

SWORBHP LINKS

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IN THIS ISSUE:

- 2 COVID-19: Old News, New News
- 3 2019 SWORBHP Paramedic Awards
- 4 Paramedic Portal Updates
- 5 SWORBHP Team Updates
- 6 SERVICE STATION ft. The County of Lambton EMS
- 7 OBHG Updates
- 9 Managing the Traumatic Cardiac Arrest
- 10 Maintenance of Certification
- 11 SWORBHP Research Corner
- 12 SWORBHP Case Study
- 14 MEDICLINK Highlights

COVID-19 Support

It is difficult to comprehend just how much our daily lives have changed in such a short period of time. The past few weeks have consisted of a barrage of information regarding treatment updates, changes, personal protective equipment (PPE) updates, and general news about the impact of COVID-19 on our communities and communities around the globe.

Throughout this somewhat measured chaos you continue to provide excellent support for patients and ensure that they are provided with appropriate and compassionate care. This serves as a testament to the dedication and professionalism of the paramedics that serve the Southwest Region.

We at SWORBHP want you to know that we are working hard at many levels to ensure that the best, and safest practices, are in place for you to continue the excellent service you provide every day. We also understand that these are stressful times and that there are many questions arising. We are working hard to answer those questions for you to the best of our ability and as quickly as possible. Please do not hesitate to reach out and discuss issues or concerns. We are doing our best to only push memos to you with new practice changes that have occurred due to COVID-19 and offer a pull of information from our website and social media.

Please keep up to date on any recent changes of practice and PPE guidelines. We want to ensure that you are safe on the frontlines. The Ontario Base Hospital Group Medical Advisory Committee (OBHG MAC) is keeping your safety in mind with all decisions related to patient care during this pandemic.

Please keep yourselves, and each other, safe and supported. Thank you for the excellent service you provide for the communities you serve.

Sincerely,
The SWORBHP Team

COVID-19: Old News, New News

You may already be 2019 Novel Coronavirus (COVID-19)'d out. These days there is just so much information available and it seems we are constantly bombarded with the same headline stories, which can cause topic-fatigue. Also, these days information is "old" within hours (minutes even!).

The COVID-19 is a perfect example of this. Information on the virus is "old" very quickly. So, instead of giving you the "latest news" that will be dinosaur-aged when this newsletter comes to print, I thought I would give a quick simplified explanation of why this virus is so different and why all the attention it is receiving.

Coronaviruses in general are common. 10-20% of "common colds" are caused by coronaviruses, which nearly everyone is exposed to and recovers from (no hype required!). However, COVID-19 is different in that it does not seem to attach to the cells of our upper respiratory tract. Instead, similarly to SARS, these viruses attach preferentially to the lower respiratory tract. This is why patients do not have the typical upper respiratory tract symptoms of a cold (sneezing, runny nose, sore throat etc.) Instead, they develop a fever, cough and shortness of breath with almost no prodromal symptoms that the individual has a virus. According to the Center for Disease Control (CDC) the virus can remain dormant for 2-14 days before the individual shows symptoms, in contrast to the 24-72 hour incubation period of most "common cold" viruses. This is why isolation is a key component in stopping the spread of COVID-19.

Another key component in treatment and risk reduction is to limit aerosol-generating medical procedures. This is something that was learned from the SARS epidemic. Since the virus remains preferentially in the lower respiratory tract, it is fairly contained – until these cells are disturbed (coughing, nebulizing, bronchoscopy, intubation etc.). I know, I know... you've been hammered to death with this message and are probably sick of hearing it and about COVID-19. But, remember that ONE QUARTER of those affected with SARS were healthcare professionals. Now, this was before the full risks of aerosol-generating procedures were appreciated and these patients received a fair amount of aerosol-generating respiratory treatments in-hospital. We now know better. At the end of the day all we want is to keep you and your families safe and explain WHY the risk is so great and therefore the precautions enforced.

As I opened with, these days we face a total bombardment of information: Some of it good, a lot not-so-great. One resource I wanted to share with you is the Ontario Telemedicine Network (OTN). This public access resource houses archived webcasts from across Ontario on a variety of topics. Please note that there are >3300 webcasts and while some would be interesting/helpful for paramedic practice (i.e. a webcast put together by Dr. Silverman and Dr. Payne at Western University on COVID-19 that inspired this post) while others are not (i.e. Access & Flow Comprehensive Capacity Management Plan of a GTA hospital). These webinars can be accessed here: <http://webcast.otn.ca/>.

