

FEBRUARY/MARCH 2020

Volume 43 • No. 2
CanadianParamedicine.ca

CANADIAN PARAMEDICINE



Table of Contents

In This Issue:

Community Paramedicine Features
I Never Saw It Coming



Power-LOAD®

A legacy of trusted performance

Power-LOAD, the industry's first and only powered cot-fastening system, hasn't just stood the test of time – it's evolved to meet our customers' needs. A decade of insights has contributed to continuous safety and quality enhancements that help reduce caregiver injuries– all designed with you, the healer, in mind.

Learn more

stryker.com/morepowertoyou



Volume 43, No.2

*On The Cover: Primary Care Paramedic/
AIV (Autonomous Intravenous) Sophie
Tassé, Cornwall SDG Paramedic Services,
Cornwall, ON. Photo Courtesy Scott
Halliday*

FEBRUARY/MARCH 2020

TABLE OF CONTENTS (TofC)

Click Titles to Navigate

FEATURES

Community Paramedicine: Part Of A Modern EHS System	6
Community Paramedicine Glossary	11
A Day In The Life Of A Rural Community Paramedic	14
Simcoe's Community Paramedicine Program	17
A Short History Of Community Paramedicine In BC	19
NEMS: A Community Paramedic Approach To Addiction	22
Community Paramedicine: Specialized Education	25
BCEHS' Paramedic Response To Overdose Calls	29
UK Paramedic Student's Experiences In BC	31
Bridging The Gap: Community Paramedicine In Australia	34
I Never Saw It Coming	37
Paramedic Self-Assessment	38
ITLS Update	40
CanROC Paramedic Primer	43
Paramedic Self-Assessment Answer Key	52

ASSOCIATIONS

Paramedic Association Of Manitoba	46
Ontario Paramedic Association	47

CANADIAN PARAMEDICINE

FEBRUARY/MARCH 2020

*The Voice of
Canadian Paramedicine
for 43 Years*

Publisher/Editor

Lyle Blumhagen: lyle@emsnews.com

Contributing Writers

Mike Billingham	Bryce Brunarski
Chris Farnady	Laura Finch
Judah Goldstein	Matthew Leyenaar
Karen Lutz	Kyle MacCallum
BT Murray	Ron Oswald
Greg Reaburn	Nick Sajko
Rick Trombley	Steve Whitfield

Editorial Board

Alan Batt	Mike Billingham
Dean DiMonte	Becky Donelon
Judah Goldstein	Tim Hillier
Chris Hood	Peter O'Meara
Kelly Sheppard	Walter Tavares
Robin Young	

How to Contact us:

PO Box 579
Drumheller, AB T0J 0Y0
Website: www.CanadianParamedicine.ca
E-mail: cp@emsnews.com
Toll Free: 1-800-567-0911
Fax: 1-888-264-2854

Advertising Sales

Canadian Paramedicine and
www.CanadianParamedicine.ca
Lyle Blumhagen: lyle@emsnews.com

Graphic Design/Layout

Steve Speer

Information Systems

Dean DiMonte
premergency.com

Subscription Inquiries:

subscriptions@emsnews.com

Canadian Paramedicine is published by Pendragon
Publishing Ltd.

CANADIAN PARAMEDICINE

The magazine for Canada's paramedicine professions.
The opinions and views expressed in this magazine are
those of the writers and not necessarily those of the
publisher.

Contents Copyright 2020 By Pendragon Publishing
Ltd., may not be reprinted without permission.

ISSN 1927-6729 (Online)

PO Box 579
DRUMHELLER AB T0J 0Y0
E-mail: cp@emsnews.com



SKEDCO.COM
CLICK & **SAVE LIVES**



The **SKED**[®]
Basic Rescue System

- The Original -
- Still The BEST -



800-770-7533
Skedco.com



PUBLISHER'S NOTES

Obituary of Chris Skelton



Chris "Bones" Skelton, 1953-2020.

With his family by his side at St. Joseph's Hospice in London, ON, Chris "Bones" Skelton passed away at the age of 66 on January 12, 2020. Beloved husband of Lou Ann. Father to Peter, Chris Jr and Lauren. Grandfather to James and Robert and brother to Tom. Chris will be fondly remembered by his second family Middlesex London Paramedic Service where he proudly served for 46 years. Chris was an amazing artist, talented musician, lover of 60's music and dinosaurs! The family would like to extend a special thank you to Dr. Faulds, Erin, Lexie, Jesse, Nancy and the wonderfully compassionate team of St. Joseph's Hospice. In lieu of flowers, donations in memory of Chris may be made to St. Joseph's Hospice at 485 Windermere Road, PO Box 1449 Station B, London Ontario N6A 5M2.

There are many positive developments that stem from the maturation of Paramedicine as a profession. Paramedic driven research, self-regulation, greater scope of practice, inclusion at the health care table and degrees in Paramedicine to name a few. On the other hand though, we are now losing paramedics to old age for the first time.

Such is the case with my good friend, Chris Skelton. Chris wasn't that old, but age-related chronic health issues claimed him. I can't

honour all paramedics who pass due to age and health-related reasons, but I must honour Chris.

Readers of Canadian Paramedicine will remember Chris for the Bones cartoons that ran for many years in the magazine. He was more than just a contributor to the magazine though. He was a dear friend. I've told this story before about Chris but it bears repeating. It is said that you find out who your friends are on moving day. Well, when Chris heard we were moving onto an acreage he hopped on a plane and flew across Canada to spend a week helping me move. Thanks Chris.

Of course it helped that our acreage is in the middle of the second richest deposit of dinosaur bones in the world. I'm not joking. Renowned palaeontologist Dr. Phil Currie verified that claim to me while he was using our acreage as a base camp for a triceratops dig.

Chris shared a significant paleo discovery with me one summer. We were exploring the canyons near our yard when we discovered what is known in paleo jargon as a micro-site. A micro-site is a small site that contains an incredible volume of fossils. These sites often form at the bends of prehistoric rivers where floodwaters tend to deposit numerous carcasses, which is likely what formed the site Chris and I found. To date we have identified five different species of dinosaurs at this site based on the types of teeth and bones we've found.

I'll always think of Chris when I visit this site.

Be well my friend. Happy bone hunting.

Lyle Blumhagen, Publisher

lyle@emsnews.com

INDUSTRY LEADING PRE-HOSPITAL SOLUTIONS

We have an application for that...



Interdev's Suite...

GENII is an electronic patient report form (ePRF) that improves the quality of medical record keeping and organizes the data for enhanced analytics.

CADlink is a mobile data terminal that integrates CAD, ePRF and vehicle data into a single, highly visual, and interactive record.

RADIUS is an electronic medical record (eMR) used for documentation of Community Paramedicine activities. It allows users to document events, schedule visits, assign tasks, as well as track and report on patient's progress.

CERTn helps users to stay certified by delivering training and notifying them of advancing expiration dates.

mDOCS is an integrated paperless document management solution which automates processes using workflows and user collaboration.

Mobile Office brings the entire Interdev Suite into a single interactive dashboard/portal to track all notifications and daily duties from a single interface.



Fuzion, Helm &
Theather



Electronic Medical
Records



Credential
Management and
E-Learning System



Record Management
System



Electronic Patient Care
Records for EMS



Situational Awareness
System



(416) 739-1333



sales@interdev.ca



[@InterdevTech](https://twitter.com/InterdevTech)

INTERDEV
www.interdev.ca

COMMUNITY PARAMEDICINE: PART OF A MODERN EMERGENCY HEALTH SERVICES SYSTEM

By the Ontario Community Paramedicine Secretariat (OCPS)

Established in 2018, the Ontario Community Paramedicine Secretariat (OCPS) mandate supports the community paramedicine network in Ontario, enabling and facilitating work on the creation and dissemination of standardized care processes, performance reporting and measurement activities, and aspects of knowledge translation and exchange. The OCPS Steering Committee has representation from multiple key stakeholders including Ontario Health, the Ontario Association of Paramedic Chiefs, and frontline community paramedics. The OCPS was established at a time of both regulatory change to paramedicine and administrative transformation across all sectors of health care in Ontario. One part of this process has been a consultation process regarding modernization of the Emergency Health Services (EHS) system that has been led by the Ministry of Health (1). The consultation process has sought input from all stakeholders in Ontario about how “pre-hospital” care can play an active role in ending “hallway healthcare.” The Ministry of Health identified five areas of focus for the consultation process: Outdated dispatch technologies, Lengthy ambulance offload times and delays in transporting medically-stable patients, Lack of coordination among EHS system partners, Need for innovative models that improve care, and Health equity, or access to services across regions and communities (1).

New strategies in community

paramedicine programs should be part of a modern Emergency Health Services (EHS) system that will address hallway healthcare by helping patients overcome barriers or challenges in accessing timely coordinated care. Community paramedicine programs are demonstrating effective and efficient ways to provide short-to-midterm episodic care to underserved patient populations (2–11). The OCPS will continue to support planning and implementation of community paramedicine programs and future reporting on the impacts of these programs related to improved health outcomes, patient and provider experience, value, and improved system performance which has broader impacts on the whole population. Here are responses to some of the questions currently being discussed in Ontario as part of the consultation process on EHS Modernization and the role that community paramedicine programs can contribute to these efforts.

1. How would community paramedicine programs be part of a larger effort to modernize Ontario’s ambulance dispatch system?

A modern EHS system should be focused on providing excellent patient-centred care and this should include dispatch. One of the highest priority actions should be to include the clinical experience of community paramedics within the communication centres and to facilitate the technological capabilities of a common electronic medical record so that patient care can begin

as soon as a call for help is placed. Right now, patients are able to speak directly with a community paramedic through a number of community paramedicine programs, freeing up 9-1-1 lines, improving efficiency of paramedic resources, and enabling care “in-place.” Examples of these kind of community paramedicine programs have been included in the OCPS 2019 Report on the Status of Community Paramedicine Programs in Ontario (12).

2. What role would community paramedicine have to help reduce ambulance offload delays?

Ambulance offload times are a symptom of a hospital and long-term care system that is functioning over capacity. Community paramedicine programs supporting hospital discharge transitions of care, alternate level of care patients, and patients



Credit – County of Renfrew Paramedic Services

waiting for long-term care can help address system capacity that contributes to the offload time challenge. Community Paramedicine-Specialist Response Units (CPRUs) mobilize community paramedic-led case management that could be applied to new models of care for 9-1-1 patients. CPRUs can back up or replace responding emergency transport vehicles when transport is not needed as well as provide follow-up after non-transport to ensure patient safety and effective case management. Case management approaches to integrated care through paramedic participation in Ontario Health Teams can further expand access to care 24/7 and delivery of care outside of the emergency department, possibly further reducing the offload delay challenge. Community paramedicine programs work to pre-empt or prevent the need for patients to be transported to hospital as well as support patients as they transition out of hospital—both contributing solutions to ending hallway healthcare.

3. What are other opportunities for the case management approach used in community paramedicine programs to improve navigation of the healthcare system?

Community paramedics facilitate case management to coordinate patient care with health system partners. Where appropriate, community paramedics can arrange transportation to the appropriate destination (not necessarily the closest destination) through a case management approach. Improved integration and leveraging improved technologies can ensure better coordination of patient care. The municipal basis for the provision of paramedic services make them uniquely positioned to implement solutions within and between Ontario Health Teams, expanding on and modernizing the concept of “seamless” service that already exists. Many community paramedicine programs incorporate point-of-care diagnostics like ultrasound and



Credit – Middlesex-London Paramedic Service

bloodwork as well as treatments that can be provided “in-place” through extended scope of practice. Improved utilization of portable diagnostic technologies can also address the need to transfer patients for these services.

4. With an aging population and the resulting increase of pressures on ambulance services what specific actions ensure modern, responsive pre-hospital services?

There are multiple examples across Canada and internationally where emergency health systems have been modernized. In six of ten provinces, paramedics are now governed as regulated health professionals. The

evolution of paramedicine in these systems has seen greater alignment with other health care sectors to improve delivery of patient care and streamline access to the appropriate health system partners. Ontario Health Teams represent an important step towards this goal in Ontario. Community paramedicine programs across Ontario are improving access to primary, urgent, and/or specialized healthcare through scheduled or unscheduled visits to underserved patient population groups. Incorporating community paramedicine programs as part of the development of Ontario Health Teams aligns with the vision of Ontario Health and



Credit – Greater Sudbury Paramedic Services



Credit – Ontario Community Paramedicine Secretariat

will have impacts on the increasing demands for responsive out-of-hospital integrated care. The 2019 Report on the Status of Community Paramedicine in Ontario describes a number of community paramedicine programs that have already spread and can be scaled accordingly (12).

5. How can community paramedicine programs improve the provision of healthcare services in First Nations, rural and northern communities?

Community paramedicine programs use paramedics to provide

immediate or scheduled primary, urgent, and/or specialized healthcare to vulnerable patient populations by focusing on improving equity in healthcare access across the continuum of care. First Nations, rural, and northern communities face unique challenges and barriers to healthcare access. By taking a “community paramedicine” approach to the design and delivery of emergency health services, focusing on integration of care, and maximizing available technologies, community paramedics in First Nations, rural,

and northern communities can act as extensions of primary care providers who may not be locally available while also supporting safe transitions of care back to these communities when patients are admitted to hospitals far from home. The emergency response capabilities of a community paramedic provide added value and the ability to interface with the broader healthcare system outside of a local community when a patient’s condition worsens or if there is a medical emergency. (13).

The OCPS has gathered a great deal of information about the present state of community paramedicine programs in Ontario. Additional resources about community paramedicine are available on our website, <http://www.ontario-cpsecretariat.ca>. As the Ministry embarks on EHS Modernization, the OCPS is ready to act as an advisor on community paramedicine according to the mandate that it was provided. Community paramedicine programs can play a larger role in the delivery of “out-of-hospital” care and contribute to the EHS modernization process. **CP**



Credit – Greater Sudbury Paramedic Services



Credit – Middlesex-London Paramedic Service

ABOUT THE AUTHOR



Matthew Leyenaar is Executive Director of the Ontario Community Paramedicine Secretariat and a PhD candidate in McMaster University's Health Research Methodology

program. His research focuses on community paramedic practice and care planning—exploring how paramedics can better care for under-served patients. He has received funding awards from a number of organizations including the Canadian Institute of Health Research, the Canadian Frailty Network, Mitacs, and the Hamilton Niagara Haldimand Brant Local Health Integration Network.

Matthew also serves as Paramedic-at-large on the Canadian EMS Research Network Executive Board and as a Senior Fellow with the McNally Project—a group of paramedic researchers that strive to improve research capacity in Canadian paramedicine. In all these endeavours, he works to evaluate best practices in paramedicine from a systems approach. Matthew has spent considerable time and effort investigating the role that new models of care delivery can improve patient care and improve health system performance. He was recently recognized for this work with the Paramedic Association of Canada's Award for Excellence for Innovation and Research.

REFERENCES

1. Ontario Ministry of Health. Discussion Paper : Emergency Health Services Modernization. 2019.
2. Verma AA, Klich J, Thurston A, Scantlebury J, Kiss A, Seddon G, et al. Paramedic-Initiated Home Care Referrals and Use of Home Care and Emergency Medical Services. *Prehospital Emerg Care* [Internet]. 2017;0(0):1–6. Available from: <https://doi.org/10.1080/10903127.2017.1387627>
3. Agarwal G, Angeles R, Pirrie M, McLeod B, Marzanek F, Parascandolo J, et al. Reducing 9-1-1 emergency medical service calls by implementing a community paramedicine program for vulnerable older adults in public housing in Canada: A multi-site cluster randomized controlled trial. *Prehospital Emerg Care* [Internet]. 2019;0(0):1–16. Available from: <https://www.tandfonline.com/doi/full/10.1080/10903127.2019.1566421>
4. Agarwal G, Angeles R, Pirrie M, McLeod B, Marzanek F, Parascandolo J, et al. Evaluation of a community paramedicine health promotion and lifestyle risk assessment program for older adults who live in social housing: a cluster randomized trial. *Cmaj* [Internet]. 2018;190(21):638–47. Available from: www.cmaj.ca/lookup/doi/10.1503/cmaj.180642
5. Choi BY, Blumberg C, Williams K. Mobile Integrated Health Care and Community Paramedicine : An Emerging Emergency Medical Services Concept. *Ann Emerg Med* [Internet]. 2016;67(3):361–6. Available from: <http://dx.doi.org/10.1016/j.annemergmed.2015.06.005>
6. Rasku T, Kaunonen M, Thyer E, Paavilainen E, Joronen K. The core components of Community Paramedicine - integrated care in primary care setting: a scoping review. *Scand J Caring Sci* [Internet]. 2019; Available from: <http://doi.wiley.com/10.1111/scs.12659>
7. Leyenaar M, Mcleod B, Chan J, Tavares W, Costa A, Agarwal G. A scoping study and qualitative assessment of care planning and case management in community paramedicine. *Irish J Paramed*. 2018;3(July):1–15.
8. Gregg A, Tutek J, Leatherwood MD, Crawford W, Friend R, Crowther M, et al. Systematic Review of Community Paramedicine and EMS Mobile Integrated Health Care Interventions in the United States. *Popul Health Manag* [Internet]. 2019; Available from: <http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=med-p&NEWS=N&AN=30614761>
9. Agarwal G, Lee J, Mcleod B, Mahmuda S, Howard M, Cockrell K, et al. Social factors in frequent callers: a description of isolation, poverty and quality of life in those calling emergency medical services frequently. *BMC Public Health* [Internet]. 2019; 19(684):1–8. Available from: <https://doi.org/10.1186/s12889-019-6964-1>
10. Patterson DG, Coulthard C, Garberson LA, Wingrove G, Larson EH. What Is the Potential of Community Paramedicine to Fill Rural Health Care Gaps? *J Health Care Poor Underserved* [Internet]. 2016; 27(4A):144–58. Available from: <https://muse.jhu.edu/article/634884>
11. Nejtek VA, Aryal S, Talari D, Wang H, O'Neill L. A pilot mobile integrated healthcare program for frequent utilizers of emergency department services. *Am J Emerg Med* [Internet]. 2017;35:1702–5. Available from: <http://dx.doi.org/10.1016/j.ajem.2017.04.061>
12. Leyenaar MS, Strum R, Haque M, Nolan M, Sinha SK, Ontario Community Paramedicine Secretariat Steering Committee. Report on the Status of Community Paramedicine in Ontario [Internet]. 2019. Available from: <https://www.ontariocpsecretariat.ca/resources>
13. Ashton CW, Leyenaar MS. Health Service Needs in the North : A Case Study on CSA Standard for Community Paramedicine. 2019.

