



SWORBHP LINKS

VOLUME 14

JUNE 2013

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Extraction vs Extrication — One is Working in Concert

Does this situation sound familiar to you? You are the paramedic crew on scene of a patient involved in a high mechanism MVC. The fire department tells you it is going to be 30 minutes until the patient is extricated. Is there anything you can do for your patient now, assuming the scene is safe?

While our fire colleagues are carefully and methodically dissecting the mangled wreckage of the vehicle, have you ever wondered: if this patient's systolic blood pressure was 60mmHg, is there anything else you could do for the patient using your scope of practice? Or, is there another way to extricate the patient faster so that your patient does not exsanguinate on scene?

The first step (again as long as it is safe to do so) is to access the patient. Perform your primary survey and obtain the essential vital signs as soon as absolutely possible. Even with partial access (i.e. just an extremity) there is information to gain: can they communicate with you, do they have a pulse, what is their blood pressure. Identify immediate threats to life and communicate with the other members of the team the treatment priorities. Oxygen, depending on the environment, may be helpful. IV access for fluids during extrication can help mitigate hypotension once the extrication begins. Medications like Sodium Bicarbonate and Salbutamol can help to treat hyperkalemia associated with crush syndrome and could be considered with a patch to the BHP if the period of entrapment is lengthy. Finally, if it is safe, attending the patient during the removal process, especially if the patient is on a monitor, allows for early recognition of decompensation and earlier intervention.

Increasingly, paramedic assessment and treatment is being initiated in concert with ongoing extrication efforts. Heavy Urban Search and Rescue (HUSAR) teams responding to domestic and international events have noticed improved survival when assessment and treatment is started as part of the patient extrication process. It is no longer acceptable to wait on the sidelines of a safe scene for the patient to be extricated only then to discover that your patient has life threatening vital signs that could have benefitted from critical interventions that form part of your scope of practice.

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

Michael Peddle, M.D., FRCP(C), Dip Sport Med.
(A) Local Medical Director
Elgin-St. Thomas, Lambton, Middlesex-London, Oneida, Oxford



Ahhh...the lazy days of summer!

Optimal Prehospital Care Systems - What Does it Mean to YOU?

After extensive deliberation over the past few months the SWORBHP team agreed on the following vision: "Leadership of optimal prehospital care systems". What is an optimal prehospital care system? Paramedics within the SWORBHP region provide excellent care every day—but what does an optimal prehospital care system look like? My opinion of an optimal prehospital care system may be different from yours. We are soliciting your opinion or description of what an optimal prehospital care system looks like. I have provided a case example of my view on this to get the conversation started.

A 65 year old female with diabetes has excellent glycemic control, exercises regularly, maintains a healthy weight and has never been to an emergency room. Despite her best efforts, she collapses at home. Her son immediately starts compression only CPR based on the YouTube video he saw last week. Her husband calls 911. A first response vehicle and ambulance are simultaneously dispatched. The dispatcher instructs the husband to alternate hard and fast compressions with the son every one minute until help arrives. The local fire department is on scene in four minutes. One firefighter places a non-rebreather mask and takes over compressions. The other applies the AED and delivers a shock within five minutes of the patient's collapse. Over the next two minutes the firefighters deliver compressions and BVM. The EMS crew arrives at minute six. One of the paramedics becomes the code director and asks the firefighters to continue compressions and BVM. The second paramedic simultaneously changes to their defibrillator which uses the same pads as the fire department. At minute seven the paramedic responsible for the defib analyzes the rhythm to be Ventricular Fibrillation and delivers a shock.

"What is an optimal prehospital care system?"

Compressions are continued during the charge phase and following the shock. At minute eight the patient pushes the firefighters arms away and begins breathing on her own. The medic operating the defib does a full set of vitals. The code director asks the superintendent that has now arrived to start an IV. The team loads the patient. Just prior to leaving, the medic completes a 12 lead ECG. The patient lives 15 minutes from a small Emergency Department and 70 minutes from the closest PCI Centre. Enroute to the local ED the patient's vitals are stable and her neurologic status is continually improving. One of the medics notifies the receiving ED of the patients condition and that the ECG is STEMI Positive. On arrival in the local ED the ED doc immediately assesses the patient and her ECG on the EMS Stretcher. The ED doc calls the interventional cardiologist. The ED doc and the paramedics transport the patient to the cath lab for successful PCI.

