



SWORBHP LINKS

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2010 AHA CPR and ECC Guidelines - *From International Consensus to the Streets of Southwestern Ontario*

Guidelines are defined as “systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances” (Antman & Peterson, 2009).

In October, the 2010 American Heart Association (AHA) Guidelines for CPR and Emergency Cardiovascular Care (ECC) were published in the Journal Circulation. The AHA CPR and ECC Guidelines are based on an evidence evaluation process that included 356 resuscitation experts from 29 countries. Over a 36 month period these experts analyzed, evaluated and debated research through in-person meetings, teleconferences, and online sessions before the 2010 ILCOR Consensus Conference. The process included structured evidence evaluation, analysis, and cataloging of the literature. There is no doubt that a lot of work and a lot of money went into developing these guidelines. The 2005 AHA CPR and ECC Guidelines took an average of three years to be broadly implemented. AHA and other organizations have placed an emphasis on timely implementation of the 2010 recommendations.

Full implementation of the 2010 AHA CPR and ECC Guidelines will require changes to Ontario’s BLS and ALS Manuals. The Ontario Provincial Medical Advisory Committee (MAC) met on December 13th and 14th to review the first iteration of revised cardiac arrest directives. The MAC is working hard to develop provincial cardiac arrest directives that are in keeping with the new guidelines, practical for the pre-hospital environment and easy for practicing paramedics to adapt. With any luck the updated directives will be ready for implementation in the fall of 2011.

If you would like to review the 2010 AHA CPR and ECC Guidelines they can be downloaded from the following URL:

http://circ.ahajournals.org/content/vol122/18_suppl_3/

Adam Dukelow, M.D., FRCP(C), MHSC, CHE
Local Medical Director
Middlesex, Elgin, Lambton, Oxford and Oneida

Reference:

Antman, E., Peterson, E. (2009). Tools for guiding clinical practice from the American Heart Association and the American College of Cardiology: What are they and how should clinicians use them? *Circulation* 2009; 119;1181.

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www.lhsc.on.ca/bhp

Update —The Stroke Network SWO

The new 2010 Stroke Best Practice Guidelines have just been released. Information is available in an easy-to-search and smart-phone friendly website www.strokebestpractices.ca. The website includes resources to improve stroke and emergency services and to measure their effectiveness. Check it out.

Use of a standardized stroke diagnostic screening tool by EMS responders has been recommended to increase sensitivity of identifying potential stroke patients on scene, especially those who may be candidates for time-sensitive interventions such as thrombolysis using tissue plasminogen activator (tPA). The **Cincinnati Prehospital Stroke Scale (CPSS)** is a three-item scale based on a simplification of the National Institutes of Health (NIH) Stroke Scale. It uses the mnemonic, **FAST** (Face, Arm, Speech, Time), for rapid identification of stroke and transient ischemic attacks. This scale was found to have good validity in identifying patients with stroke who are candidates for thrombolytic therapy, especially those with anterior circulation stroke.

Stroke patients have up to 4.5 hours from the onset of their symptoms or “last seen well” to possibly be treated with clot busting (tPA) drugs. Paramedics working in the province of Ontario will soon be able to transport more people who suffer a sudden onset of stroke symptoms to the designated stroke centre so that they can receive thrombolytic therapy (tPA). The revised Paramedic Prompt Card is *coming soon*.

Remember, **Time is Brain**.

On behalf of the Stroke Network of SWO I would like to wish you all a very happy 2011 and thank you for the hard work you do every day to increase the value of life for stroke patients. It really makes a difference.

Janet Liefso
Acute Stroke Coordinator
Stroke Network SWO

Remember this
mnemonic:

F face
A arm
S speech
T time

“...the monitor
may be able to
ascertain
certain critical
pieces of
information...”