Elevate your expectations.

69%
MORE
POWER

113 CYCLES* WITH 250 LB PATIENT PER CHARGE

 **ENDURACHARGE™**
POWER SYSTEM

9%
MORE
MANEUVERABILITY

SHORTENS 22" TO A MINIMUM LENGTH OF 58"

ERGOFRAME™ 
FLEXIBLE POSITIONING



40%
MORE
SPEED

1.4 SECOND EXTENSION & 2 SECOND RETRACTION

 **RAPIDLIFT™**
RETRACTION SYSTEM

TESTED TO
10+ YEARS OF SERVICE
in a simulated environment.

82%
MORE
STABILITY

AT TRANSPORT HEIGHT & 52% MORE OVERALL

TIPRESIST™ 
ADVANCED STABILITY TECHNOLOGY



POWERX1™

Don't settle for standard; elevate your expectations. The NEW POWER X1 offers a whole lot more than any competitive cot, including **more POWER**, **more MANEUVERABILITY**, **more STABILITY**, and **more SPEED**.

* One Cycle equals one full lift and one full lower.
All data gathered through industry standard testing in a simulated environment.

FERNO.CA | 800.543.3766

THE COMMUNITY PARAMEDICINE GLOSSARY: FREQUENTLY USED TERMS AND DEFINITIONS

By the Ontario Community Paramedicine Secretariat (OCPS)



Included here are a number of frequently used terms and their definitions used by the Ontario Community Paramedicine Secretariat (OCPS). By submitting them to Canadian Paramedicine for inclusion in this issue, we hope that they can help promote discussion amongst the broader paramedic community across Canada with respect to community paramedicine.

Community paramedicine program: a program that uses paramedics to provide immediate or scheduled primary, urgent, and/or specialized healthcare to vulnerable patient populations by focusing on improving equity in healthcare access across the continuum of care (1).

Community Assessment and Referral Programs: This model of care represents a case finding strategy

employed by front-line paramedics to connect individuals and patients with other care providers, most often Home and Community Care Services and local Community Support Services (CSS) Agencies. A specific model of assessment and referral that has been adopted by many Paramedic Services providers across Ontario is known as Community Referrals by EMS (CREMS). (2).

Community Paramedic-Led Clinics: This model of care has been established in areas with an identified need where community paramedics advertise and provide health promotion and preventative care services in partnership with local health system partners. Community paramedics in this model may provide flu shots, education about healthy living, chronic disease prevention education, blood pressure checks, blood glucose checks, or other services. (2).

Home Visit Programs: This model of care usually sees community paramedics working in a team with other health care providers to maximize the available “at home” support through the provision of proactive and preventative home visits for patients that have either repeatedly called 9-1-1 or who have been identified as high risk of 9-1-1 utilization due to their underlying medical conditions and unmet social

needs. Some models have embedded community paramedics into primary care teams to support primary care providers in monitoring at-risk patients through more frequent home visits. Other models have embedded community paramedics into a circle of care led by an acute care hospital to support the early discharge of admitted patients and smooth the transition from hospital to home, especially among those patients identified as being at high-risk for re-admission. (2).

Remote Patient Monitoring Programs: This model of care involves patients with chronic health conditions like chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), and diabetes who are at high-risk of a future emergency department visit or hospitalization in being enrolled in a home-based patient monitoring program that can allow them to live with greater confidence in their own homes. In these programs, patients enrolled by their primary care providers are provided with remote monitoring devices that can transmit their vital signs to a 24-hour monitored communication hub that alerts a community paramedic when their readings fall outside of expected values. In partnership with their primary care providers, community



COMMUNITY PARAMEDIC PROGRAM



Call 613-667-3101

Visit www.premergency.com

Email help@prememergency.com

Premergency's online Community Paramedic Program is ideal for paramedic services wishing to enhance their staff's professional development. This online self paced, case based learning approach will provide the paramedic with a foundational knowledge to feel confident as a community paramedic.

Modules include:

- Role of the Community Paramedic
- Actual Patient Case Study Assessment
- Geriatric Emergency Management
- Chronic Disease
- Patient Care Planning
- Community Resource Collaboration & Planning
- Pharmacology
- Mental Health
- Palliative Care
- Clinical and Preceptorship Guidance*
- Final Exam

Upon successful completion the paramedic will receive a certificate of completion.

**Note: each paramedic service is responsible for clinical and preceptorship placement.*

Benefits

- Online, Self Paced
- Unlimited Access
- Mobile Friendly
- Cost Effective

PREMERGENCY
Training Anytime, Anywhere

paramedics working under pre-determined care protocols customized to each patient, are then contacted by a community paramedic by phone or visited in person to address any care issues proactively in order to pre-empt 9-1-1 calls or emergency department visits. (3).

Community Paramedic-Specialist Response Programs: These emerging models of care operating under names such as Community Paramedicine Response Units (CPRUs), Paramedic-Specialist Teams, or Mobile Integrated Health (MIH) Teams represent a growing level of service coordination and cooperation between traditional paramedic emergency response and emerging community paramedicine programs so that access to other health care providers can be better enabled and accessed in real time through an on-demand system that parallels a traditional 9-1-1 response. (3).

Integrated Care: The delivery of care that focuses on achieving the Quadruple Aim (4) through a coordinated effort within and between healthcare providers (5).

Case management: Comprehensive assessment and care planning activities that include combined efforts of other health care providers over a defined period of time, usually days, weeks, or months (6,7). Case management approaches may be general or specifically tailored to individual patient needs (8,9).

Transition of care: Also referred to as “discharge,” a transition of care involves a patient moving from one care provider to another. Typically used in reference to patient care moving from an in-hospital setting to an out-of-hospital setting. (10)

More information about the Ontario Community Paramedicine Secretariat is available on our website at: <http://www.ontariocpsecretariat.ca>. 

AUTHOR



Matthew Leyenaar is Executive Director of the Ontario Community Paramedicine Secretariat and a PhD candidate in McMaster University's Health Research

Methodology program. His research focuses on community paramedic practice and care planning—exploring how paramedics can better care for underserved patients. He has received funding awards from a number of organizations including the Canadian Institute of Health Research, the Canadian Frailty Network, Mitacs, and the Hamilton Niagara Haldimand Brant Local Health Integration Network.

Matthew also serves as Paramedic-at-large on the Canadian EMS Research Network Executive Board and as a Senior Fellow with the McNally Project—a group of paramedic researchers that strive to improve research capacity in Canadian paramedicine. In all these endeavours, he works to evaluate best practices in paramedicine from a systems approach. Matthew has spent considerable time and effort investigating the role that new models of care delivery can improve patient care and improve health system performance. He was recently recognized for this work with the Paramedic Association of Canada's Award for Excellence for Innovation and Research.

REFERENCES:

1. CSA Group. Community Paramedicine: Framework for program development. Toronto, ON: CSA Group; 2017.
2. Ministry of Health and Long-Term Care (MOHLTC). Community Paramedicine Framework for Planning, Implementation and Evaluation. 2017.
3. Leyenaar MS, Strum R, Haque M, Nolan M, Sinha SK, Ontario Community Paramedicine Secretariat Steering Committee. Report on the Status of Community Paramedicine in Ontario [Internet]. 2019. Available from: <https://www.ontariocpsecretariat.ca/resources>
4. Bodenheimer T, Sinsky C. From triple to Quadruple Aim: Care of the patient requires care of the provider. *Ann Fam Med*. 2014 Nov 1;12(6):573–6.
5. International Journal of Integrated Care [Internet]. [cited 2020 Jan 6]. Available from: <https://www.ijic.org/about/>
6. Sinha SK, Bessman ES, Flomenbaum N, Leff B. A systematic review and qualitative analysis to inform the development of a new emergency department-based geriatric case management model. *Ann Emerg Med*. 2011;57(6):672–82.
7. Leyenaar M, Mcleod B, Chan J, Tavares W, Costa A, Agarwal G. A scoping study and qualitative assessment of care planning and case management in community paramedicine. *Irish J Paramed*. 2018;3(July):1–15.
8. Rinke ML, Dietrich E, Kodeck T, Westcoat K. Operation care: A pilot case management intervention for frequent emergency medical system users. *Am J Emerg Med* [Internet]. 2012;30(2):352–7. Available from: <http://dx.doi.org/10.1016/j.ajem.2010.12.012>
9. Edwards MJ, Bassett G, Sinden L, Fothergill RT. Frequent callers to the ambulance service: patient profiling and impact of case management on patient utilisation of the ambulance service. *Emerg Med J* [Internet]. 2014;32(5):392–6. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25312857>
10. Health Quality Ontario. Quality Standards Transitions Between Hospital and Home Care for People of All Ages [Internet]. 2019 [cited 2020 Jan 14]. Available from: <https://www.hqontario.ca/Portals/0/documents/evidence/quality-standards/qs-transitions-between-hospital-and-home-draft-quality-standard-en.pdf>

IT'S NOT JUST ALL GRANDMAS AND COOKIES: A DAY IN THE LIFE OF A RURAL COMMUNITY PARAMEDIC

By Rick Trombley

Let me paint the scene. It's a dark, overcast, cold day in December. I'm the first to arrive at the small paramedic station, so I turn on the lights, pour a cup of coffee, and start preparing for my day. This year will be my 25th as a paramedic, so yes, I'm old, stuff hurts, and there is a lot more grey on my head these days. For the past five years I've been a Community Paramedic (CP) in Grey County, Ontario. Like every other paramedic, I go through the usual 'start of shift' routine—checking the vehicle, equipment testing, restocking supplies, answering e-mail, etc.

Working as a CP means I work alone in a 'Conditional Availability' or 'CAV' paramedic response unit. If we're needed for first response or emergency coverage, the communications officers or operations supervisor will phone us so we can make ourselves available. Otherwise, we are self-dispatched. I carry all the usual paramedic gear, plus some extra specialized equipment and medications. In Grey County, CPs carry an iStat blood analyzer, which allows us to perform point of care INR and basic blood chemistry testing. The CP drug bag includes a selection of antibiotics, potassium, furosemide, prednisone, ipratropium bromide, and nitro patches, on top of the usual symptom relief medications that all

paramedics carry in Grey. We work with a local Family Health Team (FHT) and have around 100 patients on our current roster.

For the next hour I'm reviewing patient charts, replying to messages, making phone calls, checking vitals on our remote patient monitoring system, and planning out my day. It should be an average one, with six home visits on the schedule—but that will change. It's 8:22 am when the CP cellphone rings. It's an 82-year-old female patient, who lives around 30 km away in a winterized cottage on a small lake. She has a bad cough that's been getting worse all week. I access her FHT patient chart online to review her history. She's a complex COPD/CHF/Diabetic patient who is on home oxygen and has a list of medications and allergies that would make a pharmacist cringe.

I call the first scheduled patient to advise them that I will be late for our appointment. The following 25 minute drive is uneventful. The roads are wet with a few snowflakes falling to remind me that winter is coming. I hear the patients small terrier barking upon my arrival, but I don't forget the most important thing: a dog treat = a quiet dog.

Now that the pup and I are best friends again, I can focus on the patient without interruption. She

tells me of the 'wonderful' visit she had last weekend from her two-year-old great-grandchild with a runny nose. A few days later, the patient started coughing more than usual. She stopped taking her 'puffers' a while back, "because they don't work anymore". Her husband unilaterally decided to up her home oxygen to 5 lpm to help. It must feel like a jet exhaust blasting from her nasal cannula. I start my exam: BP 128/60, P 102 irregular, R 20, SPO2 89%, Temp 38.2. I can hear the congestion in her chest from across the room. On auscultation I find decreased breath sounds on R mid-lower lung with an expiratory wheeze and some congestion in both bases. She starts another coughing fit, so I instruct her to spit it out onto a tissue.

For the record, we all have that one thing that can make us gag; a sight, a smell, vomit, poop, etc. Mine is phlegm. She shows me what she just coughed up and I stifle my gag response. It's thick, yellow/green and gross (I'm sure that's a proper medical term). I ask when she last took her salbutamol puffer; she says last night and it didn't work for her breathing. I check the inhaler. It's empty. So I give her one from my drug bag and get her to take four puffs with an aero chamber. If she can't take the medication on her own, I'll know it's time to

have her transported to the hospital. She inhales the medication while I send a text message to her physician, “It’s Rick, AECOPD pt, can you give me a call?”

While I’m waiting, I reassess the patient, while reviewing the importance of taking medications as prescribed, and avoidance of sick people (especially cute little toddlers). The wheeze and her work of breathing has started to decrease. I’ve dropped her oxygen back to 4 lpm while her SPO2 has increased to 92 per cent. Then the phone rings. It’s been 15 minutes since I’ve arrived.

A short conversation ensues. I give a quick summary of my findings and ask for an antibiotic and prednisone for the patient. The physician orders moxifloxacin 400 mg and prednisone 50 mg immediately for the patient, to be followed with a prescription for another six days of the moxifloxacin and two more days of prednisone that they will send to the patient’s pharmacy for delivery later today. I provide the initial medications to the patient as ordered and instruct the patient to increase her salbutamol use to every four hours until I reassess her in a few days. When I prepare to leave, her breathing is significantly better, and her SPO2 is up to 94 per cent with her oxygen set at 3 lpm; where it should be. Both the patient and her husband are very thankful for the help.

The next two home visits are routine. First, an uneventful visit with a little elderly Scottish lady with CHF who loves to chat about local politics. She’s feisty and doing well now that she’s following the treatment plan we initiated about 2 years ago. Prior to her enrolment in our CP home visit program, she was a regular at the local ER and had been hospitalized twice / year on average. She’s now on our remote patient monitoring system, her vitals have been stable, and she hasn’t seen the hospital for over a year. I schedule our next ‘chat’ in 3 months.

The second visit is with a couple. He’s a retired farmer with COPD and she’s a diabetic who says her occupation is ‘professional grandma’. I review their medications, perform physical exams, and answer some general healthcare questions, taking time to remind her of her dietician’s instructions as she has been ‘indulging’ in anticipation of the holidays. They tease me that they think I’m gaining weight too. I decline the offer for the cookies.

After stopping to grab a bite for lunch, I check in with the FHT. There are two messages waiting for me—a request for blood work for a CHF patient later in the week, and a notification that one of our long term patients died last night. My light mood has just changed for the worse. The patient was one of our first in the CP program and had been in hospital for the past few days after having a stroke. I knew he had been brought in by my colleagues, but I didn’t know the extent of the stroke until I saw his chart. It’s especially sad since he was a long-serving army veteran I really respected and admired. I will miss talking to him. He reminded me of my grandfather.

It can be hard enough some days to process and cope with the ‘regular stuff’ that paramedics experience. Nobody told me that as a CP, the death of a patient would hit much harder. Each time, it can be like losing a old friend. I take a few minutes to compose myself and make a point of visiting his widow after the funeral. It’s become part of how I deal with grief now.

The afternoon starts with a visit to another retired farmer (there are lots of them in Grey County!) who has atrial fibrillation and is on 4 mg warfarin per day. I’m there to check his INR. After the usual physical exam, I find his INR is high at 3.6. Another text follows and his physician orders him to hold his warfarin today and a slight dose decrease afterwards. I’ll be back in a week to

test his INR again.

Off to the next patient. An AECOPD patient who we started antibiotics on last week. It’s a follow-up visit that requires another dog treat. The patient finished the antibiotics two days ago. Lungs sound clear, breathing is good, and the patient says they feel ‘human again’. Their physician will be happy to hear the patient has recovered. I remind the patient to continue to restrict their smoking and encourage them to consider a referral to the FHT smoking cessation specialist. I get the usual ‘I’ll think about it’, but they agree to keep working on reducing their smoking. Sometimes you have to pick your battles.

By mid-afternoon, it’s snowing more heavily now and I hear the paramedic radio is getting busier. The county is down to two available ambulances, so I call the communications officer and offer to jump into the mix. I’m advised that I’m now the paramedic coverage for the city of Owen Sound for the next half hour until a couple more ambulances are cleared from hospitals. Time to grab a fresh coffee and enjoy it while parked next to the Chi-Cheemaun ferry moored in the harbour. I get some charting done without being needed for a first response, so it’s back to more home visits.

Another routine visit leaves me completely covered in cat fur. The patient has severe arthritis along with several other conditions and can’t clip her cat’s claws anymore. She’s on a fixed income, so paying someone to do it is a luxury. Thankfully the kitty is rather docile and I come out relatively unscathed. The patient and ‘Mr. Magoo’ are both happier for it. We keep Febreze and a lint roller in the vehicle for such emergencies.

The final scheduled visit for the day is with a fairly new COPD patient who is proving to be difficult. He lives alone in a large century-old house that was converted to a five-plex, likely during the Great

Depression era. His apartment is at the top of a narrow staircase on the third floor. I can smell the cigarette smoke long before I get to his door. The sparse apartment is surprisingly clean and organized, despite having walls and furniture that are brown from smoke. Air quality is an issue here. The smoke detectors have the batteries removed again. There is little food in his fridge, and he's non-compliant with his medications. His chart said he was diagnosed with lung cancer a few weeks ago. He says he's just waiting to die now and he's given up trying to quit smoking.

We talk for a while. He's a huge Toronto Maple Leafs fan. He says he's disappointed he'll never live long enough to see them win the Stanley Cup again, then he jokes that he doubts my kids will either. I message his physician that he needs a DNR and a mental health consult. I make a call to my friend at the food bank and contact social services to get his food security problem dealt with. He agrees to resume taking his medications and I put the batteries back in his smoke detector. A referral for further healthcare supports and a palliative care assessment wraps up my visit. I set up a follow-up visit in a week.

