London Health Sciences Centre
Southwest Ontario Regional Base Hospital Program

SWORBHP LINKS

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Editor: Cathy Prowd
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CBRNE Training

As a brief introduction, I'm Mike Peddle, the new Assistant Medical Director at SWORBHP. I'm an emergency physician at LHSC and one of my primary interests is disaster preparedness and response. I was recently accepted to participate in training at the Center for Domestic Preparedness (CDP), Department of Homeland Security Federal Emergency Management Agency's training center in Anniston, Alabama.

Healthcare training at the CDP occurs at the Noble Training Facility, which is the converted Noble Army Hospital. It is a full hospital facility dedicated to training health care professionals in disaster preparedness and response. This training focuses on medical education around response to both acts of terrorism and man-made disasters. The hands-on, real-time training is designed to develop the responder's ability to respond effectively to real-world chemical, biological, radiological, nuclear, and explosive (CBRNE) incidents. Some courses end with a live agent exercise in the COBRA training facility.

The most recent course I participated in was a CBRNE mass casualty triage and decontamination course. This course culminated in a real-time, day long chemical exposure MCI scenario complete with actors, simulation mannequins and full PPE. It was a great experience, learning first to wear (and move) in the equipment, then to try and perform our day to day roles in the equipment. Triage, decontamination, monitoring, starting IV's, intubation and patient care take on a new level of complexity when encased in chemical protective suits, limited visibility, and difficult communication (due to your hood and mask and four pairs of gloves).

While mentally and physically challenging, much was learned, and friends were made. More importantly, many questions were raised, asking how ready are we for our first/next disaster response at home.

Michael Peddle, MD, FRCP(C), Dip. Sport Med.
Consultant Physician - Division of Emergency Medicine
Assistant Medical Director - SWORBHP
Assistant Professor - Faculty of Medicine and Dentistry

SWORBHP Hosts 2011 OBHG Conference

The Southwest Ontario Regional Base Hospital Program will be host to the 2011 Annual Ontario Base Hospital Group Conference. The conference is being held May 9-13, 2011 at the Caesars Windsor Hotel and will feature an exciting line up of speakers and topics relating to Emergency Medical Services.

Deadline for conference registration is April 15, 2011.

The conference agenda, hotel booking information, and online registration form are now available on our website. Click here to access the conference details.

Lift a What?

I remember one of my first times in the back of an ambulance. I was so impressed by how calm and professional the paramedics were as we attended to patients at various scenes. The environments themselves presented unique challenges, to which hospital based members of the emergency care team are rarely exposed. I now understand when I hear paramedics complain that hospital based physicians "don't understand what it's like OUT there" - you're right - we don't, despite our best efforts.

However, with that said, sometimes the converse is true. Occasionally, paramedics "don't know what it's like IN there." After you drop your patient off in the ED, you may not be aware of what the ultimate diagnosis was of that patient with abdo pain or the one complaining of feeling "weak and dizzy". Perhaps they were admitted with a life threatening condition. The lack of available follow up does not allow paramedics to correlate their formulated diagnoses with the eventual ones which could serve to reinforce your clinical decision making.

One call I remember emphasizes this point. While on a physician ride-out, we were dispatched to a "lift assist". When I asked what that was, I was told that this is a patient who had most likely fallen to the floor at their house, and was unable to get up. To my astonishment, we were being asked to literally lift the patient back up, and leave.

A comprehensive medical assessment was not performed; in fact, vital signs were not completed. Here was a patient that was so profoundly weak, they literally did not have the strength to get up, and rather than asking the question "why?", we provided the (temporary) solution of standing them up.

My point is this - had the paramedics known that people who are too weak to stand independently usually wind up admitted to hospital with significant medical diagnoses such as sepsis, electrolyte imbalances, rhabdomyolysis, etc…perhaps this patient would have been transported or at least assessed more thoroughly.

This is why I think we should redefine the term lift assist. A lift assist is when you have to help another crew lift a patient into the ambulance. If someone falls to the ground and is too weak to get up, we should call that "collapse". That's what we call it where I work (in there), I hope you do too (out there).