Vitals are like... *vital*

For years, I have been stating the annoying obvious fact that vital signs are just that: **vital**. If they weren't so important (in fact *vital*), we would call them *optional signs* and say things like “Hey, good idea in not checking the blood pressure.” But we don't. If you do, perhaps we should meet. Soon.

Recently, incredibly, I found myself in court at a Coroner's Inquest stating these exact words to a jury and a team of lawyers during my nine hours on the witness stand. This should never have happened. My opinion in this very complicated case was that the paramedics involved documented a dramatically abnormal life threatening vital sign, on two occasions, then opted not to provide treatment since the patient “looked” so well. In essence, they discounted the thirty thousand dollar piece of equipment that was beeping loudly telling them that the patient was unwell. Instead, they decided that the monitor must be wrong since the patient “looked” so well. He later died.

The argument against my position was that paramedics are taught “treat the patient, not the monitor”. This global statement is reasonable when you have a talking patient who looks well and a monitor that shows ventricular fibrillation or asystole. Clearly this can't be correct and I agree—in those cases—treat the patient. However, it is possible that the monitor may be able to ascertain certain critical pieces of information (in fact *vital pieces of information*) that your “look” may not be able to provide you. Otherwise, why even bother having the machine in the first place? Why don't we just send you out there to have a good “look” at the patients and see what you think? But we don't. And we shouldn't.

What I am saying is this...don't be looking for reasons NOT to treat patients. Use every piece of information available to you to find something that you may be able to address or correct, then do everything you can to bring the patient to the hospital.

Maintaining that vigilance is what makes **you**, a **vital** link in the chain of survival.

Michael Lewell, B.Sc., M.D., FRCP(C)
Regional Medical Director

Where do I Stand?

Are we waiting for Godot? More importantly, are you waiting for Godot? That is, are you waiting for someone to summarize the evidence of why we do what we do in the prehospital environment, or do you seek it out via publications in peer reviewed journals? Sadly, many wait endlessly, then rely on the summaries of others for information we should seek out ourselves. The reasons for waiting are numerous but often reflect self-created boundaries based on lack of experience, fear, or motivation to grow. Many waited for Godot, postulating endlessly as to why and when their wait would end, sadly never seeking a solution nor taking action to discover why. So again, I would ask not are you waiting, but why are you waiting?

Wang, E., Lave, J., Sirio, C., Yealy, D. (2006). Paramedic Intubation Errors: Isolated Events or Symptoms of Larger Problems? *Health Affairs* 25(2), 501-509.

Vrostos, K., Pirrallo, R., Guse, C., Aufderheide, T. (2008). Does the Number of System Paramedics Affect Clinical Benchmark Thresholds? *Prehospital Emergency Care* 12(3), 302-306.

Whyte, B., Ansley, R. (2008). PAY FOR PERFORMANCE IMPROVES RURAL EMS QUALITY: Investment in Prehospital Care. *Prehospital Emergency Care* 12(4) 495-497.

Colwell, C., Mehler, P., Harper, J., Cassell, L., Vazquez, J. (2009). Measuring Quality in the Prehospital Care of Chest Pain Patients. *Prehospital Emergency Care* 13(2) 237- 240.

Olasveengen, T., Sunde, K., Brunoborg, C., Thowsen, J., Steen, P., Wik, L. (2009). Intravenous Drug Administration During Out of Hospital Cardiac Arrest: A Randomized Trial. *Journal of the American Medical Association*. 302 (20) 2222-2229.

Austin, M., Wills, K., Blizzard, L., Walters, E., Wood-Baker, R. (2010). Effect of high flow oxygen on mortality in chronic obstructive pulmonary disease patients in prehospital setting: Randomised controlled trial. *British Medical Journal*, 341:c5462.

Eschmann, N., Pirrallo, R., Aufderheide, T., Lerner, E. (2010). The Association between Emergency Medical Services Staffing Patterns and Out-of-Hospital Cardiac Arrest Survival. *Prehospital Emergency Care* 14(1) 71-77.

