London Health Sciences Centre
Southwest Ontario Regional Base Hospital Program

Leadership of Optimal Prehospital Care Systems

SWORBHP LINKS

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2018: Time to Revisit the ALS PCS Medical Directives

As the New Year begins, many individuals decide that this is the time to "make a change". For some that is hitting the gym, for others taking up a new hobby, and for some it is time to give up certain unhealthy habits such as smoking. For the Ontario Base Hospital Group (OBHG) MAC, 2018 will be a time where the entire ALS PCS will be reviewed and revised to ensure that best evidence and best practices are incorporated into the medical directives.

A working group has been struck to develop a process by which all the medical directives will be reviewed and updated as needed. It is envisioned that multiple stakeholders will be involved in searching the literature for up to date evidence and practice guidelines. Once this is collated and reviewed, certain directives may be updated to ensure that we are achieving the goal of safe and effective delivery of prehospital care in Ontario. Some directives may change substantially; some may only require minor adjustments and many will remain as they are currently practiced.

As a new addition, the OBHG MAC has discussed incorporating links to a supporting document which outlines the evidence used within the medical directive. Although the world of medicine is very far from (and very unlikely to ever reach) the day where it is 100% evidenced based, we hope this new feature will help facilitate an understanding of why the directives have been developed the way they are and to help facilitate Paramedics' ability to review the relevant literature to gain a better understanding of the science behind the directives.

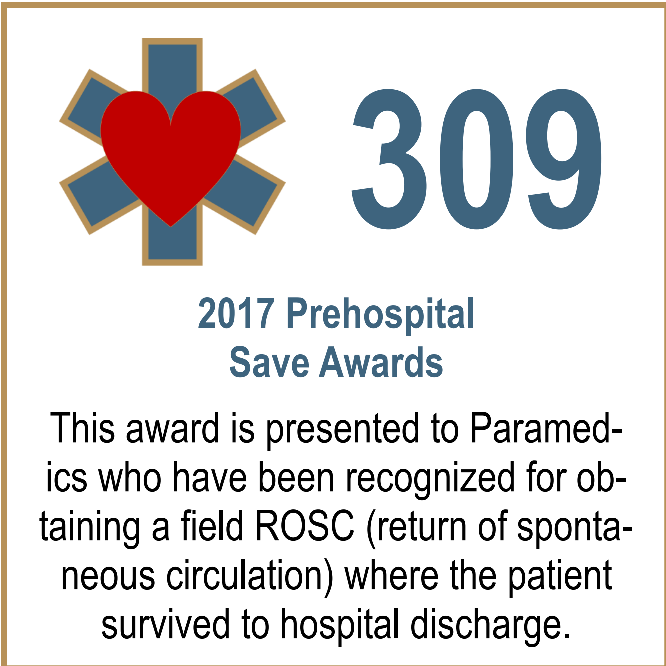
Although this will be a significant task for the OBHG to undertake, the end product will hopefully reflect the desire

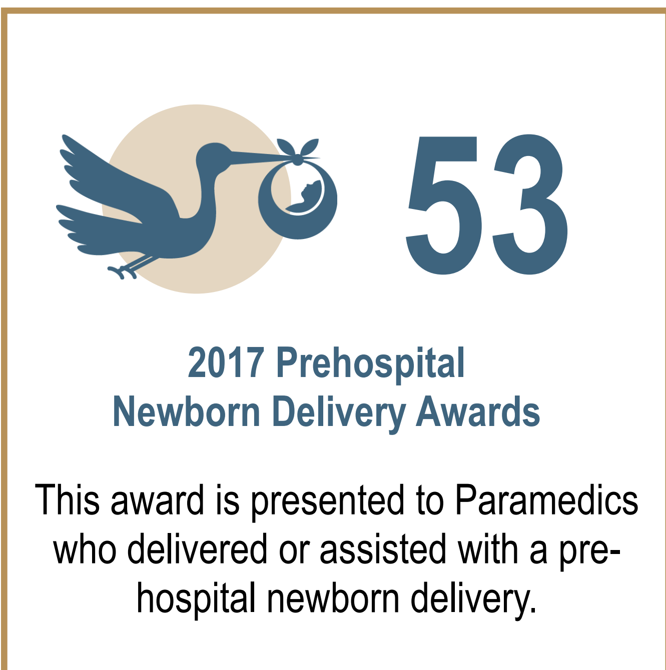
Wishing you all the best in 2018!