After PCI, the patient is transported back to her home hospital to recover close to family and friends.

I personally believe that SWORBHP can assist in creating a system that operates as safely and seamlessly as the one described above. However, maybe you disagree? Maybe an optimal prehospital care system is very different from what I have described? Please send your thoughts and opinions to:

adam.dukelow@lhsc.on.ca

Adam Dukelow, M.D., FRCP(C), MHSC, CHE
(A) Regional Program Manager
SWORBHP Strategic Planner

Upcoming CE Opportunities

- Stroke Review - July 24th
- Parkinson's in EMS - September 16th
- ECG Series Part III - October
- Anaphylaxis - November
- Key Words in EMS - December

Remember to check our website regularly for information on upcoming Webinars and rounds.

[Click here](#) to visit our website and view the page dedicated to Continuing Education.

SWORBHP Research Highlighted at National and International Conferences

Research conducted by SWORBHP staff has been receiving attention at both National and International conferences. Dr. Sameer Mal (SWORBHP Fellow 2012, PGY 5) presented his research project “The Impact of Pre-Hospital Non-Invasive Positive Pressure Support Ventilation in Adult Patients with Acute Respiratory Distress: A Systematic Review and Meta-Analysis” at the Canadian Association of Emergency Physician’s (CAEP) National Conference. He won top resident abstract and placed in the top four abstracts overall for the conference. At the North American EMS Physician’s Conference (NAEMSP) in Bonita Springs Florida, Dr. Mal once again presented his meta-analysis of the impact of NIPPV to an international audience.

Dr. Natalie Cram (PGY 3) presented her findings at CAEP surrounding the utility of the ACR in the management of ED patients. Dr. Cram’s team found that the ACR influenced patient management in 30% of cases and disseminated this information during her presentation.

Dr. Paul Bradford’s study regarding the use of prehospital analgesia in the multi-trauma patient was presented at both CAEP and the National Association of EMS Physicians (NAEMSP) Conference and was well received. Dr. Bradford also teamed with Dr. Elizabeth Donnelly to examine the sources of support for paramedics managing work related stress in a Canadian EMS Service. This project was highlighted at both CAEP and NAEMSP as a poster presentation.

Without the help of those involved in all stages of these projects, they would not have garnished the success they have. The research teams extend their gratitude to everyone who helped make these projects possible.

Matthew Davis, M.D., MSc., FRCP(C)
(A) Medical Director of Education

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

National EMS Week

SWORBHP wanted to help celebrate National EMS Week this year by hosting special events across our region. This gave us an opportunity to show our appreciation for the hard work and dedication of all our paramedics.

The day may have started off rainy, but it ended with sunshine, laughter and lots of fun! We incorporated different interactive learning stations and served lots of delicious refreshments. One of the highlights was definitely our Dunk-A-Doc station. The brave docs, Adam Dukelow, Mike Lewell and Matt Davis, suited up and tackled the freezing cold water as dunkees for the dunk tank.

Another highlight was our “Win a Lift Assist” draw. Paramedics could enter their name to win the opportunity to have their Regional Paramedic Educator attend a shift to do all their lifting. Congratulations to Dan Tyo (Middlesex London), Nathan Gonder (Grey County) and Adam Bennett (Middlesex London) who were the draw winners!

The staff at SWORBHP really enjoyed getting to meet everyone. We want to say thank you to those who came out to our events. We are already thinking of ways to help celebrate next year’s National EMS Week. We hope you had fun and we look forward to seeing everyone next year!

Michelle Frazer, CQIA
Certification Associate



Neal Roberts, Middlesex-London EMS takes aim, attempting to dunk Dr. Adam Dukelow during EMS day in London on May 22nd. For the record, he was successful!!

We Will Never Forget

Don Filliter Chris Snowball

Darren Walsh

Jacques Dupuy

Dustin Dagenais

I wanted to write an article for the newsletter to express how deeply impacted we all were as a community by the recent loss of our colleagues/brothers/friends and most of all, members of our paramedic family. The untimely death of Middlesex-London EMS PCP Darren Walsh and the downed ORNGE helicopter in northern Ontario which claimed the lives of Captain Don Filliter, First Officer Jacques Dupuy and Paramedics Chris Snowball and Dustin Dagenais, left us all feeling devastated.

