2018-2019

ANNUAL REPORT

Centre for Prehospital Care

Health Sciences North

CONTENTS

Centre for Prehospital Care

Health Sciences North

INTRODUCTION

On behalf of the staff and Medical Directors of Health Sciences North Centre for Prehospital Care (HSN CPC), it is our pleasure to present the annual report for fiscal year 2018-2019.

This report follows the template provided by the Emergency Health Regulatory and Accountability Branch, and demonstrates how our organization addresses the key performance indicators listed in the performance agreement.

We have completed another productive and successful year. Some key achievements during this fiscal year include:

- We certified 59 new paramedics
- We provided advice and online medical direction during 474 patch calls
- We electronically audited 30,363 ambulance calls
- We facilitated 141 educational sessions for paramedics

We acknowledge the exceptional work of all our staff as we continue to seek new and innovative methods of delivering our services to our stakeholders while meeting and, in some cases, exceeding the expectations defined in our performance agreement.

DR. JASON PRPIC
REGIONAL MEDICAL DIRECTOR

NICOLE SYKES
REGIONAL MANAGER

OUR PURPOSE, COMMITTMENTS AND VALUES

Our Purpose

To provide high quality health services, support learning and generate research that improves health outcomes for the people of Northeastern Ontario.

Our Commitments

We will carry out our patient care, teaching and research responsibilities with integrity, ensuring patients and families remain the focus of all we do.

We will partner with humility, valuing each person's and each community's strengths and ideas to bring the best care, education and research solutions forward.

We will provide a physically, psychologically and culturally safe environment that promotes a positive care, working and learning experience

Our Values

We believe in and will model:

Respect	Showing positive regard for each person's strengths, qualities and values
Quality	Providing patient and family-focused services that are safe, reliable, accessible (timely), efficient, effective and equitable
Transparency	Sharing information that is timely and truthful, working within the limits of law and policy
Accountability	Taking personal responsibility for our actions, behaviours and decisions
Compassion	Responding to the needs of others, showing kindness and empathy

ORGANIZATION CHART

As of March 31, 2019

Health Sciences North
Horizon Santé-Nord

Centre for Prehospital Care & Trauma Services Program

Administrative Director
Critical & Emergency Care Program
Lisa Smith

Medical Director
Emergency Department
Dr. Rob Lepage

MOHLTC - North Field Office
Emergency Health Program Management & Delivery Branch
Senior Field Manager
Stuart Mooney

HSN CPC Program Committee

Regional Program Manager
HSN CPC / TRAUMA
Nicole Sykes

Regional Medical Director
HSN CPC / TRAUMA
Dr. J. Prpic

Administrative Secretary
HSN CPC / TRAUMA
Tiffany Hembruff

Trauma Medical Advisor
Dr. P. Allison

Communication & Informatics Lead
Monique Lapointe

Quality Improvement Lead
Sylvie Michaud

Performance Measurement Lead
Jim Scott

Informatics and Certification Assistant
Carly Mohninger

Regional Education & Certification Coordinator
Corey Petrie

Trauma Case Manager
Theresa Murray

Trauma Data Analyst
Julia Philion

BH Patch Physicians

Medical Advisor
Dr. Derek Garniss

Medical Advisor
Dr. C. Loreto

TTLs
Trauma Team Leaders

Paramedic Practice Coordinators
Eric Levasseur
Marty Pilkington
Luc Simard
Cory Sohm

Paramedic Educators
Justin Bilodeau
Kim Bolton
Jason Cameron
Derrick Cremin
Jeff Fletcher
Roger Frappier
Karen Hatton
Isobel Hartley
Matt James
Vanessa Junkin
Paul Kaldwell
Katie Kirkham
Dan Langevin
Steve Merkley
Paul Myre
Daniel Raymond
Melissa Roney
Matt Thomas
Curtis Watson

Legend

HSN CPC
Trauma Services
Both

Revised: March 31, 2019

MEET THE TEAM


Nicole Sykes, Regional Manager


Eric Levasseur, Paramedic Practice Coordinator


Corey Petrie, Regional Education and Certification Coordinator


Sylvie Michaud, Quality Improvement Lead


Dr. J. Prpic, Regional Medical Director


Luc Simard, Paramedic Practice Coordinator

Centre for Prehospital Care
Health Sciences North


Monique Lapointe, Communication & Informatics Lead


Tiffany Hembruff, Administrative Secretary


Jim Scott, Performance Measurement Lead


Marty Pilkington, Paramedic Practice Coordinator


Cory Sohm, Paramedic Practice Coordinator


Carly Mohninger, Informatics and Certification Assistant

HIGHLIGHTS

Collaboration

Working with our colleagues from the Ontario Base Hospital Group (OBHG), the program continues to have a strategic focus on enhancing the quality of programming delivered, avoiding duplication in the system, and the sharing of knowledge among programs. The goal is to standardize and find efficiencies in processes wherever possible. The Health Sciences North, Centre for Prehospital Care (HSN CPC) team is involved in both formal and informal activities designed to accomplish these goals. These examples illustrate the significant degree to which the program supports a culture of collaboration when considering any new initiatives.

Work on a formal Collaboration Agreement, designed to provide a framework for implementing and overseeing the various collaboration initiatives occurring between multiple Base Hospitals, has been ongoing in 2018-19. Significant work on the architecture of the agreement continued during this reporting period. The culmination of this work will result in the first formal governance structure among the 8 Regional Base Hospital programs to enable and oversee several collaboration initiatives.

New Primary Care Paramedic (PCP) and Advanced Care Paramedic (ACP) scenarios have been created for use with initial certification events through a Provincial Working Group in collaboration with Sunnybrook Centre for Prehospital Medicine, London Health Sciences Centre, Hamilton Health Sciences, Northwestern Ontario Regional Base Hospital, ORNGE Base Hospital. This group has produced 25 new scenarios in the 2018-19 fiscal year. Plans are underway for continued development of an additional 14 ACP scenarios in 2019-20.

Collaborative sharing of educational materials amongst Base Hospital programs has resulted in the creation and revisions of 41 skill sheets with the production of video to demonstrate these skills. Ad hoc sharing of information and educational resources among Base Hospital Programs continues and has become a common occurance.

Continued progress has been made on the alignment of key procedural documents intended to support standardized implementation of the Certification Standard.

New Paramedic Certification Process

In 2018 our program's Paramedic certification process transitioned into a more modernized, evidenced based and objective evaluation process. The new simulation based process has been strategically aligned with the majority of Regional Base Hospital Programs. A variety of approaches have been used over the years to evaluate the competency of health care providers. Historically, Paramedic or student evaluations were based on informal procedures that varied significantly from one evaluator to another. This type of approach was largely unstructured and had some inherent weakness. For example, the standard to which the student was being compared was 'in the mind of the supervisor' and this made it highly subjective.

In the field of educational evaluation, the most recent developments have focused on ways to improve the scientific basis of evaluations. This involves emphasising the use of sound research on evaluation procedures while maintaining a commitment to the principles of transparency and fairness. This research has identified two key features of the evaluation process: objectivity and structure. These features, together with focusing the process on clinical situations, are reflected in the name “OSCE” which stands for “Objective Structured Clinical Exam.

Global Rating Scales (GRSs) are used as a method to score candidates that are being evaluated using OSCEs. Usually a series of scales ranging from 1-7 are used to describe important aspects of a case simulation. Candidate performance is rated according to the scales’ numeric and non-numeric descriptions.

In order to implement the new certification process, staff who were unfamiliar with the process required training that specifically focused on the GRS methodology of scoring OSCEs. In March of 2018, HSN CPC hosted an OSCE/GRS workshop for all staff, led by a certification expert from Sunnybrook Centre for Prehospital Medicine. In May of 2018 the program implemented new hire Paramedic evaluations and were able to successfully launch the new methodology. During the process, newly trained staff members were mentored by more experienced raters. The may process was repeated in June; this enabled the program to ensure newly trained staff were comfortable with the new evaluation process.

New Paramedic Certification Process: By the Numbers

	# of Days	# of Sessions	ACP New Hire Cert #	PCP New Hire Cert #
May	3	6	0	37
May Retest	1	1	0	4
June	2	4	0	5
Oct	3	5	4	8
Totals	**9**	**16**	**4**	**54**

In September of 2018 another OSCE/GRS workshop was held for all staff, including new casual staff members that were hired throughout the summer months. The workshop was conducted by Walter Tavares, Ph.D., whose research interests include assessment of clinical competence, rater cognition, simulation based learning, the development of expertise and paramedic practice. Shortly after our September workshop, newly hired staff were able to be mentored during October Paramedic new hire evaluations

The following articles provide more detailed information on these scoring systems:

Cunnington, J.P.W., Neville, A.J., & Norman, G.R. (1997). The risks of thoroughness: Reliability and validity of global ratings and checklists in an OSCE, Advances in Health Sciences Education, 1, 227-233.

Dankbaar, M.E.W., Stegers-Jager, K., Baarveld, F., van Merrienboer, J.J.G., Norman, G.R., Rutten, F.L., van Saase, J.K.C.M., & Schuit, S.C.E. (2014). Assessing the assessment in emergency care training, PLOS one, DOI: 10.1371/journal.pone.0114663.

Tavares, W., Boet, S. (2016). On the assessment of paramedic competence: a narrative review with practice implications, Prehospital and Disaster Medicine, 31 (1) 64-73.

Taveras, W., Boet, S., Theriault, R., Mallette, T., & Eva, K. (2012). Global rating scale for the assessment of paramedic clinical competence, Prehospital Emergency Care, October/December, 17 (1), 57-67.

Sunnybrook bulletin, scoring methods for objective structured clinical examinations (OSCEs)

Volunteers, Raters, and Standardized Patients pictured at the May 2018 OSCE certification event

Excellence in Paramedic Services

Jim Scott, Performance Measurement Lead and Marty Pilkington, Paramedic Practice Coordinator, featured in the photo to the left, with Nicole Sykes, Regional Manager, Centre for Prehospital Care, were both recognized for excellence in Paramedic Services, November 28, 2018 at a ceremony held at Queen's Park. The Honourable Christine Elliott, Deputy Premier of Ontario and Minister of Health and Long-Term Care recognized 77 Ontario Paramedics who have provided prehospital emergency medical services to the public in an exemplary manner for a minimum of thirty years. The bars, which are a component of the Canadian Honours System, are presented to those paramedics who are characterized by the highest standards of good conduct, industry and efficiency. Marty received his bar for 30 years of service. Jim received his bar for 40 years of service.

Recipients of the Excellence in Paramedic Services Award

EMS Exemplary Medal Background

The Emergency Medical Services Exemplary Service Medal, created on July 7, 1994, recognizes professionals in the provision of pre-hospital emergency medical services to the public, who have performed their duties in an exemplary manner, characterized by good conduct, industry and efficiency.

Recipients must have been employed with emergency medical services on or after October 31, 1991, and have completed 20 years of exemplary service, including at least 10 years in the performance of duties involving potential risk.

IQ EMS

Health Sciences North Centre for Prehospital Care, London Health Sciences Centre, Southwest Ontario Regional Base Hospital Program and Sunnybrook Centre for Prehospital Medicine continue to work collaboratively pursuing standardization of quality assurance software and working toward the delivery of a centralized data quality management solution using Intelligent Quality Evaluation & Management Suite (IQ EMS). This web based software supports the management of many base hospital continuing quality improvement endeavors including data mining, peer review and compliance auditing, secure communication with stakeholders, investigation and self-reporting, efficient work flow and document management, statistical reporting and data visualization. The IQEMS suite has been modified to support the additional base hospitals participating in this large-scale project.

2018-19 was an instrumental year in the development of IQEMS as a collaborative and integrated quality solution.

Through the work lead by the Executive Committee, the collaborative produced it's first Project Strategic Plan in November 2018 that guided the work plan in 18/19 and will continue to do so in 19/20.

Through the work of the Privacy and Policy Working Group, a process was established to take IQEMS 'offline' in case of security risks.

Through the work of the Operational Working Group and the Technical Working Group, the first collaborative iteration of IQEMS hard coded clinical filters and the associated audit forms was completed, verified, programmed and updated over a period of work spanning more than 7 months. This work was completed in 18/19, and it is anticipated that it will 'go-live' in June of 2019, retroactive to April 2019, which will kick off a comprehensive validation process guided by sound epidemiological oversight and documentation.

Paramedic Portal Ontario (PPO)

The Paramedic Portal of Ontario (PPO) completed another phase of development which included upgrades to reflect our current work and future vision. This phase included the finalization and launch of the the document manager, new demographic and certification functionality, enhanced roles for the service operator and educators, as well as incorporating a new look and feel. The next Phase of PPO is expected to launch in 2020.

Certification Standard Project

All eight Base Hospital programs continue to develop and refine procedures and processes to support implementation of the ALS PCS Certification Standard in a consistent fashion across Ontario. Several Base Hospitals have taken the lead on a specific component of the project and all have signed on to a broader Project Charter.

Paramedic App: Ontario Paramedic Clinical Guide

All eight Base Hospital Programs participated in an App working group to establish and enhance an electronic clinical reference platform. The App was deployed in January 2017 with positive anecdotal feedback. In response to a follow-up on-line survey, the Companion Document as well as a search function have been added. Additionally, the content has been updated to support ALS PCS version 4.3, 4.4, and 4.5, which came into effect May 1, 2018.

Further development will occur based on the feedback received and requirements identified by the App working group.

Professional Development

Council of Licensure, Enforcement and Regulation (CLEAR)

Congratulations to Cory Sohm, Paramedic Practice Coordinator who successfully completed the CLEAR National Certified Investigator & Inspector Training Specialized Program which was held on October 29-31, 2018 in Toronto, Ontario. The NCIT Basic and Specialized programs are intensive, hands-on training and certification programs in investigation, inspection techniques and procedures which have earned wide respect in the regulatory community.The NCIT Specialized Program was built upon the NCIT Basic program which provides a core curriculum for certification. Having this enhanced knowledge will be of great benefit to the program as investigating clinical cases is one of the core deliverables of the program under the Performance Agreement.

During the three-day, hands-on training and certification program , the NCIT Specialized program offers advanced certification in individual subject areas including:

- Advanced Interviewing Techniques: This module delves into the fundamentals on memory recall as it pertains to reconstructing the original event. Also covered in the interview technique module is behavior analysis interviewing and behavioral questioning.
- Advanced Investigative Analysis: Focuses on expanding the way investigators view, analyze and review an event. Also covered in this module is investigator written statement analysis.
- Advanced Investigative Report Development: This module contains three other important sections besides introduction to investigative report development. They are collecting, organizing and processing information, developing report formats and obtaining written statements.

Cory adds his new skills to HSN CPC staff members certified in the NCIT Basic program: Corey Petrie, Sylvie Michaud, Marty Pilkington, Dan Langevin and Jim Scott.

National Association of EMS Educators (NAEMSE) Instructor Level 1

Congratulations to Cory Sohm and Luc Simard, Paramedic Practice Coordinators, who successfully completed the NAEMSE Instructor Level 1 training on October 21, 2018 in Hamilton, Ontario. The National EMS Instructor courses have been designed and developed in accordance with the DOT/NHTSA 2002 National Guidelines for Educating EMS Instructors and the National Education Standards. The course content provides an introduction to a broad span of educational theory that is heavily reliant on brain-based learning and evidence-based best practices for all levels of experience as an EMS educator.

The course goals and objectives are:

- To provide tools and resources to educators to accelerate their growth as effective learning coaches
- To provide contemporary information on the teaching and learning process so EMS educators help their students to achieve their learning goals
- To provide opportunities for networking with other educators, mentoring by experienced educators, and a catalyst for personal growth.

National Association of Emergency Medical Services Physicians (NAEMSP)

The NAEMSP group impacts EMS internationally and HSN CPC has been an important participant in ensuring the Canadian perspective is considered. The number of Canadians that attend the conference has grown appreciably over the last several years to the point where there continues to be a distinct NAEMSP committee that represents EMS from across Canada. This committee discusses and advances EMS science as it relates to Canada including participation in the Resuscitation Outcomes Consortium (ROC) and the new CANROC, STEMI care, and the Canadian Evidence-based Protocol Project through a "Distinctly Canadian" pre-conference workshop that is included in the symposium agenda.

Nicole Sykes and Corey Petrie attended the 2019 National Association of EMS Physicians (NAEMSP) Annual Meeting and Scientific Assembly, in Austin, Texas.

Learning Essential Approaches to Palliative and End-of-Life Care (LEAP Paramedic)

LEAP Paramedic is a blended learning program that provides learners with the essential skills and competencies of the palliative care approach. This course takes an interprofessional approach, helps link paramedics and Emergency Medical Service professionals to local palliative care resources and aims to change the practice to include palliative care on-site. Congratulations to Corey Petrie, Sylvie Michaud, Eric Leveasseur, Marty Pilkington, and Luc Simard, Paramedic Practice Coordinators for completing the LEAP Paramedic Program.

