon the design of the study (Melnyk & Fineout-Overholt, 2005). One basic scoring method is the Phoenix Quick Score (Figure 1) (Bittner 2006). The Phoenix Quick Score is a six point quick score tool designed to be used as a quick reference for evaluating research articles for appraising the value for use in evidenced based practice application. The highest possible score is 24 with the lowest possible score being 5. The higher the score, the strongest the level of evidence is. While this is a basic method, it is a beginning step to be used to filter out the more valued pieces of evidence from the least valuable.

Figure 1: Phoenix Quick Score

1. Importance to discipline	4= very important to the discipline	3= somewhat important to the discipline	2= unsure if important to the discipline	1=not important to the discipline
2. Design	4= clinical trial, randomized	3= experimental	2=quasi-experimental	1=descriptive
3. Method/Intervention	4=formal intervention, control group	3= informal or weak intervention	2=reliable tool (reliability .80 or higher reported)	1= self developed tool- no reliability reported
4. Sample Size (quantitative)	4= >800 N	3= >400N	2=>200N	1= >100, Less than 100=0
5. Results (applicable to your practice)	4=extremely useful in practice	3=useful in practice	2=somewhat useful in practice	1= not useful in practice
6. Limitations (as reported by authors)	4= study time not appropriate to allow for adequate data collection or analysis	3= minor variance in implementation of the protocol	2= sample too small	1= design is flawed

Enculturating Evidence into Practice across the Disciplines.....cont'd

Promoting an EBP Culture

Promoting EBP in organizations and individuals practice is multifaceted. It begins with organizations promoting the use of research in clinical practice by supporting quality research and quality improvement projects. Collaboration among disciplines to address patient problems is essential to incorporating EBP into all practice professions. Project findings need to be disseminated aggressively within the institution and disseminated broadly through professional organizational forums. Leaders need to promote a climate of curiosity and support project ideas by offering support and resources. If the organization does not have an established research department as is the case in many hospitals that are not teaching hospitals, partnerships with other institutions are essential. Establishing partnerships to share research resources is extremely effective. Teaming with an academic partner that can provide research resources in the form of academic researches is a valuable relationship (Bittner & Gravlin 2006). Individual practitioners are encouraged to read widely and critically. Become active in professional organizations to ensure awareness of the most current and accurate practices within the discipline. Develop journal clubs, EBP and research review groups and round tables to provide the mechanism for the exchange of ideas regarding best practices. Ensuring that these are interdisciplinary fosters collaboration among care givers. Reach out to practice colleagues to question how they identify their best practices. While enculturation of EBP is a challenge at the organizational and individual level, it is central to improving patient outcomes. EBP is the essential component within the ongoing struggle to provide the best possible care to patients each day.

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EBP Web Resources

Evidence-based Clinical Practice Working Group, Department of Clinical Epidemiology and Biostatistics, University of McMaster, Canada : <http://www.fhs.mcmaster.ca/ceb/acts/ebcp.htm>

University of Toronto, Canada: <http://www.library.utoronto.ca/medicine/ebm/>

Cochrane Center and Collaboration: <http://www.cochrane.org>

Poster Presentation Session

The MACVPR cordially invites cardiovascular and pulmonary professionals to participate in our first poster presentation session which will be held during the **MACVPR 2010 New England Cardiovascular and Pulmonary Rehabilitation Symposium** Lahey Clinic, Burlington, MA on Saturday, October 23, 2010.

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 at <http://www.macvpr.org/upcoming-meetings-Abstracts.htm>.

The deadline for abstract submission is August 15, 2010.

Direct any questions you may have to education_chair@macvpr.org



Connections: Mind|Body|Spirit

By Pamela Katz Ressler, RN, BSN, HN-BC



A regular column designed to help you better understand your patients' needs and promote self healing during rehabilitation and beyond...

"...take the time to eat mindfully instead of mindlessly."

Question: We have heard the term "mindful eating". Can you tell us a bit about what it is and how it may be helpful in our work with patients?

Answer: Great question. Mindfulness, which we touched upon in a previous Connections: Mind/ Body/Spirit column (Spring 2009), is simply the act of being focused and aware in the present moment. Tools and techniques of mindfulness are used in stress management training, as well as chronic disease patient education programs. Mindful eating draws from the mindfulness framework, using the process of eating as a strategy to help one to slow down and notice the present moment. Mindful eating has been shown to reduce overeating, binge eating and to help manage stress in individuals. With the high correlation between obesity and cardiac/pulmonary disease, mindful eating is an effective, low-cost intervention to introduce into your healthcare practice, as well as to integrate into your own life.

Examine the average American's day, and you will find it is filled with multi-tasking and overall "mindless" eating. Let's take a look at how many of us in our fast-food, multi-tasking culture have adapted our eating: We start our day with a grab and go breakfast, choosing an easy to carry breakfast sandwich, or cereal bar, perhaps stopping on our way to work to buy a coffee or another beverage. We eat standing up or on the go, maybe finishing our breakfast in the car while in traffic. If lunch is an option, many of us eat on the run or at our desks, simultaneously finishing tasks such as reading and responding to email messages, listening to phone messages, catching up on reading reports or listening to the radio or TV. Dinner is often fast-food or prepared food heated quickly to allow us to get going with the myriad of scheduled evening activities of a busy family. It is estimated that over 2/3 of Americans regularly eat dinner in front of the television. This familiar scenario is what we refer to as "mindless eating", multi-tasking to the point of not noticing that we are in the process of eating. Sounds rather stressful doesn't it? We spend very little time attending to the present moment with complete, rather than partial attention. With mindful eating, we open ourselves to the opportunity to slow down and bring awareness to what and how we are eating. Thus, mindful eating allows us a short respite amidst the busyness of our lives.

