



Report To: DSB Program Planning Committee
From: Robert Smith
Chief of Paramedic Services
Date: April 27, 2017
Re: Response Time Standard - Issue Report

Recommendation

That this report be taken by the Program Planning Committee as information on the Ontario Ambulance Response Time Standard (RTS) and how Manitoulin-Sudbury DSB has performed for the period of January 1, 2016 through December 31, 2016.

Purpose

The purpose of this report is to provide the DSB Program Planning Committee with background on the Ontario Ambulance RTS and detail the results of our 2016 Response Time Performance Plan. A letter detailing our performance was submitted to the Ministry of Health & Long Term Care (MOHLTC) Emergency Health Services Branch (EHSB) Director as dictated in the [Ambulance Act O. Reg. 257/00](#) by the March 31st deadline.

Background

In 2006 the provincial government established in conjunction with the Association of Municipalities of Ontario (AMO), a Land Ambulance Committee (LAC), to review a number of subjects including ambulance response time standards. Arising from that work on July 31, 2008 the provincial government made changes to the Ambulance Act, Response Time Performance Plans. These changes were to be phased in over three years and were expected to be fully in effect in 2011 however a series of delays caused the new standard to actually take effect in 2013.

Specifically relating to the standard, each Direct Delivery Agent (DDA) is to send their response time plan to the MOHLTC EHSB Director through their local Field Office no later than October 31 of each year. The report is to detail responses with targets for patients in sudden cardiac arrest, and patients presenting on the "Canadian Triage and Acuity Scale" (CTAS) 1, 2, 3, 4, & 5. Then, by March 31st of each year the DDA will submit the same table completed with the actual results achieved in the year previous.

As in the past, these response times are based upon district not on Ambulance Service. In other words, data is reported for all calls within the Manitoulin-Sudbury DSB area regardless of which ambulance service performed the call.

Greater details on the RTS have been documented in previous reports on the DSB website including [2016 Response Time Standard – Issue Report](#) and [Ambulance Response Time Standard – Issue Report](#).

CTAS Reaffirmed

To understand the RTS it is essential to re-affirm the concept of the Canadian Triage and Acuity Scale (CTAS). CTAS is a method for grouping patients according to the severity of their condition as follows:

CTAS 1: Severely ill, requires resuscitation

- Requires resuscitation and includes conditions that are threats to life or imminent risk of deterioration, requiring immediate aggressive interventions (for example, cardiac arrest, and major trauma or shock states).

CTAS 2: Requires emergent care and rapid medical intervention

- Requires emergent care and includes conditions that are a potential threat to life or limb function, requiring rapid medical intervention or delegated acts (for example, head injury, chest pain or internal bleeding).

CTAS 3: Requires urgent care

- Requires urgent care and includes conditions that could potentially progress to a serious problem requiring emergency intervention, such as mild to moderate asthma, moderate trauma or vomiting and diarrhea in patients younger than 2 years.

CTAS 4: Requires less-urgent care

- Requires less-urgent care and includes conditions related to patient age, distress or potential for deterioration or complications that would benefit from intervention, such as urinary symptoms, mild abdominal pain or earache.

CTAS 5: Requires non-urgent care

- requires non-urgent care and includes conditions in which investigations or interventions could be delayed or referred to other areas of the hospital or health care system, such as sore throat, menses, conditions related to chronic problems or psychiatric complaints with no suicidal ideation or attempts.

The CTAS scale is a medically validated scale used by a myriad of emergency health professionals including Doctors and nurses in Emergency Departments.

2016 Response Time Standard Targets

As detailed earlier, Manitoulin-Sudbury DSB is required to report the targeted response time standard to the MOHLTC by October 31st of each year. The 2016 targets were submitted on October 28, 2015. Additionally, there is a requirement to submit actual results by March 31st of the following year. The following table details Manitoulin-Sudbury DSB 2016 RTS results which have been submitted to the EHSB Director.

MOHLTC ADRS Data Set				
Patient Severity	Target Time	Actual Time	Target Response Met	Call Volume
Dispatched SCA	6 minutes, 25% of time	6 minutes, 25.0% of time	Yes	28
CTAS 1	8 minutes, 30% of time	8 minutes, 29.5% of time	No	75*
CTAS 2	15 minutes, 65% of time	15 minutes, 66.4% of time	Yes	729
CTAS 3	20 minutes, 75% of time	20 minutes, 82.3% of time	Yes	2,207
CTAS 4	25 minutes, 85% of time	25 minutes, 89.5% of time	Yes	1,123
CTAS 5	25 minutes, 85% of time	25 minutes, 90.6% of time	Yes	310

* CTAS 1 volume inclusive of SCA calls

Current Issues

While the current datasets are far more accurate than the “MOHLTC 1996 90th percentile” model, it is also acknowledged throughout the industry that the current information provided by the Ministry of Health and Long Term Care is challenged. Because the data points are for the most part manual inputs made by Communications Officers during high stress events there exists a significant risk for input errors.