Just Culture Workshop

The HSN Centre for Prehospital Care coordinated a Just Culture Workshop event, June 26-28, 2019, presented by Paul LeSage. Everyone who manages, leads, or operates in a high-consequence, high reliability domain is constantly faced with how to mitigate risk, improve performance, and limit errors. This is especially important in today's complex, interactive environments, where teamwork and communication are key components to success. The two day training introduced how six Key Focus Points are interlinked, and how we can improve outcomes and organizational culture.

The training used actual scenarios, transcripts, research, and the most recent information available from several high consequence domains to provide those attending with an experience that hopefully provided an insight into a different way of thinking about human error, at-risk behavior, and system failures.

HSN CPC Timmins office moves!

Monday, October 29, 2018 marked the grand opening of the Integrated Emergency Services Complex (IESC), a state of the art facility that provides training and services for police, fire and paramedic services located on the property of Northern College - South Porcupine Main Campus. In the spirit of true system integration, HSN CPC Timmins office moved into the complex where program staff have the ability to have routine interaction with Paramedic Service quality and education staff and are accessible to paramedics at their point of deployment.

Construction of the new Timmins Office: Nicole Sykes, Corey Petrie, and Marty Pilkington

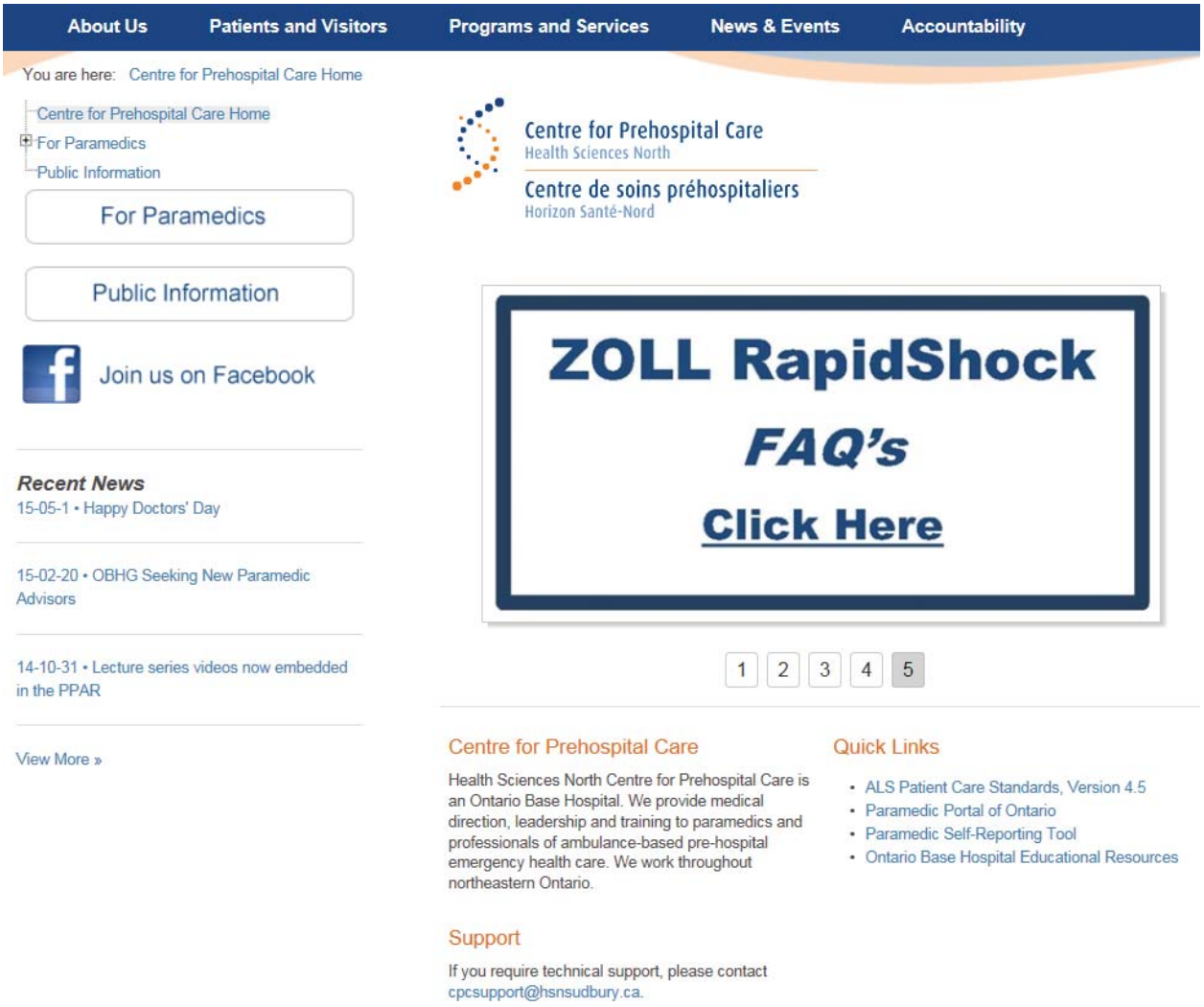
Eric Levasseur and Luc Simard, Paramedic Practice Coordinators, two of the raters at the May 2018 OSCE certification event at the Centre for Prehospital Care in Sudbury, ON

Paramedic Week Ceremony 2018

Paramedics on route to WAHA

Centre for Prehospital Care Website

The program's website located on the Health Sciences North platform, is a public repository for communication, policies and procedures, medication reference, forms, provincial medical directives, a library of training materials and archived presentations, upcoming events, current research activities, published research of interest and important links.



Visit Us at: https://www.hsnsudbury.ca/portalen/basehospital/

Web-Based Self-Reporting Continues

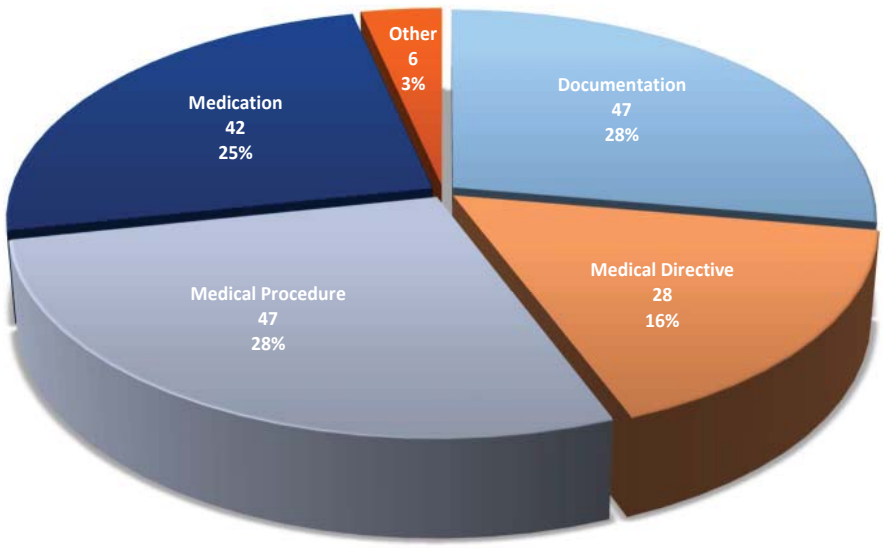
The HSN CPC strongly believes that self-reporting of adverse events is not only professional but developmental and has become part of our paramedics' standard of practice. The simple fact of recognizing an event means that some form of self-remediation has taken place. From a program prospective, we look for trending issues and develop regional education, based on actual needs. The link to access the self reporting tool via IQEMS is located on the HSN CPC website, the Paramedic Self-Reporting tool was launched in April 2014 and the activities continue to impress. There were 170 self-reports generated and reviewed in fiscal 2018-19 year.

This report currently resides on the HSN Centre for Prehospital Care Program website and is updated on a monthly basis.

Self-reports may include, but are not limited to, medical directive variances, documentation omissions or any challenges a paramedic may encounter during a call. The Self-Report form does not replace the option of contacting a Paramedic Practice Coordinator (PPC) for discussion, however serves as a standardized method of reporting.

HSN CPC SELF-REPORT BY REASON

Self Reported April 1, 2018 to March 31, 2019
N = 170



Distance Education

We continue to provide education to approximately 785 paramedics across one of the largest geographical regions in Ontario. To meet the challenge, HSN CPC continues to experiment with different methods of education delivery such as via Adobe Connect, Personal Videoconferencing (PCVC), Social Media and the Paramedic Portal of Ontario. The newer methods of delivery allow HSN CPC to enhance learning opportunities and facilitate the delivery of education allowing ease of access by paramedics. Educational pre-learning is now available for all new certification candidates online via the Paramedic Portal of Ontario. This gives the candidates an opportunity to arrive at a scheduled educational and/or evaluation session with the didactic portion of the material completed. It also gives the HSN CPC Education and Certification Coordinator the ability to track the progress of the candidates in real time.

OTN videoconferencing continues to allow the connectivity by the Northeast Region Paramedics to the Base Hospital for real time educational, certification and administrative purposes. We currently have 37 archived presentations that paramedics can view from anywhere with an internet connection at any time.

We also liaise with our provincial colleagues to provide educational opportunities in alternate areas of the province. This can be beneficial for Northeast Paramedics who reside in an area outside our region.

HSN CPC continues to work on solutions to further reduce barriers of time and distance for paramedics to participate in a higher level of learning regardless of their location.

Social Media

At HSN CPC, we monitor our social media stats to ensure continuous engagement from our paramedics and community. Our page likes have increased by 11% from 2017-18 to 2018-19 fiscal years (Figure 1 & 2). Over half (58%) of our audience are between the ages of 25 to 44 years. The majority of our audience is from Northeastern Ontario.

We continue to monitor and develop our Facebook site to ensure the highest engagement of our posts.

Trending 2018-2019

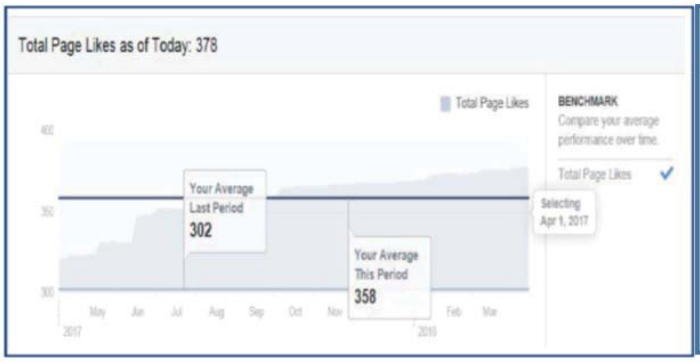


FIGURE 1

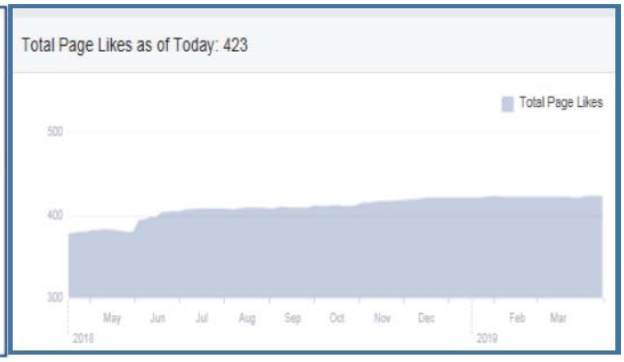


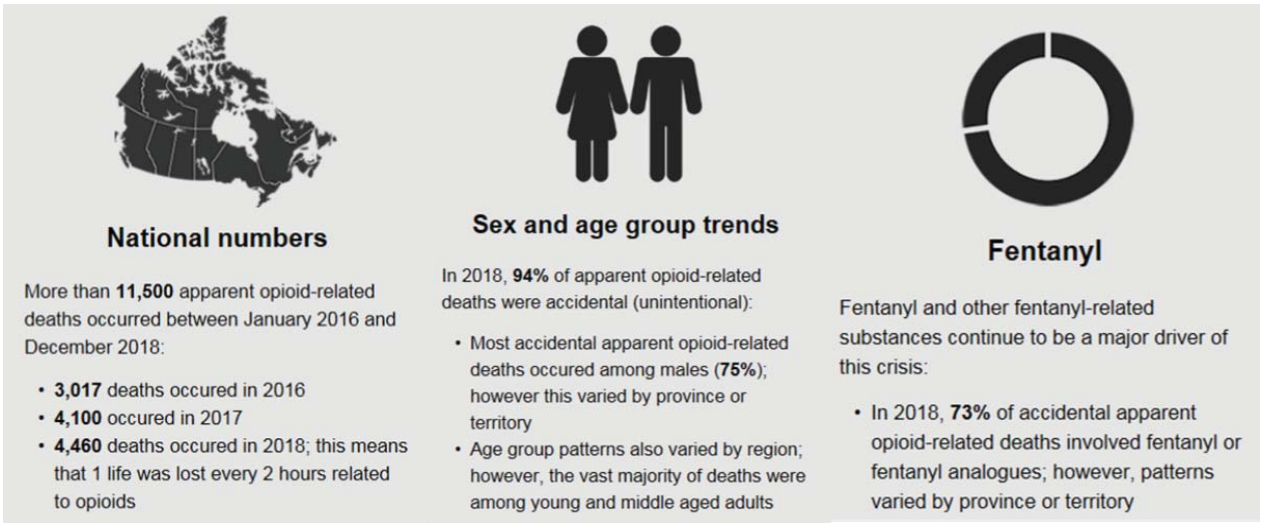
FIGURE 2

facebook.com/hsncpc

Emergency Medical Services Data on Suspected Opioid-related Overdoses in Canada

The Public Health Agency of Canada works closely with the provinces and territories to collect and share national level data on apparent opioid-related deaths and suspected opioid-related overdoses to obtain a more complete picture of the opioid crisis. Emergency Medical Services (EMS) data provides information on suspected opioid-related overdoses occurring in communities across Canada. This information helps to describe the distribution of suspected opioid-related overdoses across Canada; Monitor changes in suspected opioid-related overdoses occurrence; Inform federal, provincial and territorial government and health systems action.

Quarterly, CPC submits our EMS data to the Ontario Base Hospital Group Data Advisory Committee, which is then incorporated in the overall provincial reporting.



National numbers

More than **11,500** apparent opioid-related deaths occurred between January 2016 and December 2018:

- **3,017** deaths occured in 2016
- **4,100** occured in 2017
- **4,460** deaths occured in 2018; this means that 1 life was lost every 2 hours related to opioids

Sex and age group trends

In 2018, **94%** of apparent opioid-related deaths were accidental (unintentional):

- Most accidental apparent opioid-related deaths occured among males (**75%**); however this varied by province or territory
- Age group patterns also varied by region; however, the vast majority of deaths were among young and middle aged adults

Fentanyl

Fentanyl and other fentanyl-related substances continue to be a major driver of this crisis:

- In 2018, **73%** of accidental apparent opioid-related deaths involved fentanyl or fentanyl analogues; however, patterns varied by province or territory

Information obtained from:
https://health-infobase.canada.ca/datalab/national-surveillance-opioid-mortality.html

Advanced Airway Report

The Ontario Base Hospital Group Medical Advisory Committee (OBHG MAC) made a formal request to the OBHG Data Quality Management Subcommittee to repot data on various airway procedures. The purpose of the review was to gather information that may drive changes to the Medical Directives as it pertains to airway management. The Centre for Prehospital Care abstracted the data* and provided the following results.