Until next time, take care OUT there!

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

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Thank You

Thank you, for your vision of EMS and for the hard work required to make it a reality. Thank you, for years of tireless and at times thankless dedication and service to our communities and province. Thank you, for helping make the EMS and Base Hospital system in Ontario the best in the world. Thank you, Dennis Brown and Brian Bildfell for all that you have done for EMS and Base Hospital, and congratulations on your retirement.

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

Double Sequential External Defibrillation for Refractory Ventricular Defibrillation; a Technique to Consider for Paramedic Involvement

We have all had or heard of the case where the patient stays in Vfib, despite multiple shocks and many rounds of drugs. These cases seem to go on forever, many times with the patient demonstrating respiratory effort from great CPR. There is a trend emerging out of the U.S. where several patients have been saved in these situations by hooking up two defibrillators. A second defib is used and the pads are placed on the chest beside the other defibrillator pads. Both units are charged and the shocks delivered simultaneously ("I'm clear, you're clear, everyone's clear, 3,2,1, fire"... smoke clears). It is doubtful that both shocks are given at exactly the same time - there is probably a few tenths of a second difference in reaction time. It is felt that this longer pause, across a wider vector, is what allows the ventricles to recover to an organized rhythm. This is not a new paradigm.

"It is felt that this longer pause, across a wider vector, is what allows the ventricles to recover to an organized rhythm."

Cardiologists, (Hoch et al., 1994) published this concept with their series of five patients of 2,990 who were in the process of having Electrophysiological studies and ended up with refractory Vfib on the table. All were witnessed arrests and were able to be resuscitated with two defibrillators when usual defibrillation was not successful.

At NAEMSP 2011, Juliette Saussy, Medical Director of New Orleans EMS, presented her new protocol (with two prehospital survivors) utilizing this technique for refractory Vfib in the field.

Brent Myers, Medical Director from Wake County, North Carolina, reported in JEMS News, his recent series of five patients who converted from Vfib each time this was tried, but with no survivors to date. (Ruggero, 2010).

I can see a role for EMS in Canada with these cases in the future. Although not American Heart Association (AHA) approved, this technique is utilized after the usual AHA algorithms have proven to be ineffective. Many ERs have only one defibrillator, and paramedics (in some centers) often assist with the resuscitation in the ER. This typically occurs during the initial phase of handover, especially in centers with less teaching staff. In addition, some ambulance services have defibrillator equipped first response and supervisor vehicles. Depending on the situation, an Advanced Life Support (ALS) vehicle may be tiered, so it would not be uncommon for two defibrillators to be on scene. Plus it sounds really cool !

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

References:

Hoch, D.H., Batsford, W.P., Greenberg, S.M., McPherson, C.M., Rosenfeld, L.E., Marieb, M., & Levine, J.H. (1994, April). Double sequential external shocks for refractory ventricular fibrillation, *Journal of the American College of Cardiology,* 23, 1141-1145.

Ruggero, L. (2010, July). Double sequential external defibrillation in Wake County, N.C., *JEMS News*.

Paramedic Recognition Awards

Congratulations to the following Essex-Windsor paramedics who were recognized for a ***Prehospital Newborn Delivery***:
Peter Hilliker, Elwood Defour (January 14, 2011)
Matthew Gaudet, Brenda Gingras, Tony Jaroszewicz (January 16, 2011)

Congratulations to the following Essex-Windsor paramedics who were recognized for a ***Prehospital Save:***
Rick St-Pierre, Jeff Huber, April Roberts, Jennifer Miner (December 17, 2010)
Mechelle Murphy, David Cakebread (January 7, 2011)
Len Letourneau, Sarah White, Julie Sylvester, Peter Gvoic (January 11, 2011)
Kevin Demarco, Victoria Diemer, Brady Boghean, Wendy Willis (January 30, 2011)
Kevin Demarco, Victoria Diemer (February 2, 2011)

If you have been on a call that you feel meets the criteria to be considered for a Prehospital Save or Prehospital Newborn Delivery, please complete a submission form and forward to the Base Hospital for verification of the call.
Click here to access online forms.

