

Ambulance Offload Delays

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Report Summary

This report and presentation provides information regarding the history and trends of Ambulance Offload Delays across the City of Greater Sudbury.

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

This report refers to operational matters and has no direct connection to the Community Energy and Emissions Plan.

Financial Implications

There are no financial implications associated with this report.

Background

An Ambulance Offload Delay (AOD) is a delay in the normal Transfer of Care (TOC) process between paramedics and emergency department nursing staff.

Sudbury Paramedic Services has been dealing with AODs since 2005. The principal cause of AODs is a lack of in-patient bed capacity, leading to high numbers of in-patients remaining in the emergency department (ED), thus resulting in overcrowding in the ED. The emergency department at Health Sciences North (HSN) has 39 beds. In 2021, the average number of in-patients waiting for beds in the hospital at the start of each day was 18, compared to 13 in 2020. Any patient that visits the emergency department with a health problem for diagnosis or treatment but does not require admission is classified as an out-patient.

In 2013, the Province's Ministry of Health and Long Term Care (MOHLTC) implemented and funded a Designated Offload Nurse (DOLN) program at Health Sciences North (HSN) to assist in mitigating AODs. The DOLN is dedicated to caring for patients coming to the hospital by ambulance that otherwise would be on an AOD. One DOLN is staffed seven days a week from 10 a.m. to 10 p.m. This program has continued to be in place by using 100% grant funding of \$216,907 from MOHLTC.

The overcrowding in the emergency department results in the inability of paramedics to transfer care to a treatment bed. Provincially an AOD is considered any delay in transfer of time greater than 30 minutes. Since

2012 Sudbury Paramedic Services has held the position that any delay greater than 10 minutes or more from the time paramedics arrive in the emergency department to transferring the patient to hospital nursing staff to be an AOD. This position is taken to reflect the true time it should take to transfer care.

Other contributing factors that exacerbate the AOD problem include:

- HSN is the only emergency department within our region to treat emergent patients. In addition, HSN offers a variety of programs and services with regional programs in the areas of cardiac care, oncology, nephrology, trauma and rehabilitation. HSN's patients visit from a wide area across northern Ontario, putting additional strain on in-patient bed capacity.
- The emergency department has seen a return to pre-pandemic volumes with a projected number of visits for 2021-2022 of 75,753. With only one emergency department located at HSN for our region, during periods of high ambulance call volumes or significant AODs, paramedics have no alternative emergency department to divert acute ambulance patients.
- Call volume of patients using EMS 911 has increased. Over the past 10 years the call volume of patients using 911 has increased by approximately 2.9% every year. Throughout the pandemic call volume fluctuated but has now returned to pre-pandemic levels. In 2021 the call volume for patients using 911 was 32,236.
- EMS 911 resources used for non-urgent and inter-facility transfers impacts the availability of emergency resources to provide emergency response and maintain the appropriate emergency resource coverage in all areas relative to demand. This is termed Balanced Emergency Coverage (BEC). There are many reasons why patients need to be transported from one healthcare service location to another. During non-urgent transfers, the patient is not in immediate danger. The majority of these transfers are for routine, non-life-threatening reasons but regularly utilize 911 emergency resources. This practice diverts emergency resources from more urgent 911 requests.
- Hospital Emergency Department Outreach Service (EDOS) transfers impact BEC. The EDOS program is operated by HSN and provides seven long-term care homes with on-site medical care for a variety of minor emergencies, injuries, ailments and patient procedures with the goal of reducing patient visits to the ED. The on-site nurses and physicians provide primary care to these patients. At times, paramedics are required to support this program to conduct EDOS transfers to HSN for additional patient evaluation such as an x-ray or CT scan. The EDOS for Paramedic Services is time consuming and can disrupt the Balanced Emergency Coverage by utilizing an ambulance for an extended period of time. Over the past 5 years, the average time to complete an EDOS call is 1 hour and 42 minutes.