	Advanced Airway Report							
	January 01, 2018 - December 31, 2018							
	Total # Pt Attempts	Total # of Skills Attempts	Average Attempts per PT*	Successful After:		Unable After:		Success Rate By Pt
Clinical Skills	Ratio	Ratio	Ratio	One	Two	One	Two	Ratio
Orotracheal Intubation	67	78	**1.8**	39	4	17	7	43
				50.0%	10.3%	21.8%	17.9%	**64%**
Naso Intubation	3	3	**1.0**	0	0	3	0	0
				0.0%	0.0%	100.0%	0.0%	**0%**
Suprglottic Airway	143	163	**1.2**	128	5	15	5	133
				78.5%	6.1%	9.2%	6.1%	**93%**

*As requested by the OBHG DQM Chair

RESEARCH

Accuracy of InoviSe STEMI Interpretation SofTware (ASSIST)

This study is looking at the use of the ECG interpretation software: Inovise 12-L Interpretive Algorithm. Manufacturer testing for Inovise using the Zoll X portable monitor was conducted in large and rural hospitals. However, this environment for testing is often controlled, with little to no vibration/movement to create artifact. In addition to its hospital application, these monitors and software are also being used in the prehospital setting but this diverse patient care environment (inside a running vehicle, rolling on a stretcher, etc.) has potential to complicate the ability for the automated interpretation feature to accurately identify STEMI positive ECGs. This interpretation is important in making destination decisions by the Paramedics. If a patient is identified as having a STEMI positive 12-lead, the patient can bypass local EDs and divert directly to institutions capable of Primary Percutaneous Coronary Intervention (PPCI). PCI is the gold-standard in management for patients with STEMI positive ECG and reduced time-to-balloon has been shown to improve patient outcomes. Analysis of the accuracy of this computerized interpretation algorithm can be used to determine appropriate policies and guidelines on the use of this interpretation versus the need for paramedic or physician interpretation prior to a decision to either transport to a specialized centre or to proceed with reperfusion. This information will also be used to feedback to the manufacturer to potentially improve the software. Improved accuracy will ensure that patients with the potential to benefit from rapid recognition and intervention (PCI or fibrinolytic therapy) will be captured. The study has finished enrollment and is currently undergoing analysis. 1283 12 Lead ECGs have been entered in the study.

Effect of Rapid Shock Implementation on Perishock Pause in Out of Hospital

In 2016, Zoll Medical Corporation received Health Canada approval for a new and improved Rapid Shock software that is able to analyze cardiac rhythms in as little as 3 seconds in automated mode. Because of this new technology, HSN CPC approached Zoll Medical with a proposal to analyze the new software under a quality assurance research project. Our study objective is to determine the effect of Rapid Shock implementation on CPR fraction and perishock pause. The study is currently in the Implementation Phase. This is an observational retrospective review of patients who received at least one shock using the Rapid Shock software. No hospital data will be abstracted. This group will be compared to a pre-implementation group of patients who received at least one shock using the standard software. The study will involve six Paramedic Services in the northeast region including:

1. Algoma District Paramedic Services
2. Greater Sudbury Paramedic Services
3. Manitoulin-Sudbury Paramedic Services
4. Nipissing Paramedic Service (Including Mattawa and Temagami)
5. Parry Sound Distric EMS
6. Sault Ste Marie EMS

Patellar Reduction in the Prehospital Setting (PRPS)

Patellar dislocation reduction is a simple procedure that can easily be performed by both Primary and Advanced Care Paramedics. Based on the epidemiology of patellar dislocation and the relative safety profile, we anticipate patients who undergo the procedure in the prehospital setting, will receive prompt pain relief without the need for large doses of pain medication, allowing expedited transport. For these reasons, the Emergency Health Services Branch of the Ministry of Health Long Term Care approved this research pilot study. Should our data show improved patient care, the procedure may be incorporated provincially. The study is currently enrolling patients and will take approximately two years to complete.

Autonomous Administration of Naloxone

Opioid overdoses are of a significant concern due to their potentially lethal inhibitory effect on the respiratory drive. Changes made to the Opioid Toxicity Medical Directive in the Advanced Life Support Patient Care Standards (ALS-PCS) allow paramedics to administer naloxone to patients presenting with opioid toxicity without first consulting a Base Hospital Physician. We evaluated whether naloxone was being administered appropriately and safely in the pre-hospital setting following removal of the mandatory patch point. A retrospective analysis was performed on patients who were administered naloxone by EMS between January 1, 2017 and June 30, 2018. Data was abstracted from EMS records regarding rationale, safety, dosage and efficacy. For patients treated within the Greater City of Sudbury, emergency department (ED) patient care records were reviewed to determine patient outcome. Results: Electronic Ambulance Call Reports (eACR) of 192 calls were reviewed where paramedics administered 1 dose of naloxone to 157 patients, of which 28 received a 2nd dose and 1 patient received 3rd dose. Of the total 186 naloxone administrations, 67 (36%) administrations were given to patients that met criteria, whereas 119 (64%) administrations were given to patients that did not meet criteria. Naloxone was administered against the medical directive, by administering the drug without testing blood glucose in 25 cases (13.4%) and dosage was incorrect in 11 cases (5.9%). Adverse events were observed in 34 cases (18.3%) of the entire population. Of the 58 ED records that were reviewed, final diagnosis was overdose (88%), post arrest (2%) and not documented (10%). Conclusion: Paramedics administered naloxone to many patients that already had adequate ventilation and oxygenation with airway management and did not require prehospital naloxone. Among the patients that did not meet criteria for naloxone administration, there were cases of combative behaviour and refusal of transport to hospital which may have been prevented without naloxone administration. Hospital records suggest that naloxone was administered appropriately as majority of the cases had a final diagnosis of overdose among the Sudbury cohort.

Epistry Epidemiologic Registry

Cardiac Arrest Registry

The Cardiac Arrest Registry captures data for every out-of-hospital cardiac arrest patient within the CanROC catchment area. The Cardiac Arrest Registry collects data on cardiac arrest events, including patient demographics, bystander interventions (such as CPR or defibrillator use), emergency response times, treatments provided by emergency medical responders (including drug therapy and CPR quality), and patient outcomes. By analyzing this data CanROC is able to look for trends, best practices, and guide future protocol development, all of which can help increase survival. Additionally, participating services have access to this data to determine areas that can be improved locally to help give patients the best chance at surviving cardiac arrest. Data collection is currently ongoing at three Canadian sites representing a population of approximately 15 million people in the provinces of Ontario and British Columbia.

EPISTRY DATA	2017	2018	Total
Treated VSA Cases	134	172	**306**
Bystander CPR (excluding Police)	70	78	**148**
Survived to Discharge	6	6	**12**
Police CPR before Fire/EMS arrival	1	2	**3**
Survived to Discharge	0	0	**0**
No Bystander CPR	48	68	**116**
Survived to Discharge	1	2	**3**
Bystander Witnessed	52	54	**106**
EMS/Fire Witnessed	14	23	**37**
Public AED Used	7	5	**12**
PAD Shocks given before Fire/EMS	1	2	**3**
EMS/Fire Defibrillation	47	43	**90**
ETT Successful	9	37	**46**
King LT Successful	62	71	**133**
Initial Rhythm			
V-Fib or V-Tach	37	30	**67**
PEA	36	51	**87**
Asystole	54	86	**140**
Cannot Obtain (Missing Data)	7	5	**12**

* Data represents Sudbury Paramedic Service

MEDICAL DELEGATION

Q1 The Host Hospital shall ensure that Emergency Medical Attendants and Paramedics are qualified to perform the Controlled Acts and/or other medical procedures as recommended by the Provincial Medical Advisory Committee (PMAC) and the Director. Describe the process.

The HSN CPC is mandated by the Ambulance Act (Ontario Reg. 257/00) to ensure that paramedics are competent to practice. The method by which paramedics are certified is strongly influenced by the Delegation of Controlled Acts policy developed by the College of Physicians and Surgeons of Ontario. In short, it is the responsibility of the Regional Base Hospital Programs to provide an ongoing process by which the "Providers" are continuously informed of best practice guidelines and new trends and are competent to practice in the prehospital environment. As no single process can accomplish these goals, the HSN CPC combines various methodologies and techniques to be utilized as part of a comprehensive continuing medical education program (CME). The goal of the CME program is to prepare paramedics to respond appropriately to a wide range of patient situations, both routinely and infrequently, encountered in the field. Paramedics who do not meet the requirements as laid out in the Certification Standard may be subject to a skills review by the Medical Director or delegate. In rare cases, a Paramedic may have their certification temporarily suspended until such a time that all mandatory CME credit hours are accumulated. Paramedic Services present paramedics who have, at a minimum, an offer of employment at the requested paramedic level to the Base Hospital for certification. Primary Care Paramedics (PCP) complete an orientation process to ensure that they are properly prepared for the evaluation process. They demonstrate competency through a process of scenarios and written questions mapped to their respective scope of practice. During the certification event, they are required to demonstrate competency through a series of scenarios, skills stations and oral questions. In addition to the requirements of a PCP, all Advanced Care Paramedic (ACP) candidates are required to have written the Ministry of Health Advanced Care Paramedic (MOH ACP) exam prior to attending.

Q2 The Host Hospital shall ensure that the Base Hospital Program establishes and maintains a procedure whereby Paramedics already certified under the authority of another Base Hospital Program Medical Director are recognized by the Base Hospital Program.

2.1 Describe the procedure used to ensure paramedics already certified under the authority of another Base Hospital Program Medical Director are recognized by the Base Hospital Program.

Cross Certification applies to paramedics already certified by an Ontario Base Hospital who are seeking certification from another Base Hospital. Once the paramedic is deemed eligible for cross-certification, the Paramedic must complete the Certification Request Form which includes:

- Certification from previous Ontario Base Hospitals.
- A declaration of any deactivation and/or decertification.
- Current certification status from previous Base Hospitals under which the paramedic is certified.
- Permission for the prospective Base Hospital to obtain information from other Base Hospitals regarding paramedic competencies and skills.

Following this, the Paramedic must successfully complete a Base Hospital orientation and/or evaluation process for any or all Auxiliary Medical Directives required which may include an interview/clinical evaluation with the medical director or delegate. It may also include an evaluation using written, scenario based, and oral examinations; but this is reserved only for skills the paramedic was not certified in with their previous Base Hospital.

After completion of these steps, the Base Hospital Medical Director will certify the paramedic.

2.2 Total number of paramedics that work for more than one employer.

As of March 31, 2019, HSN Centre for Prehospital Care had 61 paramedics who worked for more than one employer.

Q3 Provide a list of affiliated Ambulance Services with whom the Base Hospital has signed agreements.

- Algoma District Paramedic Services
- City of Greater Sudbury Paramedic Services
- Cochrane District Paramedic Services
- Sault Ste. Marie Emergency Medical Service
- Nipissing Paramedic Service
- Manitoulin-Sudbury DSB Paramedic Services
- Parry Sound District Emergency Medical Service
- Timiskaming District Emergency Medical Service
- Weeneebayko Area Health Authority Paramedic Service

3.1/3.2 Total number of ACPs and PCPs for this reporting year.

REPORTING PERIOD	TOTAL ACP	TOTAL PCP	TOTAL # OF PARAMEDICS
April 1, 2018 to March 31, 2019	75	710	785

SERVICE	ACP	PCP	TOTAL
ALGOMA DISTRICT PS	–	70	70
COCHRANE DISTRICT PS	–	90	90
GREATER SUDBURY PS	63	77	140
MANITOULIN-SUDBURY DSB PS	–	121	121
NIPISISNG PS	12	92	104
PARRY SOUND DISTRICT EMS	–	78	78
SAULT STE. MARIE EMS	–	72	72
TIMISKAMING DISTRICT EMS	–	46	46
WAHA PS	–	64	64

3.3 A list of the delegated Controlled Acts

Note: Not all components of the scope of practice are Controlled Acts

SCOPE OF PRACTICE FOR PARAMEDICS (* = SELECT AREAS OF THE REGION)

MEDICATIONS CARRIED	PRIMARY CARE	ADVANCED CARE
Acetaminophen	✓	✓
Adenosine		✓
Amiodarone (North Bay ACP)		✓
ASA	✓	✓
Atropine		✓
Calcium Gluconate		✓
50% Dextrose in water	*	✓
Dimenhydrinate (Gravol)	✓	✓
Diphenhydramine (Benadryl)	✓	✓
Dopamine		✓
Epinephrine 1:1,000	✓	✓
Epinephrine 1:10,000		✓
Glucagon	✓	✓
Ibuprophen	✓	✓
Ketorolac	✓	✓
Lidocaine (Sudbury ACP)		✓
Midazolam		✓
Morphine		✓
Naloxone	✓	✓
Nitroglycerin	✓	✓
Oxygen	✓	✓
Salbutamol (MDI and	✓	✓
Sodium Bicarbonate		✓
Xylometaxoline HCL (Otrivin)		✓

3.3 A list of the delegated Controlled Acts *continued*

SCOPE OF PRACTICE FOR PARAMEDICS (* = SELECT AREAS OF THE REGION)

AIRWAY/VENTILATORY COMPROMISE SKILLS	PRIMARY CARE	ADVANCED CARE
CPAP	✓	✓
Endotracheal Intubation (Oral/Nasal)	✓	✓
Endotracheal Suctioning		✓
King LT Insertion	✓	✓
Magill Forceps Utilization		✓
Needle Thoracostomy		✓
Oral/Nasal Airway	✓	✓
Oximetry	✓	✓
Positive Pressure Ventilation with BVM	✓	✓
Suctioning Mouth and Nose	✓	✓

CARDIOVASCULAR COMPROMISE	PRIMARY CARE	ADVANCED CARE
12 Lead Acquisition	✓	✓
12 Lead Interpretation	✓	✓
ECG Interpretation (PCP-five basic rhythms only)	✓	✓
Pacing		✓
Fluid Bolus Initiation	*	✓
Intravenous Cannulation	*	✓
Intraosseous Access		✓
Manual Defibrillation	✓	✓
Synchronized Cardioversion		✓
Emergency Home Dialysis Disconnect	✓	✓

OBSTETRICAL/NEONATAL TRANSFER	PRIMARY CARE	ADVANCED CARE
Assess and Recognize Obstetrical Emergencies	✓	✓
Delivery of the Neonate	✓	✓

DRUG ADMINISTRATION	PRIMARY CARE	ADVANCED CARE
Administer Drugs via SL; SC; PO; IM; IN, MDI and Nebulized Routes	✓	✓
Administer Drugs via ETT; IO		✓
Administer Drugs via IV	*	✓
Administer Drugs via PR		✓
PICC Line Access		✓

PRIMARY CARE PROGRAM	Greater Sudbury Paramedic Service	Manitoulin-Sudbury DSB Paramedic Services	Sault Ste Marie EMS	Algoma District Paramedic Services	Nipissing Paramedic Services[1]	Parry Sound District EMS	Timiskaming District EMS	Cochrane District Paramedic Services[2]	WAHA Paramedic Service
Medical Cardiac Arrest (Defibrillation, Termination of Resuscitation)	X	X	X	X	X	X	X	X	X
Trauma Cardiac Arrest (Defibrillation, Termination of Resuscitation)	X	X	X	X	X	X	X	X	X
Hypothermia Cardiac Arrest (Defib)	X	X	X	X	X	X	X	X	X
Foreign Body Airway Obstruction Cardiac Arrest (Defibrillation)	X	X	X	X	X	X	X	X	X
Neonatal Resuscitation	X	X	X	X	X	X	X	X	X
Return of Spontaneous Circulation	X	X	X	X	X	X	X	X	X
Cardiac Ischemia (ASA, Nitroglycerin SL)	X	X	X	X	X	X	X	X	X
Acute Cardiogenic Pulmonary Edema (Nitroglycerin SL)	X	X	X	X	X	X	X	X	X
Hypoglycemia (Dextrose IV, Glucagon IM)	X	X	X	X	X	X	X	X	X
Bronchoconstriction (Salbutamol MDI/neb, Epinephrine 1:1000 IM)	X	X	X	X	X	X	X	X	X
Moderate to Severe Allergic Reaction (Epinephrine IM, Diphenhydramine IV/IM)	X	X	X	X	X	X	X	X	X
Croup (Epinephrine 1:1000 nebulized)	X	X	X	X	X	X	X	X	X
12 Lead ECG Acquisition & Interpretation	X	X	X	X	X	X	X	X	X
Adult Analgesia (Ibuprophen, Acetaminophen, Ketorolac)	X	X	X	X	X	X	X	X	X
Opioid Toxicity (Naloxone SC/IM/IV)	X	X	X	X	X	X	X	X	X
Auxiliary Intravenous & Fluid Therapy (0.9% NaCl)	X		X		X	X	X	X	
PCP Manual Defibrillation	X	X	X	X	X	X	X	X	X
Home Dialysis Emergency Disconnect	X	X	X	X	X	X	X	X	X
Emergency Childbirth	X	X	X	X	X	X	X	X	X
Suspected Adrenal Crisis	X	X	X	X	X	X	X	X	X
Patellar Dislocation Research Protocol									
Zoll Rapid Shock Research Protocol	X	X	X	X	X	X			
Endotracheal Tube and Tracheal Suctioning	X	X	X	X	X	X	X	X	X
Auxiliary Emergency Tracheostomy Tube Reinsertion Medical Directive	X	X	X	X	X	X	X	X	X
Auxiliary Cardiogenic shock	X	X	X	X	X	X	X	X	X
Auxiliary Continuous Positive Airway Pressure	X	X	X	X	X	X	X	X	X
Auxiliary Supraglottic Airway (King LT)	X	X	X	X	X	X	X	X	X
Auxiliary Nausea and Vomiting (Dimenhydrinate IV/IM)	X	X	X	X	X	X	X	X	X
Auxiliary Chemical Exposure Medical Directive (CYANOKIT)	X						X	X	
Auxiliary Special Events Medical Directives			X		X	X			
Auxiliary Electronic Control Device Probe Removal									