Just as I'm heading back to base, my phone rings again. It's the daughter of one of our CHF patients. She's concerned because her dad's legs are 'swelling again'. Another 10 km trip out to the farmhouse where I find the patient sitting in his Lazy Boy. He says his legs are 'leaking a bit' and they are wrapped in towels. The edema is up to just below his knees, his blood pressure is elevated at 174/90, and his SPO2 is 93%. Lungs are clear and he denies any chest pain or breathing issues. His daughter tells me he 'snuck out for Chinese' with one of his friends a few days ago, and the swelling started getting worse afterwards. A chart check reveals he's already on 80 mg furosemide per day. I draw a blood sample and find

his sodium and creatinine levels are slightly elevated.

His physician is out of town, so I contact the physician on call at the FHT. Fortunately, she's still in the office, so she reviews his chart and we have a conversation about the patient. She orders an additional 40 mg of furosemide everyday at noon and puts in a referral for home care nursing for his legs. We also decide to try him on a 0.2 mg nitro-patch to see if that helps with his hypertension. The patient gets another lecture on the evils of excess sodium from me. The daughter promises that "his days of sneaking out like a teenager are over" and confiscates his truck keys. We'll be back in three days to check on his progress.

By the time I'm done with the 'delinquent' patient, it's dark outside and the snow has stopped. I get back to the station, refuel, restock and wash the truck. Time to complete all my charting, messaging and final checks on the remote monitoring

system. I chat with the paramedics on the 1200-2400 shift before I leave and they ask me how many cookies I ate today

Maybe I do need to go on a diet. **cP**

ABOUT THE AUTHOR



Rick Trombley is a Primary Care/Community Paramedic in Grey County, Ontario. Since starting his career in 1995, he's worked in remote, rural, and urban paramedic services across

Ontario. Rick is an educator, lobbyist, and shameless promoter of paramedicine, who has served on multiple provincial, regional and service committees. Most recently, Rick was seconded for six months to the South West Local Health Integrated Network as the Community Paramedicine Strategic Lead before returning to his position at Grey County Paramedic Services.




Because your next patient could be your partner...

the best
PARAMEDICS
in the world are
BOARD CERTIFIED



INTERNATIONAL BOARD
OF SPECIALTY CERTIFICATION

FP-C® CCP-C® CP-C® TP-C® TR-C®

www.IBSCertifications.org

LAUNCHING AND EVALUATING THE COUNTY OF SIMCOE'S HIGH PERFORMING COMMUNITY PARAMEDICINE PROGRAM

By Kyle MacCallum, County of Simcoe Health and Emergency Services.

The emergence of Community Paramedicine (CP) in Ontario has challenged Paramedic Services to change the way they think about supporting individuals in the community. Community Paramedicine shifts the focus of service delivery from being traditionally reactive, to preventative and supportive. Although approaches to supporting patients through Community Paramedicine vary from service to service, all programs benefit from partnerships with local community and healthcare service providers.

Partnerships are the foundation of a successful CP program, and a key element of program sustainability. Community Paramedicine works in partnership with local services and programs that can enhance the level of support clients receive. Whether it's referral destinations for patients identified on 911 calls, or in the capacity of providing in home support through home visit programs, Paramedic Services alone cannot support all patient needs. Understanding that there is much more than physical health itself that contributes to the overall health of an individual, partnerships should include homecare agencies, social services and healthcare sectors to provide a well-rounded CP program.

COMMUNITY PARAMEDICINE IN SIMCOE COUNTY

Initiated in 2015, the County of Simcoe built its Community Paramedicine program using a one-time funding opportunity from the Ministry of Health. Paramedic Services focused on a phased approach to launching programs that meet local needs of the communities within Simcoe County. With the uncertainty about ongoing funding, it was important to develop programs that could be sustained should funding remain limited.

PARAMEDIC REFERRALS

In 2015, the County launched its first Paramedic Referral pathway targeting patient needs identified by paramedics on 911 calls. The program initially consisted of a single referral destination to Home and Community Care (formerly known as the Community Care Access Centre) to link patients with traditional home care services. It was quickly determined that patient needs extended beyond the capability of homecare services, prompting the addition of new partnerships with both healthcare and community support agencies. The program found success in collaborating with social and community services agencies.

This allows patients to benefit from a more global approach to their needs, as opposed to focusing on physical health alone. Patients benefit from a new partnership between Paramedic Services and 211 Ontario, providing system navigation and additional service referrals for patients in real time, 24/7.

To date, over 5,000 referrals have been received from front line paramedics who have advocated for their patients to receive additional support. Over 60 per cent of the referrals submitted by paramedics resulted in the patient receiving new or increased services and/or resources. An analysis of Paramedic Services utilization was performed in 2019 for 1,133 referral patients that had been connected with new or increased services. A 30 per cent decrease (956 calls) in Paramedic Services 911 calls was observed in the six (6) months after the referral, compared to the six months prior. Reducing 911 call requests for Paramedic Services improves overall system capacity. Increased availability of paramedics reduces the rate at which the service must grow to meet the increasing needs of the growing seniors population. Furthermore, reduced 911 calls reduces the impact on emergency departments and offload delay creating a multiplier effect for the service and hospital. This enhances capacity, reducing wait times and hallway medicine.

HOME VISITING

Launched in 2016, the County of Simcoe's Home Visit Program provides at-home chronic disease management for clients in partnership with their own primary care Physician or Nurse Practitioner. A unique partnership with the Couchiching Family Health Team established this program, which has supported 200 chronic disease patients since it began. Paramedics work with primary care to focus on keeping patients safe at home, where they want to be. The program started in three of the eighteen lower tier municipalities/separated cities within Simcoe County. With initial program success, expansion is underway to spread this program across the entire county.

The Home Visit Program uses Rapid Response Units staffed with Community Paramedics deployed in rural communities that have the primary role of responding to high priority 911 calls. Understanding that the Simcoe County Community Paramedic Rapid Response Units are deployed in areas that have low call volumes, time between calls is spent performing routine visits and exacerbation response for enrolled CP clients. This 'hybrid model' increases value to paramedic deployment in rural areas of the County.

In 2018, Community Paramedics attended to 104 exacerbation calls from rostered chronic disease patients. 76 per cent of the time, these patients remained at home following an assessment, with or without treatment from the Community Paramedics. In 2019, 205 exacerbation responses occurred, with 87 per cent of the occurrences preventing a 911 call and subsequent transport to the emergency department. In addition to the avoidances of 911 calls and ED visits, a 13 per cent reduction in primary care visits was observed in a 6-month pre/post analysis performed in 2017.

FREQUENT CALLER FOLLOW UP

Beginning in November 2018, County of Simcoe Paramedic Services began piloting Frequent Caller Follow-up in partnership with McMaster University's CP@Home program. Frequent callers are identified by repeat 911 use for Paramedic Services. Paramedics perform home visits providing a **more hands** on approach to assessment and referral.

Frequent Caller Follow-up is built on the success of McMaster University's CP@Clinic (formerly CHAP-EMS) randomized control trial that showed a 19 per cent relative reduction in total 911 use in the buildings where wellness clinics were offered. The County of Simcoe's clinic program ran from 2015 through to 2016 in two sites across the county.

The early success of Community Paramedicine in Simcoe County has highlighted the benefits the program presents to patients, Paramedic Services, and the healthcare system as a whole. Community Paramedicine puts existing resources to work in the community, building greater capacity in the healthcare system at a time where we need it most.

For more information on Community Paramedicine in Simcoe County, please visit www.simcoe.ca/dpt/ps/paramedicine. 

ABOUT THE AUTHOR



Kyle MacCallum, Community Paramedicine Coordinator with Health & Emergency Services at the County of Simcoe. Kyle's focus within Paramedic Services is

advancing the role of the Paramedic to improve patient care in the community, building greater capacity in our healthcare system. Kyle's role supports the County of Simcoe's growing Community Paramedicine Program.



Team (CFHT) and their Home Visit Program. Pictured from left to right: Kyle MacCallum; Julia McWilliam (Community Paramedic); and Lynne Davies (Executive Director, Couchiching Family Health Team).



Kyle MacCallum and Kristen Gilmartin, Clinical Programs Supervisor in front of our Community Paramedicine Unit.

A SHORT HISTORY OF COMMUNITY PARAMEDICINE IN BC

By Mike Billingham



A fairly long time ago in a land far away, a community paramedic program was conceived.

Community Paramedicine got its start in Canada back in 2001, on Long and Brier Islands, remote communities in southwestern Nova Scotia. This innovative project was developed based on a theory that patients could be treated at home instead of traveling over land and sea to be treated. The proposal also predicted that patients would be happier and that the government would save a significant amount of money.

It turned out to be a pretty good theory. Within a year, ambulance calls were reduced by 25 per cent and emergency room visits by 40 per cent. The average cost of health care for residents of the small communities fell from an average of \$2,380 to \$1,375, a reduction of 43 per cent.

In 2016, according to Statistics Canada, we spent about \$4,087 per Canadian on health care. (37.95

million people in Canada X 4,087 dollars = \$155,101.65). If we projected those same savings nationally, we would save \$67 million per year on health care!

So how did they accomplish this miracle in health care? Well, instead of merely transporting the same patients over and over for the same issues, they started treating patients in their own homes. This hybrid team started doing wound care, suturing minor injuries, administering immunizations and antibiotics, checking patients' adherence to prescriptions and anticipating and preventing flares ups from chronic disease.

Other similar pilot programs have provided equally impressive savings. In one Ontario community, they have realized a 50 per cent reduction in calls to 9-1-1 and a 65 per cent drop in ER visits.

These savings are generated by proactively caring for frail seniors with multiple chronic conditions. This is one of the fastest-growing demographics in health care. Unfortunately, the very people that built our country are now victims of our health care system's inefficiencies. Often these patients have no access to primary care, so they end up going to hospital by ambulance, being released and returned a short time later.

About a decade ago, the BC Ministry of Health recognized all of this and tasked the BC Emergency Health Services Commission with developing a similar plan. Rick Ruppenthal was one of the project leads and I sat down with him recently to get the history of the Community Paramedic Program in BC.

It's an interesting story of ambition, innovation and determination.

The program in BC was initially proposed to provide meaningful work for under-utilized rural and remote paramedics. As the third most populated province in Canada, there has always been a challenge to provide emergency health services to the 162 municipalities covering 944,735 square kilometers of very difficult terrain. (There are 6,000 islands and over 75 per cent of the province is mountainous)

These geographical issues posed the biggest problem for the team—how to capture the success of Brier Island and transfer that to BC. But there were other hurdles as well. Initially, there was push back from some physicians. There were legitimate concerns about liability and scope of practice. Not to mention, push back from some allied health care unions for what was perceived to be encroachment into their profession.

Eventually working models were developed and the plan started to gain some traction. Isolated communities such as Tahsis, Ucluelet and Tofino were identified. These three communities hug the very western reaches of Canada on a beautiful but rugged coastline plagued by winter storms, treacherous roads and vulnerable patients. Rick's timeline was very short as the Ministry of Health was very concerned about developments

that were eroding health care in remote areas. During those years, many small towns in BC were actually shrinking in size. RCMP were leaving the communities, nurses were leaving, and many doctors were retiring and new doctors were not interested in relocating to such small and underserved towns. Something had to be done, and fast.

It didn't take long before Rick and his team had a pretty good handle on the opportunities, the challenges and the solutions. One obvious opportunity surfaced in Tofino. Although Tofino wasn't suffering the fate of many other small towns, there were still gaps in staffing. Patients could only be discharged from the hospital when the homecare nurse was in town, and this was only two days a week. As you might imagine, it wouldn't take long for paramedics to successfully master the required skills to serve this important function. And so, the concerns regarding scope of practice were minimized by simply reducing the scope of practice. Although this initially seemed like a big loss for the development team, as it turns out, much can be accomplished through great history taking, simple assessments and a preventative approach. But I'm getting ahead of myself.

The project actually was suspended before it flourished. There were

many reasons for pulling the plug. First of all, there was limited funding for this project. The development, training and deployment had to be covered before any of the cost benefits could be realized. The concerns regarding expanding the paramedic scope of practice compromised most of the real benefits that the program offered. Doctors had real concerns about paramedics assessing complex patients and missing something important. Nurses asked legitimate questions such as, why fund a paramedic to do discharges in Tofino when you should really be providing more funding for nurses. Because the scope of the project was so difficult to define, there were many assumptions by paramedics that were not necessarily true. There were items that were not part of traditional paramedic training or experiences and some paramedics felt that this was not what they signed up for.

There's an old saying that a camel is

just a horse designed by a committee and it's fair to say that some paramedics really didn't like the look of this particular animal.

Eventually, time ran out and the project was shelved.

But then something unexpected happened. About 2 or 3 years later, the BC Emergency Health Services Commission was taken over by the Provincial Health Services Authority. This is a publicly funded health service provider that is unique in Canada as the only health authority having a province-wide mandate for specialized health services. PHSA brought its 2.78-billion-dollar budget to the table and all of a sudden things began to change. The program was resurrected, scope of practice for paramedics was expanded and nine trial communities were identified. Today over 99 communities are serviced by community paramedics and the goal is to create 80 full time equivalent positions.



CME

CREDITED COURSES



Personal Protection for your Brain

Personal Protection for your Brain is a unique 10 credit program designed for all Paramedics. It consists of a short pre-read and a PowerPoint containing useful links and media files. You will learn how chronic stress changes our resistance to disease and predisposes us to severe psychological injury. You will also learn how to prevent injury and disease. Most important of all, you will learn how to keep your workplace safe after a Critical Incident. You will understand why we cease to function safely after exposure to a critical event, and how to immediately care for those affected.

The British Columbia EMA Licensing Board has assigned 10 CE credits for completion.

The Art of Differential Diagnosis

This is the most exciting course offering from CPE so far. It is a blend of important pathophysiology and high return facts. It is well researched and explores the latest advances in prehospital care. It will teach you to recognize important patterns and develop treatment options quickly.

The British Columbia EMA Licensing Board has assigned 10 CE credits for completion.

CNS Pharmacology Course

CNS Pharmacology will explain how neurotransmitters and common drugs interact to produce the signs and symptoms that we see in our patients. This program is full of high return facts and will help you become an expert in assessing complex drug overdoses.

The British Columbia EMA Licensing Board has assigned 10 CE credits for completion.

Pediatrics for Paramedics

This course will teach you how to manage the most chaotic of calls with a calm, organized approach. You will learn how children are 'different' including specific differences in c-spine precautions for children. The manual explains the unique pathophysiology of pediatric patients and helps you understand and predict common presentations. The information is designed to help you become an expert in pediatric assessment.

The British Columbia EMA Licensing Board has assigned 10 CE credits for completion.





For more information, go to: www.creativeparamedicaleducation.com
or scan the QR code to the left

Interestingly enough, many of the original challenges faced by Rick and his team turned out to be the factors that ultimately led to success. Although it was difficult to define roles and responsibilities due to the diverse nature of British Columbia, this lack of a cookie cutter approach allowed the flexibility required to make this work for each community.

Recently, I spoke with a few community paramedics to learn how the program was working. Those that I spoke to loved their job. They function quite independently and work to develop a unique preventative health care program for their community. Initially, they identify gaps that can be filled. Then they engage with the community in a collaborative way to set up programs. The role is very different from emergency medicine as it prevents disease and promotes health. There is a lot of teaching and relationship building. They don't describe those in their care as patients

but as clients and the elderly people in their communities absolutely love them.

One of the great strengths of the program is that there is time for the community paramedics to sit down with their clients and talk. As we all know, this is such a rare thing in our existing health care system. Doctors and nurses are so busy and over tasked that they seldom have the time to just sit and listen. But as you might imagine, listening is critical component of history taking. These sessions build trust and often the patients or their families divulge information that dramatically impacts health and prevents disease. One such example is a case involving an elderly client who was becoming more confused and unable to care for himself. An afternoon visit with the client and his family revealed that although he was very compliant with his morning medications, he was rarely taking his evening medications. The paramedic

consulted with the family doctor and changes were made to the client's medication schedule. The result was dramatic and has greatly increased his quality of life and that of his family. I heard many stories of simple common-sense solutions having a major impact on the client's health. By conducting wellness clinics and educating seniors, community paramedics have an impact on many as opposed to the traditional paramedic role where our impact is limited to the one patient that we are caring for.

But the job can be also be tough at times and community paramedics must find a balance between developing close relationships and maintaining an appropriate professional distance. This can be very difficult to navigate especially when a long-term client passes away.

Sometimes, the doctors don't even read the progress notes and the patient falls through the cracks and winds up in the hospital unnecessarily. Occasionally, skills get degraded due to a lack of exposure to acute calls. Every so often, there is a realization that more technical skills are required.