Lee, C., Van Gelder, C., Cone, D. (2010). Early Cardiac Catheterization Laboratory Activation by Paramedics for Patients with ST-segment Elevation Myocardial Infarction on Prehospital 12-Lead Electrocardiograms. *Prehospital Emergency Care* 14(2) 153-158.

Severo Rodriguez, B.A., M.Sc., NR-LP, AEMCA
Regional Program Manager

References:

Beckett, S.(Writer), Blin, R.(Director) (1953). *Waiting for Godot*. NY, Grove Press.

Drucker, P. (2010). *Managing Oneself*. 10 Essential Reads [Special Article Collection]. HBR (Original work published in 1999).

Literature Support in EMS

As an educator, I am often asked for the 'why' behind the direction of our medical directives, and I must say that this is a very refreshing question. It is finally nice to see paramedics wondering why we do what we do, and not simply the age-old saying: "because our protocols say so". The answer to this question comes very simply from primary literature in the fields of emergency medicine and EMS. Literature searches are conducted on a daily basis at SWORBHP and are an exhaustive and systematic search for published work on a specific topic, and for further application to the field of EMS. Essentially, we want to use research conducted by credible researchers to influence or support the medicine we practice, and thus creates evidenced based EMS medicine.

Literature searches are conducted by SWORBHP in an attempt to fill the gaps in EMS research. So what exactly does this mean? SWORBHP is actively engaged in advancing EMS not only in Southwest Ontario, and not only Canada-wide, but across North America. Our recent literature searches in the field of pre-hospital 12-lead ECG acquisition, test item reliability and validity, and paramedic competence have led us to conduct our very own research. This research has led to the acceptance of five of our abstracts by the NAEMSP (National Association of EMS Physicians) Scientific Assembly for presentation in January 2011; something we are all extremely proud of!

So what does all of this mean for the future of EMS? Aside from the rumour-ridden world we work in, have a look back to the past ten years of EMS. Things have changed drastically, have they not? I can say reassuringly, that with the support of our Regional Medical Director, the team at SWORBHP, and our dedication to evidence based medicine, the changes are far from a stagnant halt. EMS is a young and progressive culture of which you the paramedic will be an integral part.

Stéphanie Romano, HBSoc., A-EMCA, NCEE
Regional Paramedic Educator

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Paramedic Recognition Awards

Paramedic Recognition Awards were introduced in 2010. Several paramedics were recognized last year for their accomplishments. Congratulations to the following paramedics:

Tristan Barter, Huron County EMS was awarded the Medical Directors Award of Excellence in recognition of leadership and participation in educational activities above and beyond regular clinical responsibilities.

Nick Leclerc, Essex-Windsor EMS was awarded the Medical Directors Award of Excellence in recognition of outstanding clinical judgment and actions during a difficult clinical scenario.

The following paramedics were recognized for a Prehospital Save:

Grey County EMS—Darren Clock, Andrew Murray

Huron County EMS—Dave Wagner, Harold Martin

Essex-Windsor EMS—Ljubisa Apostolovski, J.P. Bacon, Mike Basinski, Brittany Bianchet, Brian Boismier, Jeff Borghi, Jacey Brockman, David Cakebread, Andy Closs, Hannah Colenutt, Brandon Damm, Vic Dimitriu, Ziad Fatallah, Troy Gee, Mike Gobet, Mona Hansen, Bradley Hart, Gerry Hedges, Sean Hettrick, Peter Hilliker, Jeff Huber, Rob Injic, Tony Jaroszewicz, Shannon Johnston, Nisreen Karkanawi, Ryan Kreeft, Tom LeClair, Ashley Lemay, Doug Litster, Nathan MacMillan, Michael Manery, Michella Mollicone, Andre Mongeau, Pete Morassutti, Mechelle Murphy, Dawn Newman, Marty Petro, Shaun Rivard, Randy Rollo, Prentice Scott, Rick St-Pierre, Paul Stromme, Don Theriault, Amy VanCowenberg, Angela Volpatti, Michelle Wilkinson, Michael Yeboah

