

Paramedic Services Update – October 2021

Presented To: Emergency Services Committee

Meeting Date: October 20, 2021

Type: Correspondence for Information Only

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Report Summary

This report provides information regarding the recent business activities, relevant statistics and good news stories within the Paramedic Services Division, Community Safety Department.

Relationship to the Strategic Plan, Health Impact Assessment and Community Energy & Emissions Plan (CEEP)

There are no Community Energy and Emissions Plan implications associated with this report.

Financial Implications

There are no financial implications associated with this report.

Background

This report aims to provide the City of Greater Sudbury Emergency Services Committee with an update on activities, relevant statistics, and recent performance measures within the Paramedic Services Division of the Community Safety Department.

Greater Sudbury Paramedic Services is responsible for the delivery of a performance-based paramedic service that complies with legislative and regulatory requirements, ensuring safe and quality pre-hospital emergency medical care and transportation for those individuals suffering injury or illness. A performance-based paramedic service focuses on clinical excellence, response time performance, patient outcomes, patient satisfaction, continuous quality improvement, and a healthy work environment conducive to professional growth.

Paramedic Operations

COVID-19 Vaccination Policy

On August 17, 2021 the Chief Medical Officer of Health (CMOH) of Ontario issued Directive #6 under Section 7.7 of the Health Protection and Promotion Act, indicating that Paramedics are now included in the list of organizations that are required to implement a COVID-19 immunization policy, and report on the status of paramedic immunization to the Ministry of Health. A policy has been implemented,

complying with Directive #6 prior to the due date of September 7, 2021 and aligns with the CGS COVID-19 Vaccination and Vaccination Verification Policy.

Employer Provincial COVID-19 Antigen Screening Program

Greater Sudbury Paramedic Services participated in an employer voluntary antigen screening pilot led by the Ministry of Health, Public Health Ontario, and Ontario Health. The objective of the pilot was to assess the value of rapid antigen testing utilizing the Abbott Panbio brand antigen test as a screening tool to support employee safety and business continuity in a variety of workplaces. Following the pilot, a Provincial Antigen Screening Program (PASP) was introduced. The objective of the PASP is to provide rapid antigen testing utilizing the Abbott Panbio brand antigen test as a screening tool to support employee safety and business continuity in a variety of workplaces. The PASP is a voluntary longer-term project providing employers in priority settings to add an additional safety measure in high-risk and essential workplaces and to help reduce the spread of COVID-19. Paramedic staff are voluntarily tested for COVID-19 prior to shift commencement up to three times per week or when indicated. Results of the antigen tests are provided within fifteen minutes following test completion.

Paramedic Services commenced with PASP on April 6, 2021 and continue with our routine COVID-19 pre-shift screening practice. As of August 31, 2021, 664 PASP tests have been conducted on paramedic staff and all have indicated a negative antigen result. This project will continue until March 31, 2022, when the agreement expires with the Ministry of Health.

Screening for COVID

The Ministry of Health (MOH) and Emergency Health Services Branch (EHSB) is responsible under the Ambulance Act for publishing standards for patient care, documentation, safety, equipment requirements and transportation. These requirements are outlined in various paramedic practice documents: Standards, Training Bulletins, Manuals and Guides. During this pandemic, the EHSB has been updating COVID-19 Screening Tools for paramedics and Ambulance Communication Officers (ACO) as new knowledge is discovered about COVID-19. The ACO performs the initial COVID-19 screening of all 911 calls. Paramedics are advised of the outcome from the ACO screening, and with this information, paramedics then don the necessary Personal Protective Equipment (PPE) required to protect themselves. Additional measures have been put in place to protect responding paramedics. These include instructions the ACO provides to the callers to not approach the paramedics when they arrive, instructions for all those present to wear a mask, and to follow responding paramedic's instructions to maintain distancing. On arrival, paramedics also complete a second screening. The outcome of this screening further supports the decision of which level of PPE is to be used for patient care. The COVID-19 screening tool was updated on August 26, 2021 to reflect the latest definitions and advice from the Chief Medical Officer of Health of Ontario.