Dr. Matt Davis, M.D., M.Sc., FRCP(C)
Regional Medical Director

Congratulations to the Recipients of the

2017 Paramedic Recognition Awards





Award of Excellence

Name	Service
Tricia Rousseau	Essex-Windsor EMS
Bradley Humber	Essex-Windsor EMS
James Daussett	Huron County Paramedic Services
David Ludwig	Huron County Paramedic Services
Ken Jones	Middlesex-London EMS
Shireen Jackson	Middlesex-London EMS
Jennifer Stade	Middlesex-London EMS
Shawn Hunsberger	Middlesex-London EMS
Adam Bennett	Middlesex-London EMS

Commendation Award

Name	Service
Jackie Simpraga	Essex-Windsor EMS
Scott Miller	Essex-Windsor EMS
Mike Filiault	Essex-Windsor EMS
Ryan Cloutier	Essex-Windsor EMS
Leanord Tetreault	Essex-Windsor EMS
Chris Lizotte	Essex-Windsor EMS
David Desmarais	Medavie EMS Chatham-Kent
Ryan Wilan	Medavie EMS Chatham-Kent
Ed Pavlakovich	Medavie EMS Chatham-Kent
Jon Benoit	Medavie EMS Chatham-Kent
Cory Edgar	The County of Lambton EMS
Ann Miller	The County of Lambton EMS
Jennifer Woodiwiss	The County of Lambton EMS
Dawn McBean	The County of Lambton EMS
Corey Faubert	The County of Lambton EMS
Brent Farrell	The County of Lambton EMS
Jeff MacTavish	The County of Lambton EMS

Dr. Adam Dukelow

After joining the SWORBHP team in 2008 and working in various capacities at Base Hospital, Dr. Adam Dukelow has stepped down from his role as Medical Director of Innovation and Research effective December 31, 2017. Dr. Dukelow informed me that this was a difficult decision for him, but given his current workload as the London City-Wide Chief and Western University Division Chair of Emergency Medicine, he could no longer continue to dedicate the necessary time to his Base Hospital role.

I would like to acknowledge Dr. Dukelow's tremendous contributions to our program in his role as a Local Medical Director, Medical Director of Education, Regional Program Manager and Medical Director of Research and Innovation. His influence also extended outside our region during his tenure as he served on various Provincial OBHG committees both as a physician representative and Program Manager.

Dr. Dukelow led SWORBHP through its first strategic plan and is currently leading our strategic refresh prior to his departure. He also helped establish and chair the Evidence of Practice Committee. Through this endeavor, Dr. Dukelow helped coordinate multiple prehospital research projects while encouraging and facilitating front-line Paramedic involvement in these initiatives. I am grateful that in his current position as the London City-Wide Chief and Western University Division Chair of Emergency Medicine, Dr. Dukelow will continue to have a link with our Program.

On behalf of SWORBHP, I would like to thank Dr. Dukelow for all of his work and efforts in helping shape prehospital care throughout Ontario.

Dr. Matt Davis, M.D., M.Sc., FRCP(C)
Regional Medical Director

Stephanie Romano

It is with mixed emotions that we say farewell to Steph as Coordinator of Education for SWORBHP. Steph is moving on to a faculty position at the Lambton College Paramedic Program.

Steph's tenure at SWORBHP began in 2010 as a Regional Paramedic Educator. She then moved into the Coordinator role in 2012 where she has led our team in the development and delivery of training and education for the 1400 Paramedics in the Southwest.