Dr. Lauren Valdis, MD, FRCPC
Medical Director of Education

Congratulations to the recipients of the 2019 SWORBHP Paramedic Awards

A complete recipient list can be found on our website:

<https://www.lhsc.on.ca/southwest-ontario-regional-base-hospital-program/paramedic-recognition-awards>

MD Award of Excellence Recipients

Shawn May	Essex-Windsor EMS
Anthony Jaroszewicz	Essex-Windsor EMS
Zolt Popic	Grey County Paramedic Services
Fynn Carroll	Grey County Paramedic Services
Mark Urquhart	Grey County Paramedic Services
Shawn Klages	Grey County Paramedic Services
Jacob Kelly	Grey County Paramedic Services
Jenn Doyle	Middlesex-London Paramedic Service
Sandra Gregus	Middlesex-London Paramedic Service
Scott Ruddle	Middlesex-London Paramedic Service
Meagan Slack	Middlesex-London Paramedic Service
Chris Slabon	Middlesex-London Paramedic Service

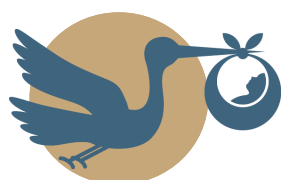
MD Commendation Award Recipients

Matthew Moore	Essex-Windsor EMS
Ken Silver	Essex-Windsor EMS
Ryan Cloutier	Essex-Windsor EMS
Marisa Stratis	Essex-Windsor EMS
Kristian Brocklebank	Essex-Windsor EMS
Brad Remillard	Essex-Windsor EMS
Arnold Wenzler	Essex-Windsor EMS
Shawn Klages	Grey County Paramedic Services
Darren Clock	Grey County Paramedic Services
Andrew Brown	Grey County Paramedic Services
Laura Douglas	Middlesex-London Paramedic Service
Nicole Harden	Medavie EMS Chatham-Kent
Tom Millard	Medavie EMS Chatham-Kent
Artur Albrecht	Medavie EMS Chatham-Kent
Michael Gazo	Medavie EMS Chatham-Kent
Joe Vandermeer	Oxford County Paramedic Services
Andrew Randell	The County of Lambton EMS
Matthew Stevenson	The County of Lambton EMS
Mike Gilpin	The County of Lambton EMS
Liz McIntyre	The County of Lambton EMS
Brian Clark	The County of Lambton EMS
Kelly Lumley	The County of Lambton EMS
Mike Rodger	The County of Lambton EMS
Taylor Bennewies	The County of Lambton EMS
Andrew Alaimo	The County of Lambton EMS
Todd Forrest	The County of Lambton EMS



Prehospital Save Awards

249



Prehospital Newborn Delivery Awards

48



Paramedic Portal of Ontario

Certification & Learning Management System

The new version of the Paramedic Portal of Ontario (PPO) launched on Tuesday February 18, 2020 and we are very excited to reveal the new PPO to you!

TRAINING

Training videos and hand-outs are available. These training aids will be accessible online on our website/PPO and will help navigate you through the new PPO.

ENHANCEMENTS

- **New Theme** – the first thing you will notice when you log into the PPO is a new modern look and feel. Our goal was to improve the user experience by making it easier to navigate using quick links, drop-down menus, etc.
- **Certification by Service** – one of the enhancements we are most excited about is the ability to track certification by Paramedic Service. If a paramedic works for multiple Services, we now have the ability to track different certification levels, certification dates, deactivation/reactivation status and auxiliary directives.
- **Historical Records** – the new PPO will have the capability to capture more detailed and accurate historical records. You will be able to see all the changes that have occurred to a paramedic's account and view the different versions of their certification letters.

For additional training or technical support, please contact paramedicportalontario@lhsc.on.ca

Lyndsey Longeway, A-EMCA
Education Coordinator, SWORBHP

SWORBHP TEAM UPDATES:



Dr. Lauren Valdis - Relocation

I have moved back to London! This means, some of you will be seeing more of me around the Emergency Department, and others, less. My husband has accepted a job as a Cardiac Surgeon at LHSC. We have been in Ann Arbor, Michigan while he has been rounding out his training with a fellowship at the University of Michigan. During this time, I have been lucky enough to have worked in Windsor. I simply cannot say enough about the skill, knowledge and professionalism of the Essex Windsor paramedics. You are truly outstanding! I will miss working side-by-side with you.