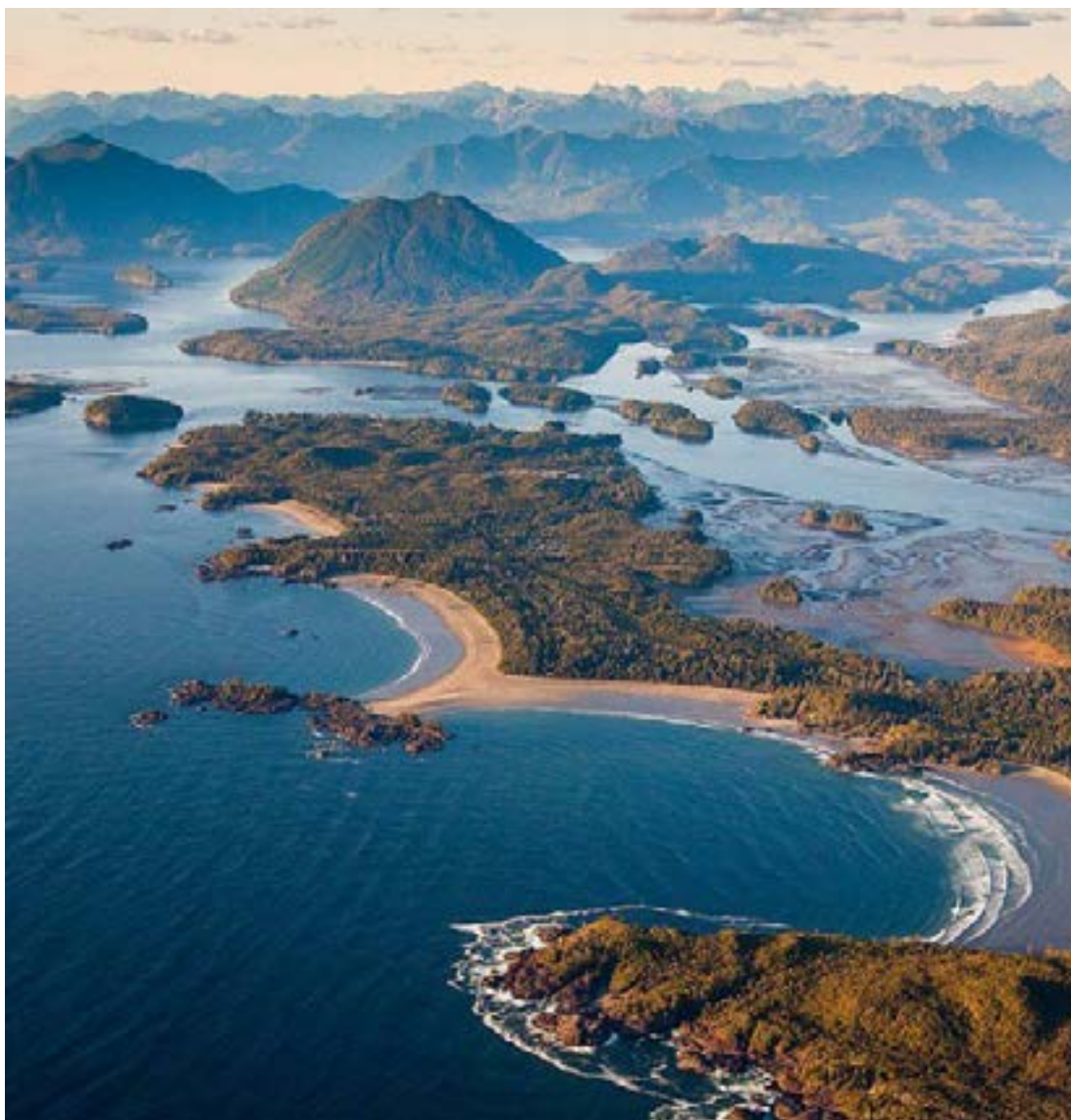
But the thing that really stood out for me is how satisfied community paramedics are with their role in health care. It's a completely different opportunity for paramedics. Rather than sorting out the issues in a crisis, they get to solve those issues before they happen. What a great way to help people. [!\[\]\(375cabd837b97cf016d36e6dfd1b1d2f_img.jpg\)](#)

ABOUT THE AUTHOR



educator.

Mike Billingham has enjoyed a challenging 36-year career as a primary care paramedic, critical care neonatal, pediatric and obstetric paramedic, station administrator and



A COMMUNITY PARAMEDIC APPROACH TO ADDICTION IN THE COMMUNITY

By Bryce Brunarski and Karen Lutz

A major issue presenting across Canada is the number of opioid related deaths. Since 2003, the number of deaths has increased 136 per cent with more than 850 deaths in Ontario from opioid-related causes in 2016 (Public Health Ontario, 2018). The key concerns with this issue are the alarming rising numbers of users and related overdose deaths and that users are not getting the necessary help or support to overcome the addiction.

Niagara EMS has recognized the need to take action and help protect the public in a new and unprecedented way. They have been working on initiatives that re-evaluate the traditional approach and transform the healthcare system to better address the changing behaviours, pressures

and care needs of those calling 911 in the community. These initiatives include; creating a specialty response unit and focusing resources towards Consumption and Treatment Site (CTS) to provide safety and education.

Niagara Region Public Health and Emergency Services, Niagara EMS, local governments, emergency services and community agencies have teamed up to collaborate on ideas and initiatives in reducing the number of deaths and overdoses in Niagara Region. The formation of Overdose Prevention and Education Network of Niagara (OPENN) allows these local agencies to coordinate their efforts and tackle the increase in opioid drug use, overdose and death witnessed in the Region.

Having received funding for a CTS providing supervision for injections, community partner Streetworks Niagara contacted NEMS for assistance with medical supervision. It was clear to Niagara EMS that paramedics could and should be a part of this community initiative. Paramedics interact with many of the people suffering with addictions in our community and with the work already being performed by our Mental Health and Addictions Response Team (MHART) it was felt that the collaboration offered good synergy and an opportunity to forge trust relationships with clientele to gain better trust further. The primary role of paramedics in the CTS is to quickly recognize someone who



ACP Rob Zahra and Mental Health Nurse LeeAnn Pocknell



ACP Pat Ryerse and Mental Health Nurse Chelsey Gagnon

overdoses and provide immediate intervention. However, the paramedics at the clinic will have the opportunity to work hand-in-hand with clinic staff, monitor clientele, offer clean supplies, educate on substance abuse and actively work to understand more of the reasons people become addicted to get to the core of the problem with the ultimate goal of providing a pathway to recovery.

Drug addiction and death from overdose impacts more than just the user; it greatly affects the health and well-being of the drug users' family. In order to have the greatest impact on health and health equity of Niagara residents, one of the MHART tasks is to respond alongside ambulances when information from the communication center indicates an opioid overdose. The MHART role is to provide harm reduction when possible and utilize the 'stages of change' model to assess patient's readiness to enter into recovery. Evidence suggests this period is when an individual suffering from drug addiction is most willing to accept outreach. This time frame is used to offer support, education and access to addiction services, but it is also the time where users are at greatest risk for overdose because the presence of Naloxone in their system and the urge to use. Through emergency calls and consent of a patient, paramedics can also make patient referrals to MHART and the team will provide the same outreach, support and education within 24 to 48 hours.

To further gain the trust of the user and their family and provide further safety, Niagara EMS MHART has also begun offering Naloxone kits through Niagara Region Public Health. Users or their families might not want to replenish their Naloxone kits after use because of the stigma surrounding drug addiction. While visiting a client who has

overdosed, paramedics can replenish Naloxone kits, solidify relationships with clients and determine what other services may be needed. IV drug use can also cause significant wounds that require medical attention, so paramedics will work with a wound specialist to identify wounds and what should be used to treat them to help reduce sepsis and poor medical outcomes. Although these steps might not stop the escalating opioid use, it could help prevent death from occurring, improve health quality and provide an avenue for users to seek treatment when they are ready.

In order to have a better understanding of where the majority of overdoses are occurring in the Niagara Region or, times when there is an increase in overdoses, Niagara EMS uses FirstWatch. FirstWatch turns raw data into meaningful information to helping improve situational awareness and clinical patient outcomes in real-time (FirstWatch, 2019). This program is designed to flag overdose calls from paramedic electronic patient call reports and give a geographic area as to where they are happening. Niagara EMS, Streetworks and MHART are notified when a trigger is hit higher than two standard deviations above the average number of overdose calls in a defined area. MHART and Streetworks can proactively visit these areas or individuals involved in the events, providing greater safety, education and other resources needed in the community.

Funding from the Provincial government provided a permanent location for a CTS and it will allow paramedics to dedicate their hours at the CTS seven days a week. Since MHART members have a relationship with users through their work in the community, team members will cycle through the CTS for further interaction. Fentanyl test strips will also be available at the

CTS to allow clientele to test their drugs if they wish.

Paramedics develop strong trust in their communities, and the idea is to build upon this dynamic in to provide more holistic resources with regard to mental health and addiction. Paramedics understand how social determinants of health impact overall wellbeing, and so it was decided to create that role in a new and different way to a specific cohort of individuals who could benefit from more holistic care. As part of a new, evidence-informed clinical response plan, MHART is one of the resources that is responding to calls where there is an obvious or expected death. Evidence gleaned through Niagara EMS data indicates that a traditional transport unit is not required as these calls do not result in transport to the ED. Rather than send a traditional transport unit, when available, MHART responds in order to provide mental health support to family and caregivers who may be struggling with the loss and who could benefit from connections to community grief counselling resources. This type of response thereby also extends holistic care to family, care providers or even bystanders if appropriate. MHART is one of a number of teams that have been developed with the collaboration of community stakeholders to achieve maximum benefit as Niagara EMS rapidly moves from a traditional treat-and-transport EMS system towards a true Mobile Integrated Healthcare system. 

ABOUT THE AUTHORS



Bryce Brunarski started his career with Niagara EMS in 2010 as a Primary Care Paramedic and is currently the Superintendent of Public Relations and Affairs (A).

Bryce worked on the Bike Medic Team for 6 years and is a current member of the Peer Support Team.

Bryce is a graduate of the Paramedic Program at Niagara College and holds a Bachelor of Business Administration degree from Yorkville University.

Born and raised in Listowel, Ontario, he now lives with his wife in Fenwick, Ontario.



Karen Lutz-Graul has been a Paramedic in Niagara for 29 years and for the last 6 years has held the position of Commander of Quality Assurance and System Performance for

Niagara Emergency Medical Services. She is currently the Project Lead for Niagara EMS's System Transformation aimed at Transforming Niagara EMS to an Evidence Based Clinical Service Model

In addition to her role as the Commander of QA & System Performance, Karen is also the lead for the Niagara EMS Community Paramedic Program and the Omega Phase 2 Feasibility Study.

Karen is a graduate of Ambulance and Emergency Care Program at Niagara College, the Advanced Care Paramedic Program at the Michener Institute and also holds a Bachelor's Degree in Clinical Paramedicine from Charles Sturt University, New South Wales, Australia.

Karen currently resides in Burlington Ontario.

REFERENCE

Opioid-related morbidity and mortality in Ontario. (2018, May 23). Retrieved August 19, 2018, from <https://www.publichealthontario.ca/en/dataandanalytics/pages/opioid.aspx>

Every Record. In Real Time. Automatically. (2019, March 12). Retrieved May 23, 2018, from <https://www.firstwatch.net/>.

COMMUNITY PARAMEDICINE: SPECIALIZED EDUCATION

By Chris Farnady

Healthcare systems worldwide and here, at home are facing delivery challenges. These challenges have been brought on by population growth, epidemiological demographic transitions, that is to say, the increasing burden of chronic diseases and population aging in addition to a shortage of healthcare providers [1 p. ii]. Paramedics have evolved and adapted from a one-dimensional practitioner who initially only responded to emergencies to become an indispensable member of a mobile integrated health team (MIHT). Community Paramedic program themselves are noted to, “provide a bridge between primary care and emergency care” [1 p. ii]. These programs have been developed to address the needs of low acuity patients who lack access to primary care, elderly patients without mobility as well as residents in rural and/or remote areas [1 p. ii].

COMMUNITY PARAMEDIC COST-EFFECTIVENESS

The economic analysis performed by the Institute of Health Economics found two studies, which assessed the cost-effectiveness of community paramedic programs and favourably concluded the implementation of these programs [1 p. iii]. The findings of these assessments revealed that

community paramedicine programs were, “associated with an improvement in health outcomes, measured using self-reported Psychosocial Adjustment to Illness Scale (PAIS-SR) scores or quality adjusted life years (QALYs)” [p. 1 iii]. The Institute of Health Economics noted that in one study there was a diminished cost over a three-year period post-implementation of the program. While the other study examined revealed a slightly higher cost for Paramedics than ‘usual care’, the study proposed that, “community paramedicine programs were cost effective, given a relatively low incremental cost-effective ratio” [1 p. iii].

THE QUESTION OF SPECIALIZED EDUCATION

The CSA Group, through Defense Research and Development Canada published the first edition of CSA Z1630-17 standard for community paramedicine program framework in 2017. This framework highlights the recognition and requirement for, “community paramedics to receive specialized education and continuing professional development appropriate to the program’s model of care” [2 p. 13]. Educational requirements should also provide these practitioners with foundational knowledge that is, “based on a recognized

or approved curriculum” [2 p. 13]. In short, the chosen training should fit and satisfy the needs of the community as well as the learners and should be based on the healthcare gaps identified by way of a community assessment. While preference may lie with an educational program delivered by a post-secondary educational institution, the framework recognizes and supports the development of an in-house program or the opportunity to work collaboratively with a local educational institution for the development of a customized training program [2 p. 13].

However, enabling higher education is not without its own challenges. Predominately, there exists two such challenges identified in the work of Dr. O’Meara et al. (2014). Firstly, the current paramedicine program curricula are noted to, “already be at full capacity with respect to acute care topics and skills” [3 p. 6]. Secondly, there exists a prevalent complexity in convincing mainly young students that role of paramedics in the future will be more deeply rooted in community primary care practice versus answering emergency calls [3 p. 6]. According to Dr. O’Meara et al., there is support for paramedic programs to evolve and grow into a four-year Bachelor level degree course that would be comparable to other healthcare professions such as

nursing for instance [3 p. 6]. With this shift to a Bachelor level degree program, community paramedicine could transition to becoming a specialist stream, which would incorporate subjects such as public health as well as specific procedural skills [3 p. 6]. The latter notion of incorporating public health topics is not new; in fact the United States has developed community paramedicine curricula that incorporates both public health teachings and specific procedural skills. Both Australia and New Zealand's degree-level paramedicine programs incorporate public health topics as well. These programs have been well established, and provide higher education that includes a mix of three-year paramedicine degrees in addition to "some four-year double degrees in combination with Nursing or Public Health" [3 p. 6]. Traditional paramedic programs have been described as, "narrowly focused" [3 p. 6]; as noted earlier their emphasis centered on emergency response, with little consideration for education in cultural safety, health promotion, aged and chronic disease while lacking to provide education in the social determinants of health and how the wider healthcare system performs according to the findings of O'Meara et al. [3 p. 6].

Dr. O'Meara et al. (2014) suggest that paramedic programs would benefit from expanding their curriculum to include:

- Generic health and social service education
- Social determinants of health, and other public health topics
- Acute and chronic mental health
- Chronic disease management
- Geriatric emergency medicine
- Wound care
- Understanding of community (sociology)

[3 p. 7]

Convincing students and stakeholders that community primary care content is in fact relevant to the practice of paramedicine within an

integrated healthcare systems remains a challenge, and while the evolution of traditional paramedic education to a Bachelor-level program will take some time, Paramedics that wish to practice in the community paramedicine setting currently have limited resources for high education. In the research and material preparation phase for this article three Canadian programs stood out while one American program offering an opportunity at advance licensing stood out.

The first program examined was the Community Care Paramedic program offered through Ontario's Centennial College located in Scarborough. The program is delivered over 9 weeks in a flexible format that combines both on-line and in-class education, allowing the student complete their community care education in a manner that best fits their schedule [4].

The program's learning objectives are to noted to include the following:

- Utilize critical thinking and analysis in assessing, developing and applying community-based paramedic research and practice.
- Develop a variety of leadership techniques, critical thinking and decision-making skills to develop, apply and communicate best practices,
- Improve health outcomes and promote community-based paramedic initiatives.
- Enhance the physical, psychosocial and emotional well-being of diverse individuals, families and communities by applying principles and
- Concepts of health promotion, ageing, social determinants of health, pharmacology and pathophysiology.
- Analyze and perform advanced assessments, diagnostic techniques and health promotion strategies to develop, apply and communicate
- Personalized healthcare plans in a therapeutic manner.
- Develop strategies for personal and professional development to

enhance personal practice level as a community paramedic. [4]

The second program examined was the Community Paramedic Advanced Certificate offered by Saskatchewan Polytechnic (formerly Saskatchewan Institute of Arts and Science or SIAST for short) located in Saskatoon, Saskatchewan. The 30-week program is offered by combining on-line learning and 53 hours of hands-on lab/clinical practice.

The program focuses on enhancing education, whether the practitioner is a Primary care or advanced care. Topics covered include prevention, client/patient education, geriatrics, palliative care, mental health as well as addiction and chronic disease management [5].

The third Canadian program examined was the Community Paramedic Extension Certificate offered by Mount Royal University in Calgary, Alberta. This program was developed in collaboration with Alberta Health Service's Emergency Medical Services Mobile Integrated Healthcare (also referred to as the Community Paramedics Program). Students of the programs may complete the program in as little as two years and take as long as six years. The certificate program is comprised of seven online courses totally 225 hours of didactic education and 2 field experience components totally 150 hours. The content of Mount Royal's program focus is on, "the application of primary care healthcare strategies within inter-professional environments" [6]. Benefits of this program are noted to include:

- The offer of professional development opportunities for Advanced Care Paramedics and currently practicing Community Paramedics
- Opportunity to gain in-depth theoretical knowledge and extensive experience in a variety of healthcare settings
- Become an integral part of the solution to Canada's growing

healthcare concerns through the development of professional strategies in response to healthcare issues, ethics, and inter-professional communication challenges

- Apply learned knowledge beyond the traditional emergency response role into the community setting, such as: assisted living sites, long term care homes, private residences, etc.
- Further develop inter-professional collaborative skills to manage continuity of care and resource allocation for patients with complex conditions
- Create care programs for patients to allow for continued independent living [6]

Lastly, the American program examined was the Certified Community Paramedic Review course offered by Southern Columbia University based in Orange Beach, Alabama. This on-line program was developed in partnership with the International Association of Flight & Critical Care Paramedics (IAFCCP) and is recognized as a review course for the advanced certification exam offered by the International Board of Specialty Certifications for the Community Paramedic Certification (CP-C) designation. The course is offered over 10 weeks and is self-paced with open enrollment. In the event that students are not able to complete the program in the prescribed time frame, an extension will be granted [7]. Learning objectives for this program as described as:

- Apply knowledge of the principles of mobile integrated healthcare.
- Recognize the role of community paramedics in addressing community-based needs.
- Identify the variables that can affect patient care and health status.
- Identify components commonly found in a patient's plan of care.
- Recognize the imperative for interdisciplinary collaboration to provide proper patient care.

- Distinguish strategies for effective patient-centric care.
- Recognize the factors that affect the monitoring and management of the chronic disease patient.
- Identify strategies for preventative care. [7]

Seeking Advanced Certification

In general, certification is a, "mechanism in which the public and employers are able to identify practitioners who have met certain standards in their particular specialty" [8].

COMMUNITY PARAMEDICINE: SPECIALIZED EDUCATION

By Chris Farnady

The exams and subsequent certification offered by the IBSC are specific to specialty Paramedic practice, measuring a defined body of knowledge that is pertinent to a particular specialty. Specialty areas of practice covered by the IBSC include the following:

- Community Paramedic Certification (CP-C)
- Tactical Paramedic Certification (TP-C)
- Flight Paramedic Certification (FP-C)
- Critical Care Paramedic Certification (CCP-C) [8]

The IBSC notes that, "a role delineation study is conducted approximately every five years to assure the examinations reflect current specialty paramedic practice" [8]. While IBSC exams are recognized around the globe, they have been based on best practices and scope of practice commonly found in the United States [8].