Steph's career in Paramedicine began at the Toronto Paramedic Services. With her move to London she has maintained her skills though her work as a Primary Care Paramedic at Medavie Elgin EMS. Steph's passion for education is demonstrated through her formal training: a Master's Degree in Education and as a Nationally Certified Emergency Medical Services Educator with the National Association of EMS Educators as well as her longstanding role teaching at both Fanshawe and Lambton College Paramedic programs.

The Ontario Base Hospital Group Education Subcommittee will miss Steph's advocacy for standardized training and her superior organizational and leadership skillset that assisted her as the current Chair of the committee to lead the development of numerous high quality provincial educational packages.

At SWORBHP, we will miss Steph's passion for the advancement of the Paramedic profession and her leadership in planning and organizing our numerous educational offerings. We wish her all the best as she pursues this next chapter of her career shaping the future of Paramedic education in Ontario.

Susan Kriening, RN, BScN, MHS, ENC(C)
Regional Program Manager

IQEMS - We're Live!

After 18 months of meetings, planning, programming, testing, training and documentation development, SWORBHP has officially launched our new clinical auditing system: the *Integrated Quality Evaluation Management Suite (IQEMS)* on January 3, 2018!

The clinical auditing system is a new and innovative method for performing audits. The application is a fully web-based process which audits 100% of all data based on filters (computerized algorithms) approved and/or developed by the IQEMS Operational Working Group in consultation with our Medical Directors.

The IQEMS application has introduced a couple of changes in the way SWORBHP communicates with the Paramedics and Services in our region. Effective January 3, 2018, Paramedics (who utilize the imedic platform) will now communicate, submit inquiries and provide requested feedback on calls directly through IQEMS. Once a submission has been received, the person submitting will be notified via email and the system will "marry" the ACR and all associated documents with the request. From there, the respective SWORBHP Second Level Auditor is automatically notified and will now have the ability to review all aspects of the request/call in order to provide you with the most appropriate feedback possible.

The implementation has been a collaborative effort with Health Sciences North Centre for Prehospital Care, Sunnybrook Centre for Prehospital Medicine, the Paramedics and Services within our region and SWORBHP staff. The input, feedback and contributions from all have been tremendously helpful and our success was a direct result of the expertise received. Although, the application is now live, it will continue to be a work in progress!

Our sincerest thanks for the support and we welcome your continued feedback.

Debbie Janssen, BMOS
Coordinator, Quality Assurance & Business Functions

IV Documentation

As we move towards the implementation of IQEMS, our new auditing tool, we would like to remind paramedics to document all relevant call details and in an appropriate manner. It is important to document each treatment and procedure completed as per the Ambulance Call Report Completion Manual to accurately reflect the care provided to the patient. This should be documented through the use of procedure codes. These should not be documented in the results section as this area should be used to reflect the result of the procedure performed.

Please remember to include all applicable procedure codes. For example, when documenting an IV and its associated uses on your ACR, each procedure performed must be documented separately utilizing the appropriate codes. An example is provided below:

An IV is initiated (code 341) and a lock is attached (code 342). Both of these codes must be listed.

Code	Tx/Procedure/Med
340	IV Monitoring
341	IV initiation
342	Saline Lock
345	Normal Saline
350	Unsuccessful IV attempt
351	Fluid Bolus
355	IV Discontinued (intentional) by provider
356	IV Removed (unintentional)

As the case progresses, the patient becomes hypotensive and normal saline (code 345) is attached and a fluid bolus administered (code 351). Again, these additional codes must be documented.

Documentation isn't always easy, so if you have any questions and/or concerns, please do not hesitate to contact us here at the Base Hospital.

Patty Sinn, AEMCA
Prehospital Care Specialist

Understanding Fire Department Administration of Naloxone

An ever increasing number of Fire Departments are training their first responding fire fighters to administer Naloxone to people who are suspected of having overdosed on opioids. The justifications for this are multi-layered.