Cathy Prowd, CQIA
Team Leader, Operations & Logistics

Look for us on the Web
www.lhsc.on.ca/bhp

Physician Rideouts

Some of you may have seen me in my crisp blue uniform riding out with various crews over the past few months and have wondered the purpose behind these rideouts. I am here to observe and to learn what your job entails, to gain experience and firsthand knowledge of life on the front line and to see off line medical direction in action. I am definitely happy to help out and offer advice if needed.

"…to gain experience and firsthand knowledge of life on the front line…"

One of the most interesting things I've learned during this experience is that once patient care is handed over, there is often no follow up with what "happened" to the patient. What caused their abdominal pain? Did they survive? Was it really cardiac ischemia? Was it a COPD exacerbation or CHF? You may wonder if your clinical impression is correct.

On my rideouts I've had the ability to check up on the patients that we had cared for. I was able to relay this information back to the crew that I was working with. We had picked up an elderly lady with hypotension, hypoxemia, and abdominal pain. Unfortunately, she died four hours later of a ruptured abdominal aortic aneurysm. Had I not been working with that crew, they may have never known the outcome of that patient. Knowing the outcome helps solidify the art of determining "sick" from "not sick". When you treat a patient in the field who you later learned had a ruptured AAA and dies, that clinical picture gets burned into your memory. The next time you happen to come across a similar patient, that memory may come to light and you may be better able to recognize "sick" from "not sick".

With this being said, do not hesitate to follow up on your patients when you return to the department. Ask the nurse or a physician in the department for an update. Challenge yourself to see if your clinical impression was right. By learning the outcome of your patients, you have the potential to improve the care you provide for them.

Matthew Davis, M.D., M.Sc.
UWO Emergency Medicine PGY4
EMS Resident
Southwest Ontario Regional Base Hospital Program

What Makes a Leader?

Is it your title, your values, your beliefs, the way you treat others, or perhaps the way you command respect that makes you a leader? Or is it simply the way you inspire others? What if you think you're a leader, yet those who you believe you are leading think otherwise? What does being a leader even define? A person, a position, or perhaps wrap your head around the idea of leading as process. The way in which we lead is highly dependent upon the purpose of our role. What does being a leader mean to you; in the field of EMS, on a call, or perhaps in SWORBHP?

According to (Lee, 2010), a leader takes those she is leading to a place they would have otherwise not gone; be that academic, social, spiritual, or professional. Leadership is about removing the norm, disrupting the usual, and inspiring a different future. That future describes some sort of desired outcome, where the leader and her team have the ability and commitment to have an open mind and a vision for the betterment of the group. So is a vision enough? Of course the vision is only the beginning. The leader must have the creativity and skills required to implement strategies that foster an encouraging environment so that each individual may become a leader in his or her own way.

What does all of this mean? Try to think of leading not as being in a position of superiority, but rather as a process whereby strategic inspiration brings light to new theories, new initiatives, and new goals.

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

Reference:

Lee, T. (2010). Turning doctors into leaders. *Harvard Business Review,* 88(6) 18-19.

ACR Documentation Omission Trends within SWORBHP

(Romano et al., 2011) studied the relationship between potential severity of the error (none, minor, major, or critical) and ACR documentation to determine if services utilizing electronic ambulance call records (eACRs) had different documentation error rates compared with services utilizing paper ACRs.

In order to expand on (Romano et al., 2011) conclusion, another study was undertaken at SWORBHP to determine the frequency of occurrence of documentation omission dispersed over various sections of the ACR. Between July 1, 2010 and December 31, 2010, out of a total of 14,954 calls that were audited within the SWORBHP region, 93 were found with incomplete documentation as displayed in Figure 1.