Since these incidents I have been overwhelmed by the incredible amount of support for our EMS colleagues, their families and their services. From BBQs and golf tournament fund raisers, to the ORNGE insignias flooding social media, to the tribute by Don Cherry on Coaches Corner. Unfortunately, sometimes it takes tragic incidents like these for us to step back and reflect on why we “do what we do”. It’s an automatic gut trigger for us to feel the unspoken bond we share and the deep respect we have for each other. We recognize the personal and emotional sacrifices associated with our profession, but what seems to get lost during the daily grind of late lunches, off load delays and service budgets, is the common intent of each one of us: to help people and serve our community. It’s during times of loss we seem to pull together as a group in unity and support one another.

In reflection, we should pay tribute to ourselves and our colleagues daily to show them how much we value each other and the jobs that we do so well. As we work toward establishing our practice as a Profession, and implement more research based prehospital medicine, I hope we do so with the same unity.

Look after each other and be safe. Thank you for doing what you do!

Christine Hardie, ACP
Regional Paramedic Educator

“...we should pay tribute to ourselves and our colleagues...”

SWORBHP MEDList

In this edition of SWORBHP MEDList, we share some of the common Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) that you might encounter when treating patients. This is not an exhaustive list, but one that you’ll hopefully recollect. Recognizing these will come in handy when considering ASA for Cardiac Ischemia or Ibuprofen/Ketorolac for pain. Keep in mind that an allergy or sensitivity to NSAIDs is a contraindication for the administration of ASA, Ibuprofen, and Ketorolac.

Brand Name	Generic/Chemical Name
Advil, Motrin	Ibuprofen
Anaprox, Naprosyn, Aleve, Vimovo	Naproxen
Celebrex	Celecoxib
Voltaren	Diclofenac
Indocid	Indomethacin
Mobicox	Meloxicam
Arthrotec	Diclofenac Sodium with Misoprostol

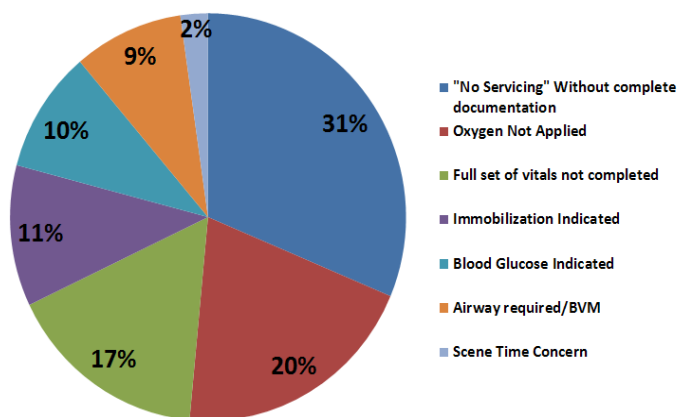
Matthew Davis, M.D., MSc., FRCP(C)
(A) Medical Director of Education

BLS Error Trends

BLS error trends are identified via the ACR chart audit process at SWORBHP. During a typical fiscal cycle of 12 months, SWORBHP audits approximately 30,000 ambulance call reports (ACRs). Cases with potential deviation from Basic Life Support (BLS) patient care standards when identified, are referred to the service operators. 134 cases were identified as BLS patient care issues between April 1, 2011 and March 31, 2013 and are summarized on the accompanying chart.

A supplemental table has been added which contains the description of errors under each category. BLS error trends identified at SWORBHP are similar to the ones highlighted by the Ministry of Health and Long-Term Care (MoHLTC) investigative report (Canadian Broadcast Corporation, 2013). The analysis provided supports the argument that specific educational interventions are required to counter these trends at local, regional and provincial levels.