Since 2003, the number of deaths [from opioid overdoses] has increased 136 per cent and more than 850 Ontarians died from opioid-related causes in 2016 (1). This is the subject of frequent news reports and calls for action to address it. It has been labeled a “public health crisis” by the Minister of Health, thereby creating a political imperative to do something about it. One of the responses is for Public Health Units to provide Naloxone kits to users and their friends/families in case of overdose. These kits are now widely obtainable from Public Health Units, pharmacies, and hospital Emergency Departments. On December 07, 2017 the Minister of Health announced that the province will supply Naloxone kits to all of the Police and Fires Services in the province if they want to administer Naloxone (2). The Minister did not reveal his detailed plan for this!

For a variety of reasons, Fire and Police Services sometimes arrive at overdose scenes before Paramedics. The members of Fire and Police Services want to help people and the public does not understand why Police Officers and Fire Fighters are unable to administer a ‘life saving’ drug that anyone else can get from a drug store or Public Health Unit. This is the obvious reason for Fire Fighter administration of Naloxone programs.

However, the administration of Naloxone, by someone who is not permitted or delegated to do so under the Regulated Health Professions Act, is against the law. The Regulated Health Professions Act restricts the “administration of a drug by inhalation or injection” to the members of a limited number of professions that are defined under the Act (3). Exemptions are made for this - in the circumstances of life threatening situations. This is similar to the situation of public access defibrillation. This area becomes cloudy when first responders provide these acts as an organized ‘Service’. However, from a public optics perspective, restricting the performance of a potential life-saving act because of a law looks ridiculous.

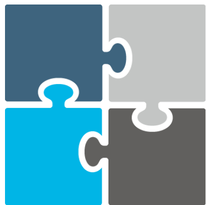
Another layer concerns the sociological behavior of occupations to protect and expand their scope of work, especially if this work is regulated or protected by law. Although the Police have never sought to expand their occupational scope to include providing emergency health care, Fire Departments have. Expanding an occupation’s scope of work, especially if it is regulated, increases the claims an occupation can make for more public resources to provide that work, increase personal compensation for providing it, and increase the occupation’s overall prestige (4). The struggle for occupational jurisdiction over the provision of various regulated acts is acted out by groups wishing to expand (or protect) their occupational scope.

The administration of Naloxone by Fire Fighters, Police Officers, and bystanders is here to stay. There are many layers of reasons why it is occurring now. Understanding why this is happening is helpful to accepting it.

References

1. https://www.publichealthontario.ca/en/DataAndAnalytics/Pages/Opioid.aspx#/dTrends, accessed Jan 08, 2018.
2. https://www.thestar.com/news/queenspark/2017/12/07/province-to-equip-police-and-fire-services-with-naloxone-to-curb-opioid-overdose-deaths.html, accessed Jan 08, 2018.
3. Regulated Health Professions Act, 1991, Regulated Health Professions Act, S.O. 1991, CHAPTER 18 C.F.R. (1991).
4. Larson, M. (1977). The Rise of Professionalism: A Sociological Analysis. Berkeley: University of California Press.

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



4 Way Partnership puts Cyanide Antidote on the Street in Essex

After over two years of inter-agency group efforts with all of the municipalities in the County of Essex, the cyanide antidote (Cyanokit or hydroxocobalamin) is on the streets. It has been used successfully on two different patients without scene delay and happily with good patient outcome.

Modern fires pose a toxic risk, with flammable plastics and other materials in furniture and home contents which can be powerful sources of cyanide to victims and first responders. In emergency departments the modern day Cyanokit is used and has generally replaced the more complicated predecessor of amyl nitrate, sodium nitrate and thiosulphate. Hydroxocobalamin combines with cyanide to form cyanocobalamin, a harmless form of vitamin B12. The newer drug is about $1000 per dose, and has been cost prohibitive for most Canadian agencies to deploy. The medication is in the provincial auxiliary medical directives for CBRNE trained Paramedics, and Essex Windsor is fortunate to have a provincial CBRNE team where a cadre of medics have completed the training over the years.