Analysis

Paramedic Services data indicates that in 2021, Sudbury Paramedic Services spent approximately 3,678 hours at the hospital on AODs. This is equivalent to removing one ambulance from service for 10 hours every single day of the year. The direct value associated with this loss of deployment is \$417,901 (2 paramedics, 10 hours day/365 days (salary + benefits)).

AODs leave fewer ambulances available to service calls, resulting in difficulties to maintain BEC across the City and result in longer response times for critical patients. The remaining available ambulances are busier, resulting in less down time for paramedics. This reduction in down time results in less time to complete patient charting and increased overtime as paramedics complete charting at the end of their shifts. In addition, due to fewer vehicles available to service calls, there is an increase in late or missed meals. AODs also place significant stress and frustration on paramedics in meeting the needs of patients in a timely manner. Paramedics also experience a reduction in downtime to complete other tasks associated with their role. All these factors negatively impact job satisfaction.

During periods of high AODs, there are incidents of ambulances from other services being assigned to emergency calls in our community while they are dropping off or picking up patients at HSN.

During periods of high AODs, the Platoon Superintendent (PS) is required to spend significant periods of time in the emergency department to assist with AOD mitigation. This strategy is important but results in significant challenges for the PS when trying to address a number of other important operational issues.

Provincial Outlook

Since 2009, the Ontario Association of Paramedic Chiefs (OAPC) have been advocating to the Province the need to address Ambulance Offload Delays as this is a hospital capacity and patient flow issue. It was through this advocacy that the Designated Offload Nurse (DOLN) program came to fruition. During that period AODs in Sudbury were significant resulting in the City receiving funding and implementing the DONP program.

The City of Greater Sudbury is a member of the of Municipality Benchmarking Network Canada (MBNCan), which is a partnership between Canadian municipalities who compare and identify consistent and comparable data on their municipal service areas, report the findings annually, and analyze these reports for continual improvement in their delivery of service to our communities. Ambulance Offload Delays are not unique to Sudbury Paramedic Services, as other Paramedic Services within MBNCan are also reporting increases in Ambulance Offload Delays. Sudbury Paramedic Services recognizes that our AODs are not as significant as other services. For example, we see services such as Toronto, Waterloo, Hamilton, and Thunder Bay seeing upwards of 30% ambulance turnaround time lost to hospital, where Sudbury currently sits at 10%. Over the past decade we have been collaborating with HSN and participating on various working groups and committees to address AODs.

Sudbury Paramedic Services continues to collaborate through our participation on the Provincial Patient Flow/AOD Committee chaired by Ottawa Paramedic Services. The purpose of this committee is to share information on Ambulance Offload Delays and exchange ideas and mitigation strategies to reduce the impact of these delays when they occur. Services on the committee include representatives from Ottawa, Waterloo, Peel, and Hamilton Paramedic Services. In addition, through various networks, we are always looking for opportunities and different strategies to address AODs. Some of these strategies are described later in this report.

Current Status

AODs continue to increase in frequency and duration. Table 1 illustrates the number of deployed ambulance hours impacted by AODs, the average ambulance offload delay time exceeding the 10 minute threshold, and the percentage of calls that have experienced an offload delay. In 2021/2022, the number of emergency department visits has returned to pre-pandemic volumes. The increase in volume of patient visits to the emergency department coincides with the increased AOD times and the impact on ambulance resources.

Ambulance Offload Delay Criteria	2021	2020
Total Ambulance Offload Delay time (exceeding 10 min threshold)	3679:05:12 (hh:mm:ss)	2913:25:52 (hh:mm:ss)
Average Ambulance Offload Delay (exceeding 10 min threshold)	00:11:54 (hh:mm:ss)	00:11:10 (hh:mm:ss)
Percentage of Offload calls with (>10 min threshold)	91.05%	69.61%

Table 1

Mitigation Strategies

Since 2005, Paramedic Services has been working with community and provincial stakeholders on strategies and initiatives to mitigate the impact of AODs on the delivery of land ambulance services in our community.