Figure 1 .[n=93] Documentation Omission (by ACR Section) Both ACR Type

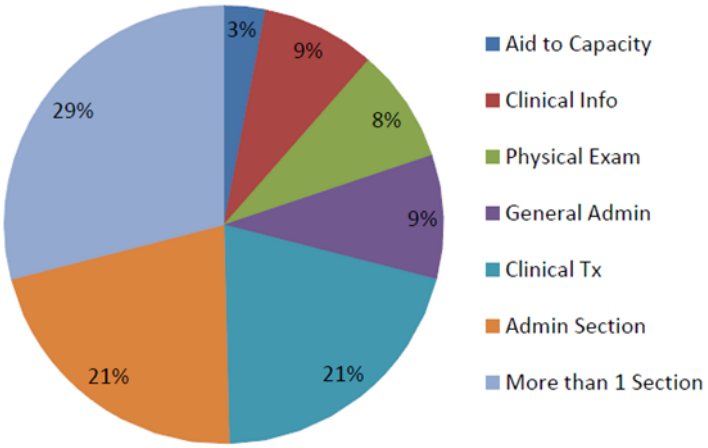

Table 1

Omission % by ACR Type

	Paper	eACR	Both
More than 1 section	33%	10%	29%
Admin Section	24%	5%	21%
Clinical Tx	19%	30%	21%
General Admin	11%	0%	9%
Clinical Info	7%	15%	9%
Physical Exam	6%	20%	8%
Aid to Capacity	0%	20%	3%

In review of Table 1, it is safe to conclude that the eACR has been effective in reducing the number of incomplete data or text fields over the various sections of the ACR, as (75; 80%) paper and (18; 20%) eACRs were found to have data or text omission during the length of the study.

Adeel Ahmed
Team Leader, Professional Standards & Performance Improvement

Reference:

Romano, S., Davis, M., Dukelow, A., Lewell, M., McLeod, S., Rodriguez, S. (2011). Analysis of paramedic error on ambulance call reports (Abstracts for the 2011 National Association of Emergency Medical Services Physicians Scientific Assembly), *Prehospital Emergency Care*, 15:104–137(Abstract 127). doi: 10.3109/10903127.2010.525298

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Trivia

Did you know?

- A cow gives nearly 200,000 glasses of milk in her lifetime.
- An electric eel can produce a shock of up to 650 volts.
- A fingernail or toenail takes about six months to grow from base to tip.
- An individual blood cell takes about 60 seconds to make a complete circuit of the body.
- Coffee, as a world commodity, is second only to oil.
- If you put a raisin in a glass of champagne, it will keep floating to the top and sinking to the bottom. (I wonder how many of you will try this one!)

Reference:
www.corsinet.com/trivia

Recertification Program Development

"*Pitchers and catchers report!*" When those words go out from major league baseball teams, we know that spring will soon be here. But those words are a reminder to us here at SWORBHP that it is time to start developing the next round of recertification courses. You likely feel that you have just survived another year of recertification, and in fact, some of you are still completing your program as this article is being written. So why has planning started already?

There are several steps in program development that must be completed in order to deliver education that is relevant and effective, and each step takes time. As an accredited training organization, we must ensure that the high standards for program development are met (Continuing Education Certification Board for Emergency Medical Services, 2010).

"…as an accredited training organization, we must ensure that the high standards for program development are met…"

First, we conduct a needs analysis to determine the organizational goal, the "philosophical statement about what the learning is intended to produce" (Cason, 2006, p. 85). The goal may be the introduction of a new directive or skill, to reduce common errors related to the application of a directive, or to review a directive that is infrequently used by paramedics. Reports from our Professional Standards section and results from previous training programs are examples of the data we review at this stage.

Next, "specific and measureable objectives" are created to specify the expected learning outcomes for the students (Cason, 2006, p. 85) that will help us achieve our organizational goal. The objectives set the foundation for the rest of our program development, but they are important to the learner too (Vusich, 2010). Using the objectives, we determine the best way to deliver the training (lectures, case discussions, practical scenarios, and so on), create the materials for the program (pre-course reading, webinars), and then develop the evaluation strategies and tools (such as written tests or oral scenarios). Each step is a highly specialized process requiring time to properly complete before program delivery begins.