Thames Middlesex EMS—Paul Keane, John Blaauw

The following paramedics were recognized for a Prehospital Newborn Delivery:

Huron County EMS—Don Dolmage

Essex-Windsor EMS—Doug Bryant, Ryan Kreeft, Kenard Silver, Matthew Oades

Paramedics Honoured at AMEMSO Conference

Several paramedics received awards at the annual AMEMSO Conference held in Huntsville this past September.

The Governor General's Exemplary Service Medal recognizes paramedics who performed their duties in an exemplary manner, denoting at least 20 years of meritorious service. Paramedics who received this award are:

Bruce County EMS—Steve Schaus, R. Douglas Smith

Chatham-Kent EMS—Paul Patterson (Posthumous), accepted by his parents Wayne and Clara.

Essex-Windsor EMS—Diane Clark, Elwood Defour, Pete Hilliker, Garry Long, Tim McDonald, Ed Scherer

Grey County EMS—Murray Adams, Peter Shaw, Leonard Smith (retired)

Lambton County EMS—Ray Gowan, Tony Steadman

Perth County EMS—Mike Grosz, Julie Jeffrey

Thames EMS (Elgin)—Carla MacArthur, Tasha McCaig, Tim McFadden

Thames EMS (Middlesex)—Dale Blanchard, Gary Pinnell, Dan Tyo

The N.H. McNally Award recognizes on-duty paramedics for acts of bravery, acknowledging those individuals who went above and beyond the line of duty to protect others from harm.

Receiving the N.H. McNally Award for Bravery were:

Bruce County EMS—William Ernest and Darryl Hopcraft

The Southwest Ontario Regional Base Hospital Program would like to congratulate all award recipients for their outstanding accomplishments.

Cathy Prowd, CQIA

Team Leader, Operations & Logistics

*Medical Directors
Award of
Excellence*

*Prehospital
Save
Award*

*Prehospital
Newborn Delivery
Award*

*Governor General's
Exemplary Service
Medal*

*N.H. McNally
Award for
Bravery*

Research Questions and Methods

Research is a way of producing evidence to be able to make claims about the truth of something.

Good research starts with a specific question the researcher wants to answer. The type of question and how it is asked determines the method the researcher uses to answer the question. Different methods are developed to answer different types of questions.

The Evidence Based Medicine (EBM) movement has been influential in shaping how medical research is done. EBM defines a “hierarchy of evidence” based on the method used to produce it. This has been misinterpreted to mean that some methods of research are ‘better’ than others.

The ‘clinical trial’ has become the dominant style of producing evidence for therapeutic effectiveness. However, clinical trials are limited in the type of evidence they produce. The ‘randomized controlled trial’ (RCT), a specific type of clinical trial, is regarded as the gold standard for clinical research. While RCTs might be able to prove or disprove some types of therapeutic claims, they are severely limited by and dependent upon the question asked. They are not able to answer questions that ask how something works or why it works.

For example, a question might be; in patients with a blood sugar of < 2mmol/L, do more patients have a blood sugar > 5mmol/L 10 minutes after receiving 25mls of 50% dextrose IV or 1mg of Glucagon IM? This type of question is best answered by performing a randomized control trial.

However, if the researcher was interested in how a treatment affects the patient’s quality of life, a different question would be asked. For example, when you have a hypoglycaemic reaction, which method of treating it do you prefer, D50 IV or Glucagon, and why? In this situation, interviewing a series of patients or perhaps using a questionnaire would be appropriate methods for determining the answer.

Both are interesting questions but the method used to find the answer is completely different. One method is not ‘better’ than the other; they are just different and suited to different questions the researcher wants to ask.