For the short-term outlook of the profession, the notion of "up-skilling" [3 p. 7] can and is noted to be a convenient method for current Paramedics who are broadening their care path towards a role in community paramedicine. Unfortunately,

this does not tackle the strong underpinning of education for all Paramedics faced with an evolving role of the profession as seen in community paramedicine, extended care and remote areas [3 p. 7].

While the concept is not yet well established in North America or Canada, degree-level Paramedic programs exist in considerable numbers elsewhere in the world. This would be considered a sustainable long-term approach to broadening Paramedic education that would provide comparable education to that of other health professions, such as Physicians, Nurses and Social Workers to name a few [3 p. 7].

Community paramedicine has a wider requirement to ensure that its role is clearly defined, understood and acknowledged within paramedicine, amongst other healthcare profes-



sions as well by the institutions that fund as well as regulate the provision of health services which constitute the "distinctive activities

and responsibilities of Community Paramedic" [3 p. 7]. [CP](#)

CONFLICT OF INTEREST:

The author declares he does not have any conflict of interest with the educational programs highlighted or with the International Board of Specialty Certifications (IBSC)

ABOUT THE AUTHOR

Chris is a graduate of Loyalist College's Primary Care Paramedic program (Bancroft, ON), Durham College's (Oshawa, ON) Advance Care Paramedic and currently pursuing his Bachelor of Health Science from Thompson Rivers University. Chris began his prehospital care career in 1997 working as an EMR in Alberta's oil and gas industry and has enjoyed the privilege of working as a Primary Care and Advanced Care

Paramedic in Ontario, Northern Manitoba and Alberta. In April 2018 Chris accepted a position with Advanced Paramedic Ltd. and returned to Northern Alberta as an Advanced Care Flight Paramedic for Alberta Health Services' transport medicine program. In his time away from work, Chris enjoys being at home with his wife and two children. Chris can be reached for comment at chris.farnady@gmail.com.

REFERENCES

1. Guo B, Corabian P, Yan C, Tjosvold L. Community paramedicine: Program characteristics and evaluation. Edmonton (AB): Institute of Health Economics; 2017.
2. Community paramedicine: Framework for program development [Internet]. Toronto: CSA Group; 2017 p. 13. Available from: https://cradpdf.drdc-rddc.gc.ca/PDFS/unc292/p806005_A1b.pdf
3. O'Meara P, Ruest M, Stirling C. Community paramedicine: Higher education as an enabling factor. Australasian Journal of Paramedicine [Internet]. 2014 [cited 3 January 2020];11(2):6-7. Available from: https://www.renfrewparamedics.ca/wp-content/uploads/2019/12/Community-paramedicine_higher-education-as-an-enabling-factor.pdf
4. Community Care Paramedic Program | School Information [Internet]. Centennialcollege.ca. 2020 [cited 4 January 2020]. Available from: <https://www.centennialcollege.ca/programs-courses/schools/school-of-community-and-health-studies/school-information/community-care-paramedic-program/>
5. Community Paramedic [Internet]. Saskpolytech.ca. 2020 [cited 3 January 2020]. Available from: <https://saskpolytech.ca/programs-and-courses/programs/Community-Paramedic.aspx>
6. Community & Health - Mount Royal University - Calgary, Alberta, Canada [Internet]. Mtroyal.ca. 2020 [cited 3 January 2020]. Available from: <https://www.mtroyal.ca/ProgramsCourses/ContinuingEducation/healthhuman-service/paramedicine-extension.htm>
7. CE 1300: Certified Community Paramedic Review Course [Internet]. Columbiasouthern.edu. 2020 [cited 3 January 2020]. Available from: <https://www.columbiasouthern.edu/online-degree/continuing-education/current-online-ceu-courses/medical-healthcare/community-paramedic-certification-review-course>
8. IBSC & BCCTPC - Benefits [Internet]. Ibscertifications.org. 2020 [cited 4 January 2020]. Available from: <https://www.ibscertifications.org/about/benefits>



VOLUNTEERS NEEDED



GLOBALMEDIC
www.globalmedic.ca

Disaster Response - Water Purification - Field Hospitals - Emergency Medical Care - Search and Rescue



A LOOK AT BCEHS' PARAMEDIC RESPONSE TO OVERDOSE CALLS ACROSS BC

Submitted by BCEHS

BC Emergency Health Services (BCEHS) is the sole provider of out-of-hospital emergency care and inter-facility transfer in British Columbia, and is the largest emergency medical service in Canada.

BC Emergency Health Services (BCEHS) paramedics continue to be called to an incredibly high number of overdoses across the province. In 2019 that amounted to 24,166 overdose calls, or an average of 66 calls each day for a potential overdose.

BCEHS has been monitoring the overdose crisis since it began in 2016 by tracking the number of 9-1-1 calls we receive and respond to for a potential overdose.

Between 2004 and 2015, overdose calls in BC fluctuated from 10,000 - 15,000 a year. But in 2016, BCEHS saw a dramatic increase in overdose call volumes and by 2017 it amounted to more than 23,000 calls a year.

The experience of BCEHS mirrors other provincial health agencies, including the BC Coroner Service,

which reported a spike in illicit drug deaths in 2016, and an increasing trend of illicit drug deaths where fentanyl was detected.

For the last three years the total number of overdose calls BCEHS paramedics attend has remained steady – but this steady volume of overdose calls (now, more than 24,000 calls a year) is double what it was before the overdose crisis began.

OPIOID OVERDOSE, PARAMEDIC PRACTICE

When the overdose crisis began, BCEHS worked closely with the BC Centre for Disease Control (BCCDC) and our health authority partners to develop best practice guidelines for paramedic response to opioid overdose.

Practice guidelines included a major update to the dosing regimen for naloxone. Specifically, due to the presence of substances such as carfentanil and other fentanyl analogues,

BCEHS elected to begin with a standard dose of 0.4 mg naloxone for the first and second doses, and double for the third and subsequent doses to a maximum single dose of 10mg. In most cases, patients respond to doses of 0.4 or 0.8mg and the high doses are rarely needed.

However, the primary objective of paramedics for patient care in an overdose setting is to focus on airway management and early oxygenation.

PARAMEDICS ON THE FRONT LINES

Christa Zaganas is a paramedic at Ambulance Station 248 in the middle of Vancouver's Downtown Eastside. Zaganas regularly responds to overdoses. "I can tell you there is no typical overdose patient. This crisis is affecting people from all walks of life."

The BCCDC has distributed more than 100,000 take home naloxone kits to the public and paramedics

now find many potential overdose patients who have already received naloxone before they arrive on scene, and in many cases the patient has begun recovery from the overdose.

Paramedics also deal with complications from an overdose including aspiration, trauma, frostbite, withdrawal symptoms and other effects.

As a result of the crisis, BCEHS paramedics have become community advocates supporting access to overdose prevention sites, access to take home naloxone kits, bystander and first responder education and harm reduction.

Importantly, paramedics in BC now have access to referral pathways for opioid overdose patients to receive ongoing clinical care, management of chronic disease, provision of opioid agonist therapy, addictions support and rehabilitation, mental health

support or financial support for food or housing.

Paramedics provide care and service to prevent future overdoses and support access to programs to manage addictions.

EFFORTS TO PREVENT OVERDOSES IN VICTORIA

In Victoria, BCEHS paramedics have been full-time staff members at the city's overdose prevention site, The Harbour, since 2018. At The Harbour, paramedics work alongside allied health care workers, including staff from Vancouver Island Health Authority.

Of the more than 40 overdose prevention sites in BC, this is the only one employing full-time BCEHS paramedics.

In its first year, paramedics at The Harbour reversed more than 200

overdoses at the site and prevented about 196 ambulance responses.

Four BCEHS paramedics, on rotation covering seven days a week, respond to about 25 potential overdoses a month.

Paramedics on site also provide their expertise in identifying serious illness and injuries and providing early medical intervention and medical referrals for the site's clients.

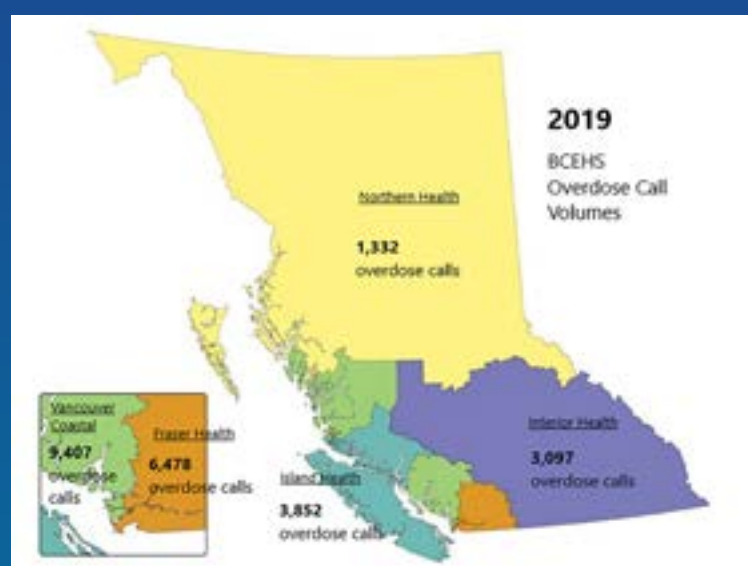
It's a privilege, said one paramedic who works at the site, to see clients regularly. "It's something you don't get when responding to a series of medical emergencies." [cP](#)

WITH CONTRIBUTIONS BY BCEHS STAFF:

Joe Acker, Director, Clinical & Professional Practice

Shannon Miller, Communications Officer

A CLOSER LOOK AT OPIOID OVERDOSE CALLS ACROSS BC



Overdose calls are tracked across the provincial health authorities and the data reveals very few communities in BC are immune from the overdose crisis. Vancouver Coastal Health and Fraser Health have the highest volume of overdose calls – they also serve 50 per cent of BC's population. Here is a break-

down of 2019 overdose calls by health authority:

- Vancouver Coastal: 9,407 (39% of total calls)
- Fraser Health: 6,478 (27% of total calls)
- Vancouver Island: 3,852 (16% of total calls)
- Interior Health: 3,097 (13% of total calls)
- Northern Health: 1,332 (5% of total calls)

In 2019, Vancouver, Surrey and Victoria remained the top three communities in terms of overdose calls. Both Surrey and Victoria had slightly lower overdose call numbers in 2019, compared to 2018; Vancouver was slightly up, by eight per cent.

Here is a closer look at the top communities for overdose calls for 2019:

1. Vancouver 8,589
2. Surrey 2,151
3. Victoria 1,412
4. Abbotsford 943
5. Kelowna 869
6. Prince George 626
7. Kamloops 613
8. Nanaimo 561
9. Chilliwack 560
10. Burnaby 521

UK PARAMEDIC STUDENT'S EXPERIENCES IN VANCOUVER

By Laura Finch

I am a 22-year-old Paramedic Science student at the University of Surrey in the UK. The 3-year degree programme is split equally between university and working shifts with the South East Coast Ambulance Service. In summer 2019 I had a 3-week placement with the British Columbia Emergency Health Service.

UK PARAMEDIC STUDENT'S EXPERIENCES IN VANCOUVER

Between our second and final

year of study we have the chance to organise an Elective Placement to explore practice areas of interest or investigate career prospects. Whilst the University provides some organisational support and insurance, our electives are student-led and require us to find a placement provider and fund costs.

I grasped the opportunity to organise my placement in Canada and was luckily put in touch with Paramedic Practice Leader Leon Baranowski of BCEHS in Vancouver by my ex-lecturer Lucas Hawkes-Frost. I aimed to compare Canadian practice and systems to the UK's, gain an under-

standing of different ways of working as a paramedic internationally and identify the training required to work within specialist roles.

Ready to stick out in my greens amongst the sea of navy blue, I felt nervously excited when I arrived at the BCEHS headquarters. I was immediately put at ease and my excitement increased as we ran through my schedule. It was fascinating to hear about the organisation's recent progression and was surprised to learn that unlike the standardisation of UK's National Health Service, the Canadian health services operate provincially. However, after hearing



Visiting the beautiful Jericho Beach during my shift with Paramedic Specialist, Jodie Buttermann, (left) and Advanced Care Paramedic, Christiana Gregory (right).

more about British Columbia's demographics, unique geography and climate I could understand why providing health care was a logistical nightmare!

Gaining an insight into the running of an ambulance service furthered my appreciation of all aspects that must integrate to form a functioning organisation. I particularly admired the Paramedic Practice Leaders using their clinical experience to help improve the service. Whilst acknowledging that this progression would scale over a number of years, I left with the sense that it was an exciting time to be part of BCEHS.

I spent the rest of my first day being introduced to many people in dispatch and meetings. Everyone was friendly, open and enthusiastic to talk about their role and despite leaving with a brain overflowing with new information, my first impressions were very positive.

The (UK!) Surrey area where I work is a world away from Vancouver. Many of my shifts include long transfers through winding country roads and I wasn't quite prepared for the hectic city pace! But working my first shifts on SRVs with paramedic specialists was the perfect introduction. As the token tourist I appreciated that paramedics Jodi, Christiana and Rico took the time to point out the sights!

I was in awe of beautiful areas like Jericho Beach and North Vancouver but it was the Downtown Eastside that I found most eye-opening. Although I had heard a little about the mental health and drug crisis, to be fronted by people shooting up heroin at 8:30am was still a surprise. I was interested to hear about future implementations that might help relieve the situation.

Observing assessment of high acuity patients and management of crews by paramedic specialists was invaluable experience. One memorable job was a traumatic brain injury patient who warranted efficient

management and transfer to hospital. Management and co-ordination of various resources were second to none and resulted in transfer from the roadside to resus and into CT in less than 15 minutes. Something I noticed from this scene and throughout the rest of my placement, was how good crews were at vocalising primary and secondary surveys, helping to keep management systematic.

Chatting to various paramedics and hospital staff helped to further my understanding of BC's health system and gauge the differences from home. Not being directly comparable to the UK's, ascertaining the different credentials and scopes of practice was challenging as well as explaining my own training and elective placement. Although coming with financial burden of fees and living costs, I realised how fortunate we are to have degree programmes. Following my study, I will hold a paramedic registration equivalent to an advanced care paramedic with slight contrasts in skills and drugs carried. It surprised me to learn that your primary care paramedics must move from bigger cities to work by pager or stand-by. Which gave me a great appreciation of their commitment to gaining full time employment in the profession.

A similar registration route is also available in the UK and most paramedics with long service years followed this traditional path. I love the ambulance service's diversity and the ability to absorb the 'best bits' from an array of practice styles. This is something I feel should be celebrated where each paramedic can integrate into a team focusing on patient care which is why we chose to be part of this profession. Even after just two shifts, I sensed a good morale within BCEHS and admired paramedics' energy and upbeat nature.

During my second week I was able to explore BCEHS's specialist programmes starting with the Critical Care Team. Newly acquired familiarisation with BC's geography

meant I was not surprised that the Air Ambulance was such an integral part of the service, and I was in awe of some of the stories shared by Ward and Graeme, who kindly welcomed me for the day. Their management of some patients sounded near on impossible and even more so when they explained long and complicated transfers they've previously undertaken with critically unwell patients. Viewing the aircraft's compact work space only increased my respect for this high-pressure role. Being every student paramedic's dream to ride out with HEMS, I couldn't believe my luck when a call came in and we flew over breath-taking views of the remote Gulf Islands.

It was incredible to observe the team's patient management. Attending a combative patient who had ingested bleach and was metabolising sedative drugs faster than they could be drawn up provided invaluable learning and I witnessed interventions that I had rarely seen performed. I was impressed by the integration and teamwork of the resources on scene.

I then took a ferry ride and drive to the stunning harbour town of Madeira Park to work with the Community Paramedic. From the moment I met Cheryl it was obvious how much she enjoyed her job and cared about her community. It was a privilege going on home visits with Cheryl and in being able to devote up to an hour for each, I witnessed some of the best patient centred care I have seen delivered in practice. Watching how this level of care was so well received by Cheryl's clients was a side of the job that cannot often be observed and showed how important the service was to the community.

I went from there to a Saturday night shift working out of Downtown Eastside! It was great to see that the service's night shift camaraderie was no different to home and I really enjoyed the shift. Despite forewarnings of typical weekend incidents, we

did not attend a single street call or intoxicated patients! Nevertheless, I still saw extreme living conditions which felt bizarre to think of as the paramedic's usual working environment.

My third week was spent with various ACP and PCP ambulance crews. I used this time to absorb as much from the experience as I could and recognise what transition between services would involve. Variation in drugs carried, administration indications and alternative equipment (loved the nifty stretchers and oversized radios!) were all differences that stood out. It was interesting to watch ACPs practice skills, like rapid sequence intubation, that aren't part of the UK paramedic's current base scope. I also recognised how well resources were dispatched with ACPs

attending patients that warranted their skill set unlike in the UK where a more general and less targeted model occurs. So, although I was at first taken aback at the seeming lack of ACPs working in comparison to the UK, it seemed that the allocation of resources helped to combat this.

Fewer alternative referral pathways were another difference and hospital transfer of lower acuity patients seemed more frequent. With population demand causing strains that mirror the UK services, I am intrigued to follow the transformation of practice as care pathways are restructured within BCEHS.

One particularly memorable patient during my final week, was a young cardiac arrest patient who, thanks to early CPR initiation by an off-shift nurse and the arriving crew's

swift intervention, went from lying, essentially dead, on the sidewalk to attempting to sit up with a GCS of 15. It was an extraordinary call to be part of and made me extremely proud of the profession as I observed the crew's amazing work.

I left Canada with a very positive impression and hope to return one day to work for your service! I am extremely grateful to Leon and Lucas for making my placement possible and to everyone at BCEHS for being so welcoming; it really was invaluable to learn about and experience working with another country's service. I was touched to receive a framed photo and challenge coin from paramedic specialist Jodie on my last day and along with my memories will be something that I treasure. [cP](#)



Admiring Vancouver from the General Hospital rooftop with one of BCEHS' Critical Care Teams.