The ability of a remote and rural Paramedic Services to achieve the 6 or 8-minute timeframe a high percentage of the time is naturally poor due to the lack of abundant resources and geographic limitations.

The Sudden Cardiac Arrest response time target, based upon defibrillator application is a specifically unique metric that represents only 0.3% of the entire service 2016 call volume, while the CTAS target, inclusive of SCA calls, is representative of less than 1% of the entire service volume. As such, slight changes to response locations (response times) have a significant impact on the benchmarks. Having just one additional response outside the response time target in 2016 would increase decrease compliance by 3.6% in the target percentage. SCA and CTAS 1 RTS present a unique issue to rural Ontario. While a greater reliance on allied agencies and tiered agreements could improve access to defibrillation, it is unlikely that the volunteer nature of such agencies would result response times that would achieve target success for the prescriptive timelines of these call types.

Public access defibrillator programs have the potential for improved target outcomes, but the majority of these calls are located in residences, not in the public locations where AED devices are primarily located.

An additional challenge to target success for RTS levels relates to the nature of on-site verses on call deployment of Paramedic resources. The decision to assign resources as on site verses on call is premised on volume workload and a balance of capacity to deploy personnel. While 5 of the 12 station locations are currently deployed on a 24/7 basis, 7 stations have onsite staffing at some level less than 24/7. It is that on both the 6 and 8 minute response times the time starts from the moment the Paramedics receive the call for service. There is a MOHLTC standard allowance of 2 minutes to receive the call and be mobile to the call. So in essence the 6 and 8 minutes are really 4 and 6 minutes of actual travel time. Basically, travelling at a very fast 80 km/h, the cardiac arrest would have to occur within 8 km of the station for the ambulance to get there in 6 minutes. Understanding that most ambulance stations are based in residential or populated areas travelling that fast would be quite dangerous.

Allowing DDA's to choose both the *response time target* and the *target percentage of time achieved* for CTAS 2, 3, 4, & 5 emergency calls, presents a challenge related to service comparisons caused by the ability to self-declare multiple variables. It must also be understood that as part of the RTS, all targets and actual performances are being publicly posted by the MOHLTC website. It has become truly evident that the MOHLTC is exclusively focused on measuring Paramedic Services against the SCA and CTAS1 data. It is also clear that the reporting design does not distinguish urban, suburban, rural or remote communities and the necessary delivery models.

Currently, the only way to measure our responses in a manner that the MOHLTC wishes is to use their ADRS data. It has been highly noted by many industry experts as well as independent consultants that the ADRS data is severely flawed with much missing data. We have however utilized this data instead of our own ZOLL EPCR data due to the fact that we are responsible for all calls in our area and we do not have access to other ambulance service data through an internal PCR method. With this being noted a review of PCR documentation has been completed to compare against the MOHLTC ADRS data. Post review, we believe the statistics for SCA and CTAS 1 calls to be reliable. Data for CTAS 2-5 is being taken as is due to the volume of calls and our inability to devote the time for a fulsome review of calls numbering in the thousands

Reporting based on the unique features of the DDA is not a part of the current reporting structure. It has been noted that there are differences between DDA's in terms of population density. Basically, there needs to be a methodology to denote urban, suburban, rural and remote services so that not all are painted with the same brush in the eyes of the public. If a population is spread out it becomes more difficult to focus limited resources in optimal locations in an effort to achieve the aggressive response times detailed within the provincial RTS. The vast difference between an urban and remote response needs to be factored into the RTS equation.