David Arthur - Welcome to the Team

David joined the Southwest Ontario Regional Base Hospital Program in February of 2020 as the Web and eLearning Developer.

David is a graduate of the Interactive Media Design and Production, Interactive Media Specialist, and Marketing Management programs from Fanshawe College in London Ontario.

David is currently working on various courses involving Drupal, as well as cyber security.



Denise Azevedo - Welcome to the Team

Denise joined the Southwest Ontario Regional Base Hospital Program in March of 2020 as the Team Assistant.

Denise provides support to the Coordinator of Quality Assurance & Business Functions and the Education Coordinator. She possesses 13 years of Medical Administration experience at LHSC, including Pathology & Laboratory Medicine, Orthopaedic Surgery, and Cardiology. Denise is a hard working, enthusiastic, self-starter and is dedicated to the patients and health care providers at London Health Sciences Centre.

S E R V I C E S T A T I O N



The County of Lambton EMS Palliative & Hospice Program

Through an arrangement between the Sarnia/Lambton Palliative Team and The County of Lambton EMS, paramedics are able to bypass the Emergency Department (ED) and transport patients directly to Hospice or the palliative floor at Bluewater Health. This is made possible by having a 24/7 palliative care physician on call. Paramedics are able to phone the palliative care physician and obtain direction on transport destination. This ensures that the patient is transported to the most appropriate receiving health care facility. This program has resulted in significant benefits to the patient, has reduced offload times and ED workload by redirecting these patients, and has provided much needed support for the families of the palliative patients.

In 2019, one of our paramedics, Stephen Adlington, approached the department to see about starting a volunteer program that would see paramedics utilizing department resources (spare ambulances and necessary equipment) to take palliative patients on a final excursion or "wish". Sherry Tupholme, another paramedic became involved and the two of them put together a proposal that was supported by the County of Lambton and the Union representing the paramedics.

The program starts with an application completed by the family and the palliative care physician. This is to ensure the patient is medically stable and can tolerate an hour or two outside of the hospital or hospice. The volunteer paramedic leads are contacted and arrange for two or three volunteer paramedics to complete the trip. Lambton EMS is notified and ensures a spare ambulance is available for use. The paramedic volunteers meet with the patient and family a day or two before the trip to ensure everyone is comfortable and that any questions can be asked and answered. The paramedics are provided with the direct phone number for the palliative care physician who is covering during the trip and are free to call them if there are any concerns during the time away from hospice. The trips thus far have all been within the County of Lambton and usually are 2 to 3 hours in duration. Some examples include going home for a couple hours, going to a grandchild's hockey or baseball game, or just sitting down by the beach or a special spot for the patient.

Providing this service has not only been a benefit to patients and their families, but a benefit to the paramedics who have participated in the program. There is a feeling of accomplishment in knowing that you had an impact on someone's life and created memories that will last with them and their families.

Steve Pancino
Manager, County of Lambton Emergency Medical Services



Ontario Base Hospital Group UPDATES

Paramedic Advisor Update



We would like to acknowledge Cathy Driedger, PCP with Essex-Windsor EMS who is completing her two-year term as a Paramedic Advisor on the Ontario Base Hospital Group's Medical Advisory Committee. Cathy's involvement on the OBHG MAC ensured that front line paramedics have a voice in the advancement of paramedicine in Ontario. On behalf of SWORBHP, we would like to thank you Cathy for your contributions.