BRIDGING THE GAP – PRIMARY HEALTH CARE PARAMEDICS/COMMUNITY PARAMEDICINE IN AUSTRALIA

By Steve Whitfield and Greg Reaburn

INTRODUCTION

The Australian health care system is a world class scheme that includes private insurance companies, not for profit organizations, allied health, public and private health providers and all three levels of government (federal, state and local). In other words, it is a rather complex network of providers, and like many other westernized countries, Australia's population is changing. Its population is growing, maturing in age and culturally, we are making poor lifestyle choices. For these reasons the Australian health system is under both functional and financial pressure.

As a result, there is increased demand for health services and a rising incidence of chronic diseases.

This means that paramedics are increasingly the first point of contact for acute illness or injury, and to provide primary health care advice and support. Also, worth considering is that Australian (like Canada) is a very large country by land mass and its population is widely spread from metropolitan centre to remote communities.

Enter the community paramedic model.

BACKGROUND

Paramedicine has recently (2018) become a registered health professional in Australia and there are approximately 18,000 registered paramedics, some are state ambulance based and others are in private services.¹ The bachelor's degree

benchmark is now the industry standard for entry into the profession within Australia. The development of post graduate education community paramedicine programs in Australia, as well as state driven programs are aiding the implementation of the community paramedicine model in metropolitan, remote and rural areas. As a developing and highly responsive workforce paramedic are increasingly being called upon to respond to not only emergency incidents but also all manner of primary health care and supportive requests. Whilst models are developing in Australia, there is evidence from similar programs in Canada that suggest appropriately experienced and trained paramedics can deliver safe, community based, interprofessional and collaborative primary health care.



DEVELOPMENT

In recognition of this trend several Australian jurisdictions are establishing dispatch and operational systems to specifically address the needs of patients with primary health care related concerns. Several Australian state ambulance services including Queensland Ambulance Service (QAS), Ambulance Service New South Wales (ASNSW), Tasmanian Ambulance and South Australia Ambulance Services (SAAS) have recently introduced programs aimed to identify and better manage the increasing volume of ambulance patients that present with primary health care needs.²

Of the remaining state/territory-based ambulance services several are considering specific programs to impact this space. Ambulance Service Victoria is currently considering a paramedic practitioner model that is largely based off the nurse practitioner and the United Kingdoms (UK) paramedic practitioner model. Skills involved within these models include pathology, prescribing and radiology to support and develop advanced treatment plans.²

RIGHT CARE AT THE RIGHT PLACE

Whilst community paramedicine programs are increasing in Australia, the latent benefits of these models are already wide reaching. The programs objectives focus on providing the right care at the right place and moving the right patient to the right clinician, thus providing patient focused care. This ultimately reduces unnecessary ambulance transport and emergency room (ER) attendance, provides better management of chronic diseases, streamlines the referral processes and provides post hospital follow-ups thereby reducing hospital re-admissions.

Historically the ambulance responded, treated and transported to hospital, and in Australia, as in many other developed countries, the cultural lean towards engaging an ambulance for non-urgent health issues has been negatively impacting the delivery of the service through increased hospital presentations and cost. Although referral processes are still developing in the metropolitan areas, they are becoming available and are reducing unnecessary ER transports. In the remote and rural areas, the health workforce is often inade-

quate. The ambulance is sometimes the only health service. Remote clinicians working in ambulance are often confronted with a broad range of acute, chronic and sometimes complex challenges in their everyday practice and it is within this context that the innovative community paramedicine model have developed.

FILLING THE GAPS

The community paramedicine model is a paramount feature in closing health care gaps in rural and remote communities where shortages in primary health care access occurs. Nationally, rural communities have historically reported poorer health statuses and poorer health outcomes when compared to urban statistics.

Assimilating the contemporary paramedic (with primary health care skills) with other health care agencies and health professionals will improve patient access to primary health care, achieve better health outcomes and provide paramedics with career enhancement. By linking the appropriate health care to the appropriate patient in an appropriate amount of time, the community paramedicine model can reduce the peril to high-risk patients through frontline primary health care support, and aid in the management of chronic disease. That said, the sustainability and ongoing development of a community paramedicine model is particularly dependent on building a strong relationship with, and integration with the existing health services.

THE FUTURE

Paramedics are regarded as trusted and respected medical professionals and historically they have provided an emergency service. However, more and more responses are the community seeking advice or support regarding primary health care needs.

The evolution of the community paramedicine model can address





unmet needs for primary health care services in the community and ultimately provide and facilitate better access for patients. There is growing evidence to suggest that the community paramedicine models trialled and developing in Australia are currently shifting the health care strategy and identifying health care reforms needed to provide best care.

Within Australia there eight State (or Territory) based ambulance services that deliver prehospital emergency medical services and whilst the focus is on responding, the current models for treatment are developing to support primary health needs.

The potential to assimilate the contemporary paramedicine delivery models that exist within the Australian health care system with other health care agencies and health professionals is a key development of the growing primary health support programs.

Throughout this article we have used the term community paramedic, however this was to reduce confusion across the international fields

of paramedicine. Where litigation and law define the parameters of paramedicine delivery, language becomes very important. As the defined role that encompasses paramedics working within primary health roles increases, the terms “community paramedic”, “extended care paramedic” or “paramedic practitioner” will vary considerably. Whilst the authors acknowledged that historically primary health care is not a standard remit of paramedic education or understanding, paramedics are well placed within the communities of Australia to positively impact primary health problems. **cP**

ABOUT THE AUTHORS



Steve Sunny Whitfield is a lecturer at Griffith University School of Medicine (paramedicine) with experience in providing health care in remote and extreme environments that

include humanitarian operations, high altitude expedition medicine, and both flight and retrieval medicine. Steve is also a keen geographer, climber, surfer and writer.

Greg Reaburn is a critical care flight paramedic, physician assistant and part-time academic at Griffith University and vice president of the Australian College of Paramedic Practitioners

Greg currently works as a critical care paramedic in a small rural town in Queensland. During down time Greg supports the single local General Practitioner at his surgery.

REFERENCES

1. Paramedicine Board of Australia Registrant data. Reporting period: 01 July 2019 to 30 September 2019. <https://www.paramedicineboard.gov.au/News/Statistics.aspx>
2. O'Meara, P., & Duthie, S. (2018). Paramedicine in Australia and New Zealand: A comparative overview. *Australian Journal of Rural Health*, 26(5), 363–368. doi:10.1111/ajr.12464

I NEVER SAW IT COMING

By B.T. Murray

In 2019 I had a very unexpected and unwanted visit from P.T.S.D. I say unexpected because I did not realize at the time what was happening. There I was making my way through day-to-day life the same as we all do until suddenly, I wasn't. I was at a dead stop. I couldn't focus. I wasn't functioning. I wasn't living. I was just ... still.

As a hobby writer I tend to write many thoughts and stories down anyways and as I recovered from this visit from P.T.S.D it became clear that I needed to express myself in some way. Although I can and have verbally talked about the experience, I found it very difficult to write a memoir

style story about it because the intensity of my memories acted as a trigger for me and just didn't allow me to move forward with it. But this poem did come out and I'm grateful to this magazine for allowing me to share it.

Never be afraid to ask for help. **cP**

ABOUT THE AUTHOR

B.T. Murray lives on the far east coast of the beautiful country of Canada. He is quite old and is not going to admit how long he has been a paramedic. Any opinions put forward in his articles, unless otherwise stated, are his alone and do not necessarily reflect those of his employer or anyone associated with him.

*Life was good
Just cruising along
I never saw it coming*

*Doing the things I've always done
Just strolling along
I never saw it coming*

*Then the fog rolled in hot
My cruise came to a sudden stop
I never saw it coming*

*The voices, they started taunting
The faces were suddenly haunting
I never saw it coming*

*I did not know if it would end
My couch became my new best friend
I never saw it coming*

*People talked, I cried and I laughed
This thing, it was really kickin' my ass
I never saw it coming*

*Death and dying, I guess I've seen too much
What I need right now is a very gentle touch
I never saw it coming*

*You need to get out, you need to go
I have a family to support, in case you didn't know
I never saw it coming*

*People kept telling me "You'll be alright"
It was a knock down, drag 'em out, brutal fight
I never saw it coming*

*But it finally happened, the dam finally broke
I was optimistic, I had reason for hope
I never saw it coming*

*The sun broke through, the fog rolled away
My daughter gave me reason to go outside and play
I never saw it coming*

*In the end I went back, I made my choice
This all made me realize that I too, have a voice
I never saw it coming*

*My family, my friendships, my ever-present wife
Now I truly know what's important in my life
And I never saw it coming*

PARAMEDIC SELF ASSESSMENT

ANSWERS >>

TREAT AND REFER

By Ron Oswald

The paramedic profession is growing and diversifying in much the same way as the nursing profession that went before it. Traditional roles remain, but research and community care are gaining footholds within the paramedic community. This issue's quiz looks at assessment and treatment without transportation, and the role of the community care paramedic.

Questions 1-10 are for emergency medical responders.

- Which of the following describes the action of working with someone to produce desired results?
 - Control
 - Consultation
 - Collaboration
 - Consolidation
- What is it called when an ambulance crew that has a patient in their care accepts care for a second patient from another ambulance crew?
 - Control
 - Consultation
 - Collaboration
 - Consolidation
- What is it called when a paramedic calls a physician to discuss a patient's presentation and seek advice about treatment plans?
 - Control
 - Consultation
 - Collaboration
 - Consolidation
- Which of the following best describes the establishment and monitoring of all components of an emergency medical service organization?
 - Control
 - Consultation
 - Collaboration
 - Consolidation
- When treatment is provided to a patient and then they are not transported because further medical care is

not required. The patient is included in the decision not to transport to hospital. What is this called?

- Refusal
 - Negligence
 - Abandonment
 - Treat and Refer
- When it would be prudent to transport a patient to hospital, but the patient is adamant that they don't want to go, and they are left home after consultation with a physician, it is generally referred to as?
 - Refusal
 - Negligence
 - Abandonment
 - Treat and Refer
 - Which of the following describes the turning over of patient care to someone who does not have the appropriate training or resources to care for the patient?
 - Refusal
 - Negligence
 - Abandonment
 - Treat and Refer
 - Failure to provide appropriate and prudent care, within a practitioner's scope of practice is described as ...
 - Refusal.
 - Negligence.
 - Abandonment.
 - Treat and Refer.
 - Why should firefighters receive medical status assessments when working at a fire scene?
 - To prevent injury
 - To identify injury
 - To give paramedics something to do
 - To fulfill mandatory insurance requirements
 - What is the term used to describe a "Form 10" as applied by a police officer? (Form 10 is the form used in Alberta for police officers to take a patient into custody because of their mental health).
 - Implied consent
 - Informed consent
 - Expressed consent
 - Involuntary consent

Questions 11-20 are for primary care paramedics.

- Why is it sometimes appropriate to treat hypoglycemia without transporting the patient to a hospital?
 - Actually, it is not appropriate
 - Because the treatment is sufficiently effective
 - Because the bystander can provide further treatments
 - Because the patient knows enough to call "911" again
- What is it called when a hypoglycemic patient is treated and left home with one of their family members?
 - Negligence
 - Collaboration
 - Consolidation
 - Abandonment
- Why is it best for consolidation to happen in the hospital setting?
 - The driver is able to take on a patient care role
 - Hospital staff can be recruited to help with patient care
 - Hospitals have washrooms for both patients and paramedics
 - Actually, the ambulance is the preferred setting for consolidation
- Which is true when assessing a patient who is in the custody of police services?
 - Someone in police custody cannot be transported in an ambulance
 - Someone in police custody cannot be transported to a public hospital
 - Police officers may perform assessments and treatments if directed by EMS
 - EMS, with online consultation or medical control determine the need for transport
- How are decisions to treat a patient, and then leave them at home made?
 - It is up to the attending paramedic
 - The decision is made by the patient
 - It is guided by protocols and

PARAMEDIC SELF ASSESSMENT

ANSWERS >>

FEBRUARY/MARCH 2020

consultation

d.) The decision is made by a family member

16. What principle informs a patient's decision to refuse transport?

- a.) Autonomy
- b.) Beneficence
- c.) Utilitarianism
- d.) Non-maleficence

17. Which patient demographic has stricter criteria for “no transport?”

- a.) Pediatric
- b.) Geriatric
- c.) Bariatric
- d.) Both (a) and (b)

18. Which patient can be treated with medication for a cardiac dysrhythmia, and left home, provided that they meet specific criteria?

- a.) Atrial Fibrillation
- b.) Ventricular Tachycardia
- c.) Supraventricular tachycardia
- d.) All patients treated for cardiac problems must be transported

19. Which of the following is a critical component of leaving a patient at home, regardless of which treatments were performed?

- a.) Written consent from patient
- b.) Presence of a competent bystander
- c.) Pre-existing goals of care for patient
- d.) There are no common criteria to leave patients home

20. How does a police officer determine the need to apply a “Form 10”? (Form 10 allows them to take someone into custody because of their mental health).

- a.) It is done at the request of a physician
- b.) It is done at the request of a paramedic
- c.) It is done at the request of a family member
- d.) It is up to the police officer to make this determination

Questions 21-30 are for advanced care paramedics.

21. Why should a patient, who was treated for hypoglycemia and is taking oral hypoglycemics, be transported to hospital even if their blood sugar level is within normal range?

- a.) Because, oral hypoglycemics can drive blood pressure up
- b.) Because, oral hypoglycemics can drive blood potassium levels down
- c.) Because, oral hypoglycemics can further lower normalized blood glucose levels
- d.) They don't need to go to hospital if their blood glucose is within normal range post Tx

22. Why can't paramedics treat and refer hyperglycemic patients in the same manner as hypoglycemic patients?

- a.) Because insulin must be refrigerated
- b.) Because paramedics can't administer insulin
- c.) Because there are too many different types of insulin
- d.) Because electrolyte levels must be watched when giving insulin

23. Community care paramedics may be required to perform out-of-hospital sutures. Which type of suture is used as a holding suture, or to anchor two wound edges?

- a.) Continuous suture
- b.) Simple interrupted suture
- c.) Horizontal mattress suture
- d.) Interrupted cruciate suture

24. Which patient, treated with adenosine, doesn't require transport to the hospital?

- a.) A seventy year old male
- b.) When it is the first time the dysrhythmia has been treated
- c.) A pediatric patient with expressed consent of the parent(s)
- d.) One who remains in normal sinus rhythm for at least five minutes

25. Which class of medication can be administered by a community care paramedic?

- a.) Neuroleptics
- b.) Corticosteroids
- c.) Antiparkinsonism agents
- d.) All of the above

26. Which is true of palliative and end of life care situations involving EMS?

- a.) The patient must be transported to hospital
- b.) It is not necessary to hand over patient care
- c.) The patient's physician must be present for referral
- d.) Must hand over of patient care to an appropriate clinician

27. Which is the most common treatment that paramedics provide for palliative patients that they don't transport?

- a.) Pain management
- b.) Fluid resuscitation
- c.) Antiemetic administration
- d.) Antineoplastic drug administration

28. Where is it acceptable for community care paramedics to perform wound closures with sutures?

- a.) Hand injuries
- b.) Facial wounds
- c.) Forearm wounds
- d.) All of the above

29. What is required for a patient to be transported to hospital without their consent?

- a.) A doctor's request
- b.) A police officer's request
- c.) Consent from a family member
- d.) All of the above

30. When can community care paramedics administer drugs for the purpose of medical aid in dying?

- a.) If directed to by the patient's physician
- b.) Paramedics cannot administer drugs for this purpose
- c.) If a physician is present during administration of the drugs
- d.) If consent is provided by the patient and/or patients family

INTERNATIONAL TRAUMA LIFE SUPPORT ROLE OF TXA IN MANAGEMENT OF TRAUMATIC HEMORRHAGE IN THE FIELD

Art Proust, MD, FACEP and Kyee Han, MBBS, FRCS, FRCM

The guidelines and references contained in this document are current as of the date of publication and in no way replace physician medical oversight.

INTRODUCTION

Hemorrhagic shock remains a serious problem for the multiple trauma patient. It is the leading cause of preventable trauma deaths after loss of airway. Rapid and effective control of exsanguinating hemorrhage has been demonstrated to markedly improve survival and outcome, especially in the combat environment. Increased use of tourni-

quets has reduced death from hemorrhagic shock in the most recent wars fought by U.S. and NATO forces.

The tactical and military environment is associated with a higher percentage of penetrating trauma and external hemorrhage than is seen with the civilian sector, in which blunt trauma predominates. This leads to the situation of ongoing hemorrhage that is difficult to control. Prompt recognition of this with transport to the appropriate facility (Trauma Center) and limiting fluid resuscitation to the level of restoring perfusion (hypotensive resuscitation) have been shown to result in improved survival for the trauma patient.

BACKGROUND

Tranexamic acid (TXA) is an antifibrinolytic that has been used for many years to assist with the management of spontaneous hemorrhaging in the hemophilia patient. The use of this agent for management of hemorrhage in combat wounds has been reported in several papers. One of the most significant findings in the CRASH-2 study is that the use of TXA is associated with a 1.5 absolute risk reduction for death from hemorrhage. Other studies show that TXA is most effective if given within 3 hours of the injury and may be detrimental if given after that time.

CONSIDERATIONS

The side effects of the agent are minimal and the contraindications are few. It is administered as a simple IV infusion, does not require refrigeration or extensive laboratory studies to allow administration (as is seen with blood products) and is inexpensive. (NOTE: Use for traumatic hemorrhage is an off label use per FDA in the United States.)

PROCEDURE

Based on local protocols and clearance, TXA should be considered in those patients who show signs of hemorrhagic shock, including tachycardia (>110 BPM) and hypotension (SBP<100) and are less than three hours from injury. Do not give TXA through the same line as blood products.

MEDICAL OVERSIGHT

Medical oversight should review current literature and develop pre-hospital EMS protocols in regard to appropriate use of TXA. Implementation of this protocol should be monitored and supervised through a quality assurance program.

CONCLUSION

ITLS believes that there is sufficient evidence to support the use of TXA in the management of traumatic hemorrhage in the adult patient, pursuant to system medical control approval. Following initial resuscitation including control of external bleeding and stabilization of airway, consideration should be given to administration of TXA during early stages of transport.