Recertification training normally starts soon after Labour Day. Paramedics should have access to any pre-course materials at least six weeks in advance, roughly the middle of July, so the final approved copy needs to be at the print shop by the end of June. Starting the process of program development in February, we have eighteen weeks to complete a needs analysis, to set organizational goals and learning objectives, and to create learning materials, evaluation tools, and lesson plans. In a blink of an eye, it's time to "*play ball!*"

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

References:

Cason, D. (Ed). (2006). Foundations of education: An EMS approach. St. Louis, MI: Mosby, Inc.

Continuing Education Certification Board for Emergency Medical Services (2010). *Standards and Requirements for Organizational Accreditation*. Retrieved from http://cecbems.org/applications/orgApp.aspx

Vusich, D. J. (2010, October). Learning objectives. *SWORBHP Links*, (Vol. 3). Retrieved from http://www.lhsc.on.ca/About_Us/Base_Hospital_Program/OpsLogistics/Newsletters.htm

Upcoming Paramedic Rounds

Watch for information on upcoming Webinars

- ***12-lead ECG***
- ***Lessons Learned - 2010-2011 Recertification Review***
- ***Blast Injuries***

Click here to visit our website and view the special page dedicated to upcoming CE opportunities.

Up Close and Personal

In this edition of LINKS, we will take you up close and personal with Adeel Ahmed, Paul Robinson and Michael Peddle. We hope this allows you an opportunity to get to know each of them a little better.

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

Adeel joined SWORBHP in December 2009 and is the Team Leader, Professional Standards & Performance Improvement. He holds a Masters of Science degree from Wayne State University and is a Certified Quality Engineer with American Society for Quality (ASQ). In the past, Adeel has worked for Ontario Health Quality Council (OHQC) as a Performance Improvement Consultant for LTC Home sector. He volunteers his time for the local section of ASQ and is an assessor for "London Quality Award" sponsored by the London Chamber of Commerce.

Paul Robinson, ACP, AEMCA
Professional Standards Specialist

Paul joined SWORBHP in June 2010 as a full time Professional Standards Specialist. He holds an Advanced Care Paramedic certificate from Metropolitan Toronto and a certificate in Ambulance and Emergency Care from Fanshawe College. He is a recent graduate of the Council for Licensure, Enforcement and Regulation's Investigator program. Paul is in the final year of completing his Bachelor of Science degree in Biology from the University of Western Ontario. In addition to working as a paramedic since 1985, Paul has Quality Assurance and Operations Management experience with Perth County EMS and Ornge. Paul has held teaching positions in the Primary and Advanced Care Paramedic Programs at Fanshawe College. Paul and his wife Heather live northwest of London in Nairn.

Michael Peddle, MD, FRCP(C), Dip Sport Med
Assistant Medical Director

Dr. Peddle joined SWORBHP in October 2010 as an Assistant Medical Director. He is responsible for coordinating and overseeing professional medical education through the Base Hospital program. Mike completed his medical training at Memorial University of Newfoundland and moved to London to complete his FRCPC in Emergency Medicine. He completed a fellowship in Sport Medicine at the Fowler Kennedy Sport Medicine Clinic and has a Diploma of Sport Medicine from CASEM. He currently works as an Emergency Physician at the London Health Sciences Centre and is an Assistant Professor in the Division of Emergency Medicine at the University of Western Ontario. Mike is the Assistant Program Director for the FRCPC Emergency Medicine Program. His other interests include CBRNE and Disaster Preparedness and Response.

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Update - The Stroke Network SWO

Warning Signs and Symptoms of Stroke:

Sudden

- ***Weakness***
- ***Trouble Speaking***
- ***Vision Problems***
- ***Headache***
- ***Dizziness…***

especially with any of the above

Stroke is a medical emergency. Most of the public are unable to recognize all five symptoms of stroke and therefore do not seek immediate medical attention. It is critical that patients arrive in the emergency department ASAP if they are to be eligible to receive clot busting treatment.