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

Comprehensive Medical Directive Review Update

The Ontario Base Hospital Group (OBHG) started the Comprehensive Medical Directive Review (CMDR) in May 2018. Our project timeline estimated that it would take approximately 2 years to complete a comprehensive, evidenced based review of the directives and make necessary updates to the ALS PCS based on best evidence. In May 2020, the last batch of directives was planned be tabled at the Ontario Base Hospital Group Medical Advisory Committee (OBHG MAC) for review and endorsement. Unfortunately the COVID-19 pandemic was not taken into consideration when this timeline was developed and will likely result in delay to the completion of this endeavor. I think that you will notice that the proposed changes allow for better use of clinical judgement as exemplified by the removal of certain mandatory patch points and use of less prescriptive verbiage as well as continuing to incorporate the best evidence into safe prehospital care in Ontario. The first batch of directives that were endorsed by the OBHG MAC were expected to be released this spring and a go live date a few weeks after their release. Again, because of the current pandemic, it is expected that this release may be delayed. Given that there will be no major changes to this first batch of updated directives, we will be able to complete training without the need for in person training. Some of these directive changes will also be incorporated into the 2020 MCME that will take place in the fall to help reinforce some of the changes and the rationale behind these changes. Role out of other completed directives will occur over the course of the next two years to coincide with training and budget cycles. The Ministry will work with stakeholders to devise a role out plan whereby the amount of training, education and costs will be balanced over this time period. It is expected that the release of the ALS PCS version 5.0 in 2022 will be inclusive of all of the directives that have been part of CMDR process. Just in time to start the process all over.

continued on page 8...

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Section 56 Exemption Update

At the February 2020 OBHG MAC meeting, a motion was put forth to gauge the interest of the MAC to explore the possibility of expanding the PCP medical directives to include the controlled substances covered under the Section 56 Exemption. This includes midazolam (seizure medical directive, combative patient medical directive), morphine (analgesia medical directive), fentanyl (analgesia medical directive) and ketamine (combative patient medical directive). The Ontario Association of Paramedic Chiefs (OAPC) surveyed its membership to gauge possible support for this potential growth in PCP practice as well as to garner how many Services would consider including this within an auxiliary scope for PCPs within their service. Almost 90% of the OAPC membership supported exploring this concept and if appropriate training and an implementation pathway were developed, 85% of responders stated they would consider implementing these respective directives.

The OBHG MAC unanimously supported the exploration of this potential increase in PCP practice. Given the support from both the MAC and the OAPC, a working group has been struck. This group will be tasked with:

- completing an environmental scan examining current practice across North America;
- providing a literature review of evidence to support use of these medication for PCP directives;
- developing a plan to deliver initial training;
- developing a plan for continuing education; and
- understanding how often these directives would be utilized in various services across the province.
- once again, due to thagain, due to the amount of resources that have had to go into the current COVID-19 pandemic, this working group was put on hold and will resume work once the current landscape settles

Dr. Matthew Davis, MD, MSc, FRCPC
Regional Medical Director, SWORBHP

Managing the Traumatic Cardiac Arrest

The management of a traumatic cardiac arrest poses unique challenges for paramedics as it is generally a less commonly encountered clinical scenario than a medical cardiac arrest. There are unique pathophysiologic differences between the two that are helpful in understanding field interventions that may or may not be of significant benefit. Below is a review of some of the key differences and interventions in cases of traumatic cardiac arrest, as well as common questions that arise in management.

A traumatic cardiac arrest is often initially a very low output state that ultimately results in a true cardiac arrest, due to hypovolemia. Studies have demonstrated that when a loss of a palpable pulse occurs an arterial tracing may still be detectable if an arterial line is present. Hemorrhage control is always a top priority and involves employing common techniques such as compression, hemostatic dressing application and/or use of a tourniquet where needed. Rapid stabilization of fractured long bones as well as pelvic fractures is of paramount importance, as proper alignment can minimize hemorrhage.

Rapid needle decompression (if authorized) is critical in cases of traumatic cardiac arrest where a tension pneumothorax is suspected, causing cardiogenic obstruction, and should be actively sought in all cases of traumatic cardiac arrest.

A question that often arises is if field fluid resuscitation is of significant benefit? These patients truly require expedient transport to definitive care and various factors of field interventions need to be balanced against their practical utility. For example:

- Injuries incurred by the patient may result in extravasation of fluid into non-intravascular spaces. An IO inserted at a site distal to a fracture (e.g. femoral fracture) will result in extravasation of fluid and provide little benefit to hemodynamic stability.
- Among the most important intervention by paramedics (not including immediate reversible causes such as oxygenation, needle decompression, etc.) is rapid transport to the Emergency Department and eventual disposition to a dedicated Trauma Team. In many cases, especially in locations where the distance to the hospital is generally short, attempts at IV and IO access may serve to only delay transport and should not be done on scene in the majority of cases. The fluid these patients require is blood and blood products. Intravenous fluid, as carried by paramedics, should only be used temporarily and sparingly, until blood products can be administered. Again, further suggesting that prehospital fluid resuscitation in locations with short transport times will likely be of little benefit in comparison with a rapid 'load and go' strategy.