[1] Nipissing Paramedic Services includes Mattawa and Temagami Ambulance Services
[2] Cochrane District EMS includes Sensenbrenner and Notre Dame Ambulance Services

ADVANCED CARE PROGRAM	Greater Sudbury Paramedic Service	Nipissing Paramedic Services
Medical Cardiac Arrest (Epinephrine 1:10,000 IV/IO/ETT, Lidocaine/Amiodarone IV/IO)[1]	X	X
Trauma Cardiac Arrest	X	X
Hypothermia Cardiac Arrest	X	X
Foreign Body Airway Obstruction Cardiac Arrest (Laryngoscopy and Magill forceps)	X	X
Neonatal Resuscitation (Epinephrine 1:10,000 IV/IO/ETT)	X	X
Return of Spontaneous Circulation (Dopamine IV)	X	X
Cardiac Ischemia (ASA, Nitroglycerin SL, Morphine IV)	X	X
12 Lead ECG Acquisition & Interpretation	X	X
Acute Cardiogenic Pulmonary Edema (Nitroglycerine SL)	X	X
Cardiogenic Shock (Dopamine IV)	X	X
Symptomatic Bradycardia (Atropine IV, Transcutaneous Pacing, Dopamine IV)	X	X
Tachydysrhythmias (Valsalva Maneuver, Adenosine IV, Lidocaine/Amiodarone IV, Synchronized Cardioversion)	X	X
Intravenous & Fluid Therapy (0.9% NaCl IV/IO)	X	X
Pediatric Intraosseous (IO) Infusion	X	X
Hypoglycemia (Dextrose IV, Glucagon IM)	X	X
Seizure (Midazolam IV/IM)	X	X
Opioid Toxicity (Naloxone SC/IM/IV)	X	X
Endotracheal Intubation – oral, nasal (Xylometazoline, Lidocaine spray)	X	X
Bronchoconstriction (Salbutamol MDI/neb, Epinephrine 1:1000 IM)	X	X
Moderate to Severe Allergic Reaction (Epinephrine 1:1000 IM, Diphenhydramine IV/IM)	X	X
Croup (Epinephrine 1:1000 neb)	X	X
Tension Pneumothorax – (Needle Thoracostomy)	X	X
Hyperkalemia (Calcium Gluconate and Salbutamol)	X	X
Adult Analgesia (Ibuprophen, Acetaminophen- PO Ketorolac IM/IV and Morphine IV/SC and Fentanyl IV/IN)	X	X
Home Dialysis Emergency Disconnect	X	X
Emergency Childbirth	X	X
Suspected Adrenal Crisis	X	X
Endotracheal Tube and Tracheal Suctioning	X	X
Patellar Dislocation Research Protocol		
Zoll Rapid Shock Research Protocol	X	X
Auxiliary Adult Intraosseous (IO) Infusion	X	X
Auxiliary Central Venous Access Device (CVAD access)	X	X
Auxiliary Continuous Positive Airway Pressure	X	X
Auxiliary Supraglottic Airway	X	X
Auxiliary Nausea and Vomiting (Dimenhydrinate IM/IV)	X	X
Auxiliary Combative Patient (Midazolam IM/IV)	X	X
Auxiliary Procedural Sedation (Midazolam IV)	X	X
Auxiliary Home Dialysis Emergency Disconnect	X	X
Auxiliary Special Events Medical Directives		X
Auxiliary Electronic Control Device Probe Removal		
Auxiliary Emergency Tracheostomy Tube Reinsertion Medical Directive	X	X
Auxiliary Chemical Exposure Medical Directive (CYANOKIT)	X	

[1] Greater Sudbury Paramedic Service – Lidocaine
Nipissing Paramedic Services - Amiodarone

Year	Month	Service	Modifications
2019	January	Manitoulin-Sudbury	Addition of Zoll Rapid Shock Research Protocol
2018	December	SSM, Algoma, Greater Sudbury, Nipissing, Parry Sound	Addition of Zoll Rapid Shock Research Protocol
2018	December	Greater Sudbury	Addition of Auxiliary Chemical Exposure Medical Directive – Administration of Antidotes for Cyanide Exposures (CYANOKIT)
2018	December	Nipissing & Greater Sudbury	Addition of ACP Auxiliary Medication Ketamine for Combative Patient Medical Directive
2018	December	All except Manitoulin-Sudbury	Addition of ACP/PCP Auxiliary Analgesia Medical Directive
2018	June	All	Addition of ACP/PCP Auxiliary Emergency Tracheostomy Tube Reinsertion Medical Directive
2018	June	Manitoulin-Sudbury	Addition of PCP Auxiliary Analgesia Medical Directive
2017	December	ALL	Emergency Child Birth
2017	July	ALL	Addition of Endotracheal Tube Suctioning
2017	July	ALL	Addition of Suspected Adrenal Crisis
2017	July	ALL	Home Dialysis move to core directives
2016	November	Temiskaming	Addition of Auxiliary Chemical Exposure Medical Directive – Administration of Antidotes for Cyanide Exposures (CYANOKIT)
2016	October	Temiskaming, Algoma, WAHA, Parry Sound, & Cochrane	Addition of PCP Auxiliary Home Dialysis Emergency Disconnect
2016	May	SSM	Addition of PCP Auxiliary Home Dialysis Emergency Disconnect
2016	April	ALL	Addition of PCP 12 Lead ECG Interpretation
2016	April	Greater Sudbury & Sault Ste. Marie	Addition of PCP Auxiliary Home Dialysis Emergency Disconnect
2016	January	Greater Sudbury	Addition of Autonomous PCP IV
2015	December	Manitoulin-Sudbury	Addition of PCP Auxiliary Home Dialysis Emergency Disconnect
2015	December	Algoma	Addition of 12 Lead ECG Acquisition
2015	June	Greater Sudbury & Nipissing	Addition of ACP Hyperkalemia Medical Directive (Calcium Gluconate and Salbutamol)
2015	June	ALL	Addition of PCP Opioid Toxicity Medical Directive (Naloxone)
2015	June	ALL	Addition Adult Analgesia Medical Directive
2014	November	ALL	Addition PCP Manual Defibrillation
2014	August	Greater Sudbury & North Bay	Addition of ACP Auxiliary Home Dialysis Emergency Disconnect
2014	July	ALL	Addition of Auxiliary Analgesia Medical Directive
2014	June	Manitoulin Sudbury	Addition of 12 Lead ECG Acquisition
2014	April	Cochrane	Addition of Auxiliary Chemical Exposure Medical Directive – Administration of Antidotes for Cyanide Exposures (CYANOKIT)
2014	May	Sault Ste Marie	Addition of Special Events Medical Directives
2014	February	North Bay	Removal of Nasal Tracheal Intubation
2013	December	Greater Sudbury	Addition of Pediatric Pain Medical Directive
2013	December	North Bay	Addition of Pediatric Pain Medical Directive
2013	July	North Bay	Addition of Auxiliary Central Venous Access Device (CVAD access)
2013	April	Timiskaming	Addition of 12 Lead ECG Acquisition
2013	April	James Bay	Addition of 12 Lead ECG Acquisition
2013	March	Sensenbrenner	Addition of Autonomous PCP IV
2013	March	Notre Dame	Addition of Autonomous PCP IV
2013	March	Cochrane	Addition of Autonomous PCP IV
2012	November	North Bay	Addition of Adult Intraosseous (IO)
2012	June	Manitoulin Sudbury	Addition of CPAP
2012	June	Cochrane	Addition of CPAP
2012	June	Notre Dame	Addition of CPAP
2012	June	Sensenbrenner	Addition of CPAP
2012	May	North Bay	Addition of 12 Lead ECG Acquisition
2012	May	Temagami	Addition of 12 Lead ECG Acquisition
2012	May	Mattawa	Addition of 12 Lead ECG Acquisition
2011	November	All	Transition to ALS PCS Version 3.0
2011	June	Parry Sound	Addition of 12 Lead ECG Acquisition
2011	May	Temagami	Addition of CPAP
2011	April	Algoma	Addition of CPAP
2011	May	ALL	Removal of Auxiliary Taser Probe Removal
2010	January	Greater Sudbury	Addition of 12 Lead ECG Interpretation to Scope of Practice for Sudbury ACP
2010	March	North Bay	Addition of 12 Lead ECG Interpretation to Scope of Practice for North Bay ACP
2010	April	Greater Sudbury	Addition of 12 Lead ECG Acquisition to Scope of Practice for PCPs
2010	April	Greater Sudbury	Addition of CPAP
2010	April	North Bay	Addition CPAP
2010	April	Parry Sound	Addition CPAP
2010	July	Sault Ste Marie	Pediatric Attenuator Cables
2010	August	North Bay	Removal of Lasix
2009	December	North Bay	Removal of Flumazenil
2009	September	James Bay	Pediatric Attenuator Cables
2009	August	Parry Sound	Removal of PCP Rectal Valium
2009	April	All	Addition of King LT

3.4 A list of the Controlled Acts that have been removed this reporting year.

There have been no Controlled Acts removed from April 1, 2018- March 31, 2019.

Q4 Does the Host Hospital adhere to the Provincial Medical Directives recommended by the PMAC and approved by the Director?

HSN Centre for Prehospital Care adheres to the latest version of the ALS PCS Version 4.5 which came into effect on May 1, 2018.

Q5 The Host Hospital shall adhere to Provincial Certification, Recertification, Change in Certification and Remediation policies, as recommended by PMAC within recommended timelines.

5.1 Have the provincial Certification, Recertification, Change in Certification and Remediation policies, as recommended by PMAC within recommended timelines been adhered to?

HSN CPC adheres to the Provincial Maintenance of Certification Policy, Appendix 6 in the Advanced Life Support Patient Care Standards, Version 4.5.

5.2 Total number of initial PCP and ACP certification awarded in the reporting year.

PERIOD	TOTAL ACP	TOTAL PCP	TOTAL
April 1, 2018 to March 31 2019	4	54	58

SERVICE	ACP	PCP	TOTAL
ALGOMA DISTRICT PS	–	7	7
COCHRANE DISTRICT PS	–	2	2
GREATER SUDBURY PS	2	2	4
MANITOULIN-SUDBURY DSB PS		5	5
NIPISSING PS	2	7	9
PARRY SOUND DISTRICT EMS	–	5	5
SAULT STE. MARIE EMS	–	8	8
TIMISKAMING DISTRICT EMS	–	-	-
WAHA PS	–	18	18

5.3 Total number of PCP and ACP reactivations in the reporting year.

REPORTING PERIOD	TOTAL ACP	TOTAL PCP	TOTAL
April 1, 2018 to March 31 2019	4	32	36

SERVICE	ACP	PCP	TOTAL
ALGOMA DISTRICT PS	–	1	1
COCHRANE DISTRICT PS	–	4	4
GREATER SUDBURY PS	3	7	10
MANITOULIN-SUDBURY DSB PS	–	5	5
NIPISSING PS	1	5	6
PARRY SOUND DISTRICT EMS	–	2	2
SAULT STE. MARIE EMS	–	5	5
TIMISKAMING DISTRICT EMS	–	1	1
WAHA PS	-	2	2

5.4 Total number of PCP and ACP deactivations in the reporting year.

REPORTING PERIOD	TOTAL ACP	TOTAL PCP	TOTAL
April 1, 2018 to March 31, 2019	2	38	40

SERVICE	ACP	PCP	TOTAL
ALGOMA DISTRICT PS	–	4	4
COCHRANE DISTRICT PS	–	6	6
GREATER SUDBURY PS	1	1	2
MANITOULIN-SUDBURY DSB PS	–	3	3
NIPISSING PS	1	4	5
PARRY SOUND DISTRICT EMS	–	5	5
SAULT STE. MARIE EMS	–	2	2
TIMISKAMING DISTRICT EMS	–	2	2
WAHA PS	–	11	11

Q6.1 Does the Medical Director practice emergency medicine full-time or part-time in the hospital emergency unit?

The medical director currently works in the HSN Emergency Department and exceeds the minimum requirement of 250 clinical hours.

6.2 Does the Medical Director hold recognized medical specialty credential(s) in emergency medicine?

The Medical Director is credentialed in Emergency Medicine as CCFP (EM).

Q7.1 Do all Base Hospital physicians have knowledge of paramedic practice and provincial medical directives?

HSN CPC has centralized all Base Hospital (BHP) patching to the Health Sciences North Emergency Department. Base Hospital Physicians are all Emergency Department Physicians and final year Residents credentialed through Health Sciences North.

The Emergency Department Physicians receive an orientation program which includes an overview of their roles and responsibilities as base hospital physicians and an introduction to the ALS Patient Care Standards. The Medical Director regularly reviews the directives and/or amendments with the emergency physicians and shares CQI findings.

Emergency Department meetings have a standing Prehospital Care Section where changes in paramedic climical practice/directives can be addressed.

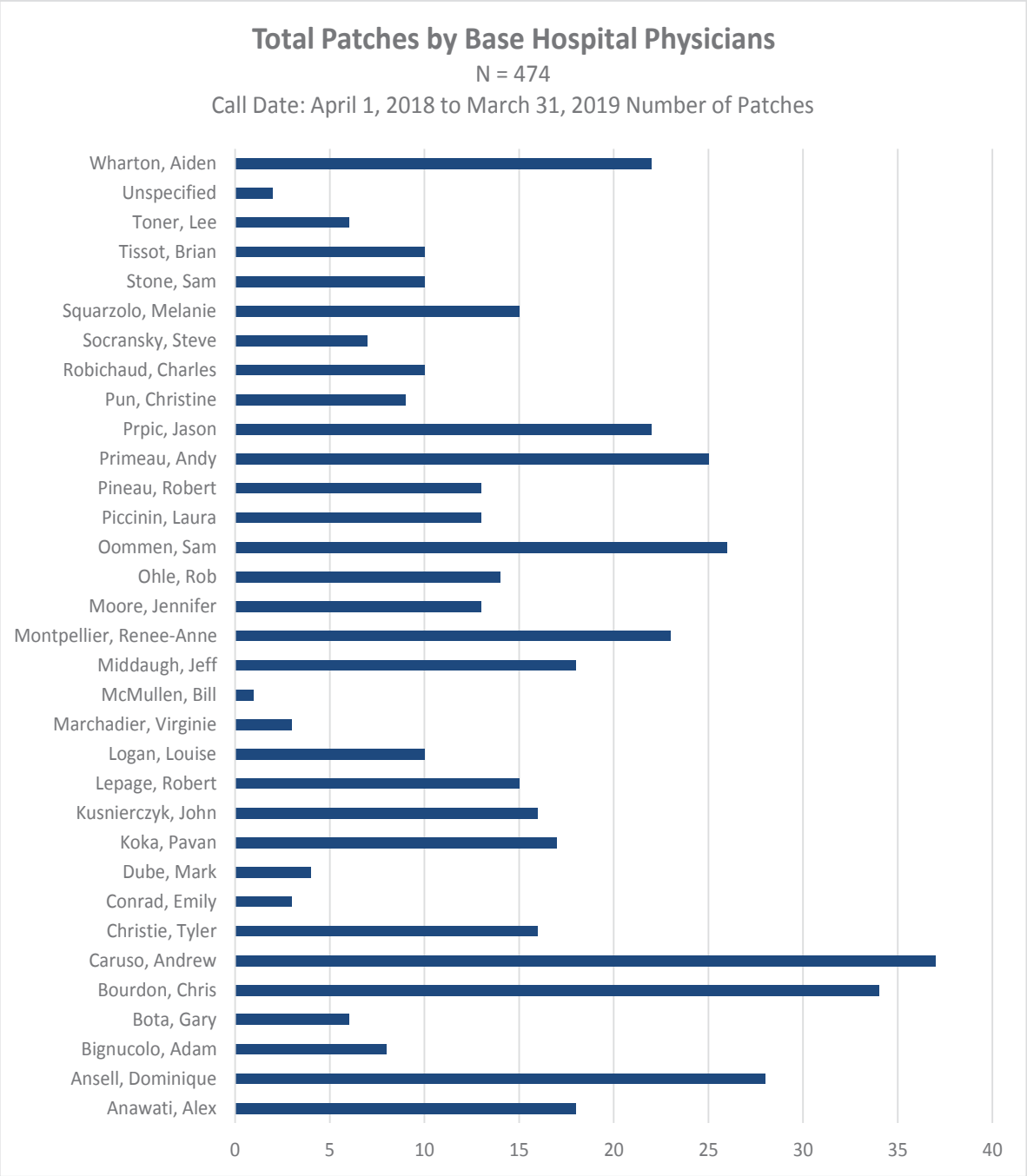
7.2 Total number of emergency physicians engaged as a Base Hospital Physician (list names).