Some of these initiatives include:

- Designated Offload Nurse (DOLN) dedicated to caring for patients coming to the hospital by ambulance that otherwise would be on an AOD. The DOLN is staffed seven days a week from 10 a.m. to 10 p.m. and has proven to be beneficial in addressing AODs. This program continues to be operated by using 100% grant funding from the Province's Ministry of Health and Long Term Care (MOHLTC) of \$216,907 maximum funding. In collaboration with HSN, the process for utilizing offload nurses continues to be evaluated. This information helps to identify opportunities to improve the program.
- The Paramedic Platoon Superintendent contacts the HSN emergency department Charge Nurse and the MOHLTC Dispatch Supervisor at the beginning of every shift to discuss the current status of the emergency department and in-patient capacity within the emergency department.
- In December 2022, City of Greater Sudbury Information Technology (IT) assisted to establish the ambulance availability program that is supported and maintained by our IT Department. Throughout the shift, the Ambulance Communication Officer monitors ambulance availability. A policy on ambulance availability has been established that outlines the steps the paramedics, Platoon Superintendent and HSN charge nurse are to take when ambulance resources are depleted.
- Recently introduced is the Fit2Sit program. The Fit2Sit program provides paramedics with the opportunity to place a patient directly into the waiting room. Within the Fit2Sit program, an inclusion/exclusion criteria of patient presentation is outlined, assisting paramedics in their decision-making process for the disposition of the patient. The goal of this program is to reduce AODs, decrease TOC times and allow paramedics to return to the community to provide BEC in a timely manner.
- Doubling (batching) up of patients by paramedic staff. When there is a shortage of available ambulances, a paramedic crew on AOD will monitor their patient and also take over care of a patient from another paramedic crew that is on AOD. This process of batching up frees other paramedic crews that can then return to the community to establish BEC.
- Community Paramedicine Programs. The goal of the CP Programs are to assist patients that have utilized 911 and hospital services on multiple occasions due to chronic medical and/or social issues. Community Paramedics (CP) collaborate with community organizations to help alleviate patients' issues in their homes, thereby decreasing the number of times they are taken to hospital by paramedics.
- Patient Diversion Program. This program was developed in collaboration with HSN, allowing paramedics responding to a 911 call to offer Mental Health and Addictions Diversion to suitable and consenting patients. This program offers a method for hospital emergency department aversion strategies and supports patient centered care, the right treatment to the right patient at the right time. This program has been available to patients since 2015 and has proven to be a safe and effective alternative to the emergency department in supporting those in need of mental health and/or addictions supports in the community.

Future Initiatives

In November 2021, Paramedic Services submitted an expression of interest to the MOHLTC for a Provincially funded non-urgent, medically stable transportation program for Greater Sudbury. The objective of this program is to provide an efficient and cost-effective model to transport medically stable patients into and out of hospital centres within both the land and air transport systems. The goal of this proposal is to improve efficiencies and reduce cost for non-urgent / medically stable patient transportation, thus reducing the impact to EMS 911 resources. At this time we are waiting for approval of the proposal from the MOHLTC.

Conclusion

An Ambulance Offload Delay (AOD) is a delay in the normal Transfer of Care (TOC) process between

paramedics and emergency department nursing staff. Paramedic Services considers an AOD to be when 10 minutes or more has elapsed from the time paramedics arrive at the emergency department to the time that the TOC process with hospital nursing staff is complete.

Over the past few years, Paramedic Services has seen an increase in AOD frequency and duration resulting in a depletion of emergency resources to respond to 911 emergencies within our community in a timely manner.

An Ambulance Offload Delay is a result of limited hospital bed capacity for in-patients. HSN ED staff continuously work with paramedics to expedite Transfers of Care and reduce AODs but are faced with significant overcrowding and patient flow issues. Although this is a health care system problem, ED staff work very hard to address flow and overcrowding. The growing number of offload delays impact our ability to maintain Balanced Emergency Coverage (BEC) for our community. Periods of reduced emergency resources result in longer response times for those critically ill or injured and wait times for stable patients with lower acuity health needs.

Paramedic Services continues to collaborate with MOHLTC, community partners and HSN to implement mitigation strategies to address the increasing number of AODs within the HSN emergency department.