Giving the medicine in ER could represent delays of over 20 minutes in returning cellular respiration and the ideal solution is to give it directly at the scene as soon as the patient is safely extricated from the threat. A partnership was created where the hospital would replace one for one doses given at the scene as it was deemed the medication would be given in ER anyway and giving the medication at the scene would facilitate quicker patient access to the treatment. The initial eight doses were purchased on a cost sharing arrangement between all fire agencies in the county, and they will also replace expired doses (3 year expiry). Essex Windsor EMS controls and stocks the medication deploying it on two temperature controlled supervisor trucks in the city and county, which are part of a fire response in the Service response procedures. SWORBHP completed all of the training with the Service and coordinated the agencies in developing an agreement. This model may be applied in other areas in the province where industries such as gold mining may be using cyanide toxic compounds. It is also possible that the antidote could be moved from the auxiliary CBRNE medical directives into the general provincial auxiliary medical directives, as all Paramedics are expected to already treat patients from fires. This may be an opportunity in the future for Paramedics to support and offer possible medical resuscitation of rescued fire fighters lost or out of oxygen in a blacked out toxic fire situation.

Pete Morassutti, BSC., ACP, CMMII, NCEE, NCI, CPSO
Prehospital Care Specialist

Dr. Paul Bradford, M.D. FCFP(EM), MDS, CD
Local Medical Director
Essex, Kent, Lambton

Pre-Arrival Interventions and Medical TOR

I wanted to take the opportunity to discuss a topic that has arisen during a few cases over the past few months, has made an appearance on *Ask MAC* several times over the years and has generated some confusion lately – the issue of whether or not pre-arrival interventions by non-Paramedic providers should be recognized or considered in medical cardiac arrest. In particular, under what circumstances pre-arrival interventions may, or may not, be considered as it pertains to rhythm analyses in cardiac arrest.

Defibrillation provided by a first responder and care deemed to be compliant with AHA guidelines should be considered by Paramedics as part of the number of analyses and/or defibrillations within the medical cardiac arrest medical directive. However, if no defibrillation has been indicated and/or delivered then Paramedics should not consider any rhythm analyses performed by non-Paramedics prior to arrival and apply the medical cardiac arrest medical directive in its entirety. Specifically, it is imperative that Paramedics perform three (3) rhythm interpretation/analyses themselves, and utilizing their own equipment before considering Base Hospital Physician contact to request a termination of resuscitation.

Simply Stated:

If a first responder does not deliver any defibrillations, the paramedics are to complete their medical cardiac arrest directive in its entirety.

If a first responder has delivered a defibrillation, the paramedics count the number of analysis/defibrillations completed as part of the medical directive and continue within the medical directive from that point.

Hopefully this helps to clear up any concerns that may have surrounded this issue up until this point. For more information, please check out our *Ask MAC* section on the SWORBHP website (https://askmac.sworbhp.ca/). Use the search function to find the post from March 1, 2012 posted under the topic: *Medical Cardiac Arrest.*

Dr. Sean Doran, BA, BSc, Bed, M.D, FRCPC
Local Medical Director
Elgin, Oneida, Oxford

COLLABORATION UPDATE

The 2017 Mandatory CME for all Paramedics in Ontario consisted of a review of the new Emergency Childbirth Medical Directive that came into force in the ALS PCS December 11th. This training represented the first time that all Paramedics in Ontario received the same CME content. This was the result of many collaborative partnerships. The content of the Paramedic Emergency Skills Program (PESP) was developed by the Association of Ontario Midwives (AOM) who worked collaboratively with the Ontario Base Hospital Group (OBHG) to develop Paramedic specific content.

This training would not have occurred without the leadership, expertise and commitment of the AOM. Their inclusive approach resulted in the development of a course that was practical and centered on the care that Paramedics would deliver in the field. In the Southwest, we had the added privilege of having several local Midwives attend our CME sessions where they provided even more support, advice and expertise in the moment. The feedback from our Paramedics has been extremely positive.