Don Eby, M.D., M.Sc., CCFP(EM) FCFP
Local Medical Director
Grey, Bruce, Huron and Perth

Paramedic Recertification Evaluation

The process used for the 2010-2011 paramedic recertification written test included two significant changes; it was completed in-class without the use of resource materials, and the answers were not reviewed with learners at the completion of the test. Why did we have these changes?

Written tests can be used for two purposes; to continue the learning process, or as a formal evaluation for the purpose of certification. In past recertification courses, written tests were used as a learning tool, often by issuing it pre-course and by reviewing the marked tests in-class. This process does enhance the learning experience, but it generally eliminates the test questions from re-use.

This year, it was decided to use the written test as a formal evaluation, but a higher stakes evaluation requires higher standards for defensibility of the test. First, extensive work was completed to properly create each question. Then, as described in the October 2010 edition of SWORBHP LINKS, we used the modified-Angoff process to establish the cutscore (pass mark). To date, we have eight-hundred PCP tests and just over one-hundred ACP tests completed, with nearly two-hundred more PCP tests and approximately fifteen more ACP tests to come. Once all services have completed the written test, each question

will be analyzed for several factors to determine the reliability and validity of each test question. In essence, we are evaluating the test to confirm the value and precision of each question. Questions that do not meet the established standards are either revised or discarded entirely. Those that meet the standards are entered into a data-bank for future use, providing full confidence that the questions have proven themselves to be of high value.

The disadvantage to this process is that learners are not allowed to see their specific errors and do not know where they went wrong. However, planning is already underway for a webinar in April 2011 that will address all common issues found from the written test without specifically reviewing the questions and answers themselves. This will ensure that the written test provides continued learning for everyone.

David Vusich, ACP, A-EMCA, AdEd, NCEE
Education Coordinator

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Up Close and Personal

In this edition of **LINKS**, we will take you up close and personal with Tracy Gaunt, Stéphanie Romano and Brenda Smith Huie. We hope this allows you an opportunity to get to know each of them a little better.



Tracy Gaunt, B.A, NCEE, CQIA
Professional Standards Specialist

Tracy joined SWORBHP in January 2009 as a full-time Regional Paramedic Educator and recently accepted a new position as a Specialist in Professional Standards. She holds an Honours Bachelor of Business in Emergency Services Management from Lakeland College and is a recent graduate of the Council for Licensure, Enforcement and Regulation's Investigator program. She is currently completing her Master of Science degree with a major in Instructional Design and Technology through Walden University. Tracy is a part-time paramedic in Bruce County. Tracy and her husband Bill live in Port Elgin with their daughter Tara and their new puppy Ella.



Stéphanie Romano, HBSc., AEMCA, NCEE
Regional Paramedic Educator

Stéphanie joined SWORBHP in January 2010 as a full-time Regional Paramedic Educator. She holds an Honours Bachelor of Science as a Human Biology Specialist from the University of Toronto and a diploma in Paramedicine from Centennial College. Stéphanie is currently completing her Master of Science in Global Higher Education through Walden University. She teaches Anatomy, Physiology, Therapeutic Communication and Gerontology at Fanshawe College and is a part-time paramedic in Elgin County. In the past, she worked as a Program Consultant for Health Sciences & Human Services at Fanshawe College. Stéphanie and her husband Pat live just west of London with their Rottweiler-Shepherd Boston, and their four cats. Stéphanie and Pat are expecting their first baby in April.



Brenda Smith Huie
Team Assistant, Professional Standards

Brenda has been with the Base Hospital since 1998, initially as Data Entry Clerk for the London Base Hospital. In September 2008 she joined SWORBHP as a Customer Support/Receptionist. Brenda is currently Team Assistant for Professional Standards. As a practicing Shaman and Naturalist outside of work, Brenda likes to integrate these skills in the workplace. Environmental awareness, compassion, positive energy and kindness are just some of the anecdotes that play a role in her daily activities. Brenda is the "frontline" of SWORBHP and is often the pleasant voice you will hear when you call the London office.