Conclusion

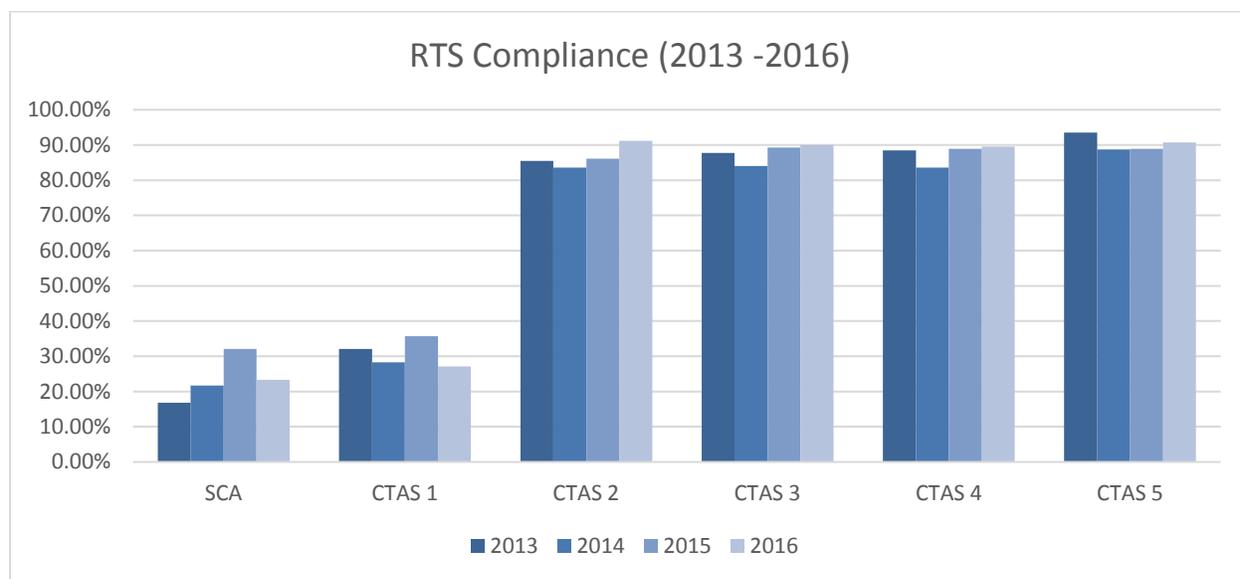
Four (4) years of data is suggestive of continued challenges with target achievement below what we feel is ideal. While it is evident that our response times for 2015 had improved over the previous years, there is a demonstrative retraction that was revealed in 2016.

	Time	2013	2014	2015	2016
SCA	6 minutes	16.8%	21.7%	32.1%	25.0%
CTAS 1	8 minutes	32.1%	28.3%	35.7%	29.5%
CTAS 2	25 minutes	85.5%	83.6%	86.1%	66.4%*
CTAS 3	25 minutes	87.7%	84.0%	89.3%	82.3%**
CTAS 4	25 minutes	88.5%	83.6%	88.9%	89.5%
CTAS 5	25 minutes	93.5%	88.7%	88.9%	90.6%

*CTAS 2 target times were set to 15 minutes from 25 minutes.

**CTAS3 target times were set to 20 minutes from 25 minutes.

The following charts depicts visually the success and failures for each of the response time targets.



Community programs such as Public Access Defibrillation and Tiered Response programs are demonstrative of system success where Paramedic resources are geographically challenged. The service will continue to collaborate with municipal partners to expand such programs where deemed necessary. The service has been in early discussions with Chapleau to explore a tiered process.

While the PRU program on both Manitoulin Island and the LaCloche corridor have afforded the citizens and improved response capacity, this has not directly translated to improved response times for SCA and CTAS 1 or 2 calls. A mitigation strategy has been implemented in 2017 that will see a detailed review of all SCA responses within one

business day. This review will include GPS tracking as a process to allow information feedback in acceptable timelines.

The most recent iteration of the Paramedic Service Deployment Plan was released in April of 2016. That document had a goal of mitigating impact of resource loss for non-urgent interfacility requests, and due to air ambulance avoidance for air indicated call types. The effort was to ensure proper resource utilization by the Central Ambulance Communications Centers (CACCs). This plan, in concert with the continuation of the current pilot non-urgent patient transportation project is showing continued success in the provision service themed as the right resource for the right patient. To date challenges continue to exist surrounding resource loss as sending facilities shy away from consideration of air ambulance initiation, while use of non-urgent resources is inconsistent. Strategies for increased non-urgent service include advanced notification by the MOHLTC CACC for interfacility transfers booked for Paramedic Services. The Superintendents will be responsible to make efforts to off-load the work to the non-urgent service. With respect to the failure of facilities to utilize the air ambulance system, there are strategies that may be required to refocus the resource allocation. This work will be developed and implemented in concert with stakeholders.