Mental Health Support

Within Paramedic Services we understand the stresses and challenges faced by first responders and it is essential that they have access to the people and tools they require in order to live fulfilled and connected lives.

One vehicle to promote wellness in the workplace is to have mental health and wellness strategies. Mental health and wellness strategies have many benefits - an engaged, resilient, and productive workforce, a workplace free of stigma and a positive workplace culture. Paramedic Services cares about the mental health and wellness of all our staff and wants to do everything possible to address the impact of significant events while on duty and to create a positive working environment. Support tools such as information and strategies on managing their mental wellness have been and will continue to be, provided to support all our staff.

One of the strategies that was implemented in May 2016 to support our staff was the Peer Support Network (PSN). The goal of the PSN is to provide proactive education for all Community Safety members regarding

critical incident stress and other stress-related issues. The PSN Team endeavors to minimize the harmful effects of stress during or following a crisis, emergency, or personal situation through reactive interventions when personnel request assistance.

Through individual peer-to-peer support and/or group defusing(s), the team provides Fire/Paramedic personnel with assistance in alleviating potential stress-related symptoms. The PSN's role is not to provide clinical services, psychotherapy or professional counseling, but to provide immediate crisis intervention, support, and referral information. Participation during any service provided by the team or its members is voluntary.

Currently there are 18 members within the PSN team. Members consist of paramedics, career and volunteer firefighters and managers from both Paramedic and Fire Services. In early June 2021 the PSN team participated in a three-day training session at the Lionel E. Lalonde Centre. The focus of the training included on-boarding of six new team members and to provide additional training and skills for the existing 12 members. Dr. Ethier, along with her colleagues from Breakwater Institute, delivered the training. Feedback from the PSN team after this session was very positive and PSN members indicated that they feel more prepared to assist all Community Safety members. Our PSN team will continue to participate in professional development sessions with a local clinical psychologist throughout the year.

Recently, the Ministry of the Solicitor General (SOLGEN) reached out to the Ministry of Health (MOH) inviting Paramedic Services to participate in a mental health wellness program, providing first responders across the Province access to the First Response Mental Health's (FRMH) PeerConnect app; a proactive peer support and wellness online tool.

The PeerConnect app will support existing programs we currently have in place such as wellness tools, self-assessments, mental health programming, and peer support programs while also allowing for easier access to our PSN team 24/7.

Paramedic Services recognizes the benefits of this app as it provides an additional pathway to communicate and support every Community Safety member, working towards the ultimate goal of a safe and supported work environment. This app also enhances our current practice for all Community Safety members to contact PSN members. On June 14, 2021 the app was launched for all Community Safety members.

Another initiative that was implemented in March 2021 was the Employee Wellness Committee for Paramedic Services. The purpose of the Employee Wellness Committee is to assess, plan and implement activities that will help our members to be more aware, motivated, and skilled around life decisions to increase their own and others' wellbeing. The Committee's role is to also build a workplace environment that is supportive of living a healthy lifestyle. This Committee provides staff with suggested ideas, reference materials and activities to help support employee health and wellness while cultivating an organizational culture of healthy living. "Progress, not perfection. The mind is a powerful thing. When you fill it with positive thoughts, the world starts to change. Everyday might not be good but there is something good in every day", by Faye Howard. This Committee consists of paramedics, support staff, managers and CGS Human Resources representatives. The Committee has established monthly themes throughout the year such as Nutrition, Mind Body and Nature, Self-Care, and Month of Giving. The Committee plans to post the reference materials that are provided to Paramedic staff onto the PeerConnect app to allow access for all Community Safety members to review.

Expanded Ontario Naloxone Program

In December 2020, Sudbury Paramedic Services commenced participation in the Ontario Naloxone Program in collaboration with Public Health Sudbury and Districts (PHSD). This program has paramedics not only administering Naloxone as part of their standard paramedic care, but also distributing Naloxone kits to identified individuals where appropriate in the course of their duties or when requested from the public. This program permits 24/7 access to Naloxone in Sudbury, which was not previously available. This important initiative allows paramedics to promote harm reduction for those who misuse drugs with a goal of

improving positive health outcomes in the community.