In addition, the OBHG Education Subcommittee developed a pre-course learning package that provided an overview of existing knowledge for Emergency Childbirth as it existed in the BLS PCS. The SWORBHP team led the integration of this content into online modules.

We look forward to continuing our collaboration with our provincial OBHG partners and with the AOM and our local Midwives as Emergency Childbirth moves under the purview of SWORBHP.

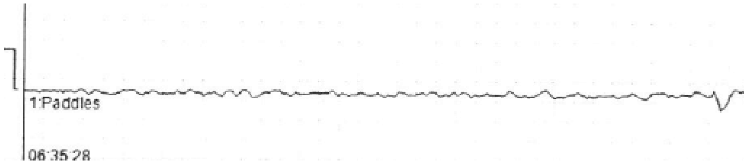
Susan Kriening, RN, BScN, MHS, ENC(C)

Regional Program Manager

SOUTHWEST ONTARIO REGIONAL BASE HOSPITAL PROGRAM

PARAMEDIC SAFETY PAUSE

COLLABORATIVE CULTURE OF SAFETY



FINE VF: Over the last year, SWORBHP noticed an auditing trend where a discrepancy exists between what was deemed to be asystole on the cardiac monitor screen by the treating paramedic and what was recorded by the cardiac monitors (known as a pco file) upon review of the call.

By utilizing a "Just Culture" approach to this problem, SWORBHP held multiple investigations to learn more about the system and human factors leading to these potential variances. Paramedics were confident that they were observing asystole and involved partners supported this interpretation. Upon meeting with those involved, it became apparent that this was not reflective of a knowledge issue. All were clearly able to discern asystole from vfib. We hypothesized that perhaps it was an issue of cognitive loading and proceeded to test this hypothesis through simulation scenarios.

We concluded that excessive cognitive loading was not the issue as those involved performed spectacularly while managing complex simulation scenarios. We investigated deeper into the systems factors that may be contributing to this variance. We began to appreciate that what was appearing on the cardiac monitor may not have been a reflection of what the true rhythm was for multiple reasons.

Through discussions with those involved in these cases, we were able to learn where the "system" issue occurred (ie. a difference between what was presented on the cardiac monitor compared with the rhythm as documented in the pco file). As a result, a slight practice change is necessary in order to help discern fine VF from asystole.

PRACTICE CHANGES

1. Ensure ECG cable and electrodes are being used for monitoring (attached leads in cardiac arrest as soon as feasible).

WHY? ECG leads will provide better detail in attempting to discern the finer waveform of VF than the defib pads. In addition to having greater bandwidth (more precise detail) than defib pads. They also allow for the next troubleshooting step.

2. When in doubt, cycle through multiple ECG leads to confirm rhythm.

WHY? The vector of current may only be discernible through one lead. By increasing the number of leads viewed, the chance of picking up on fine VF increases.

3. Confirm findings with printed strip if necessary.

WHY? This is the most important step. The printed strip is considered "diagnostic" and is what we see on the pco file. It will be able to pick up cases of fine VF that are not translated onto the screen. During pulse checks, print off a strip if the patient appears to be in asystole to ensure that there is not an underlying fine VF. This strip can be viewed once back on the chest and a decision can be made whether the patient is actually in fine VF versus what may appear to be asystole on the screen.

SWORBHP continues to emphasize the value of minimizing time off of the chest. If experiencing significant difficulty in determining the rhythm in a timely fashion, resume CPR and analyse the printed strip. As we continue to partner with other Base Hospitals, services, and vendors, we hope to continue to learn more about this issue and evolve practice as necessary. SWORBHP will continue to provide updates as we gain more information.

For SWORBHP services that utilize SAED, please continue your current practice.

2017 SWORBHP SOCIAL MEDIA RECAP

In 2017, SWORBHP utilized the power of social media as a platform to communicate with our Paramedics, Stakeholders and Community regarding announcements, upcoming events and educational information.