Upcoming Paramedic Rounds

- January 31, 10:00 a.m. - Live Rounds and Webinar - **MCI**
- February 9, 2:00 p.m. - Webinar - **Sports Injuries**
- February 18, 10:00 a.m. - Webinar - **ECC Updates**
- March 7, 9:00 a.m. - Webinar - **Anaphylaxis**
- March 18, 10:00 a.m. - Webinar - **Prehospital 12-Lead ECG**
- Late March - Webinar - **Prehospital Care of Tracheostomy Patients**
- Early April - Webinar - **Lessons Learned - 2010/11 Recertification Review**
- Late April - Webinar - **Blast Injuries**

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Visit our website and view the special page dedicated to upcoming CE opportunities.
http://www.lhsc.on.ca/About_Us/Base_Hospital_Program/CME_Opportunities.htm

Current Prehospital Practice of Vagal Maneuvers for SVT

There is still a role for Vagal maneuvers in SVT. The current version of our protocols allows for these maneuvers with stable narrow complex, regular tachycardias, where rapid atrial fibrillation and atrial flutter have been excluded. The protocol allows for two attempts of 10 to 20 seconds per attempt, and the Vagal maneuver defined is a Valsalva maneuver (Advanced Life Support Patient Care Standards, June 2007).

There are two Valsalva maneuvers. The classic one involves pinching the nose while expiring with the mouth closed to force air into the Eustachian tubes and middle ear. Many of us have done this while flying or diving in order to recover our hearing from the pressure effects. This is not the best form of the Valsalva to use in cardiac cases. Rather we need the modified version where we take a big breath and push down like delivering a baby or having a bowel movement. This can be assisted by placing your hand on the patient's abdomen and asking them to push it up with their abdominals while expiring against the closed glottis. This maneuver increases the heart rate and forces blood out of the chest and into the carotid sinus stretching it and

There is still a role for Vagal maneuvers in SVT.

stopping the arrhythmia. In addition, when the maneuver is stopped there is a sudden increase in preload when the blood is now allowed to return, which stretches the right atrium and conduction system, and drops the heart rate, sometimes stopping the SVT about 10 to 20 seconds after the maneuver is finished.

This is in no way to be confused with carotid massage, which is specifically contraindicated in the protocols, unless advised by a Base Hospital Physician (which hopefully will not happen) (Advanced Life Support Patient Care Standards, June 2007). The carotid massage can lead to CVA (Adlington et al, 2009), retinal artery occlusion, and transient confusion (Munro et al, 1994). Research shows there is really no advantage in using carotid massage over the Valsalva Vagal maneuver, they can both be effective 10 to 20% of the time (Lim et al, 1998).

Paul Bradford, B.Sc., M.D., CCFP(EM), FCFP, CD
Local Medical Director
Essex-Windsor, Chatham-Kent

References:

Advanced Life Support Patient Care Standards, June 2007 Version 2.1, Advanced Medical Directives for ACPs, Appendix 2, pg. 2-8

Adlington et al, Carotid sinus massage: Is it a safe way to terminate supraventricular tachycardia? *Emerg Med J* 2009;26:459

Munro et al, Incidence of complications after carotid sinus massage in older patients with syncope. *J Am Geriatr Soc.* 1994 December;42(12):1248-51

Lim et al, Comparison of treatment of supraventricular tachycardia by valsalva maneuver and carotid sinus massage, *Ann Emerg Med* January 1998;31:30-35

Utilization of 12-Lead in SWORBHP

12-Lead is an important tool for local paramedics to improve care delivery in the setting of cardiac ischemia. We know that 12-lead is helpful in ER physician treatment decisions (Davis et al, 2011) and that outcomes can be improved if used in concert with ASA and transport to percutaneous coronary intervention (Myers et al, 2008).