The utility of epinephrine administration in traumatic cardiac arrest cases is often discussed. In general, epinephrine is not helpful in these cases. Hypovolemia does not occur immediately (although can occur fairly rapidly) in cases of cardiac arrest secondary to hemorrhage. Due to the non-immediate occurrence of hypovolemia, endogenous catecholamine release will have maximized vasoconstriction thus the administration of exogenous catecholamine (i.e. "epi") will result in no additional vasoconstriction and may lead to potential harm as epinephrine administration may worsen tissue perfusion.

continued on page 10...

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Hopefully, this brief discussion regarding unique aspects of traumatic cardiac arrest has provided an explanation on select key differences between medical and traumatic cardiac arrests as well as highlighting the utility of some interventions and the harm in others (given rapid transport to expedient management is of utmost priority).

If you have any questions and/or concerns, please do not hesitate to contact me or any of our Prehospital Care Specialists. Further information is available on the SWORBHP website (especially helpful is the 'ASK MAC' section).

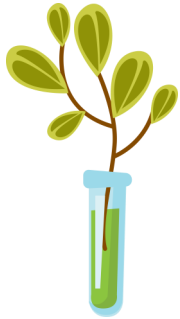
Sean Doran, BA, BSc, Bed, MD, FRCPC
Local Medical Director, SWORBHP

Maintenance of Certification

As you know, there are many factors that contribute to paramedics' maintenance of certification. Completing annual mandatory CME and providing patient care are some components that contribute to the ability to maintain certification to perform Controlled Acts and other advanced medical procedures. One of the requirements in the ALS PCS Appendix 6 or Certification Standard includes providing patient care to a minimum of ten patients per year and/or the ability to demonstrate alternate experience, as approved by the Medical Director, that may involve other patient care activities, additional CME, simulated patient encounters and clinical placements. Since the latest version of the Certification Standard was released in 2017, SWORBHP has been monitoring each paramedic in our region's patient contacts. For the last certification year that ended January 31, 2020, 1387 or 97% of SWORBHP's paramedics meet the Certification Standard requirement for providing patient care to at least 10 patients per year. A very small percentage do not. Those who do not meet the criteria will receive notification from SWORBHP along with some suggested alternatives that will assist them in meeting the Standard. Some examples of alternatives will include: additional CME whether that be attendance at webinars, courses, etc.; participation in SWORBHP meetings; development of curriculum relevant to paramedic practice and participation in case reviews or investigations.

Our plan is to proactively ensure that all paramedics practicing within the SWORBHP region are aware of their current status and develop a pro-active plan to ensure that they are able to meet the Certification Standard criteria for the current certification year (February 1, 2020 to January 31, 2021). Our plan, as always, is to support all paramedics in our region and ensure that we are in compliance with our Ministry mandate.

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



SWORBHP RESEARCH CORNER

As part of SWORBHP's commitment contributing to the prehospital literature and seek out evidenced based answers to pre-hospital questions, the purpose of this section is to highlight a current research project that is occurring in the SWORBHP region as well as one that has been completed.

What's New

Evaluating the accuracy of the paramedic stroke prompt card

*J. Loosely, J. Doyle, K. VanArsen, M. Lewell,
M. Davis*

Jenn Doyle and Jay Loosley are leading a project at Middlesex-London Paramedic Service titled "Paramedics' Ability to Determine Diagnosis and Appropriate Disposition in the Patients they Transport to Hospital." The study was built around providing paramedics feedback about their patient's final diagnosis. During random study hours, paramedics are approached upon entering the Emergency Department, and asked a few questions regarding hospital destination, alternate destination(s), and what they believe is the patient's final diagnosis. The objective of this study is to determine if paramedics believe there is a clinical benefit in obtaining such feedback (by promoting self-reflection, potentially improving differential diagnosis skills, and increasing their level of confidence when faced with a similar situation in the future). The research team also hopes to determine how accurate paramedics are at assigning a suspected diagnosis, answer questions as to why patients are brought to a certain hospital or if an alternate destination would be appropriate. It is the team's hope that this study will help develop a process to routinely allow paramedics to find out their patient's final diagnosis as a means to provide feedback in order to assist with paramedics ability to learn from specific patient encounters.

Stay tuned to this exciting study!