With over 200 Facebook posts published last year, here are the top posts of 2017!

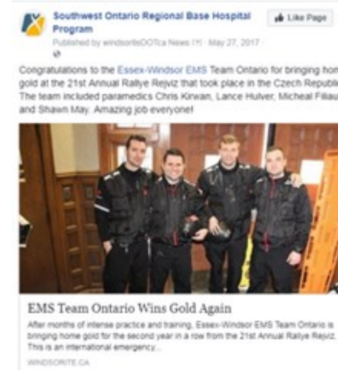
#1 Paramedic Services Week 2017

In May 2017, we celebrated Paramedic Services Week with a daily giveaway for Paramedics in the Southwest Region. This was our way to recognize and say thank you to Paramedics for the exceptional job they do every day. The feedback and involvement was amazing and we look forward to 2018 Paramedic Services Week!

In total, our PSW posts reached a total of 147,035 people with 2146 likes and 1222 shares!

#2 EMS Team Ontario Wins Gold

In May 2017, EMS Team Ontario brought home gold at the Annual Rallye Rejviz that took place in the Czech Republic! The 2017 team included Essex-Windsor EMS Paramedics: Chris Kirwan, Lance Hulver, Micheal Filiault, and Shawn May. Congratulations and good luck in 2018!



This post reached a total of 15,905 people with 321 likes and 230 shares!

#3 TOTW: Pediatric Cardiac Arrest

We posted a variety of Tips of the Week throughout the year, however our September 2017 post certainly got a lot of attention! This tip provided clarity regarding the ALS PCS v.4.3 and when to initiate transport with a pediatric cardiac arrest.

This post reached a total of 9,697 people with 86 likes and 20 shares!

2018: Education - What's Coming Down the Pipes

Well, I must say that we are quite proud of how the 2017 Mandatory CME season went. Our Pre Hospital Care Specialists and Associate Instructors led nearly 100 sessions in a record 2.5 months; and the best part – you seemed to have loved it! Thank you for all of your positive and encouraging feedback this year, it is sincerely appreciated.

Here at SWORBHP, there is no 'down time' – as 2017 came to an end, planning for the 2018 Mandatory CME season began! Please tell me you're even the slightest bit interested in a sneak peak at our topics and planning for the Fall… I'm thinking you are!

The Ontario Base Hospital Group (OBHG) Medical Advisory Committee (MAC) has recently endorsed three – YES 3 – new medical directives that we anticipate to be ready for implementation in early 2019. This means that the education for these new medical directives will take place in 2018. Thankfully, the OBHG Education SubCommittee has been hard at work creating education packages for these new medical directives, so go ahead and have a look at your Paramedic Portal (https://www.paramedicportalontario.ca/) as they're already ready for your viewing! **Here's what you'll see:**

Combative Patient Medical Directive – for ACPs.

This now includes Ketamine for use in patients with suspected excited delirium.

Analgesia Medical Directive – for PCPs and ACPs.

ACPs, you'll see the return of Fentanyl as an optional medication, and both PCPs and ACPs will see changes to the indications, age parameters, and a few other tweaks.

Emergency Tracheostomy Reinsertion Medical Directive – for PCPs and ACPs.

This will allow for the management and reinsertion of an accidentally removed/expelled tracheostomy.

These topics will likely make up the bulk of the 8h day, and we'll continue working diligently to determine the rest of the topics.

If we don't see you before, we'll see you again in the Fall! Have a great year SWORBHP Paramedics!

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

UPCOMING CME EVENTS

MARK YOUR CALENDARS

For a complete list of upcoming CME events, visit our online events calendar:

http://bit.ly/2C3Rw38

STAY CONNECTED WITH SWORBHP:

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COMMENTS OR SUGGESTIONS

SWORBHP LINKS is a Quarterly Newsletter developed by the Southwest Ontario Regional Base Hospital Program.

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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