Accurate stroke symptom onset time is essential for the Emergency Physician and Neurologist. If the patient was awake and conscious at the time of onset, or if they were observed by another person who noted the time, you will be able to obtain a reasonably accurate time of onset. The time may be unknown if symptoms were present upon awakening. Accurately chart these findings on your Ambulance Call Report and report this information to the triaging nurse.

Stroke Network professional education sessions are posted on our website under LEARN. Registration is available on line. Check it out! www.swostroke.ca

An education session for EMS is being organized by the South West Ontario Regional Base Hospital Program and the SWO Stroke Network for spring 2011 regarding the paramedic prompt card and Hyperacute Stroke Management. More details to follow in the upcoming weeks.

I found a quote I thought reflects your work with stroke patients.
"Act as if what you do makes a difference. It does." **William James**

Janet Liefso
Acute Stroke Coordinator
Stroke Network, SWO

From Research Question to Publishing Results - What are the Steps?

Readers of this newsletter may be aware that the SWORBHP staff and physicians have recently presented a number of scientific abstracts at International EMS Conferences. SWORBHP currently has a number of journal papers in various stages of publication.

Published research starts with an idea that must be framed as a question. Proper question development is the most important stage of a research project and often requires many hours and numerous revisions prior to moving forward.

A research protocol is then developed and must be agreed upon by all parties involved (eg., EMS, SWORBHP, MOHLTC, Emergency Department Staff, Physicians, and Administration). The proposed research project is then submitted to the University of Western Ontario Health Services Research Ethics Board (HSREB) via an application that is at least 20 pages in length. After HSREB approval for a prospective study, the project is advertised to participating health care providers to ensure adequate enrollment. Data collection for a prospective project usually takes between six months and two years.

Retrospective project data collection depends on the sources and a number of other variables. After data is collected it goes through a series of statistical analysis and evaluation.

The authors then draft an abstract for submission to a conference and/or a manuscript for submission to a journal. The abstract or manuscript is reviewed multiple times by numerous members of the research team before submitting to an appropriate conference or journal.

Approval of a conference abstract tends to take about three months. Approval of a journal manuscript takes anywhere from three months to two years. The entire process takes a minimum of one year and usually up to four years to publish a journal article.

Research is one component of SWORBHP's commitment to continuous improvement of prehospital medical care in our region.

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

A Very Bad Day

The calls come in to dispatch...first one, then another, then 20 as the board lights up. There's been an explosion at the bus station and no one can say how many are dead or injured. Emergency responders are dispatched to the scene. Upon arrival, they see people streaming from the station. Some are coughing, some are vomiting…some are seizing. Amongst the chaos, you realize there must be something more to it, something dangerous to you.

This is the scene at CFB Suffield's Counter Terrorism Technology Centre. A few times a year, police, firefighters and paramedics from across Canada are brought to the Alberta Badlands outside Medicine Hat to learn how to respond to a chemical, biological, radiological, nuclear or explosive (CBRNE) event. This one-week intensive course is the final component of a 3-level training program put on by the Canadian Emergency Management College. This is where I got my first direct experience (last month) in a 'live-agent' environment with CBRNE weapons material such as Sarin, VX and Mustard gas, Anthrax, Cyanide and radiological 'dirty bombs'.

Back at the bus station, our reconnaissance (RECCE) team dressed in Level 'A' bubble suits and Scott Air Packs, moved slowly closer to the centre of the attack. Our equipment showed high levels of a possible nerve agent. Mannequins lined the platform of the station. Our bomb-tech made sure there were no more devices. The Haz-Tech relayed his instruments' readings. I quickly assessed the patients and found SLUDGE reactions consistent with nerve agent exposure. The forensics officer took evidence to send back to command. Once our team determined it was safe (a very relative term!), the extraction team moved in to transfer the casualties to the treatment and triage area. There, patients would get lifesaving countermeasures at the hands of the paramedics before moving them on to the 'Decon' line. With our air running out, it was time to head to Decon to get washed down and out of our suits. In the end, we had evacuated and treated 16 'patients', including two live models.