What's Done

A descriptive analysis of prehospital refractory ventricular fibrillation

D. Schappert, K. VanArsen, M. Davis

This project was presented at the North American EMS providers (NAEMSP) meeting in January 2017 and the Canadian Association of Emergency Physicians (CAEP) meeting in June 2017.

Aside from standard ACLS, there is little evidence on appropriate novel treatments for refractory ventricular fibrillation (RVF). There is also little data on pre-hospital factors associated with RVF

In a 1 year period of data examined, there were 645 out of hospital cardiac arrest calls. 193 (29.9%) of these involved at least one analysis of VF, and 90 (13.9%) of total cases were identified as RVF. 34 (37.8%) of RVF cases had two or more defibrillators on scene. There was no difference between the RVF and non-RVF groups with respect to age (65.02 vs 67.28, $p=0.313$) or gender ($p=0.132$). There were no differences between the RVF and non-RVF groups with respect to any prehospital factors, including time from activation to arrival at patient (9.00 min vs 8.73 min, $p=0.610$), time to first shock (11.31 min vs 12.63 min, $p=0.122$). There was no difference between groups for incidence of bystander CPR ($p=0.840$).

No variables were identified as being associated with survival to hospital discharge.

Dr. Matthew Davis, MD, MSc, FRCPC
Regional Medical Director, SWORBHP



SWORBHP: CASE STUDY

CONSIDER THIS...



You are dispatched Code 4 to a local football field for a report of a 55-year-old who is VSA. Dispatch updates you that CPR is in progress and that a first-aid team is with the patient. Upon arriving to the football field you are directed to the patient who is on the football field. When you arrive at the patient's side, you witness that CPR is ongoing and appears adequate. Bystanders tell you the patient was actively coaching some players and suddenly collapsed. There was no impact at the time of the collapse, as he was caught by one of the other coaches. CPR has been ongoing for 8 minutes. An AED, applied by the first aid team, has analyzed two times with no shocks delivered. There is no known medical history and the patient is not wearing a medic alert bracelet. . The closest ED is 6 minutes away from the location of the call.

So, what do you do?

OPTION A

Perform 1 analysis and leave under the unusual circumstance guideline.

OPTION B

Finish the remaining two analysis and transport with no patch to the BHP.

OPTION C

Complete 3 analyses and perform a BHP patch for direction and/or TOR if conditions are met.

THE CORRECT ANSWER...

Despite the fact that the arrest is being run in a public place and the hospital is nearby, you should follow the Cardiac Arrest Medical Directive. This includes performing 3 rhythm analyses and if the Conditions are met (and the Contraindication NOT met) patch to the BHP to consider a Medical TOR. Recall that the conditions for a TOR are all of the following:

- Patient Age \geq 18 years; and
- Arrest not witnessed by EMS; and
- NO ROSC; and
- No defibrillation (including any reported AED shock prior to your arrival); and
- And the contraindication for medical TOR is: arrest thought to be of non-cardiac origin.

...continued on page 13



SWORBHP: CASE STUDY

CONTINUED...

If there are concerns about the public location and a potential TOR being called, please highlight this in your patch to the BHP. A “Rolling TOR” is also an acceptable alternative if the patient meets TOR criteria but a public location would not be an ideal environment for the scene of death.

There are, however, certain conditions wherein very early transport (after 1st analysis, and defibrillation, if indicated) is considered. Which of the following is NOT a consideration for very early transport?

Which of the following NOT a consideration for very early transport?

- Pregnancy presumed to be ≥ 20 weeks gestation (fundus above umbilicus)
- Hypothermia
- Airway obstruction
- Suspected pulmonary embolus
- Medication overdose/toxicology
- Other known reversible cause of arrest not addressed
- Transport time to hospital is ≤ 5 minutes



That's right. Transportation time to hospital is NOT an indication for very early transport in cardiac arrest.