Since the implementation of this program on December 12, 2020, paramedics have distributed 294 Naloxone kits and continue to support those in need.

Ambulance Service Review

The Ambulance Act states that no person shall operate an Ambulance Service unless the person holds a certificate issued by the certifying authority, the Ministry of Health Emergency Health Regulatory and Accountability Branch (MOHEHRAB). The Act further stipulates that a person shall be issued a certificate by the certifying authority only if the person has successfully completed the certification process prescribed by the Regulations.

The purpose of the Service Review is to ensure Ambulance Services are operated in a manner consistent with the Land Ambulance Certification Standards and in compliance with the legislation. Services are required to successfully complete the prescribed Ambulance Service Review certification process once every three (3) years in order to maintain their certification to operate the service. In completing the Ambulance Service Review Certification process, services are required to meet all of the legislative quality requirements in the following areas: Level of Service, Employee Qualifications, Staffing, Documentation, Training, Patient Care, Vehicles, Patient Care Equipment, Policy and Procedures and Operations.

Greater Sudbury Paramedic Services has been in operation since December 3, 2000 and our current certificate to operate expires on September 11, 2022.

On May 31, 2021, Paramedic Services received our 90-day notice from the MOHEHRAB, indicating that to accommodate this legislative requirement during the pandemic, the MOHEHRAB will be conducting off-site Preliminary (virtual) Reviews. Land and Air Operators who successfully complete their Preliminary Review will be issued a renewed certificate to operate.

Preliminary Reviews will be conducted through the submission of documentation to demonstrate the line items within the MOHEHRAB Team Checklist. Once the pandemic restrictions cease, arrangements will be made with our service for an on-site Ambulance Service Review to complete areas not covered at this time.

On August 27, 2021 our Service submitted the requested documentation to the MOHEHRAB prior to the deadline of August 31, 2021.

Pikangikum Community Support

Paramedic Services had the opportunity to help support guests from Pikangikum First Nation due to wildfires that threatened their community. The community declared a State of Emergency July 13, 2021, and the subsequent evacuation commenced July 14th with six flights that continued until the early hours of July 15th.

Paramedic Services were able to support approximately 500 Pikangikum Community members from the time that they landed at Greater Sudbury Airport July 14th and 15th, until they returned home August 8, 2021. Staff were on site to welcome our guests and offer medical aid as required.

Throughout their stay in our City we were able to meet their needs and fill gaps in service by offering the following:

- On site Medical Care / First Aid staffed 24/7 with a single Medic PRU (112 patients cared for and not transported to an Emergency Room (ER), aiding in ER department avoidance)
- Wellness checks and patient history gathering (to help in gathering patient information and map out needs)
- Medical Clinic staffing assistance
- Antigen testing for all prior to departing on three separate occasions

- Naloxone distribution to individuals and supporting groups
- One ambulance up staffed 24/7 from July 14th to August 8th to assist in coverage of the anticipated increase in call volumes (119 patients transported to Health Sciences North)

All assistance was made possible through collaboration with Emergency Management, Shkagamik-Kwe Health Center, Public Health Sudbury and District, Greater Sudbury Police Services, Ontario Health North, Health Sciences North, Red Cross, Emergency Management Ontario and many more.

Paramedic Services Performance Measures Defined

Paramedic Calls for Service

A measure of calls received by Greater Sudbury Paramedic Services by the Central Ambulance Communications Centre (CACC) to respond to emergencies. In simpler terms, the number of calls to 911 for Paramedic Services that resulted in Paramedics being dispatched.

Paramedic Unit Responses

A measure of units dispatched by the CACC to paramedics to service emergencies. This number will typically be higher than calls for service as some calls necessitate the use of multiple ambulances, Paramedic Response Units, or Platoon Superintendent Units.