Over a 15 month period (January 2009 to March 2010), PCPs working in Essex, Middlesex and Oxford Counties, used 12-lead in 2,740 cases. Of those 2,740 uses:

- 993 were followed by ASA only,
- 172 were followed by Nitro only, and
- 923 had both ASA and Nitro administered.

652 received a 12-lead with no other cardiac ischemia treatment. This approach can be appropriate as long as patients are not excluded from care based on the result of their 12-lead. Many patients suffering from cardiac ischemia have normal electrocardiograms, hence the maxim: 'treat the patient, not the monitor'. The most obvious avoidable risk of 12-lead use is that it can extend scene time. In order to have greatest utility, the 12-lead and a living patient must reach the receiving physician, so risk-benefit has to be balanced.

ASA and Nitro administration can also have risks. Paramedics have demonstrated considerable aptitude in proper application of the cardiac ischemia protocol. Of 1,165 cases where either ASA or NTG were withheld, only 13 (0.1%) errors in application of the protocol were identified. This is an incredible achievement given the complexity of the directive.

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Utilization of 12-Lead in SWORBHP - cont'd

Reminders:

1. PCPs are very accurate with applying their cardiac ischemia medical directive. Cases resulting in error were usually because the reason for withholding an intervention was not documented. Please make sure your ACR documentation supports your decision making.
2. 12-lead is an important tool in the setting of ischemic chest pain to assist in sequestering patients towards percutaneous coronary intervention (either directly through bypass protocols or indirectly through the ER) and reducing door to needle time.
3. Quality 12-lead is important to improve diagnostic use, so try to keep artifact to a minimum by having patient remain still. If quality is poor, consider re-doing.
4. In the case of patients with severe hemodynamic compromise, emphasis on treating the patient's A, B and C supersedes the 12-lead and this may be deferred or performed only when there is no impact on scene time and you have free hands.
5. There were 24 cases where 12-lead was interpreted as MI, but only 20 were coded as '57-Myocardial Infarction', and of those coded as 57, only 12 had supporting 12-lead evidence of MI. When your 12-lead interpretation includes STEMI, please code the final problem as 57 and if no STEMI is identified on 12-lead, do not use this code.

Paul Robinson, ACP, AEMCA
Professional Standards Specialist

Tracy Gaunt, B.A., NCEE, CQIA
Professional Standards Specialist

Adeel Ahmed, M.Eng, CQE
Team Leader, Professional Standards & Performance Improvement

References:

Myers, J., Slovis, C., Eckstein, M., Goodloe, J., Isaacs, S., Loflin, J., Pepe, P. (2008). Evidence-Based Performance Measures for Emergency Medical Services Systems: A Model for Expanded EMS Benchmarking, *Prehospital Emergency Care*; Apr-Jun 2008, 12(2):141-151. doi:10.1080/10903120801903793.

Davis, M., Dukelow, A., Lewell, M., McLeod, S., Rodriguez, S., (2011). The Utility of the Prehospital Electrocardiogram in the Emergency Department, (Abstracts for the 2011 National Association of Emergency Medical Services Physicians Scientific Assembly), *Prehospital Emergency Care*;15:104-137(Abstract 113). doi: 10.3109/10903127.2010.525298

SWORBHP Educators Receive National Certification

Five Educators at the Southwest Ontario Regional Base Hospital Program recently attained Nationally Certified EMS Educators (NCEE) status, becoming the first to do so outside of the United States. The two hour certification exam was administered at the London, Ontario office of SWORBHP by Laura Krawchyk, Education Coordinator for the National Association of EMS Educators (NAEMSE), acting on behalf of the National EMS Educators Certification Board.

Dwayne Cottel, Tracy Gaunt, Peter Morassutti, Stéphanie Romano, and David Vusich join the ranks of only 160 EMS Educators who have completed the requirements for this certification to date. All five completed the 40 hour National Association of EMS Educators (NAEMSE) Level 1 Instructor course earlier in 2010, a pre-requisite for writing the certification examination.