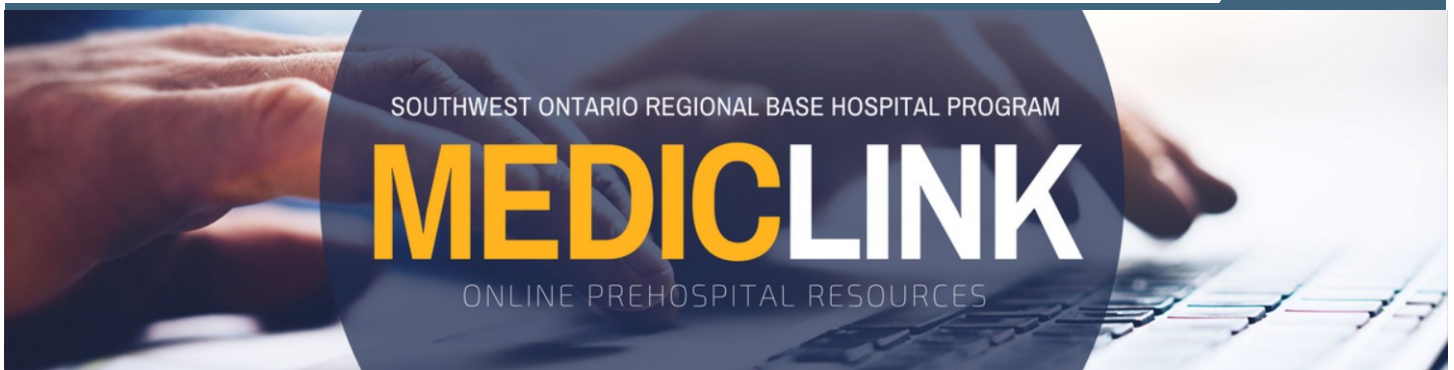
The reasons for very early transport in the other conditions are that these are potential treatments, only available in hospital (i.e. thrombolysis for suspected pulmonary embolism). However, YOU can treat other causes of arrest in the field (i.e. defibrillation of a ventricular arrhythmia). Transport without treatment in this circumstance can lead to poor outcomes for your patient.



CLOSING REMARKS

Remember to follow your directive for Medical Cardiac Arrest and stay on scene (unless there are extenuating circumstances, or the patient meets consideration for very early transportation). In most situations YOUR treatment on scene will give your patient the best chance of survival.

Dwayne Cotel, B.A., ACP, A-EMCA, CQIA, NCEE
Prehospital Care Specialist, SWORBHP



SWORBHP Tips of the Week Highlights

Follow us on social media where we advertise when new TOTW and other educational content goes up. You can also subscribe to our website updates to receive an email when we post new content.

Askmac.sworbhp.ca

Early 12 Lead EKGs are Critically Important

Posted on: February 26, 2020

Early 12-Lead ECG acquisition for all patients with signs and symptoms of Acute Coronary Syndrome (ACS) is critically important to patient outcomes.

Why do we do this? Because we effect change... Ischemic findings on ECG are dynamic. The drugs we give to restore to the balance between myocardial oxygen supply-and-demand can lead to changes and even erase the ischemic signs on the 12-Lead. If a patient's STEMI is not captured, it cannot be acted upon! Note also that repeat 12-Leads, with change in patient condition, can be beneficial. Ischemic changes can re-appear just as easy as it disappears following your first 12-Lead and treatment.

Sometimes the prehospital 12-Lead is the only evidence that the patient's chest pain was cardiac in nature. Imagine if this patient never received a prehospital 12-Lead, the biomarkers at the hospital came back negative maybe a patient with a high-risk lesion might be discharged home.

Strive to get the first 12-Lead ECG prior to treating suspected cardiac ischemia.

ECG Placement: Artifact Troubleshooting

Posted on: February 6, 2020

Having trouble with artifact during your 12 lead acquisitions?

In 2014 a new electrode placement method was developed by the late Dr. Khan, from the Ottawa Hospital, to help reduce artifact from limb lead placement, and improve ECG interpretation. This is an alternative to our traditional approach. The NEP (new electrode placement) Method was tested in an outpatient setting. This method was found to significantly reduce artifact while still preserving the normal amplitude of your standard 12 lead (which led to misinterpretation of right-sided leads if limb leads were placed on the mid-torso). This novel method, although not formally tested in prehospital, or emergency department populations, may help determine rhythms and screen for ischemia in cases where artifact from limb movement skews interpretation.

References

Khan GM. A new electrode placement method for obtaining 12-lead ECGs. *Open Heart* 2015;2:e000226. doi: 10.1136/openhrt-2014-000226

2020 PARAMEDIC SERVICES WEEK

May 24th - May 30th | *Paramedic as Educator - Citizen Ready*

STAY CONNECTED WITH SWORBHP:



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COMMENTS OR SUGGESTIONS

SWORBHP LINKS is a 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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