[n=134] BLS Patient Care Errors Reporting Period April 2011 to March 2013



Category	Description
No servicing without complete documentation	No service call with no documentation of vitals taken.
Oxygen not applied	Patients did not receive oxygen on trauma calls, Pt HR 145/min with resps 22/min indicates need for high flow oxygen, or Pt with full body rash may require oxygen.
Full set of vitals not completed	Missing full set of vitals on trauma calls, transfer calls, or complaints of "chest wall pain".
Immobilization Indicated	No collar or board on a call with head/neck trauma, or no splint of fractured extremities.
Blood Glucose Indicated	No blood glucose of intoxicated Pt, no blood glucose on a Pt after seizure, no blood glucose on unconscious Pt, or no blood glucose on known diabetic Pt.
Airway required/BVM	No documentation of starting an airway on a Pt with GCS<10, or no documentation of using a BVM when Pt RR=10.
Scene Time Concern – Incomplete Documentation	Scene time >20 mins with Pt in resp distress and worsening condition, delays between loading Pt into ambulance and departing scene, or delay departing scene after administering EPI with no documented delays.

Adeel Ahmed, M.Eng, CQM/OE
 Coordinator, Professional Standards &
 Performance Improvement

Reference

Canadian Broadcast Corporation. (2013, April 8). Paramedics failed to meet patient care standards, says province. Retrieved from <http://www.cbc.ca/news/canada/kitchener-waterloo/story/2013/04/05/waterloo-ems-patient-care212.html>

Email Fun Facts

- Approximately 294 billion emails are sent every day globally.
- In 2012, the typical email user wrote 41,368 words - the length of a novel!
- In 2012, the average email user received 5,579 emails.
- The busiest time to receive emails is 11 a.m. on a Tuesday.

Source: <http://www.sendmail.com/sm/blog/wik/?p=1357>

PCP Recertification Test Group

Are you a PCP interested in participating in an early Recert to test SWORBHP's ability to run the day? We're looking for a group of PCPs to test the upcoming Recert day and to give us valuable feedback on anything that needs tweaking or ideas for the future. If you're interested, please contact Michelle.Frazer@lhsc.on.ca and let us know! There is limited space, so please contact us early.

This will count as your 2013-2014 Recert, and lunch will be provided.

Date: Thursday, August 29, 2013

Time: 8 a.m. to 4:00 p.m.

Location: SWORBHP – 4056 Meadowbrook Drive, Unit 145, London

Stephanie Romano, MSc.Ed., HBSc., AEMCA
Education Coordinator



Does Your Patient Have CPAP Fever?

Your 88 year old female patient presents with severe shortness of breath and a rattle in her chest that you can hear without your stethoscope. As with many of your SOB patients, she has a complex respiratory history with an underlying history of COPD, hypertension, CHF, a-fib and depression. Her dyspnea is worse on exertion, but has been getting worse over the last few days. Her vitals are as follows: HR (110), BP (173/88), RR (30), SpO2 (70), T (39.5), GCS 15. When you listen to her chest, you hear crackles top to bottom, but you think she may be worse on her left. Her ankles are swollen worse than normal. Her medications include Adalat, Lasix, Ventolin, ASA, Docusate Sodium, Symbicort, Effexor and she was recently prescribed Levaquin for her cough.

Despite this patient's fever and possible diagnosis of pneumonia, she may have the indications and benefit from the initiation of the CPAP medical directive (PCP Medical Directives Paramedic Handbook, 2012). Differentiation of CHF from pneumonia in the field can be difficult or even impossible. Sometimes the auscultated findings are unclear especially when the patient has overlapping conditions. In the absence of any contraindications, CPAP may be administered by EMS for exacerbation COPD or pulmonary edema, even if the patient is febrile. This is a recognition that patients can be suffering from both conditions, and may benefit from CPAP. Don't be too quick to rule out the use of CPAP simply based on the presence of fever. Instead, fever should be one of the many features you consider when developing an appropriate treatment plan.

Michael Peddle, M.D., FRCP(C), Dip Sport Med.
(A) Local Medical Director
Elgin-St. Thomas, Lambton, Middlesex-London, Oneida, Oxford

Paul Robinson, ACP, AEMCA, CPSO
Professional Standards Specialist

References:

PCP Medical Directives Paramedic Handbook 2012. London Health Sciences Centre, SWORBHP.
Continuous Positive Airway Pressure (CPAP) Medical Directive – Auxiliary: 52-53.

Hydrogen Sulfide (H₂S) and the First Responder

Recently there have been several cases of chemical suicide in our region using Hydrogen Sulfide (H₂S). This is a colourless, flammable, extremely hazardous gas with a distinctive “rotten egg” smell. It can be found naturally in crude petroleum and natural gas. Hydrogen sulfide is also produced during the breakdown of organic matter and human and animal waste (sewage). It is heavier than air and therefore has a tendency to collect in low lying areas such as sewers, basements, utility vaults, or other poorly ventilated areas. It is a common hazard in confined spaces.