UPDATES – OCTOBER 2016

While there is no current dispute on the merits of TXA in patients

with severe extracranial hemorrhage as stated above, a 2015 systematic review was undertaken of two relevant completed randomized trials looking at the effectiveness and safety of TXA in polytrauma with traumatic brain injury. In a meta-analysis, there is a statistically significant reduction in intracranial hemorrhage. However, because the confidence intervals are wide, the quality of this evidence is low. Therefore, the effectiveness and safety of TXA in traumatic brain injury are uncertain although randomized trials are underway to investigate the problem. The authors recommend that patients with isolated traumatic brain injury should not receive TXA outside the context of a randomized trial.

UPDATES – NOVEMBER 2019

A randomized control study called CRASH- 3 has successfully been conducted and the results confirm the safety and merits of using TXA in traumatic brain injury. It has now been published in The Lancet (see reference below).

On the basis of the CRASH-2 trial results, tranexamic acid was included in guidelines for the pre-hospital care of patients with trauma. However, patients with isolated TBI were specifically excluded. The CRASH-3 trial provides evidence that tranexamic acid is safe in patients with TBI and that treatment within 3 hours of injury reduces traumatic brain injury (TBI)-related deaths.

ITLS now believes that there is enough evidence to administer TXA in patients with TBI within 3 hours from the time of injury and as early as possible, as the benefits are much greater.

Early treatment of patients with mild (GCS 13–15 and intracranial bleeding on baseline CT scan) and moderate TBI (GCS 12–9) seemed to confer the greatest mortality benefit. This finding is consistent with the

hypothesis that tranexamic acid improves outcome by reducing intracranial bleeding. Because hemorrhage expansion occurs in the hours immediately after injury, treatment delay would reduce the potential for tranexamic acid to prevent intracranial bleeding. Patients with severe TBI (GCS 8–3) might have less to gain from tranexamic acid treatment than patients with mild to moderate TBI because such patients already have extensive intracranial hemorrhage before treatment or other potentially life-threatening intracranial pathologies that are not affected by tranexamic acid.

MEDICAL OVERSIGHT

Medical oversight should review current literature and develop pre-hospital EMS protocols in regard to appropriate use of TXA. Implementation of this protocol should be monitored and supervised through a quality assurance program. [cP](#)

REFERENCES

1. Morrison JJ, et al. Military application of tranexamic acid in trauma emergency resuscitation (MATTERs) study. Arch Surg, 2012 Feb; 147(2): 113–9.
2. Shakur H et al, Effects of tranexamic acid on death, vascular occlusive events, and blood transfusion in trauma patients with significant hemorrhage (CRASH-2): a randomized, placebo-controlled trial. Lancet, 2010 Jul 3; 376(9734): 23–32.
3. Kobayashi L, Costantini TW, Coimbra R. Hypovolemic shock resuscitation. The Surgical clinics of North America. 2012;92(6):1403–23.
4. Rappold JF, Pusateri AE. Tranexamic acid in remote damage control resuscitation. Transfusion. 2013;53 Suppl 1:96S–9S.
5. Collaborators C-. Effect of tranexamic acid in traumatic brain injury: a nested randomised, placebo controlled trial (CRASH-2 Intracranial Bleed-

CURRENT THINKING

ROLE OF TXA IN MANAGEMENT OF TRAUMATIC HEMORRHAGE IN THE FIELD

INTERNATIONAL TRAUMA LIFE SUPPORT

The guidelines and references contained in this document are current as of the date of publication and in no way replace physician medical oversight.

Original Publication Date: July 2014. Updated October 2016. Updated November 2019

ABSTRACT

This is the official current thinking of International Trauma Life Support (ITLS) with regard to the role of TXA in management of traumatic hemorrhage in the pre-hospital setting.

CURRENT THINKING

It is the position of International Trauma Life Support that:

1. There is sufficient evidence to support the use of TXA in the management of traumatic hemorrhage in adult trauma patients.
2. ITLS supports the use of TXA in the acute management of traumatic hemorrhagic shock within the framework of established system medical oversight and protocols.
3. Use of TXA is recommended in conjunction with initial resuscitation and control of external bleeding. Early TXA administration should be considered following airway stabilization, control of external bleeding, and initial volume resuscitation.
4. The use of TXA should be considered during the early stages of resuscitation and transport. Current research demonstrates TXA is most effective if given within 3 hours of the injury and may be detrimental if given after that time.
5. With reference to Updates-November 2019, ITLS now believes that there is enough evidence to administer TXA in patients with TBI within 3 hours from the time of injury and as early as possible, as the benefits are much greater.

ing Study). British Med Journal. 2011;343:d3795.

6. Ker K, Edwards P, Perel P, Shakur H, Roberts I. Effect of tranexamic acid on surgical bleeding: systematic review and cumulative meta-analysis. British Med Journal. 2012;344:e3054.
7. Lockey DJ, Weaver AE, Davies GE. Practical translation of hemorrhage control techniques to the civilian trauma scene. Transfusion. 2013;53 Suppl 1:17S-22S.
8. Cap AP, Baer DG, Orman JA, Aden J, Ryan K, Blackburne LH. Tranexamic Acid for Trauma Patients: A Critical Review of the Literature. Journal of Trauma-Injury Infection & Critical Care. 2011;71(1 Supplement):S9-S14.
9. Mahmood A, Roberts I, Shakur H, Harris T, Belli A. Does tranexamic acid improve outcomes in traumatic brain injury? British Med Journal. 2016;354:i4814.
10. The CRASH- 3 Collaborators Effects of tranexamic acid on death, disability, vascular occlusive events and other morbidities in patients with acute traumatic brain injury (CRASH-3): a randomised, placebo-controlled trial www.thelancet.com October 14. 2019 [https://doi.org/10.1016/S0140-6736\(19\)32233-0](https://doi.org/10.1016/S0140-6736(19)32233-0).



THE CANADIAN RESUSCITATION OUTCOMES CONSORTIUM (CANROC) PARAMEDIC PRIMER

By Nick Sajko & Judah Goldstein

The out-of-hospital component of medical care begins with a 911 call and often ends on arrival to the Emergency Department. In this setting, a wide breadth of medical issues can be encountered, the most serious of which require out-of-hospital resuscitation (OHR). Although a broad category, OHR mainly involves two major conditions, both of which are associated with high mortality and morbidity rates. These conditions include: 1) out-of-hospital cardiac arrest (OHCA), and 2) major trauma. Taken together, they result in the deaths of 43,000 Canadians annually (1,2).

OHR takes place in a chaotic and often unpredictable environment. Paramedics have little control over where the resuscitation is initiated, the elements they encounter, or resources involved. With this in mind, implementation of new evidence-informed guidelines, specific to paramedic practice in these settings, will always be required to improve mortality

and morbidity for sudden OHCA and major trauma patients. Unfortunately, there is currently no formal Canadian data collection and reporting platform to show whether current efforts are making a difference in patient outcomes on a national scale.

Three Canadian Universities (University of Toronto, Ottawa, and British Columbia) have played roles in out-of-hospital resuscitation data collection and research initiatives through their involvement in the joint U.S. / Canadian resuscitation outcomes consortium (ROC). This initiative led to the completion of a number of large, multi-center clinical trials on the paramedic management of OHCA and major trauma. With these efforts, there has been a doubling of survival rates for out-of-hospital resuscitation over the past 10 years at ROC sites (3–5). Unfortunately, funding for this joint venture has since ended, thus demanding a new approach to ongoing resuscitation research strategies in Canada. The

opportunity now exists to expand the network beyond the current three Canadian sites so that continued improvements in resuscitation care can be realized throughout Canada.

CANADIAN RESUSCITATION OUTCOMES CONSORTIUM (CANROC)

The opportunity for a Canadian focused resuscitation research consortium has now presented itself. With the funding for the joint ROC venture ending in 2015, a national registry for OHCA and major trauma currently does not exist in Canada. Additionally, while it was proven to be a valuable endeavor, ROC did not provide a comprehensive picture of the Canadian out-of-hospital resuscitation landscape. The need for a national registry was highlighted by these prior efforts. Moreover, due to the practical realities of the Canadian geography, optimized paramedic care

is even more important as patients are not always close to specialized care centers, and often have prolonged transport times.

A Canadian-focused initiative began in 2016. Titled “CanROC”, this initiative is a population-based registry that aims to capture data from all OHCA and major trauma patients assessed by paramedics from participating sites. This will allow for the production of high-quality population-based research using both observational and interventional data. CanROC will advance our knowledge and research within the field of OHR, while providing a unique Canadian context.

THE CANROC PRIORITIES

Paramedics in Canada should be aware of CanROC’s five key priorities:

1.New World-Class Science

CanROC aims to improve the science behind out of hospital resuscitation through improved data collection from paramedic services across Canada. This initiative also aims to look at opportunities for improved management strategies after the critically ill are transported to hospital thereby linking out-of-hospital care to in-hospital management and patient outcomes. It is often challenging for paramedic services to obtain patient outcomes, therefore this initiative will promote the bi-directional flow of information. In addition, data from the pediatric population will also be collected.

2.Training

CanROC aims to increase the capacity of the resuscitation research community. In order to accomplish this, the initiative will build on the successes of the University of Toronto and Ottawa fellowship programs for resuscitation sciences and push to expand these opportunities to other centers across Canada. Paramedics interested in resuscitation research

will have a network of mentors to draw from and opportunities for graduate level training at multiple sites across Canada.

3.National Scope

While the prior ROC initiative only involved 3 Canadian centers, CanROC aims to engage stakeholders from as many regions as possible across the nation. Expanding the scope to more regions nationwide will allow CanROC to produce data that is more representative of our Canadian landscape. Many provinces or cities have already committed to participating in this national initiative. Over the past three years, CanROC has aimed to be fully inclusive, recognizing the diversity of paramedic services across Canada including the unique challenges that they face as they move towards implementation of new evidence and practice.

4. Broad Community Involvement

CanROC’s plan is to continue to establish involvement and engagement from scientists, trainees, decision makers, and all health care providers - similar to what was done with ROC. However, unique to CanROC, is the plan for expanded public engagement. CanROC aims to engage survivors, bystanders, and the public in setting research priorities and building a support structure for those most affected by sudden OHCA or major trauma.

5. Knowledge Translation and Dissemination

The final and most crucial component to the CanROC initiative is effective knowledge translation and dissemination of research results. New evidence generated by the registry and associated research endeavors that could benefit OHCA and major trauma needs to be implemented into practice as soon as possible for maximum benefit. CanROC will consult and work alongside stake-

holders and experts to develop effective means of knowledge translation and implementation through the network of involved paramedic agencies.

THE CANROC STRUCTURE

CanROC is divided into numerous groups and committees in an effort to have focused work conducted in multiple facets of this initiative, at one time. Inter-committee communication will then allow for the functioning of CanROC as a whole. In brief, the structure of CanROC is as follows:

STEERING COMMITTEE

This represents the core decision-making body for CanROC. The group includes 11 voting members to decide on matters relevant to the initiative as a whole. Regular meetings are held and transparent communication is delivered to the entirety of the CanROC assembly using multiple methods of communication.

SUPPORT COMMITTEES

Support committees enable the effective division of work and responsibility under the steering committee’s leadership. The following support committees currently play vital roles in the CanROC system:

- I) Publications and Protocol Review
- II) EMS (including paramedics, first responders, medical directors)
- III) Data Management
- IV) Data Access
- V) Cardiac Arrest
- VI) Trauma
- VII) Pediatric
- VIII) Trainees and Career Development
- IX) Public Engagement

ANNUAL CANROC ASSEMBLY

The CanROC group has met on an annually basis since its inception in 2016. The assembly has been held in Toronto, Ottawa and also in Vancouver. The purpose of the annual assembly is to discuss relevant issues regarding CanROC implementation, with a focus on new studies and initiatives. The assembly brings together all participating sites so that CanROC members can come together to share experiences.

PARAMEDIC SERVICES IN CANROC – A VITAL PARTNERSHIP

Paramedic services across Canada are the backbone to the CanROC initiative, playing a major role in the generation of data, participation in committees, and the implementation of new evidence based practice as a result of the research conducted. All paramedics working within regions involved with the CanROC registry will have access to state-of-the-art reporting tools that provide a breakdown of performance metrics related to patient care, demographics, and outcomes. This data will allow agencies to better understand their current performance metrics and set benchmarks for continuous quality improvement against a national standard. Participating services will have access to state of the art reporting tools. CanROC will work with training and education departments to help guide education initiatives and identify gaps in care. In addition to quality improvement, this data collection is important to the generation of new research and future implementation of new practices to improve patient outcomes.

Adding to the roles in data generation and implementation, CanROC aims to allow for the networking

of those healthcare professionals directly involved in out-of-hospital medicine (i.e. other paramedics, nurses, physicians) from all participating sites. This will foster strong connections and the effective dissemination of new standards of care.

Lastly, CanROC will provide a number of new research opportunities for paramedics interested in the resuscitation field. Opportunities to be directly involved will include a large spectrum of roles, ranging from: recruitment of patients, being part of study teams, training opportunities, graduate programs and principal investigators.

GETTING INVOLVED

Interested paramedics can get involved through two major avenues: The application of an entire service to become or join an existing CanROC site OR the independent involvement of interested responders. Details on the process of getting involved via either these two avenues can be found here: <http://canroc.org>.

Moving Forward – Continued Canadian Excellence in Resuscitation Research

The design and implementation of CanROC, a Canadian registry for outcomes associated with out-of-hospital management of OHCA and major trauma, will allow for continued improvement in the management of patients with these time sensitive, life-threatening conditions.

Canadian investigators in resuscitation research have been at the forefront for 25 years, producing work and implementing system changes to prehospital management recognized on an international level. CanROC provides the opportunity to improve patient outcomes from sudden OHCA and major trauma, while fostering a community built around the production of high quality research and evidence based

practices. Seeing these goals accomplished via CanROC will allow the continued participation of Canada as a world leader in resuscitation science.

REFERENCES

1. Heart and Stroke Foundation. Heart and Stroke Foundation Statistics [Internet]. 2014 [cited 2014 Jul 23]. Available from: <http://www.heartand-stroke.com>
2. Parachute. Ontario Injury Data Report 2018. Toronto; 2018.
3. Daya MR, Schmicker RH, Zive DM, Rea TD, Nichol G, Buick JE, et al. Out-of-hospital cardiac arrest survival improving over time: Results from the Resuscitation Outcomes Consortium (ROC). *Resuscitation*. 2015;
4. Buick JE, Drennan IR, Scales DC, Brooks SC, Byers A, Cheskes S, et al. Improving Temporal Trends in Survival and Neurological Outcomes after Out-of-Hospital Cardiac Arrest. *Circ Cardiovasc Qual Outcomes*. 2018;
5. Fordyce CB, Scheuermeyer FX, Barbic D, Schlamp R, Tallon J, Grunau B, et al. Trends in care processes and survival following prehospital resuscitation improvement initiatives for out-of-hospital cardiac arrest in British Columbia, 2006–2016. *Resuscitation*. 2018;125:118–25.



PARAMEDIC ASSOCIATION OF MANITOBA

@Pam_manitoba

Paramedic Association of Manitoba



Phone: 204-789-8040 | Email: info@paramedicsofmanitoba.ca | www.paramedicsofmanitoba.ca

PARAMEDICS SUPPORTING PALLIATIVE CARE

Paramedics in the Interlake-Eastern Health Authority in Manitoba are spending the next several months participating in education to support palliative patients in their homes. New training for paramedics will increase access to palliative care in the home for patients and families, thanks to funding made available to seven jurisdictions across Canada, including the Interlake-Eastern Regional Health Authority.

The Canadian Partnership Against Cancer (the Partnership) and the Canadian Foundation for Healthcare Improvement (CFHI) have announced that Canadians living with cancer and other life-limiting conditions will gain access to urgent palliative care when they need it, and where they want it. This will be achieved through paramedics trained in providing palliative and end-of-life care in the home, in collaboration

with other health professionals.

CITY OF WINNIPEG NEEDS MORE AMBULANCES

Data from the Fire Paramedic Service show the number of medical incidents that paramedics respond to has risen by 32% since 2015. They responded to over 89,000 medical incidents in 2019, compared to 67,600 calls five years ago.

All the while, the number of ambulances in use during this time frame has remained the same for almost a decade. Since 2011, there have been 28 ambulances responding to calls — 17 that run 24/7 and 11 during 12-hour "peak" times.

Meanwhile, paramedics are exhausted and working tirelessly to ensure patients aren't affected by this volume increase. Paramedics are now taking upward of 13 minutes to reach a patient — five minutes longer than national standards.

To maintain those standards,

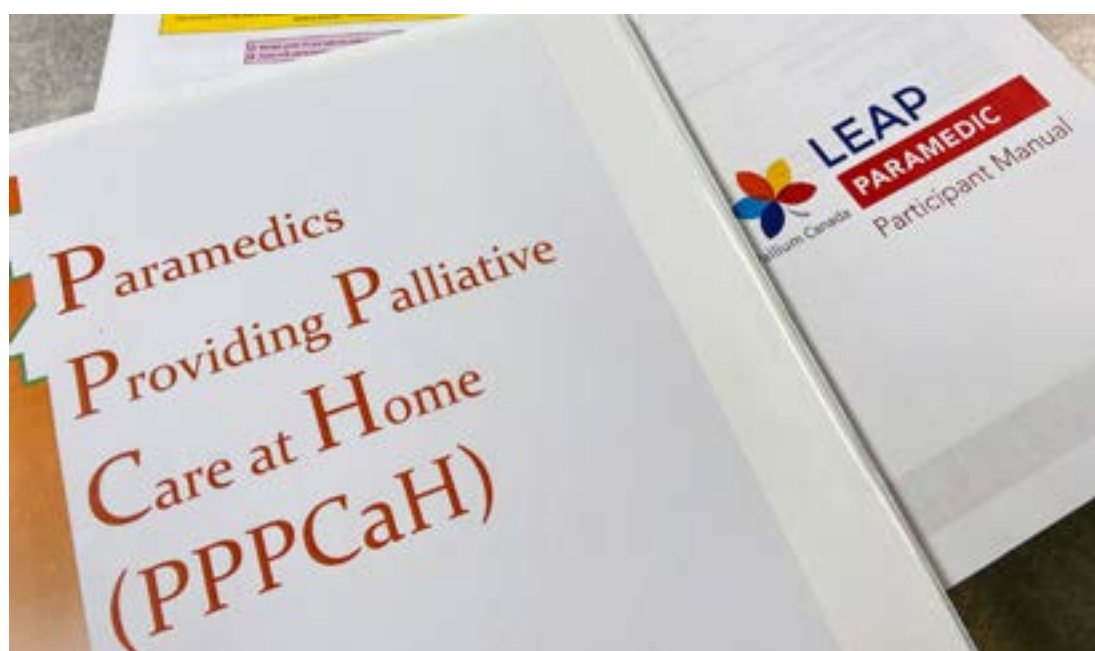


the service needs six to 11 more ambulances, which will cost over \$20 million.