According to recent statistics published by the Organization for Economic Cooperation and Development (OECD). Americans spend a total of about an hour and 15 minutes eating every day, slightly more than only Canadians and Mexicans but less than half the eating time spent by the French. Despite this limited time spent eating, our obesity rates are the highest of all the countries in the OECD. Mindful eating allows us to step back a bit from our usual multi-tasking environment and tune in to the present moment with awareness and a bit of curiosity. Several leading weight loss and pre-bariatric surgical programs have begun to integrate mindful eating exercises into their

programs with positive results. Mindful eating is also being studied as an intervention in mental health treatment for binge eating disorders. The best way to experience mindful eating is to try it yourself.

You may be surprised at how difficult it is the first few times you take the time to eat **mindfully** instead of **mindlessly**. I encourage you to integrate mindful eating into your life on a regular basis and observe the positive changes in your mind, body and spirit.

Here is an easy mindful eating exercise to try yourself or teach to a patient:

Mindful Eating Exercise (5-10 minutes)

1. Choose one food item. This could be a piece of fruit or vegetable, or a favorite snack item. It is important not to bring in too many food items to the mindful eating exercise at first, so I suggest you do not try this with a full meal. Popular items to try: apple slices, raisins, an orange, a banana, nuts or berries, grapes, a piece of chocolate, carrot or celery sticks, a few crackers or pretzels.
2. Silence is golden. Turn off or remove all extraneous distractions. This means turn off the ringer on your phone, step away from your computer screen, remove all reading material, turn off the radio or TV, and if you are with other people agree to remain silent during this exercise, which will take approximately 5-10 minutes. It is often easier to practice this exercise alone if possible.
3. Allow your attention to focus on the food item you have chosen by using all five of your senses, with taste being the last sense you utilize. I often describe this process as one of being like an inquisitive toddler – observing everything curiously and without expectation. Simply examine this food object as if you have never seen, touched, heard, smelled or tasted it before.
4. After you have examined the food item with the first four senses (sight, sound, touch and smell) take one bite of the food item and then close your eyes.
5. Don't start to chew immediately. Try not to pay attention to the ideas running through your mind, just focus on the food. Notice anything that comes to mind about taste, texture, temperature and sensation going on in your mouth.

Mindfull Eating.....cont'd

6. Begin chewing, just noticing what the activity of chewing feels like. Your mind will have a tendency to wander. That's perfectly normal, simply notice that your mind went off and bring your attention back to the food you are consuming. Notice each tiny movement of your jaw. See if you can stay present and notice the subtle transition from chewing to swallowing.
7. Notice how you anticipate the next bite of the item you have chosen and wait a moment before you take another bite.
8. Open your eyes and continue to notice with sight, sound, smell, touch and taste, until you have finished your chosen food item.
9. Close your eyes again for a moment and notice how your body is feeling. You may or may not feel full. It takes several minutes for the brain and the central nervous system to recognize the sensation of fullness in the digestive system. Allow yourself some time to see if you are satiated.
10. Take a deep breath into the belly and gently exhale. Congratulate yourself for taking time to notice your nourishment.

For more information about Mindful Eating you may be interested in these resources:

- Albers, Susan. Eating Mindfully: how to end mindless eating & enjoy a balanced relationship with food. Oakland: New Harbinger Publications, 2003.
- Altman, Donald. Meal By Meal: 365 Daily Meditations for Finding Balance Through Mindful Eating. Maui: Inner Ocean Pub., 2004.
- Bays, Jan Chozen. Mindful Eating: A guide to Rediscovering a healthy and joyful Relationship with Food. Boston: Shambhala, 2009.
- Dutton, G.R. (2008) The Role of Mindfulness in Health Behavior Change. ACSM's Health & Fitness Journal: Volume 12 - Issue 4 - pp 7-12
- Kristeller, J.L. (2003) Mindfulness, wisdom and eating: Applying a multi-domain model of meditation effects. Journal of Constructivism In the Human Sciences, 8 (2), 107-118.

Pamela Katz Ressler, RN, BSN, 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 consultation 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, and holistic healthcare. She is also an adjunct faculty member at the University of Massachusetts Boston, College of Nursing and Health Sciences, teaching courses in stress management for healthcare providers. Pam's new CD, *Opening the Door to Meditation*, was recently released and is available on www.stressresources.com and www.amazon.com.

¹ http://www.dukehealth.org/health_library/health_articles/mind_over_munchies

² http://www.oecd.org/home/0,3305,en_2649_201185_1_1_1_1_1,00.html

³ <http://www.oecd.org/dataoecd/27/22/42672498.pdf>

⁴ http://www.dukehealth.org/health_library/health_articles/mind_over_munchies

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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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