32 Emergency Physicians were engaged as Base Hospital Physicians

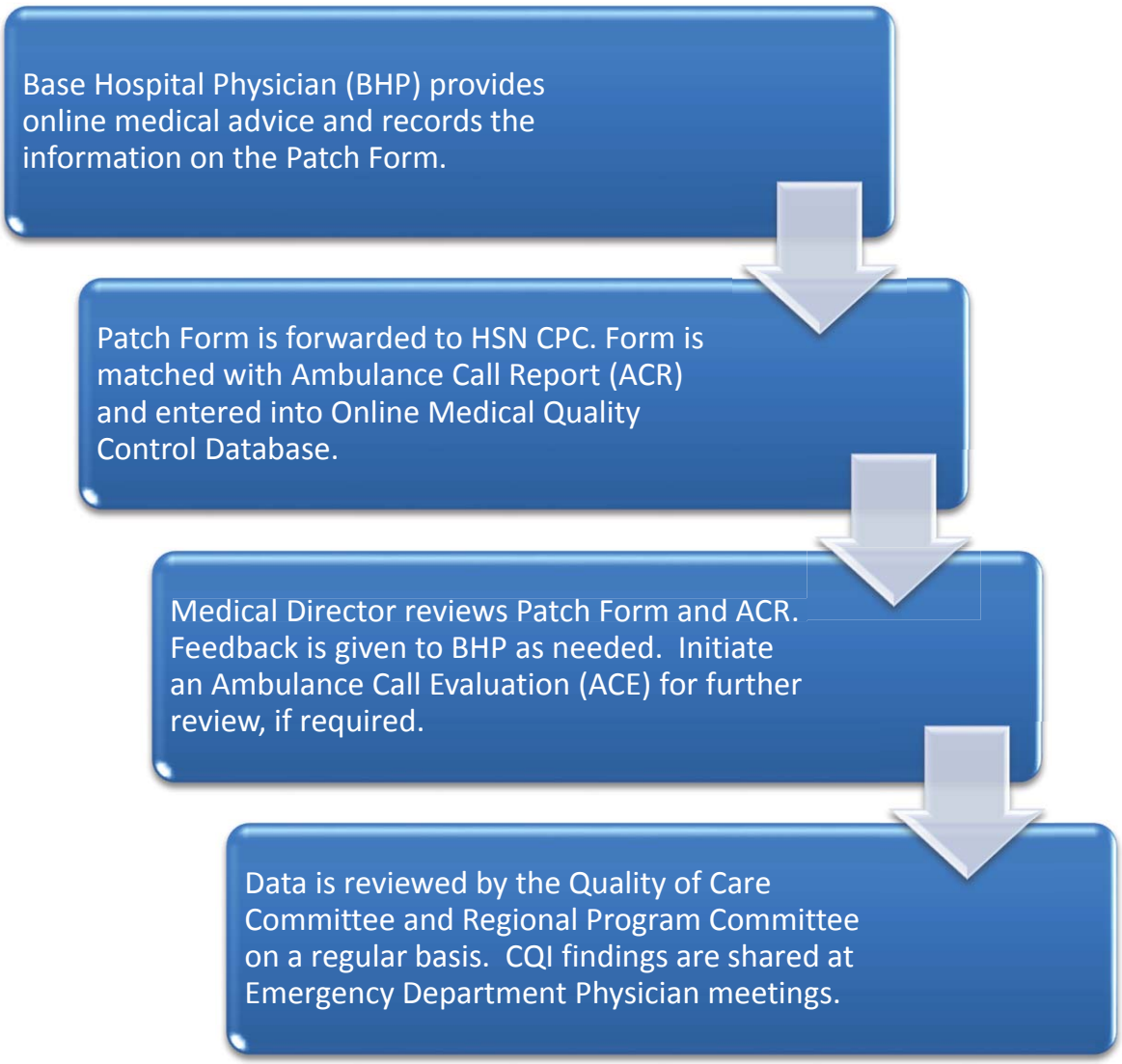
BASE HOSPITAL PHYSICIANS		
Dr. Alex Anawati	Dr. Louise Logan	Dr. Christine Pun
Dr. Dominique Ansell	Dr. Virginie Marchadier	Dr. Charles Robichaud
Dr. Adam Bignucolo	Dr. Bill McMullen	Dr. Steve Socransky
Dr. Gary Bota	Dr. Jeff Middaugh	Dr. Melanie Squarzolo
Dr. Christopher Bourdon	Dr. Renee-Anne Monpellier	Dr. Sam Stone
Dr. Andrew Caruso	Dr. Jennifer Moore	Dr. Brian Tissot
Dr. Tyler Christie	Dr. Robert Ohle	Dr. Lee Toner
Dr. Emily Conrad	Dr. Sam Oommen	Dr.Aidan Wharton
Dr. Mark Dube	Dr. Laura Piccinin	
Dr. Pavan Koka	Dr. Robert Pineau	
Dr. John Kusnierczyk	Dr. Andy Primeau	
Dr. Robert Lepage	Dr. Jason Prpic	

Q8.1 Total number of Base Hospital physician and paramedic online interactions that have been reviewed for medical quality.

Total of 474 online interactions occurred between April 1, 2018 and March 31 2019, and 100% were reviewed for medical quality.



8.2 Describe the medical quality review process.



MEDICAL OVERSIGHT

Q9 List the dates of Provincial Medical Advisory Committee (PMAC) meetings attended by a member of the Base Hospital Program.

- May 9, 2018
- September 26, 2018
- December 5, 2018
- February 12, 2019

Q10 Are Base Hospital Physicians available for on-line medical direction and control on a 24 hr/7 days a week basis?

Yes.

Q11 The Host Hospital shall ensure that the Base Hospital Program enters into and keeps in effect an agreement with each certified land ambulance service provider listed in Appendix D, with respect to the qualification, ongoing medical oversight, and re-qualification of Paramedics to deliver controlled medical acts under the authority of the Base Hospital Program Medical Director.

HSN CPC has an agreement with each land ambulance service in the Northeast. These agreements include details related to qualification, ongoing medical oversight and requalification of paramedics to deliver controlled medical acts under the authority of the Base Hospital.

Q12 The Host Hospital shall ensure that the Base Hospital Program monitors the delivery of patient care in accordance with the Advanced Life Support Patient Care Standards. Describe the actions taken to monitor the delivery of patient care in accordance with the Advanced Life Support Patient Care Standards.

Continuous Quality Improvement (CQI) is a complex responsibility that requires the collective effort of varied focus areas. Within the HSN CPC, CQI is attained through an integrated system of performance measurement, performance improvement and continuing medical education within a broad based system of quality management and medical leadership.

Performance Measurement is accomplished by collecting and reviewing ambulance call reports (ACRs) for the appropriateness and quality of advanced patient care. Skills and specific patient conditions are categorized as high or low risk procedures by HSN CPC Quality of Care Committee (QCC).

Quality Improvement is an inclusive, multidisciplinary process that focuses on identification of system wide opportunities for improvement. Our efforts focus on identification of the root causes of problems through event analyses, self-reports, and clinical audit reports to reduce or eliminate these causes and develop steps to correct inadequate or faulty processes. The need and importance of a wide overlap between performance measurement, performance improvement and Continuing Medical Education (Figure 4) is vital to ensure ongoing quality patient care as demonstrated in the well-known and widely used Plan-Do-Study-Act cycle (Figure 5).

FIGURE 4

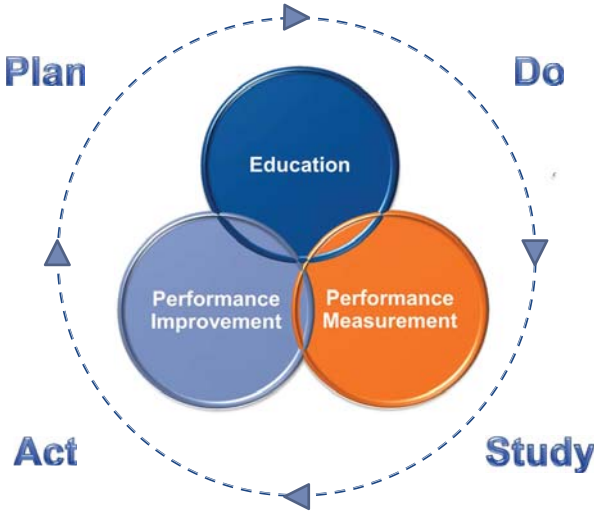


FIGURE 5

Q13 The Host Hospital shall ensure that the Base Hospital Program monitors the delivery of patient care in accordance with the Basic Life Support Patient Care Standards, if such monitoring is contained in the agreement with the Upper Tier Municipality and Designated Delivery Agent for land Ambulance Services as set out in Appendix D.

HSN Centre for Prehospital Care has an agreement with Algoma District Paramedic Service that requires monitoring of the delivery of patient care in accordance with the Basic Life Support Patient Care. A novel model for sampling calls of significant interest was collaboratively developed to perform this work. All other audit activities centre around the ALS PCS. Where a BLS issue is noted during the regular ALS auditing processes, service operators are notified for their follow up.

Q14 The Host Hospital shall ensure that timely advice is provided to each Upper Tier Municipality (UTM) and Designated Delivery Agent (DDA) for Land Ambulance Services as set out in Appendix D regarding medical issues in prehospital care

Advice may be provided formally through either the HSN CPC Quality of Care Committee proceedings that are reported back to Paramedic Services or through the HSN CPC Program Committee. Discussions and resulting action items are tracked through the meeting minutes. Ad hoc advice is provided frequently via conversation, email and non-standing meetings.

14.1 Total number of prehospital medical care issues raised by the UTM or DDA that required advice from the Base Hospital Total number of prehospital medical care issues raised by the UTM or DDA that required advice from the Base Hospital

When an official request is made by a Paramedic Service or the Ministry of Health and Long Term Care (MOHLTC) to review a specific occurance, all information related to the call is tracked in the IQEMS database. It is forwarded to a Paramedic Practice Coordinator for review and may be analyzed by the QI Lead and the applicable Medical Director/Advisor. All reviews are completed via either the standard call review process or via a formal Event Analysis report in accordance with program policies.

For further information on the outcomes of program audit activites or event analyses, see Appendix D.

14.2 List the top 5 subject areas that advice was requested from UTMs and DDAs (i.e. medical equipment, medical acts, policies, etc).

1. Medical Directives and Auxiliary Skills
2. ePCR audits
3. BLS advice
4. Patient Care Equipment
5. Policy and Procedures

Q15 The Host Hospital shall ensure participation in provincial, regional and community planning that affects prehospital care such as emergency planning, where the Host Hospital has the authority to do so. The total number and dates of provincial, regional, and community planning meetings, indicate the meeting hosts are listed below.

REGIONAL	PROVINCIAL	COMMUNITY	NATIONAL
HSN CPC Council (Sudbury/ Videoconference) - Monthly	Base Hospital Managers/Directors Business Meeting - Monthly	Sudbury CACC Advisory Committee	Trauma Association of Canada- Performance Improvement Subcommittee- Biannual
HSN CPC Quality of Care Committee (Sudbury/ Videoconference) - Monthly	Ontario Base Hospital Medical Advisory Group (MAC) (Toronto) - Quarterly	Sudbury Paramedic Service Quality of Care Committee - Quarterly	
Cambrian College Paramedic and Advanced Care Flight Paramedic Programs Advisory Committee- Biannual	Trauma Registry Advsory Committee- Quarterly	HSN Emergency Preparedness Committee- Bi-monthly	
HSN CPC NEO Regional Data Advisory Group (Teleconference) - 3 times/year	OBHG Education Sub-Committee - Quarterly	Parry Sound Ambulance Communications Services Advisory Committee- 3 times/ year	
Regional Trauma Network Committee(HSN - Sudbury) - Bi-Annual	OBHG Data Quality Management (DQM) - Quarterly	HSN Annual General Meeting	
Nipissing EMS Annual Symposium (North Bay) - Annual	OBHG Collaboration Working Group (Toronto) - Quarterly & Ad hoc	Critical and Emergency Care Program Council- Monthly	
HSN CPC Program Committee (Sudbury/Teleconference) - Quarterly	Ontario Trauma Advisory Committee (OTAC) Quarterly Meeting (Toronto) - Quarterly		
Acute Stroke Protocol Improvement Team - Adhoc	Ontario Trauma Coordinators Network (OTCN) (Teleconference) - Monthly		
STEMI Bypass Steering Committee - Adhoc	Ontario Trauma Advisory Committee- Medical Directors Working Group - Adhoc		
HSN EVT Program Development	OBHG Annual General Meeting		
IQEMS Operational Working Group	Sunnybrook/HSN Joint Medical Council Meeting (Toronto & Sudbury) - Bi-Annual		
IQEMS Technical Working Group	CCSO Town Hall Meeting - Annual		
PPO Operational Working Group - Weekly			
PPO Technical Working Group			

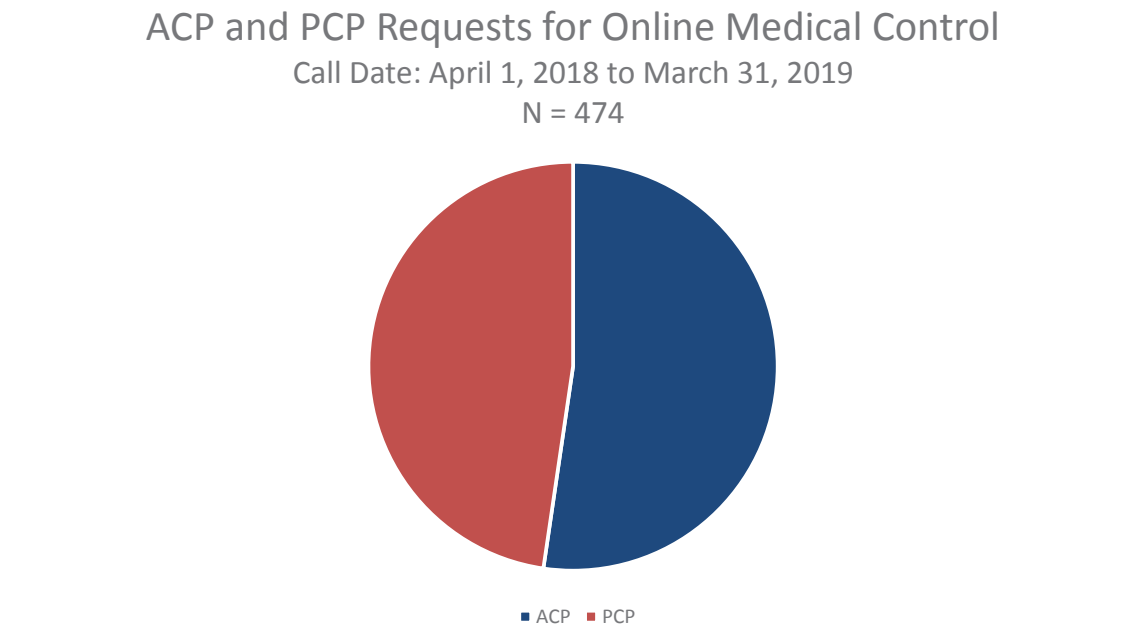
Q16 The Host Hospital shall make every reasonable effort to ensure that each request for medical advice, direction, or assistance received from an Emergency Medical Attendant, paramedic or communications officer is provided expeditiously and that performance standards are set out in this Agreement are met.