PARAMEDIC LICENSE PLATES

Three years ago, the Paramedic Association of Manitoba partnered with MPI to release a paramedic specialty licence plate series. Thirty dollars of the \$70 cost goes toward the Manitoba and Winnipeg region of the Canadian Mental Health Association. While there has been an interest, the uptake hasn't been as successful as the Association had forecast. Presently, tens of thousands of dollars are earmarked for paramedic mental health initiatives in collaboration with the Canadian Mental Health Association. More license plates must be sold to release these funds.

We want to encourage ALL Manitoba paramedics to support mental health by purchasing a set of these licence plates! Whether you put them on your vehicle or simply have them as a keepsake, it will make a difference to those struggling with psychological health issues within our profession.





ONTARIO PARAMEDIC ASSOCIATION

WWW.ONTARIOPARAMEDIC.CA

BILL 141 (PUBLIC ACCESS DEFIBS) AT QUEEN'S PARK

On Monday December 9th, CARE (Cardiac Arrest Response & Education) held an education and awareness luncheon at Queens Park for all MPPs and staff.

CARE is an organization made up of cardiologists, researchers, survivors of SCA (Sudden Cardiac Arrest), families of children who experienced SCA, clinicians, 5 paramedic organizations (Toronto, Peel, York, Simcoe and Halton) and the Heart and Stroke Foundation

Two of CARE's main goals are to make it a requirement for all youth to graduate knowing how to perform CPR and use an AED as well as establishing a mandatory Provincial AED registry.

CARE was instrumental in working with MPP Robin Martin, who introduced her Private Members Bill 141 for a Provincial AED Registry on November 18th in the Legislature.

More Info: Defibrillator Registration and Public Access Act, 2019

Bill 141 passed 2nd reading on November 21st and it was referred to the Standing Committee on Social Policy.

The Ontario Paramedic Association is proud to announce a motion was passed on December 11th to have the Standing Committee on Social Policy hold hearings on the bill while the house is recessed this winter.



This event was hosted by paramedics from multiple services (left to right): Roberta Scott (Ontario Paramedic Association), Alex Lam (York Paramedic Service), Paul Snobelen (Peel Paramedic Service), Kim Oxley (County of Simcoe Paramedic Service), Jon Lan (Toronto Paramedic Service)



MPP Nina Tangri (second from right) & MPP John Fraser (right)



Robert Scott (OPA), CARE Committee, Heart and Stroke Foundation with MPP Robin Martin (4th from left) supporting her Private Members Bill 141.



The CARE Committee



MPP Effie Triantafilopoulos (second from left)



MPP Todd Smith



MPP Robin Martin introduced her Private Members Bill 141 for a Provincial AED Registry on November 18th in the Legislature.

BILL 141 (PUBLIC ACCESS DEFIBS) IN SUDBURY

On Wednesday January 29th, OPA President Darryl Wilton presented a

deposition to the standing committee on Bill 141 (Defib Registration and Public Access Defibs Act).

Bill 141 (Defib Registration and Public Access Defibs Act)

Paramedics have all sorts of wonderful medications and invasive procedures that are useless without immediate bystander interventions. Bystanders are essential to the first three (3) steps in the chain of survival:

- 1) 9-1-1
- 2) CPR
- 3) AED (Automatic External Defibrillators) - the "Defib"
- 4) Paramedics
- 5) Coronary Care Units

The only step that is absent or missing in most communities is the Defib. This is when chances of survival begin to diminish. If there is no CPR or shock from a Defib to restore a pulse, chances of survival drop by 10% per minute. There is not an emergency service in any rural or urban area that can consistently get to the patient's side, in less than 5 minutes. This is where Public Access Defibs make a difference.

The ask is very simple. I will cover what it is not and I will cover what it is:

- This does not involve more funding for paramedic services
- This does not involve more funding for fire or police services
- This does not involve more funding from the Ontario Ministry of Health
- We can save lives by enabling Ontarians with a simple piece of equipment – a Defib
- Defibs need to be legislated and regulated in public spaces where large groups of people congregate

These units are rescue-ready and a Defib program is incredibly simple to implement. It involves:

- 1) Training
- 2) Registration
- 3) Defibs

As a paramedic for 23 years, our

president operates at the Advanced Care Paramedic level. The biggest impact paramedics have ever had with regards to sudden cardiac arrest did not involve fancy medical procedures; it involved bystanders starting CPR and applying Defibs. Save rates can dramatically increase from 3.9% to 30%. In medicine, a benefit of 5% is a big number. We are talking about a minimum 26% improvement in outcomes. This is a vision that already exists and already works. The lens is non-partisan.

The reason why you are being asked to support Bill 141 today is not because this technology is new. It is because there are already thousands of Defibs in the community and we already know they save people in Sudden Cardiac Arrest.

The problem is this: there are places holding out who need to be legislated and regulated to do what is right. I now turn this over to Damien Martin. His young son Griffin Martin was at a school that was holding out. Sadly, Griffin is no longer with us.

We then played an emotional video about an actual occurrence that resulted in the death of Griffin Martin: <https://www.youtube.com/watch?v=9LqRyblrxzM>

The video was followed by a powerful presentation from Mr. Damien Martin (Griffin's dad). He methodically picked apart the impacts of not having PAD's and not having a registry. He also offered up the name of at least two children that the legislation could be named after (similar to Sabrina's Law for Anaphylaxis).

Following the submissions and video, the Standing Committee on Social Policy asked a battery of questions for the next 20 minutes. The OPA was happy to inform MPP Robin Martin (PC), MPP France Gélinas (NDP) and MPP John Fraser (OLP) on public access defibrillators and the need to have a provincial registry.

The MPP's zeroed-in on the following:

- 1) They wanted more information on the Chain of Survival
- 2) They wanted paramedic accounts on how impactful Public Access Defibs were
- 3) They were surprised that although more than 15000 defibs were sold in the GTA over the last 20 years, fewer than 10% were registered
- 4) They wanted information specific to affordability, ease of use vs. the lack of registration and regulation
- 5) Last, they wanted suggestions on places of mass-congregation (such as malls, recreation centres and schools) for where it should be legislated that defibs must be present

The OPA was proud to make a contribution to Bill 141 and we are hopeful that the parties will come together to develop formal legislation.

NATIONAL LOBBY DAYS

Paramedic Association of Canada National Lobby Days will be held in Ottawa on April 27, 2020.

Here is the tentative schedule for our events:

1. Saturday April 25 – PAC National Awards (evening only)
2. Sunday April 26 – PAC meeting and Government Relations Pre-Briefing
3. Monday April 27 – PAC National Lobby Day (0830-1700) and Government Relations Reception (1700-1900)

DRESS CODE: FORMAL OR DRESS UNIFORM

Feel free to start letting your MP know that paramedics will be on the hill April 27th and will be looking forward to meeting with Members of Parliament, Senators and their staff.

1. Please log into your chapter

website

2. Go to “My Account”

3. Click your “lobbying” button in the activities area if you would like to attend

Start planning early. We look forward to having you join us on Parliament Hill and we will be confirming attendance in March.

NOTE: Parliament Hill Centre Block is under construction so a lot of activities have been shuffled around to different federal buildings in the area (wear good shoes).



WRAPP held our annual AGM in December. Amongst the usual items that we discuss, we also held elections for some of our Officer and Director positions.

I would like to take this time to welcome and introduce our new Directors to their positions on the WRAPP Board of Directors. Lyla Fawcett was a student member with WRAPP since she was in her first year of the Paramedic Program at Conestoga College. She volunteered at nearly all of the events WRAPP ran and was hired with ROWPS last spring. We are happy to have Lyla as our new secretary.



Nathan Hughes was also a student member while attending Conestoga College. Over the past couple of

years as a full member, Nathan has helped to create relationships with various lifeguarding and first aid groups throughout the Region to help promote our profession and inter-professional workings. Nathan has accepted the newly designated role of Director of Event Coordination.



Doug Stead has been working at ROWPS for nearly 2 years now. He comes from a background with varied experiences and is proven to have a strong work ethic. Doug has taken on the role of Director of Sponsorship and we are excited to work with him to help WRAPP grow.



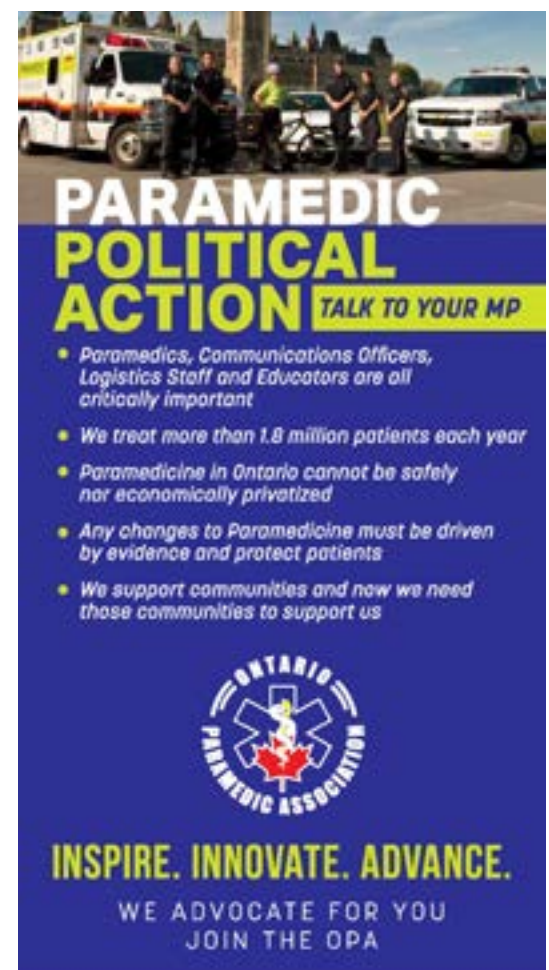
Brayden Topham was another student member of WRAPP while at Conestoga College. Brayden has contributed many new and fresh ideas to WRAPP including ways to improve member communication and member involvement with events. Brayden is our new Director of Education.

We cannot welcome the new without recognizing the contributions of those who we are losing. Jim Topham stepped down from his



role as Director of Sponsorship. We would like to acknowledge and thank him for his endless knowledge and support of WRAPP during his time on the BOD. Now he will be supporting us from the front office!

Karen Totzke stepped down from her role as treasurer as she retired from service after 36 years! On behalf of WRAPP, I would like to say thank you, not only for what you have done over the past years with WRAPP, but over the past 36 years for our community and Paramedicine as a whole. Congratulations again on your retirement and enjoy your cycling!





PROFESSIONAL PARAMEDIC ASSOCIATION OF OTTAWA

300 March Road (4th Floor) | Ottawa, ON K2K 2E2
(613) 244.0333 | mail@ottawaparamedics.ca
OttawaParamedics.ca

PPAO

Have you been part of this year’s PPAO Hockey Tournament?

Every year this event attracts many teams in the Round Robin Format with three guaranteed games. Sponsored by North City Insurance, BrokerLink and Spray-Net much fun has been had at the Richcraft and Bell Sensplex.

The afterparty at the Senate Tavern is always a night to remember.

Hockey poster 2020



AUSTRALIANS IN NORTH AMERICA

Fourteen paramedic students from Victoria University in Melbourne, Australia and two of their coordinators visited Ottawa.

The paramedic students spent one week each in New York City, Ottawa and Vancouver as part of their international practicum. They learned about frontline operations, special operations, community paramedicine and had three days or nights of ride-outs with Ottawa Paramedic Service.

Their last evening was spent downtown in the Byward Market at the Heart and Crown and of course the Sens House.



PPAO BOARD OF DIRECTORS

Our board of directors have undergone some changes in the past couple of years.

Some titles had to be adjusted to the changing times. The Director of Print media is now the Director of Publications since the only printed publication is now our Year in Review. At the 2020 AGM we will vote for a new Director of Engagement.

Read our newsletters to stay on the ball.



PARAMEDIC GROUP AUTO & HOME INSURANCE

PREFERRED GROUP RATES • PRE-CLAIM COUNSELLING • INTEREST FREE MONTHLY PAYMENTS



Exclusive provider of Paramedic Legal Expense coverage

THE NORTH CITY DIFFERENCE

For over 38 years North City Insurance has been specializing in Group Insurance, providing products specifically tailored to Paramedics and Paramedic Service personnel. We're a progressive insurance brokerage offering unprecedented product options and pricing for you and your family. We offer quality insurance coverage for your home, car, boats, RVs, and collector cars. Call for a no obligation insurance quote; our team is focused on exceeding your expectations!

**CALL 1-888-892-7176 OR
VISIT WWW.NORTHCITY.CA**



Just call for a NO OBLIGATION Quote, and get a
FREE \$20 GAS CARD* VALID AT ANY ONTARIO PETRO CANADA GAS STATION.

*Terms & conditions apply. Visit www.northcity.ca/promotions



PARAMEDIC SELF ASSESSMENT

QUIZ ANSWERS WITH RATIONALE

ABOUT THE AUTHOR

Ron Oswald works as an Advanced Care Paramedic for Alberta Health Services in Milk River, Alberta, and the Prairie EMS division of Medavie.

Please keep in mind the answers to these questions are to industry standards and may not necessarily be correct according to local protocol. If there is any discrepancy between these answers and local protocol, please follow the protocol for your area as set out by your Medical Director.

The adoption and application of the material offered in Canadian Paramedicine's quiz is at the reader's discretion and sole responsibility. The author and publisher are not responsible in any manner whatsoever for any injury or malpractice that may occur directly or indirectly from the use of this quiz.

Rationale

1. The correct answer is (c). Health care is always a collaboration between at least two people, the patient and the healthcare provider.
2. The correct answer is (d).
3. The correct answer is (b).
4. The correct answer is (a). Medical control is responsible for the protocols and monitoring of an EMS entity.
5. The correct answer is (d). This is sometimes called treat and release, but it should include some type of referral, instructions or follow up.
6. The correct answer is (a).
7. The correct answer is (c).
8. The correct answer is (b).
9. The correct answer is (a). The assessment is used to determine if the

firefighter is fit to re-turn to fighting the fire.

10. The correct answer is (d). The Form 10 is legal in Alberta, but may not be in other areas. Know the laws that apply to your place of work.
11. The correct answer is (b). Treatment includes feeding the patient after they regain consciousness.
12. The correct answer is (b). A responsible bystander is sufficient for the hand over of patient care in this situation.
13. The correct answer is (a).
14. The correct answer is (d).
15. The correct answer is (c).
16. The correct answer is (a).
17. The correct answer is (d).
18. The correct answer is (c).
19. The correct answer is (b).
20. The correct answer is (d).
21. The correct answer is (c). However, this doesn't apply to all oral hypoglycemics.
22. The correct answer is (d).
23. The correct answer is (c). It is a good tension stitch, but it is not always required.
24. The correct answer is (c). This is only one of many criteria that must be met.
25. The correct answer is (d).
26. The correct answer is (d).
27. The correct answer is (a).
28. The correct answer is (c).

29. The correct answer is (b). Involuntary consent requires the signature of either two physicians (Form 1) or the signature of a single police officer (Form 10), as per Alberta law. Other jurisdictions may have other rules.

30. The correct answer is (b).

REFERENCES

1. Lehne, R. A. (2010). Pharmacology for Nursing Care (7th ed.). St. Louis, MO: Saunders Elsevier
2. Porth, C. M., & Matfin, G. (2009). Pathophysiology Concepts of Altered Health States (8th ed.). Philadelphia, PA: Wolters Kluwer Health | Lippincott Williams & Wilkins
3. Sanders, M. J. (2007). Paramedic Textbook (3rd ed.). St. Louis, MO: Mosby Inc.
4. Tortora, G.J., & Derrickson, B. (2006). Principles of Anatomy and Physiology. Hoboken, NJ: John Wiley & Sons, Inc.
5. <https://www.aafp.org/afp/2002/1215/p2231.html>

**<< BACK TO SELF
ASSESSMENT**

Strength in numbers

A close-up shot of a person's hands using a Power-LOAD powered fastener system to secure a patient's leg. The device is black and orange, with a red trigger. The background is slightly blurred, showing an outdoor setting.

Power-LOAD
powered fastener system

A close-up shot of a person's hands using a Power-PRO XT powered ambulance cot. The cot is yellow and black, with a red trigger. The background is slightly blurred, showing an outdoor setting.

Power-PRO XT
powered ambulance cot

A close-up shot of a person's hands using a LUCAS 3, v3.1 chest compression system. The device is white and black, with a red trigger. The background is slightly blurred, showing an outdoor setting.

LUCAS 3, v3.1
chest compression system

**Stop lifting.
Start loading.
Keep going.**

One in four EMS workers will suffer a career-ending back injury within their first four years in the field.* Experience a legacy of trusted performance with the exclusive combination of Power-PRO® XT, Power-LOAD® and the LUCAS® 3, v3.1 chest compression system.

This triad of safety offers a powerful solution to help prevent injuries on the job. Improve CPR perfusion during transport** while decreasing work-related injuries when you integrate the Powered System today.

Together, we save lives | stryker.com

* Sanders, Mick J. (2011) Mosby's Paramedic Textbook (4th ed., p. 36)

** Magliocca A, Olivari D, De Giorgio D, et al. LUCAS Versus Manual Chest Compression During Ambulance Transport: A Hemodynamic Study in a Porcine Model of Cardiac Arrest. Journal of the American Heart Association 2018;8(1). Stryker Corporation or its divisions or other corporate affiliated entities own, use or have applied for the following trademarks or service marks: LUCAS, Power-PRO XT, Stryker. All other trademarks are trademarks of their respective owners or holder.