Paramedic Patients Transported

A measure of patients being transported on both an emergency and non-emergency basis (Table 1).

| Requests for Service | Jan 1 – Aug 31, 2021 | Jan 1 – Aug 31, 2020 | Year over Year |
|--------------------------|----------------------|----------------------|-----------------------------|
| EMS Calls for Service | 20,796 | 18,310 | Increase of 2,486 or 13.58% |
| EMS Unit Response | 25,453 | 21,969 | Increase of 3,484 or 15.86% |
| EMS Patients Transported | 14,506 | 12,824 | Increase of 1,682 or 13.12% |

Table 1. Greater Sudbury Paramedic Services Statistics

Logistics

Personal Protective Equipment

During the COVID-19 pandemic, inventory levels of Personal Protective Equipment (PPE) are being monitored to ensure all staff have the proper equipment to work safely. The logistics staff continue to coordinate the procurement of supplies to ensure PPE levels are maintained and available to meet current demands.

Enhanced Emergency Services Vehicle Cleaning

During the COVID-19 pandemic, Paramedic Services has implemented additional cleaning and disinfection processes to control and prevent the spread of disease pathogens to employees, patients, and the community. To enhance our cleaning process we have purchased two disinfection systems and will be introducing an additional system within the next month.

One of the disinfection systems introduced in 2020 was the Nocospray. The Nocospray disinfection system is a patented dispersion technology that disinfects all hard surfaces. The combination of a portable propulsion machine (fogger) and the hydrogen peroxide-base disinfectant created to act synergistically with it, disinfects all hard surfaces in an enclosed area. Nocospray assists with our normal cleaning processes to clean those hard to reach spots consistently and completely. This system works by itself, automatically within the closed doors of an ambulance. Nocospray’s efficacy and practicality has been demonstrated in Canadian hospitals. The Nocospray Disinfection System has been validated and approved by Health Canada. This system is utilized during monthly deep cleans on every Emergency Services vehicle as the total operational time for this system is approximately 80 minutes per application.

Another disinfection system introduced in 2020 was the Sani Sport system. The Sani Sport system is a dry cleaning system that uses UV light to produce Ozone. Ozone is used as a cleaning and sanitizing agent. Ozone, also known as O3, is the free-radical form of oxygen used extensively for safely sanitizing and cleaning a wide variety of products on a commercial and industrial basis that has been shown to provide approximately 99% reduction in antimicrobial pathogens as reported by laboratory testing consisting of some 15 different infectious bacteria species. Since Ozone is a free radical form of oxygen, it is a powerful oxidant. As a cleaning agent, O3 is up to 3,000 times faster acting and up to 150 times more powerful than chlorine bleach. As a result, O3 rapidly kills bacteria, fungus, and other pathogens. All medical equipment, electronics, including items with leather or metal fasteners, can be placed into the Sani Sport system

Within the next month an additional disinfection system, the Clorox Electrostatic Sprayer, will be implemented into the daily cleaning program of ambulances and Paramedic Response Units (PRU) at the end of every shift when deployed. This additional program does not replace our normal ambulance or PRU cleaning processes, but further enhances it. The Clorox Electrostatic Sprayer works by charging liquid droplets as they pass through a sprayer nozzle. The resulting charged droplets actively seek out surfaces and become attached to them. Electrostatic sprayers are engineered to treat high-touch areas more quickly and efficiently with the convenience of touchless coverage. This additional disinfection system will assist the Emergency Vehicle Technicians (EVTs) by reducing the time on task to apply the cleaning solution and ensure the cleaning solution has been applied to all surfaces during the daily cleaning process. The total time to apply the cleaning solution and allow for dwelling is approximately five minutes.

The procedure of the Clorox Electrostatic Sprayer has been reviewed and approved by City Health & Safety together with our Joint Health & Safety Committee. This system will be used now and into the future as the “new norm” in ambulance and PRU daily cleaning process to maintain the highest possible level of infection prevention and control for staff, patients, and the community.

Professional Standards

Professional Standards is responsible for the delivery of quality assurance programming, consisting of clinical and service delivery auditing to improve patient safety and ensure high-quality clinical care, thereby reducing risks. Professional Standards also manages the electronic patient care record system and quality assurance. Clinical events are monitored and evaluated to identify training and education opportunities for the paramedics.