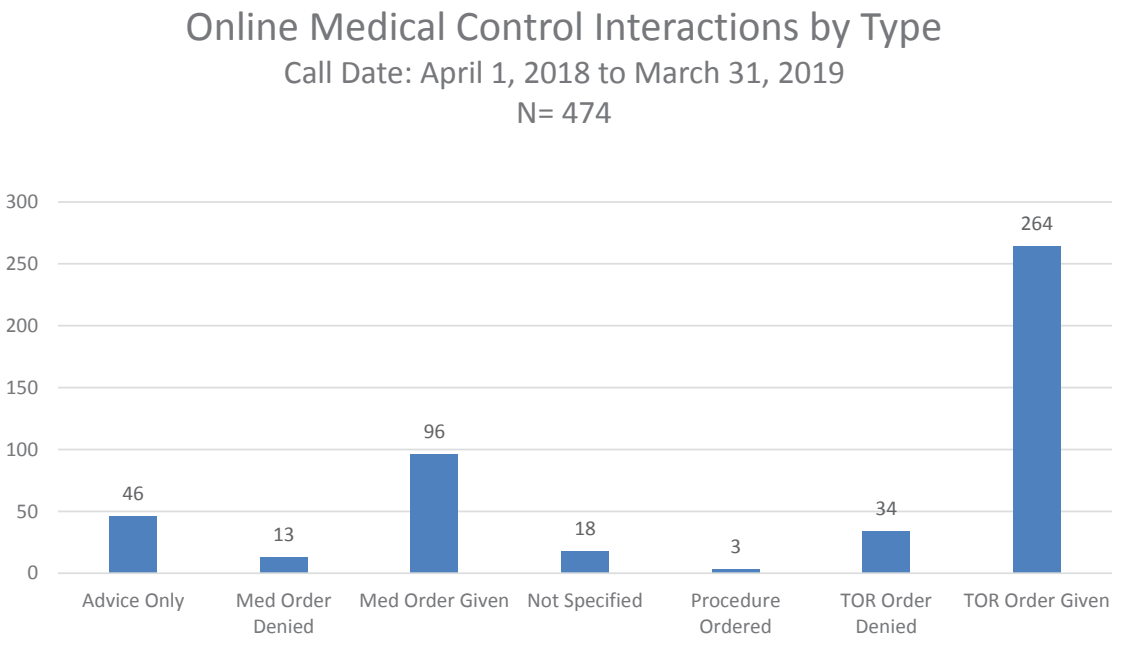
16.1 How are requests for medical advice, direction or assistance from an emergency medical attendant, paramedic or communications office provided?

The following are primary methods of communication:

- 24/7 Online Medical Control through the Base Hospital Physicians
- IQEMS, which is used to discuss audit findings and patient care dialogues
- Email, which is used for the communication of general information and notifications
- Live chats during webcasts are a means for paramedics to ask questions and interact with their medical directors
- Twice annual (at minimum) in person sessions with Paramedic Practice Coordinators in an interactive education setting
- Adhoc, all program staff provide support and advice to paramedics on a daily basis.

16.2 Total number of formal requests for medical advice direction or assistance from an Emergency Medical Attendant, Paramedic or communications officer provided.





Q17 **Where a Host Hospital has not been available to expeditiously provide medical advice (eg. Radio patch), direction, or assistance to an Emergency Medical Attendant, Paramedic, or communications officer, the Host Hospital shall document the circumstances of the event in an incident report that will be provided to the Senior Field Manager within 48 hours of the event.**
The total number and nature of incident reports provided to the senior Field Manager related to medical advice delays.

All patch failures identified during the ACE process or escalated to the QI Lead are further analyzed to determine root cause and to recommend system improvements.

During the 2018-19 fiscal year there were 27 Base Hospital Physician (BHP) Patch Failures. Of those, 20 attempts were successful on the second attmpt. In 3 cases. contact was made with the Emergency Department (host hospital) however due to a delay in BHP response, the paramedic opted to end the call and transport the patient. In 4 cases, contact was made with the Emergency Department (host hospital) but a technical error occured before the BHP could reach the phone (i.e. dropped line, busy signal, CACC user error).

All BHP Patch Failures were reported to the Field Office.

Q18.1 Describe the process used to assist operators with request for assistance and information regarding direct patient care components and elements of local policy and procedures.

Once a request for assistance and/or information has been received in writing by the program, it is triaged by the receiver to determine if its nature is Medical, Educational, CQI, Research, Operational or Other.

- Medical advice and/or inquiries are reviewed by the applicable Medical Advisor or the Regional Medical Director and, when required, forwarded to the Quality of Care Committee (QCC) to be reviewed by the Medical Program as a whole. Minutes of this committee are available to all staff and a report from this committee is provided at Regional Program Committee meetings.
- Educational advice and/or inquiries are assigned to the Regional Education & Certification Coordinator for review and, when required, brought to monthly Council or QCC meetings. A Medical Advisor or the Regional Medical Director may be consulted, as needed.
- Quality Improvement advice and/or inquiries are forwarded to the Quality Improvement Lead for review. A Medical Advisor or the Regional Medical Director may be consulted, as needed.
- Assistance or information related to reportable program metrics are forwarded to the Communication and Informatics Lead or Performance Measurement Lead for review.
- Operational advice and/or inquiries are forwarded to the applicable Paramedic Practice Coordinator and, when required, forwarded to the monthly Council meetings for review.
- Research inquiries are forwarded to the CQI Lead or Regional Manager and when required, the Regional Medical Director is consulted.

18.2 List the top 5 subject areas that information was requested from operators (i.e. medical equipment, medical acts, policies, etc).

1. Initial certification / Return to work requests
2. ePCR Audit requests / ACE reviews
3. Investigation and Remediation
4. Medical equipment purchase advice
5. Continuing Medical Education

EDUCATION

Q19 The Host Hospital will provide a process to confirm and/or ensure the education and standard of practical skills necessary for certification and delegation of specific controlled acts approved by the Provincial Medical Advisory Committee (PMAC) to Emergency Medical Attendants and Paramedics.

HSN CPC develops a yearly CME program that covers the paramedic scope of practice as per the ALS PCS. The goal of the CME program is to prepare paramedics to respond appropriately to a wide range of patient situations both routinely and infrequently encountered in the field.

The Ministry of Health and Long Term Care Emergency Health Regulatory and Accountability Branch (MOHLTC-EHRAB) has mandated that PCPs receive a minimum of 8 hours of CME and that ACPs receive a minimum of 24 hours of CME annually. To meet the needs of the service operators, the paramedics and the Regional Base Hospital Programs, these hours have been converted to credit hours. In order for Northeast Paramedics to remain in good standing and maintain certification, ACPs must accumulate 24 credit hours while PCPs must accumulate 8 credit hours by the first week in December of each calendar year. Paramedics who do not meet these requirements are subject to a performance review by the Medical Director or delegate and may have their certification temporarily suspended until such a time that all mandatory CME credit hours are accumulated.

19.1 List the topic, date and length of each continuing medical education program offered to and held for medical, nursing and other allied health staff of the Host Hospital and receiving hospitals in the Ministry-approved geographic coverage area.

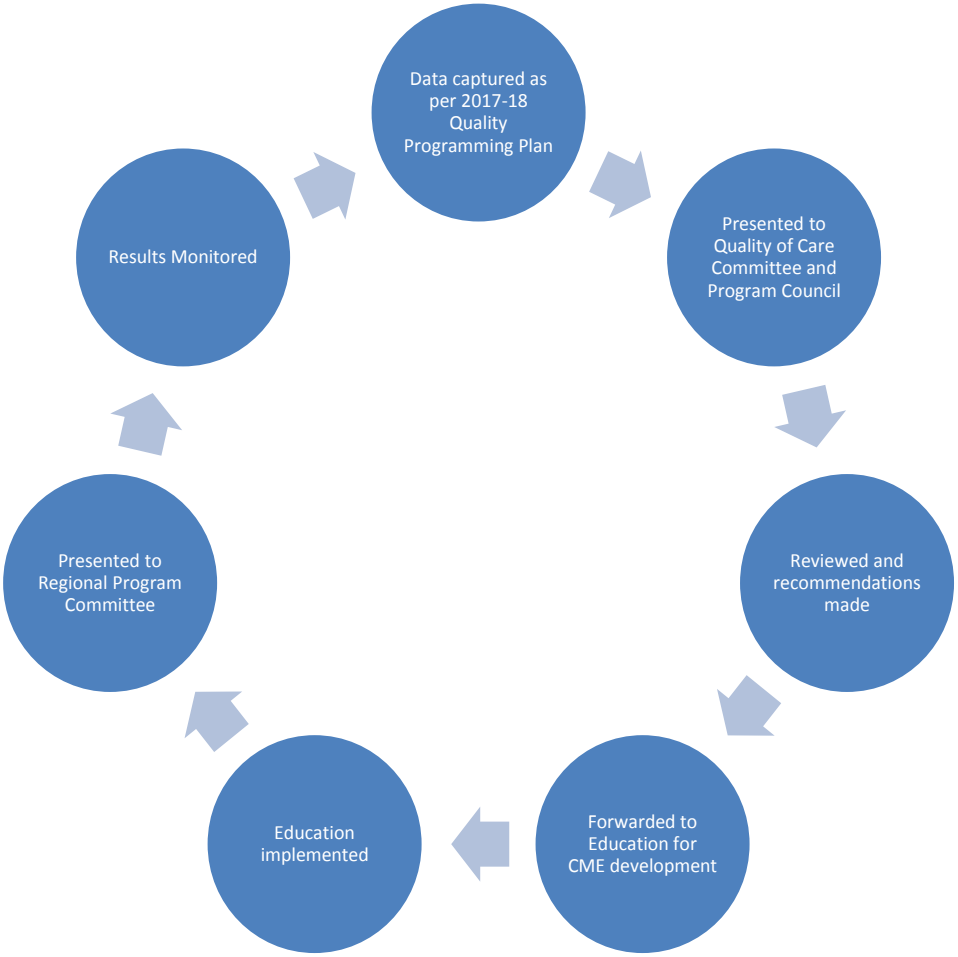
DATE	TOPIC/INSTRUCTOR	HOURS
April 3, 2018	Human Traffiking by Nicole St. Jean	2
April 19, 2018	The Shape of Water by Dr. Chris Loreto	2
June 19, 2018	STEMI Positive ECGs by Dr. Jason Prpic	2
June 21, 2018	Working Under Pressure: The Role of Emotions in Clinical Learning Performance by Dr. Vicki Leblanc	2
June 26-28, 2018	Just Culture Workshop	8
October 23, 2018	Abdominal Pain & Injuries by Dr. Derek Garniss	2
November 12, 2018	ECG Interpretation Course by Darlene Hutton	8
November 15, 2018	Airway Management by Dr. Chris Loreto	2
November 30, 2018	Rapid Shock - Unusual Circumstances by Luc Simard	1
February 6, 2019	Interesting Cases by Dr. Jason Prpic	2
March 28, 2019	OBS & Difficult Deliveries	2

Q20 The Host Hospital shall ensure that prehospital patient care education is provided in accordance with education standards approved by the Minister as may be implemented and amended from time to time. Provide the topics and time allotted for each educational session delivered this year to paramedics.

In addition to those noted above, the following sessions were provided specifically for the paramedics.

DATE	TOPIC/INSTRUCTOR	HOURS
April- June 2018	Spring Paramedic Practice Rounds	4
June- September 2018	Summer CME Series M & M Rounds with Dr. Jason Prpic (ACP only)	6
September- November 2018	Fall Paramedic Rounds	4
February 20, 2019	Simulation Days	4

Q21 The Host Hospital shall ensure the development and implementation of an educational plan for the Region linked to Continuous Quality Improvement initiatives.



Q22 The Host Hospital shall ensure the provision of the mandated hours of education per year for both PCPs and ACPs.

22.1 Total number of hours of CME delivered per PCP.

In this fiscal year, 8 hours minimum were delivered per PCP.

22.1 Total number of hours of CME delivered per ACP.

In this fiscal year, 24 hours minimum were delivered per ACP.

CONTINUOUS QUALITY IMPROVEMENT (CQI)

Q23 The Host Hospital shall ensure the implementation of a CQI program for each Paramedic employed or engaged by land ambulance service operators as set out in Appendix D, and ensure the provision of regular commentary to each Paramedic and operator.

23.1 Total number of paramedics that have been provided with commentary by the host hospital and a brief description of their program.

All paramedics certified under the Program receive commentary on a regular basis, generally via the applicable Paramedic Practice Coordinator for their area. Commentary may include electronic distribution of memos, policies and other documents. As part of auditing activities, paramedics are provided commentary on all of their ACRs with a possible variance from the standard. Additionally, paramedics receive positive commentary via IQEMS.

23.2 Total number of commentary provided to all paramedics.

During the fiscal year 2018/2019, HSN CPC made available approximately **XXXX** commentaries to paramedics via the Ambulance Call Evaluation process. The program also distributed various correspondence including 10 memos/letters to paramedics via email and the HSN CPC website. In addition, 4 MOH EHRAB memos with attachments such as training bulletins and standard documentation were distributed and posted to the website.

23.3 Was a minimum of one chart review commentary provided to each paramedic?

Paramedics will receive access to their commentary via IQEMS utilizing the credentials provided in their notification email, 100% of paramedics who completed a call with an identified potential variance received feedback.

Q25 The Host Hospital shall include a report on all CQI activities and findings as part of the annual report submitted to the Ministry.

Refer to Appendix A: Performance Measurement Standard Reports, for the Audit Activities Summary Report and for the Patient Care Variance Report.

Q26 The Host Hospital shall collaborate with Emergency Medical Services System Stakeholders to share relevant CQI data, as appropriate. How and when was CQI data shared with Emergency Medical Services System stakeholders?

WHAT	WHO	FREQUENCY	HOW
AMBULANCE CALL REPORT AUDIT Notification of any event or circumstance which appears as a variance from the standard.	Paramedics Service Providers	Upon review and closure	IQEMS
EVENT ANALYSIS Sharing of information and outcomes during and post analysis.	Service Providers MOH Field Office	Upon discovery and closure	Event Analysis Report
AUDIT ACTIVITIES REPORT Number of audits completed by Paramedics	Service Providers	Quarterly	IQEMS
AUDIT VARIANCE DETAIL AND SUMMARY REPORTS Breakdown of variance rates an outcomes by Service	Service Providers	Quarterly	IQEMS
PARAMEDIC SELF REPORTS This report identifies the number of self-reports submitted by Paramedics. The summary categorizes self-reports by Service	Service Providers	Quarterly	IQEMS
BLS OMISSIONS/COMMISSIONS BLS issues discovered during an ALS audit are reported to the Service Operator during the auditing process.	Service Providers	Upon discovery	IQEMS
PARAMEDIC SKILLS INVENTORY Number of calls where a particular ALS skill was used as part of the overall patient care plan	Service Providers	Bi-annual	iMedic
CLINICAL AUDIT REPORTS Measures of current practice against a defined (desired) standard with the intent to improve systems vs individual practice.	Service Providers	2-3 times per year	Clinical Audit Reports
AD HOC FINDINGS	Service Providers	HSN CPC Program Committee	Discussion Minutes
REGIONAL DATA ADVISORY COMMITTEE	Service Providers Hospital Representatives CACC Representatives	Quarterly	Discussion Minutes
ONLINE MEDICAL CONTROL INTERACTIONS REPORTS	Service Providers	Quarterly	Report

Q27 The Host Hospital shall ensure that Host Hospital physicians will be available to provide "online" continuous quality improvement and advice on a continuous basis.

All HSN Emergency Physicians and 3rd year Residents are oriented by the Base Hospital Regional Medical Director prior to providing on-line Medical Control. Ongoing education is delivered during face-to-face departmental meetings and via email updates.

Dedicated patch phones are located in the HSN Emergency Department (ED). All Registered Nurses in the ED have been trained, through the ED Nurse Clinician, to answer the patch telephone and advise paramedics that a BHP will be on the line shortly. The RN answering the telephone is responsible for notifying the BHP of the call and advising the paramedic if there will be any delay. HSN CPC has also provided formal education to the paramedics on patching. Reminder emails are sent on a regular basis to help keep this process consistent.

Q28 The Host Hospital shall ensure the establishment of a mechanism to track customer inquiries and organizational responsiveness to these inquiries and survey land ambulance stakeholder groups on a regular basis, and that all consumer feedback will be reviewed and integrated into quality management planning.

All inquiries related to quality management are addressed in the same manner in which they were received i.e. an email is responded to with an email. Any inquiries/feedbacks relative to the quality management or education activities under the purview of the Base Hospital are incorporated into the Annual CME Plan and/or the Annual Quality Programming Overview. Each of these plans is provided to relevant stakeholders in draft form and feedback is actively solicited on each plan on an annual basis. All findings related to activities as laid out in the plan are distributed to key stakeholders and available upon request.

Refer to:

Appendix A: Performance Measurement Standard Reports
Appendix B: Quality Programming Overview 2018
Appendix C: Quality Programming Overview 2019

Q29 The Host Hospital shall ensure the conduct of clinically-focused audits of controlled acts performed on or indicated for a patient by a Paramedic employed or retained by an operator covered by this Agreement, to monitor paramedic compliance with Provincial Medical Directives, in accordance with the following chart audit process:

29.1 Total number of Ambulance Call Reports (ACRs) requiring auditing.

Utilization of IQEMS enables auditing of 100% of selected call types, exceeding the minimum requirements. In 2018-19, 30,363 were audited compared to 25,978 audited calls in 2017-2018 and 6,053 in 2016-2017.

29.2 Total number of medical directive/protocols and cases that have been audited.

There were 30,363 ambulance call reports that were electronically audited. Of these audited calls, 3937 (13%) were identified as having a variance and required further action; and 26,426 (87%) were closed with no further action.

29.3 Have all paramedics that have performed at least 5 acts within the ALS PCS had a minimum of 5 ACR audited this year?