In addition, Stéphanie and David attended the new 30 hour NAEMSE Level 2 Instructor course as part of the pilot group, providing feedback that helped to shape the program that is now available to EMS Educators.

"Congratulations to our Canadian EMS colleagues at the Southwest Ontario Regional Base Hospital Program for being the first international site to offer Educators the opportunity to become National EMS Educator Certification (NEMSEC) recognized EMS Educators" said Linda M. Abrahamson, BA, RN, EMTP, NCEE, and President of NEMSEC. "The NEMSEC Board of Directors and the EMS community admire your commitment to excellence in education through your leadership in supporting the importance of national recognition for EMS Educators."

"...further demonstrating SWORBHP's commitment to the highest standards of educational program design and delivery".

...cont'd on pg. 9



SWORBHP Educators Receive National Certification - cont'd

The National EMS Educators Certification mission is to "promote excellence in EMS education by offering a certification for EMS education professionals through a valid and uniform process, which assesses the knowledge and skills associated with competent, relevant and structurally sound educational practices". To have all five Educators certified by NEMSEC is a significant accomplishment for SWORBHP, and provides evidence of the dedication and abilities of those achieving this certification. The individual certification of the education staff harmonizes well with the Organizational Accreditation awarded to SWORBHP by the Continuing Education Coordinating Board for Emergency Medical Services (CECBEMS) earlier in

further demonstrating SWORBHP's commitment to the highest standards of educational program design and delivery.

Congratulations to Dwayne, Tracy, Peter, Stéphanie and David for your accomplishments!

David Vusich, ACP, A-EMCA, AdEd, NCEE
Education Coordinator

www.naemse.org
www.nemsec.org

Emergency Medicine Grand Rounds – A CE Opportunity

Emergency Medicine Grand Rounds at LHSC has been approved as a CE opportunity for paramedics. You may wonder exactly what Grand Rounds entails and may have some preconceived notions from Grey's Anatomy or ER. Although there's a hint of truth to the portrayal of Grand Rounds put forth by these television shows, it's definitely not a completely accurate representation of what goes on.

Residents are assigned to present Grand Rounds once each "academic year". Although the presentation itself is only an hour, residents will begin working on their rounds months before their presentation date. A large amount of time is spent brainstorming ideas, researching the subject at hand, reading through textbooks and research papers and then synthesizing volumes of information into a 45 minute presentation.

Rounds typically begin with a case that was seen in the ED. Residents are asked questions regarding the case. Questions are directed at first year residents and move up the chain with more difficult questions being asked of the senior residents. We have to decide on relevant history and physical findings as well as the appropriate investigations we would order. We then decide on the appropriate management and disposition of the patient. This process

gives us the opportunity to critically think about the appropriate care of our patients and requires us to defend our decisions and have a deeper understanding of why we "do what we do".

As the case progresses the topic is introduced. Time is devoted to the epidemiology, pathophysiology, required investigations, and management of patients. Topics are often controversial and it is not unusual for heated discussion to ensue. Much can be learned from hearing our colleagues discuss their approach, experiences and pearls of wisdom.

We would welcome you as a guest to our rounds. You have a unique perspective on numerous issues and would value any prehospital experiences that you may be able to share with us. At the very least, you will be able to see residents getting grilled, enjoy some snacks, have a cup of the worst coffee known to humankind and earn a CE credit in the meantime!

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Trivia

Did you know?

- The tongue of a blue whale is as long as an elephant.
- Our eyes are always the same size from birth.
- A soccer ball is made up of 32 leather panels, held together by 642 stitches.
- The names of all the continents end with the letter they start with.
- A house fly lives only 14 days.

Reference:
<http://didyouknow.org/fastfacts/>

Comments to the Editor

If you have comments or feedback on the newsletter, or have an article you would like to have considered for publication in a future edition of **LINKS**, please send to:

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