HAZARDS

This is a flammable gas whose Lower Explosive Limit (LEL) is 4.5%, thus making it more flammable than methane (LEL 5%). The primary route of exposure for this substance is inhalation. The rotten egg smell can be detected at low levels, but at concentrations between 100-200ppm will paralyze your sense of smell so that you can no longer smell it. Do not rely on your sense of smell to protect you from this gas.

EFFECTS OF EXPOSURE

Low to moderate concentrations: Eye, nose, and throat irritation that increases in severity as the concentration increases. As well, headache, dizziness, nausea, coughing, vomiting, and difficulty breathing. The effects can be delayed.

High concentrations: May quickly cause unconsciousness, convulsions, and death due to respiratory paralysis. Levels of 1000-2000ppm are sufficient to cause coma and possible death after one breath.

RESPONSE CONSIDERATIONS

If this type of incident is suspected, isolate the area and request a HAZMAT response from local authorities. Do not approach without proper respiratory protection (SCBA) and air monitoring equipment. Be sure to check for flammability as well as toxicity. Decontamination can be simply soap and water.

This article is for information purposes only. Please consult with your local Fire Department for more information. Stay safe!

Chris Champagne
Platoon Training Instructor
London Fire Department

The Police, The Coroner, and The Paramedic

Paramedics, police, and coroners have different aims and ‘jurisdiction’ when it comes to patients and bodies.

When a paramedic is called to a scene to provide care to a patient, the presumption is the patient is alive. The aim of paramedic care is to provide assistance to a person until it can be proven the patient is dead. Technically, the patient remains alive until they are pronounced dead. Until then they are a person and not a body. Paramedics have jurisdiction over patients unless the patient is under arrest.

Once a patient is pronounced dead, they become a ‘body’ and paramedics do not have further jurisdiction over the remains. The police have jurisdiction of the body and the scene. The main interest of the police is in detecting whether a crime has been committed, and in preserving evidence at the scene. As discussed in a January 2013 LINKS article, the coroner’s system is interested in determining whether the death was the result of natural causes, an accident, suicide, homicide or whether the cause remains “undetermined”. Until that determination is made, the police act as agents of an investigating coroner.

Occasionally paramedics are called to a scene to attend a patient and they discover a junior (and sometimes a senior) police officer hovering over a body preventing paramedics from “disturbing the scene”. This prevents paramedics from making an adequate assessment to determine whether the person is “obviously” dead as defined by the Ambulance Act or meets the criteria for termination of resuscitation, which means carrying out medical directives. This can result in confrontations and frustration on the part of paramedics because different agencies have different agendas. In these situations paramedics must assume the person is alive until THEY determine otherwise. Once paramedics determine the person is obviously dead or termination of resuscitation has occurred the police have jurisdiction of the body and the scene.

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

Project PREPARE 2013

Last month the Southwest Ontario Regional Base Hospital Program (SWORBHP), London Health Sciences Centre (LHSC), Fanshawe College, and the CBRNe Collaborative hosted Project PREPARE 2013, an interprofessional training event and exercise at Fanshawe College. The conference included an Advanced HazMat Life Support (AHLs) course taught by the course originator and author Dr. Frank Walter from the University of Arizona and Dr. Michael Peddle, Local Medical Director SWORBHP.

A practical training day included various tracks depending on participant interest, including: Incident Management System (IMS), Patient Decontamination, and Family Integration and Support. Base Hospital staff from across the region were involved in all three days, attending and teaching various aspects of each course.

The week culminated in a one day, real-time, full-scale mass casualty exercise with over 350 volunteers, including 100 patients at the scene. The City of London, London Police Services, London Fire Department, many local EMS agencies, LHSC's Decontamination Team, and LHSC Emergency Department Staff (Residents, Fellows, RNs, RTs, Social Work, SSW, clerical staff, Spiritual Care) were all involved in the event. Observers were on hand from hospitals across the region, the province and across Canada. They were joined by staff from Defense Research and Development Canada, and Public Health Canada.

Project PREPARE was an incredible success! We would like to thank all who volunteered their time for the education and exercise! We look forward to having more fun next year!