Reported number of clinical events:

| Cardiac | Jan 1 – Aug 31, 2021 | Jan 1 – Aug 31, 2020 | Year over Year |
|---|----------------------|----------------------|---------------------------|
| Number of calls with at least 1- 12 Lead Acquired | 3,040 | 2,377 | Increase of 963 or 40.50% |
| Total Cardiac related | 957 | 788 | Increase of 169 or 21.45% |
| Number of STEMI ** | 67 | 74 | Decrease of 7 or 9.46% |

** A STEMI is a specific type of heart attack, which can be diagnosed by Paramedics in the pre-hospital setting.

| Neurological | Jan 1 – Aug 31, 2021 | Jan 1 – Aug 31, 2020 | Year over Year |
|---|-----------------------------|-----------------------------|---------------------------|
| Total Neuro-related | 1,680 | 1,325 | Increase of 355 or 26.80% |
| Number of Acute Stroke ** (FAST positive, timeline criteria met) | 150 | 125 | Increase of 25 or 20% |
| Average Age in Years | 70 | 73 | Decrease of 3 or 4.11% |

** An Acute Stroke Patient qualifies for specific time-sensitive treatments from the hospital to reduce and reverse damage caused by stroke.

| Sepsis | Jan 1 – Aug 31, 2021 | Jan 1 – Aug 31, 2020 | Year over Year |
|--------------------------------------|-----------------------------|-----------------------------|------------------------|
| Number of Identified Sepsis cases ** | 101 | 104 | Decrease of 3 or 2.90% |
| Average age in years | 73 | 70 | Increase of 3 or 4.30% |

**A Suspected Sepsis Patient meets a specific criteria (qSOFA) used to identify patients at risk of death due to systemic infection

| Cardiac Arrest Medical and Trauma | Jan 1 – Aug 31, 2021 | Jan 1 – Aug 31, 2020 | Year over Year |
|--|-----------------------------|-----------------------------|--------------------------|
| Total Cardiac Arrest, Medical and Traumatic | 264 | 268 | Decrease of 4 or 1.50% |
| Total Treated Cardiac Arrest Medical and Traumatic | 125 | 134 | Decrease of 9 or 6.72% |
| Number of Medical Arrest with Return of Spontaneous Circulation at any time while in Paramedic Care. | 28 | 38 | Decrease of 10 or 25.32% |

Training

Paramedic Training Officers (PTOs) continue to address training needs and deliver real-time training and support to staff where needed with a specific focus on infection, prevention, and control. The PTOs continue to review COVID-19 safe work practices with all staff as they assist in the maintenance of keeping these practices and procedures in line with the most current standards.

The Training Section completed the new hire orientation for 22 front line paramedics as well as two Equipment Vehicle Technicians. Over the past year a review of new hire paramedic on-boarding was conducted. It was identified that it would be beneficial to establish a mentorship program to assist the new hires into their roles. For this recent group of newly hired paramedics, the PTOs launched a mentorship program. Each hire were assigned to one of the two PTOs and over the next four months will routinely connect with their assigned PTO. This program will allow for a smooth integration of these individuals into Paramedic Services.

The PTO's have also been working with the Community Paramedic (CP) Program in collaboration with an outside agency to provide various levels of training available to the quickly expanding CP Program and its newest staff.

The PTOs are currently developing the fall training curriculum that will be delivered in-person to all

front line paramedics, commencing in October. The agenda will include relevant information such as Unconscious Bias in the Prehospital Setting, the Lucas CPR Machine, and Hydro Safety for First Responders. During this training session, medics will also complete their annual CPR recertification and be fit tested on the N95 masks.

Once again, this year's students from Boreal College, Cambrian College, and Canadian Career College CTS will be on placement with paramedics as part of their school program. The PTOs review student requirements while on placement along with safe work practices.

The PTOs have completed training all paramedics on the operation of the Nederman Exhaust System. This system captures and vents vehicle exhaust from the vehicle tail pipe and has been installed at five Emergency Service Stations.