All Paramedics with at least 5 acts within the ALS PCS had a minimum of 5 ACRs audited this year.

Refer to Appendix A: Performance Measurement Standard Reports, Section 2

29.4 Total number of new paramedics (less than 6 months) and total number who had 80% of their charts audited

Newly certified Paramedics (defined as paramedics not having previous Base Hospital certification): The performance agreements states 80% of charts where a controlled act or advanced medical procedure must be audited however IQEMS allows for 100% of paramedic charts to be audited.

There were 58 new ACP and PCPs in 2018-2019.

29.5 Number of cancelled calls where paramedics made patient contact that were audited.

Of the cancelled calls electronically sorted and audited in IQEMS, 129 were manually reviewed by an auditor.

AUDIT TYPE	NO VARIANCE FOUND	FURTHER REVIEW REQUIRED	NO FOLLOW UP REQUIRED	PARAMEDIC FEEDBACK RECEIVED/ REMEDIATED	TOPIC REVIEW AT RECENT/ UPCOMING CME	PARAMEDIC INTERVIEWED/ REMEDIATED	TOTAL AUDITS
Cancelled Calls	**8**	**5**	**95**	**3**	**17**	**1**	**129**

APPENDIX A: PERFORMANCE MEASUREMENT STANDARD REPORTS

Performance Measurement Standard Reports
April 1, 2018 – March 31, 2019

Centre for Prehospital Care

Health Sciences North

APPENDIX A

Performance Measurement Standard Reports
April 1, 2018 – March 31, 2019

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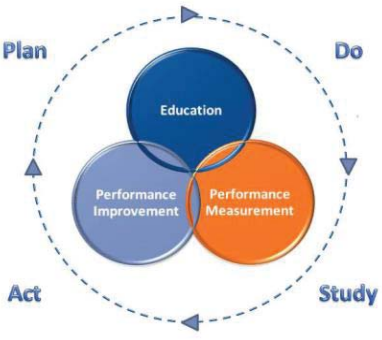


Performance Measurement Standard Reports
April 1, 2018 – March 31, 2019

SECTION 1

HSN CPC AUDIT ACTIVITIES REPORT

This section is a breakdown of auditing results by service operator and by paramedic and is based on the following paramedic auditing requirements as per the Regional Base Hospital Performance Agreement:

- Annually, each paramedic will have a minimum of 5 audited calls where a controlled act was performed.
- If a paramedic has less than 5 calls where a controlled act was performed, 100% of these calls will be audited.
- Newly certified paramedics will have 80% of calls where a controlled act was performed audited for the first six (6) months. Newly certified paramedics are those who have never been certified by a base hospital.

Audit Activities Summary Report

April 1, 2018 to March 31, 2019

CPC Audit Activities		Total # Audits	Total # Medics	# Medics with ALS Calls < 10	# Medics with ALS Calls ≥ 10	# Medics with ALS Calls 1 - 9	# Medics with ALS Calls 0
	N =	30363	784	50	736	77	15
	% =			6%	94%	10%	2%
Audit Activities By Service		**Total # Audits**	**Total # Medics**	**< 10**	**# Medics with ALS Calls ≥ 10**	**1 - 9**	**0**
Algoma District Paramedic Services (740)	N =	3435	74	4	70	4	0
	% =			5%	95%	5%	0%
Cochrane District Paramedic Services (741)	N =	2966	92	4	88	3	1
	% =			4%	96%	3%	1%
Manitoulin-Sudbury DSB Paramedic Services (752)	N =	2565	124	2	124	1	1
	% =			2%	100%	1%	1%
Nipissing Paramedic Services (285/287/469)	N =	3450	92	4	88	1	3
	% =			4%	96%	1%	3%
Parry Sound District EMS 745	N =	1952	75	9	66	6	3
	% =			12%	88%	8%	4%
Sault Ste. Marie EMS (262)	N =	4894	68	2	66	1	1
	% =			3%	97%	1%	1%
Greater Sudbury Paramedic Service (747)	N =	9335	146	9	137	5	4
	% =			6%	94%	3%	3%
Timiskaming District EMS (750)	N =	1131	48	4	44	3	1
	% =			8%	92%	6%	2%
Weeneebayko Area Health Authority Paramedic Service (263)	N =	635	65	12	53	53	1
	% =			18%	82%	82%	2%

Performance Measurement Standard Reports April 1, 2018 – March 31, 2019

SECTION 2

AUDIT VARIANCE SUMMARY

This section provides a summary of all the audit variances and the Base Hospital (BH) outcomes identified during the auditing process and includes a breakdown by service operator.

Audit Variance Summary Report

April 1, 2019 to March 31, 2019

		Total Audits *	Variances**					BH Outcomes***					
			Minor	Major	Critical	Other	Total	Open	No Follow-Up Required / No Variance Found	Paramedic Acted Appropriately	Paramedic Feedback Received/ Remediated	Paramedic Interviewed/ Remediated	Topic Review at Recent / Upcoming CME
Algoma District Paramedic Services****(740)	N =	3435	359	352	14	602	1327	11	822	5	416	0	73
	% of Total Audits =	11%	10%	10%	0%	18%	39%	0.3%	23.9%	0.1%	12.1%	0.0%	2.1%
Cochrane District Paramedic Services (741)	N =	2966	91	50	35	150	326	3	171	0	151	0	1
	% of Total Audits =	10%	3%	2%	1%	5%	11%	0.1%	5.8%	0.0%	5.1%	0.0%	0.0%
Manitoulin-Sudbury DSB Paramedic Services (782/752)	N =	2565	459	400	36	649	1544	204	813	2	437	2	86
	Total	8%	18%	16%	1%	25%	60%	8.0%	31.7%	0.1%	17.0%	0.1%	3.4%
Nipissing Paramedic Services (285/287/469)	N =	3450	96	57	31	114	298	4	122	9	153	3	7
	% of Total Audits =	11%	3%	2%	1%	3%	9%	0.1%	3.5%	0.3%	4.4%	0.1%	0.2%
Parry Sound District EMS (745)	N =	1952	57	33	12	63	165	2	87	7	62	1	6
	% of Total Audits =	6%	3%	2%	1%	3%	8%	0.1%	6.3%	0.4%	3.2%	0.1%	0.3%
Sault Ste. Marie EMS (262)	N =	4894	102	45	33	99	279	0	135	2	137	0	5
	% of Total Audits =	16%	2%	1%	1%	2%	6%	0.0%	2.8%	0.0%	2.8%	0.0%	0.1%
Greater Sudbury Paramedic Service (747)	N =	9335	214	139	75	425	853	25	457	11	311	28	21
	% of Total Audits =	0%	2%	1%	1%	5%	9%	0.3%	4.9%	0.1%	3.3%	0.3%	0.2%
Timiskaming District EMS (750)	N =	1131	36	22	15	61	134	0	64	0	69	0	1
	% of Total Audits =	0%	3%	2%	1%	5%	12%	0.0%	5.7%	0.0%	6.1%	0.0%	0.1%
WAHA Paramedic Service (263)	N =	635	13	12	6	29	60	2	26	0	32	0	0
	% of Total Audits =	0%	2%	2%	1%	5%	9%	0.3%	4.1%	0.0%	5.0%	0.0%	0.0%
Total	N =	30363	1427	1110	257	2192	4986	251	2697	36	1768	34	200
	% of Total Audits =		5%	4%	1%	7%	16%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

* Total Audits include total calls electronically sorted and audited

**Variances includes all identified variances for all calls manually reviewed by an auditor

*** Includes outcome for all calls manually reviewed by an auditor

****Algoma District Paramedic Services and Manitoulin Sudbury DSB Paramedic Sercixwincludes BLS audits for this quarter

Performance Measurement Standard Reports
April 1, 2018 – March 31, 2019

SECTION 3

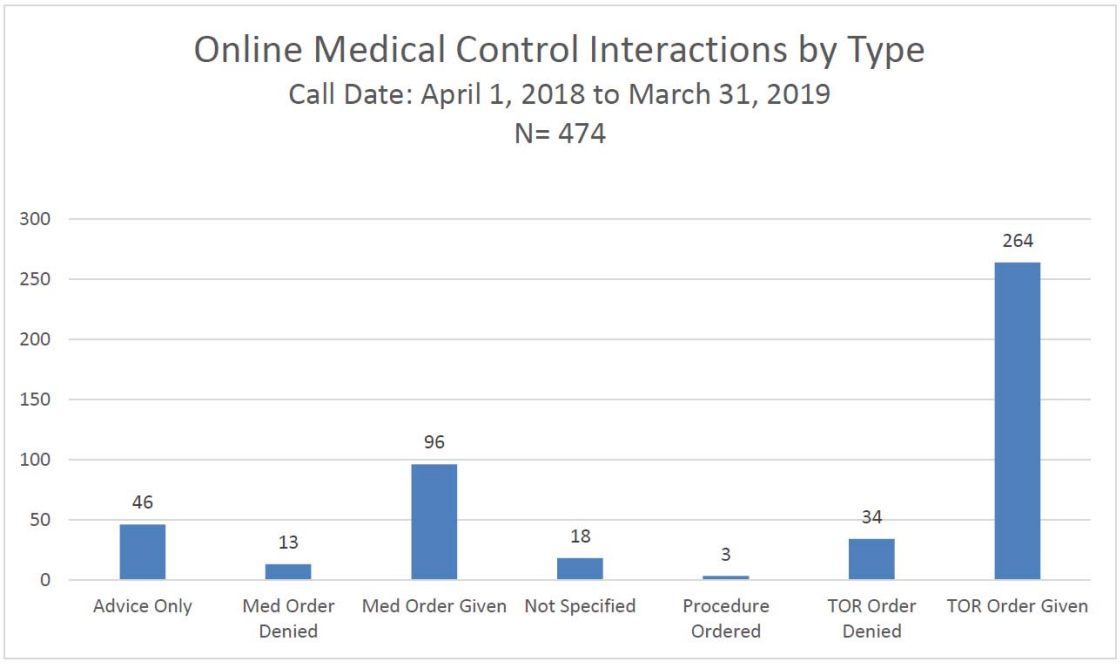
ONLINE MEDICAL CONTROL INTERACTION REPORTS

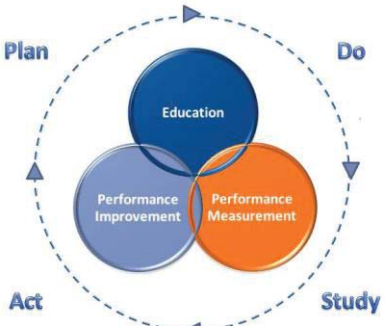
This section provides a summary of "Patch" interactions by service operator and by interaction type. As of September 24, 2014, 100% of all identified online medical control interactions are audited.

Quarterly On-Line Medical Control Interactions	
January 1, 2019 – March 31, 2019	121
October 1, 201 to December 31, 2018 (Q3)	96
July 1, 2018 to September 30, 2018 (Q2)	115
April 1, 2018 to June 30, 2018 (Q1)	142

APPENDIX A

Performance Measurement Standard Reports
April 1, 2018 – March 31, 2019





Performance Measurement Standard Reports
April 1, 2018 – March 31, 2019

SECTION 4

SERVICE OPERATOR RELATED AUDIT REPORTS

This section provides a summary of specific audits completed upon the request of the service operator.

Note: Subsequent to the transition to IQEMS, we are no longer able to provide the total number of audits requests by the service. This will be developed in a future phase of IQEMS.

Performance Measurement Standard Reports
April 1, 2018 – March 31, 2019

SECTION 5

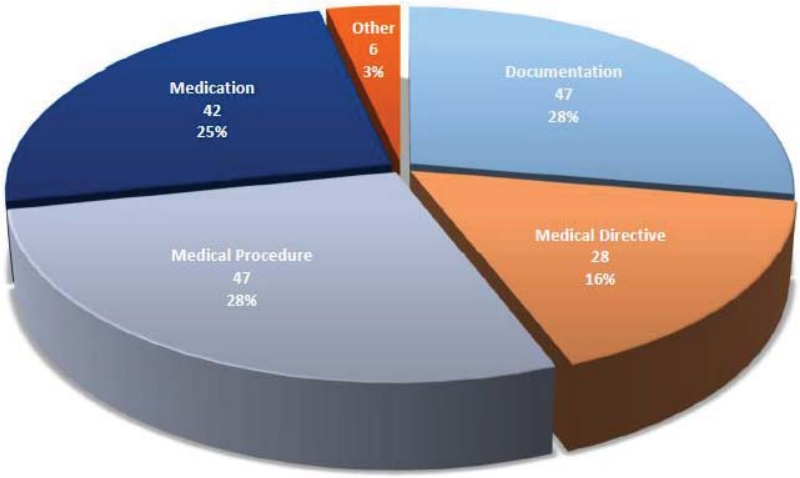
PARAMEDIC SELF REPORTS

This section is based on paramedic self-reports received during this time period and are related to identified omissions and/or commissions in patient care or documentation.

This is recognized as a very important component of paramedic practice. Further expansion and development of this program continues as we strive to improve patient safety and outcomes.

Quarterly Paramedic Self-Reports	
January 1, 2019 to March 31, 2019	39
October 1, 2018 to December 31, 2018 (Q3)	44
July 1, 2018 to September 30, 2018 (Q2)	42
April 1, 2018 to June 30, 2018 (Q1)	45

HSN Self Reports by Reason
Self Reported April 1, 2018 to March 31, 2019
N = 170



Performance Measurement Standard Reports
April 1, 2018 – March 31, 2019

SECTION 6

BLS ISSUES REPORTED TO SERVICE OPERATORS

This section is based on BLS PCS Issues identified during auditing of ALS calls and reported to the service operator.

Note: Subsequent to the transition to IQEMS, we are no longer able to provide the total number of BLS issues reported quarterly by service. This will be developed in a future phase of IQEMS.

APPENDIX B: QUALITY PROGRAMMING OVERVIEW 2018

APPENDIX B

QUALITY PROGRAMMING OVERVIEW 2018

Centre for Prehospital Care

Health Sciences North

www.hsnsudbury.ca/portalen/basehospital

QUALITY PROGRAMMING OVERVIEW 2018

INTRODUCITON

Quality is a multifaceted responsibility that requires the collective effort of varied focus areas. Within the Health Sciences North Centre for Prehospital Care (HSN CPC), this is attained through an integrated system of clinical measurements, quality improvement and continuing medical education within a broad based system of quality management and medical leadership. The need and importance of a wide overlap between these programs (Figure 1) is vital to ensure ongoing quality patient care as demonstrated in the Plan-Do-Study-Act cycle (Figure 2).

Performance Measurement is accomplished by utilizing the Integrated Quality Evaluation Management System (IQEMS). This clinical auditing system is fully web-based, and audits 100% of the data in a timely and efficient way. Electronic Ambulance Call Reports (eACRs) received from the Service Operators are electronically sorted and filtered through computerized algorithms that are based on Medical Directives and/or Standards. The filters are developed and approved by the Provincial IQEMS Operational Working Group in consultation with Medical Directors then endorsed through HSN CPC Quality of Care Committee and reviewed at Program Council.

Continuous Quality Improvement (CQI) activities include continuously examining performance in the system to see where the personnel, system, and processes can continue to improve. Various databases currently exist which contain data relevant to CQI activities. These data systems are used to evaluate performance in the following ways:

- Prospectively identify areas of potential improvement
- Answer questions about the EMS System
- Monitor changes once improvement plans are implemented
- Provide accurate information enabling data driven decisions
- Support research that will improve the system and potentially broaden EMS knowledge

APPENDIX B

QUALITY PROGRAMMING OVERVIEW 2018

Since transitioning to the Intelligent Quality Evaluation and Management Suite (IQEMS) in 2017, the following sections have been updated based on the new chart audit processes and reporting functionalities.

A. PERFORMANCE MEASUREMENT

CLINICAL AUDIT SYSTEM

The Clinical Audit process ensures:

1. Paramedics have 100% of their charts audited where a controlled act or advanced medical procedure was performed.
2. Newly certified Paramedics (defined as paramedics not having previous Base Hospital certification): The performance agreements states 80% of charts where a controlled act or advanced medical procedure must be audited however IQEMS allows for 100% of paramedic charts to be audited.
3. All cancelled calls that fail an IQEMS filter, where paramedics made patient contact, with or without controlled acts performed, are audited.

STANDARD REPORTS

Reports are generated to ensure compliance with the Performance Agreement and the ALS/BLS Patient Care Standards. These reports are shared with the Service Operators and the Ministry of Health and Long-Term Care (MOHLTC) as outlined below. Following receipt, the Service Operators are invited to discuss any findings within the reports.