Justine Jewell, R.N., B.Sc.N., ENC(C)
CBRNe Response Team Specialist

Michael Peddle, M.D., FRCP(C), Dip Sport Med.
(A) Local Medical Director
Elgin-St. Thomas, Lambton, Middlesex-London, Oneida, Oxford

For more information on how you can participate,
please e-mail CBRNE@lhsc.on.ca.



"The Scene"



Treatment on Scene



Transfer of Care



Hospital Decontamination

The Current Contribution of Paramedics in Pain Management of the Multisystem Trauma Patient in a Community Level 2 Trauma Centre. How Can Paramedics Have the Biggest Impact?

The Ontario advanced life support patient care standards limit the delivery of analgesia by ACPs to trauma patients who have suffered isolated extremity trauma. However, ACPs are able to establish on-line medical control to request analgesia for trauma patients that do not meet the patient care standards. We conducted a study (Bulatovic et al. 2013) to determine how often analgesia is provided to trauma patients as defined by an injury severity score (ISS) > 12 by either the patient care standards via medical directive or through on-line medical control. Secondary outcomes included the proportion of patients who were transported by ACPs versus PCPs and the time saved if analgesia was delivered in the field versus in the ER.

We used a retrospective chart review of trauma patients transported to a level two trauma center from April 1, 2010 to March 31, 2011. Cases were reviewed by a trained ACP auditor, medical student and trauma team leader physician. 228 patients with ISS > 12 were reviewed. 78 were excluded (53 inter-facility transports, 23 walk-ins, and 2 in-hospital falls). Of the remaining 150 cases, 62 cases (41%) had an ACP response where the potential to provide analgesia existed. Of these 62 cases, only 5 (8.1%) received pre-hospital analgesia via direct BHP contact, and none were covered by the medical directives. The average time to pain meds was 29 minutes after contact. Of the 57 ACP patients that did not receive pre-hospital analgesia, 37 (64.9%) were given analgesia in the ED on average 70 minutes after initial paramedic contact.

Despite demonstrated rapid delivery, the frequency of pre-hospital analgesia use for multisystem trauma patients is low. The majority are attended by PCPs who cannot administer analgesia. Promoting more frequent use of on-line medical control by ACPs may allow patients to receive analgesia much sooner, especially using trauma destination policies for longer transport times. There is considerable work being done to expand prehospital pain directives for all paramedics however it will likely not cover pain control for multisystem trauma patients, and patching for pain relief may be a consideration.

Paul Bradford, MD CCFP(EM) FCFP MDS
Local Medical Director Base Hospital
Essex-Windsor, Chatham-Kent

Reference

Bulatovic, R., Bradford, P., Morassutti, P., Galbraith, E., McKenzie, S., Bradford, D.,... McLeod, S. (2013, Jan-Mar) Analysis of Prehospital Treatment of Pain in the Multisystem Trauma Patient at a Community Level 2 Trauma Center. Journal of Prehospital Emergency Care, NAEMSP, pp. 122

Paramedic Recognition Awards

The following paramedics were recognized for obtaining a field ROSC and were recipients of the Prehospital Save Award. All patients survived to hospital discharge.

Thames EMS Elgin-St. Thomas

Mark Pickard, Dawn Bacon - January 12, 2013
Mark Kasubeck, Gord Mathers - February 8, 2013
Jonathan Smith, Gerri-Lynn Brandies, Jason Constable - February 16, 2013
Scott Simpson, Dawn Bacon - May 4, 2013

Middlesex-London EMS

Carlo Castellani, Robert Gordon - February 13, 2013
Don Black, Lisa McGarry - June 15, 2013
Chris Mortier, Scott MacDonald, Tim Zima, Lee Waterman - June 16, 2013

Congratulations everyone!

Cathy Prowd, CQIA
Operations & Logistics Specialist

[Click here](#) to access Recognition Awards forms online.

2012 Hyperacute Canadian Best Practice Recommendations for Stroke Care...Highlights for EMS

The 2012 Canadian Best Practice Recommendations for Hyperacute and Acute were released at the end of May 2013. Section 3.2 of the 2012 Recommendations pertains to EMS service management of acute stroke patients. The prehospital phase commences with symptom onset and includes on-scene management and transport, time should be ≤ 3.5 hours; emergency department (ED) phase should be ≤ 60 minutes. On-scene management ideally should be < 15 minutes for patients who present within the 4.5 hour time window.