We took a lot of lessons home from the course. We often work together on scene with police and firefighters, while at Suffield we learned to become highly integrated to create a skilled unit to respond to the most unthinkable of events. The course highlighted how essential paramedics are during a CBRNE event. Everyone came out of the course with a new found respect for their colleagues. Until now, I didn't have a full appreciation of the bomb-techs' talent for identifying and disarming IEDs, the firefighters' skills with hazmat detection and decontamination, and forensics' ability to find subtle clues and record the evidence left on the latch of a briefcase bomb. And, after seeing us save our live models with atropine countermeasures, chest needles and crychothyrotomies, it was evident we had all become a team.

Stephen Turner is the Quality Practice and Education Supervisor for Oxford County EMS. He works as an ACP part-time with Middlesex-London EMS as well as being a tactical paramedic with the OPP's Tactics and Rescue Unit. For those interested in taking the online basic CBRNE training for First Responders, please visit:
http://www.publicsafety.gc.ca/prg/em/cemc/04pgc_02-eng.aspx#a03

Stephen Turner, ACP
Quality Practice and Education Supervisor
Oxford County EMS

Bomb Squad

CBRNE Medics

Decontamination Ambulance

Prehospital Primary Care Paramedic (PCP) Medical Termination of Resuscitation

Prior to the amalgamation, some of the Base Hospitals in this region participated in a series of research projects to develop a prediction rule for termination of resuscitation for presumed medical cardiac arrest.

The original rule was developed by a group at Sunnybrook. It was based on a retrospective (looking backwards at what has been done in the past) medical record analysis of their experience. (Verbeek et al., 2002) They determined that cardiac arrest patients did not survive to hospital discharge if all the following criteria were present. The person was over 18, had an arrest that was not witnessed by a first responder, the arrest had to be from a presumed cardiac cause, there were no shocks given prior to transport, and there was no return of spontaneous circulation at any time during resuscitation attempts.

The second study validated (tested that the result would be the same) the results of the prediction rule and showed it could be generalized (applied in other settings). This study showed that less than 0.3% (3 out of every 1000 treated) of the patients who met all the criteria in the rule survived to hospital discharge. Furthermore, it showed that only 37% of out of hospital cardiac arrest patients in the study needed to be transported to hospital using lights and sirens. 63% of the patients could be declared dead at the scene because further treatment would be futile. The paper describing this was published in 2006. (Morrison et al., 2006)

The third study was designed to see what would happen if the rule was applied by primary care paramedics. Eight Base Hospitals participated. The study confirmed that paramedics could be trained to successfully interpret and apply the rule. This study was presented as an abstract. (Morrison et al., 2010)

These studies have been validated by others and are now being incorporated into the new American Heart Association Guidelines for treatment of cardiac arrest. (Field et al., 2010)

The importance of these studies is that a medical directive can be produced to stop the futile continuation of resuscitation attempts with lights and siren transport to hospital, in a large number of out of hospital cardiac arrests. Unnecessary Code 4 transfers, put both paramedics and the public at risk of a motor vehicle collision and injury to paramedics from being tossed about in the back of a speeding ambulance.

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

References:

Verbeek, R., Vermeulin, M., Fahim, A., Messenger, D., Summers, J. & Morrison, L. (2002, July). Derivation of a termination-of-resuscitation guideline for emergency medical technicians using automated external defibrillators. *Academic Emergency Medicine,* 9**,** 671-678.

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The Southwest Ontario Regional Base Hospital Program will be host to the 2011 Annual Ontario Base Hospital Group Conference. The conference is being held May 9-13, 2011 at the Caesars Windsor Hotel and will feature an exciting line up of speakers and topics relating to Emergency Medical Services.

Deadline for conference registration is April 15, 2011.

The conference agenda, hotel booking information, and online registration form are now available on our website.
Click here to visit our website

If you have any questions, please contact:

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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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