A. MONTHLY REPORTS

Audit Variance Detail Report

This report is a summary of the audits where a variance was identified. It is grouped by variance type and variance description by service. Drafts of the newly developed report will be provided for feedback in July.

B. QUARTERLY REPORTS

HSN CPC Audit Activities Report

The report is an individualized overview of ALS calls that were filtered through the IQEMS computerized algorithm. It is summarized by Paramedic and includes the number of ALS calls, audits and variances.

Audit Variance Summary

This report provides a breakdown of variance rates and outcomes by Service Operator.

QUALITY PROGRAMMING OVERVIEW 2018

Online Medical Control Interactions

This report is a summary of the interactions between the Paramedic and Base Hospital Physician. It is categorized by Service Operator, reason for patch and identified variances.

Online Medical Control - Patch Failures

These reports will be available in a future phase of IQEMS.

Service Operator Driven Audit Reports

This report identifies the number of audits requested by a Service Operator.

Paramedic Self Reports

This report identifies the number of self-reports submitted by Paramedics. The summary categorizes self-reports by Service.

BLS Issues Reported to Service Operators

BLS issues discovered during an ALS audit are reported to the Service Operator during the auditing process. **Subsequent to the transition to IQEMS, we are no longer able to provide the total number of BLS issues reported quarterly by service. This will be developed in a future phase of IQEMS.

Paramedic Skills Inventory

This report is the total number of calls (by call #) where a particular ALS skill was used as part of the overall patient care plan. Paramedic skills activities are based on the number of times a Paramedic was on a call where an ALS skill was used as part of a patient care plan. For further clarity, the counts are based on the total number of ALS skills performed by the entire responding crew, e.g. calls may have anywhere from 1-4 crew members identified on the ACR, thereby each identified member would get credit for their active participation in the assessed need and delivery of the identified ALS skill.

Reports are distributed as follows unless otherwise noted in this document

REPORTING PERIOD	DISTRIBUTION TIMELINE
Service Operator	
Monthly Reports	2 weeks following reporting period
Quarterly Reports	6 weeks following reporting period
MoHLTC	
April 1 – March 31	Annually by June 30

APPENDIX B

QUALITY PROGRAMMING OVERVIEW 2018

CLINICAL PERFORMANCE MEASURES

Clinical Performance Measures are defined measurements that are part of a process. They are evidence-based measures that optimally guide the improvement of the quality of patient care and practice. These indicators are evaluated on a regular basis by running standardized data queries and subsequently reviewing outlier data to provide accurate treatment rates for specific clinically relevant indicators. These indicators are reviewed and endorsed by the Quality of Care Committee. Current indicators include:

- Rate of ASA administration in patients who present with ischemic chest
- Rate of Glucagon/Dextrose administration in patients who present in hypoglycemia
- Rate of epinephrine/Benadryl administration in patients who present in Anaphylaxis
- ECG Acquisition (>10 minutes) for patients receiving PCI. This is a northeast LHIN metric (CorHealth).

REPORTING PERIOD	DISTRIBUTION TIMELINE
Service Operator*	
April 1- March 31	2 weeks following reporting period
MoHLTC	
April 1 – March 31	Annually by June 30

* Service operators receive service specific reports that compare rates to that of the region. Regional reports are presented at Program Committee.

QUALITY PROGRAMMING OVERVIEW 2018

B. CONTINOUS QUALITY IMPROVEMENT

QUALITY IMPROVEMENT ACTIVITIES

Continuous Quality Improvement (CQI) provides a method for understanding the system processes and allows for their revision using data obtained from those same processes. HSN CPC uses a number of approaches and models of problem solving and analysis to ensure and demonstrate the required standards are being met through valid measurement tools.

1. Clinical Audit Reports

A clinical audit is a cyclical process where an element of clinical practice is measured against a standard. The results are then analysed and an improvement plan is implemented. Once implemented, the clinical practice is measured again to identify improvements, if any.

The Quality of Care Committee will lead the planning of the audit and determine the population as it directly relates to existing protocols (i.e. chest pain, stroke, multi-system trauma, etc) and/or Standards. A random statistical sample will be calculated and reviewed. The cases will be compared to the associated treatment protocol algorithm and scored based on documentation and adherence to protocols. Based on the findings, improvement opportunities will be developed, disseminated and monitored.

OPERATIONAL PERIOD	DISTRIBUTION DATE
Service Operators	
April – July	August 31
August – November	December 31
December – March	April 31
MOHLTC	
April 1 – March 31	June 30

QUALITY PROGRAMMING OVERVIEW 2018

2. Focused Reports

Focused reports are ad hoc reports responsive to needs as they arise. Content may be driven from the HSN CPC Quality of Care Committee, HSN CPC Program Committee, HSN CPC Program Council, or Ontario Base Hospital Data Quality Committee. Examples include repetitive errors reported by performance measurements, implementation of a new or changed directive, request for data from the MoH, etc.

The process to request a Research / Quality Project is identified in Appendix A.

REPORTING PERIOD	DISTRIBUTION DATE
Service Operator	
April 1- March 31	As required
MOHLTC	
April 1 – March 31	June 30

3. Event Analysis

Analysing incidents, through an established framework, can serve as a catalyst for enhancing the safety and quality of patient care.

Recommendations and corrective actions will be formalised (Specific, Measureable, Attainable, Realistic and Time-Sensitive (SMART) and have an evaluation plan to determine if the recommendations are implemented and what impact they had on the system.

REPORTING	DISTRIBUTION DATE
Service Operator / MOH	
Preliminary Findings	14 days post event analysis
Final Report	30 days post event analysis
Annual Synopsis (April 1 – March 31)	June 30

QUALITY PROGRAMMING OVERVIEW 2019

Centre for Prehospital Care

Health Sciences North

www.hsnsudbury.ca/portalen/basehospital

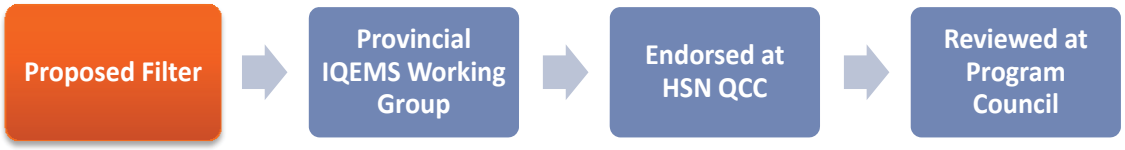
APPENDIX C

QUALITY PROGRAMMING OVERVIEW 2019

INTRODUCTION

Quality is a multifaceted responsibility that requires the collective effort of varied focus areas. Within the Health Sciences North Centre for Prehospital Care (HSN CPC), this is attained through an integrated system of clinical measurements, quality improvement and continuing medical education within a broad based system of quality management and medical leadership. The need and importance of a wide overlap between these programs (Figure 1) is vital to ensure ongoing quality patient care as demonstrated in the Plan-Do-Study-Act cycle (Figure 2).

Performance Measurement is accomplished by utilizing the Integrated Quality Evaluation Management System (IQEMS). This clinical auditing system is fully web-based, and audits 100% of the data through the clinical filter identification system. Electronic Ambulance Call Reports (eACRs) received from the Service Operators are electronically sorted and filtered through computerized algorithms that are based on Medical Directives and/or Standards. The filters identified through the clinical filter identification system are developed and approved by the Provincial IQEMS Operational Working Group in consultation with Medical Directors then endorsed through HSN CPC Quality of Care Committee and reviewed at Program Council.



Continuous Quality Improvement (CQI) activities include continuously examining performance in the system to see where the personnel, system, and processes can continue to improve. Various databases currently exist which contain data relevant to CQI activities. These data systems are used to evaluate performance in the following ways:

- Prospectively identify areas of potential improvement
- Answer questions about patient related items within the EMS System
- Monitor changes once improvement plans are implemented
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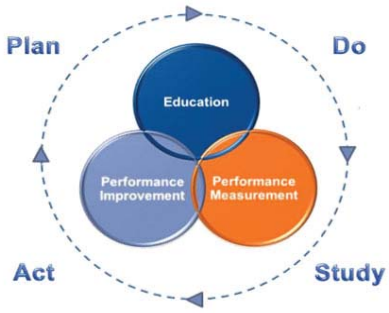
- Support research that will improve the system and potentially broaden EMS knowledge



QUALITY PROGRAMMING OVERVIEW 2019

Since transitioning to the Intelligent Quality Evaluation and Management Suite (IQEMS) in 2017, the following sections have been updated based on the new chart audit processes and reporting functionalities.

A. PERFORMANCE MEASUREMENT

CLINICAL AUDIT SYSTEM

The Clinical Audit process ensures:

1. Paramedics have 100% of their charts audited where a controlled act or advanced medical procedure was performed.
2. Newly certified Paramedics (defined as paramedics not having previous Base Hospital certification): The performance agreements states 80% of charts where a controlled act or advanced medical procedure must be audited however IQEMS allows for 100% of paramedic charts to be audited.
3. All cancelled calls that fail an IQEMS filter, where paramedics made patient contact, with or without controlled acts performed, are audited.

STANDARD REPORTS

Reports are generated to ensure compliance with the Performance Agreement and the ALS/BLS Patient Care Standards. These reports are shared with the Service Operators and the Ministry of Health and Long-Term Care (MOHLTC) as outlined below. Following receipt, the Service Operators are invited to discuss any findings within the reports.

A. MONTHLY REPORTS

Audit Variance Detail Report

This report is a summary of the audits where a variance was identified. It is grouped by variance type and variance description by service. Drafts of the newly developed report are presented for input and finalization to allow for implementation retroactively to January 2019.

B. QUARTERLY REPORTS

HSN CPC Audit Activities Report

The report is an individualized overview of ALS calls that were filtered through the IQEMS computerized algorithm. It is summarized by Paramedic and includes the number of ALS calls, audits and variances.

Audit Variance Summary

This report provides a breakdown of variance rates and outcomes by Service Operator.

QUALITY PROGRAMMING OVERVIEW 2019

Online Medical Control Interactions

This report is a summary of the interactions between the Paramedic and Base Hospital Physician. It is categorized by Service Operator, reason for patch and identified variances.

Online Medical Control - Patch Failures

These reports will be available in a future phase of IQEMS.

Service Operator Driven Audit Reports

This report identifies the number of audits requested by a Service Operator. A draft process is presented for input and potential implementation effective April 1, 2019.

Paramedic Self Reports

This report identifies the number of self-reports submitted by Paramedics. The summary categorizes self-reports by Service.

BLS Issues Reported to Service Operators

BLS issues discovered during an ALS audit are reported to the Service Operator during the auditing process. **Subsequent to the transition to IQEMS, we are no longer able to provide the total number of BLS issues reported quarterly by service. This is currently being working on by the IQEMS Operational Working Group.

C. BIANNUAL REPORTS

Paramedic Skills Inventory

This report is the total number of calls (by call #) where a particular ALS skill was used as part of the overall patient care plan. Paramedic skills activities are based on the number of times a Paramedic was on a call where an ALS skill was used as part of a patient care plan. For further clarity, the counts are based on the total number of ALS skills performed by the entire responding crew, e.g. calls may have anywhere from 1-4 crew members identified on the ACR, thereby each identified member would get credit for their active participation in the assessed need and delivery of the identified ALS skill.

Reports are distributed as follows unless otherwise noted in this document

REPORTING PERIOD	DISTRIBUTION TIMELINE
*Delays in reporting timelines may occur during development of reporting capabilities within IQEMS. Service Operators are encouraged to request specific items of need when delays have occurred	
Service Operator	
Monthly Reports	2 weeks following reporting period
Quarterly Reports	6 weeks following reporting period
Biannual	6 weeks following reporting period
MoHLTC	
April 1 – March 31	Annually by June 30

QUALITY PROGRAMMING OVERVIEW 2019

CLINICAL PERFORMANCE MEASURES

Clinical Performance Measures are defined measurements that are part of a process. They are evidence-based measures that optimally guide the improvement of the quality of patient care and practice. These indicators are evaluated on a regular basis by running standardized data queries and subsequently reviewing outlier data to provide accurate treatment rates for specific clinically relevant indicators. These indicators are reviewed and endorsed by the Quality of Care Committee. Current indicators include:

- Rate of ASA administration in patients who present with ischemic chest
- Rate of Glucagon/Dextrose administration in patients who present in hypoglycemia
- Rate of epinephrine/Benadryl administration in patients who present in Anaphylaxis
- ECG Acquisition (>10 minutes) for patients receiving PCI. This is a northeast LHIN metric (CorHealth).

REPORTING PERIOD	DISTRIBUTION TIMELINE
Service Operator*	
April 1- March 31	2 weeks following reporting by CorHealth
MoHLTC	
April 1 – March 31	Annually by June 30

* Service operators receive service specific reports that compare rates to that of the region. Regional reports are presented at Program Committee following distribution of the annual, service specific report.

QUALITY PROGRAMMING OVERVIEW 2019

B. CONTINOUS QUALITY IMPROVEMENT

QUALITY IMPROVEMENT ACTIVITIES

Continuous Quality Improvement (CQI) provides a method for understanding the system processes and allows for their revision using data obtained from those same processes. HSN CPC uses a number of approaches and models of problem solving and analysis to ensure and demonstrate the required standards are being met through valid measurement tools.

1. Clinical Audit Reports

A clinical audit is a cyclical process where an element of clinical practice is measured against a standard. The results are then analysed and an improvement plan is implemented. Once implemented, the clinical practice is measured again to identify improvements, if any.

The Quality of Care Committee will lead the planning of the audit and determine the population as it directly relates to existing protocols (i.e. chest pain, stroke, multi-system trauma, etc) and/or Standards. A random statistical sample will be calculated and reviewed. The cases will be compared to the associated treatment protocol algorithm and scored based on documentation and adherence to protocols. Based on the findings, improvement opportunities will be developed, disseminated and monitored.

FREQUENCY	
Service Operators	
3 reports per year	3 times annually
MOHLTC	
April 1 – March 31	June 30

QUALITY PROGRAMMING OVERVIEW 2019

2. Focused Reports

Focused reports are ad hoc reports responsive to needs as they arise. Content may be driven from the HSN CPC Quality of Care Committee, HSN CPC Program Committee, HSN CPC Program Council, or Ontario Base Hospital Data Quality Committee. Examples include repetitive errors reported by performance measurements, implementation of a new or changed directive, request for data from the MoH, etc.

The process to request a Research / Quality Project is identified in Appendix A.

REPORTING PERIOD	DISTRIBUTION DATE
Service Operator	
April 1- March 31	As required
MOHLTC	
April 1 – March 31	June 30

3. Event Analysis

Analysing incidents, through an established framework, can serve as a catalyst for enhancing the safety and quality of patient care.

Recommendations and corrective actions will be formalised and have an evaluation plan to determine if the recommendations are implemented and what impact they had on the system.

REPORTING	DISTRIBUTION DATE
Service Operator / MOH	
Preliminary Findings	14 days post event analysis
Final Report	30 days post event analysis
Annual Synopsis (April 1 – March 31)	June 30

APPENDIX D: EVENT ANALYSIS 2018-2019

EVENT ANALYSIS REPORT 2018-2019

Incident Analysis is a structured process for identifying what happened, how and why it happened, what can be done to reduce the risk of recurrence and make care safer, and whas was learned. (http://www.patientsafetyinstitute.ca)

Ambulance Call Evaluations that require a more in-depth review are excalated to the Quality Improvement Lead for further analysis.

During the 2018-19 FY, 42 Event Analysis were completed.

Reason for Case Review	Count
Allied Agency	2
Clinical Practice	24
Equipment	6
Medical Consult	1
Patch (Not related to Patch Failure)	2
Patch Failure	6
Scope of Practice	1
Grand Total	**42**

Base Hospital Outcome	Count
Equipment Issue Reviewed/Resolved	6
Feedback Received/Remediated	6
Operational Issue	2
Paramedic Acted Appropriately	2
Paramedic Feedback Received/Remediated	1
Paramedic Interview Completed/Remediated	3
Paramedic Telephone Review Completed/Remediated	1
Patch Issue Resolved	9
Related Case	1
Remediation Plan Completed	1
Self Reported/Remediated	4
Stakeholder Review Requested/Completed	6
Grand Total	**42**

Audit Type	Count
Analgesia	2
Cancelled Calls	1
Cardiac Arrest	22
Cardiac Ischemia	4
Difficult Airway	1
Hypoglycemia	4
Nausea & Vomiting	1
Opioid Toxicity	1
Other	1
Pulmonary Edema	3
Sedation	1
SOB (Asthma, Croup & Needle Thoracostomy)	1
Grand Total	**42**

Reporter Type	Count
Audit Process	17
Hospital Personnel	3
Paramedic	10
Service Provider	12
Grand Total	**42**