Highlights of the 2012 recommendations include:

- **The role of the Central Ambulance Communications Centre (CACC)**

After dispatching the ambulance, CACC personnel should provide pre-arrival instructions (such as unlock door, move pets, determine stroke symptom onset time, determine current medications) to the patient or person reporting the stroke, in order to expedite and optimize prehospital care.

- **Obtaining information from patient/family members**

EMS personnel should obtain information about the suspected stroke event (presenting symptoms, time of onset or time of symptom recognition or time last known well, and sequence of events), co-morbid conditions, and any formal/informal advance directives that may influence care by EMS and in the ED.

- **EMS personnel provide education and instructions to family prior to transport**

Recommend the family/decision-maker accompany the patient to hospital or be accessible by phone for:

- decision-making, and
- confirm time last known well;
- provide the needed information about existing health conditions, current medications, and any other pertinent information.

- **Scene care**

Initial care provided by paramedics on-scene must include blood glucose measurement.

- **Direct Transport Protocol criteria must be based on**

Patients with suspected stroke should be triaged by EMS personnel as Canadian Triage Acuity Scale (CTAS) Level 2 in most cases, and as CTAS Level 1 for patients presenting with severe symptoms or compromised ABC's. Same applies to Pediatric Canadian Triage Acuity Scale (P-CTAS).

- **Hospital arrival and EMS handover to ED staff**

Transfer of care to receiving hospital should occur with minimal delay. Patients with suspected hyperacute stroke who are potentially eligible for thrombolytic therapy should receive the highest priority in the ED queue.

Paramedics should provide the receiving hospital with the following information during patient transport or on hospital arrival:

- time of stroke onset / time of symptom recognition / time when last known well (as accurate as possible)
- total symptom duration time at anticipated time of arrival in the ED
- Glasgow Coma Scale (GCS) score
- CTAS/P-CTAS score
- patient age
- expected time of arrival at the receiving hospital.

This info should also be recorded on the patient's EMS record and provided to the receiving hospital during transport with pre-notification, and upon arrival to the hospital.

To obtain further details with respect to any of the above please go to: www.strokebestpractices.ca and click on **Hyperacute**. For more information please contact Gina Tomaszewski, SWO Regional Stroke Acute Care Coordinator at gina.tomaszewski@lhsc.on.ca

Gina Tomaszewski
SWO Regional Stroke Acute Care Coordinator

Reference

Casaubon, LK, Suddes, M, on behalf of the Acute Stroke Care Writing Group. *Chapter 3: Hyperacute Stroke Care*. In Lindsay MP, Gubitz G, Bayley M, and Phillips S (Editors) on behalf of the Canadian Stroke Best Practices and Standards Advisory Committee. *Canadian Best Practice Recommendations for Stroke Care: 2013*; Ottawa, Ontario Canada: Canadian Stroke Network and Heart and Stroke Foundation of Canada.

SWORBHP in the Community

As part of our recent strategic planning process, SWORBHP is committed to increasing our community presence, not only by becoming more visible, but by participating in more community partnerships. Supporting EMS week was just one of the ways we are doing this.

If you're a SWORBHP Facebook follower, you've likely seen us posting pictures of our visits to local EMS Services in the past month or so, allowing us to share with you what we've been up to. We're hoping our increased presence in the field, especially with recerts coming up, will allow you to feel more comfortable coming to us with questions, concerns, and even ideas. This doesn't mean you need to wait to bump into us in order to ask questions! We're always available by phone, email, and in person should you need to reach us.

You'll see us taking pictures of training during recerts this year to help promote our community presence. If you have any concerns about being in a picture, or would prefer that your picture not be posted on our Facebook page, please let your Regional Paramedic Educator know immediately and we'll respect your request. Your ambulance service has also been contacted to request the use of these pictures.

SWORBHP's Facebook page provides you with daily updates on education, newsletters, articles, events, and more! Find us on Facebook www.facebook.com/sworbhp (or search Southwest Ontario Regional Base Hospital Program).

Stephanie Romano, MSc.Ed., HBSc., AEMCA
Education Coordinator

Comments?

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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