

BACKGROUND

Response Time Standard Framework

City Council is responsible to establish response time targets for our municipality and report annually to the Ministry of Health and Long Term Care (MOHLTC) on our compliance with the established response time plan as set out in *Regulation 257/00* under the *Ambulance Act*. This Regulation allows municipal input into the response standards and permits for medically relevant differences among call types.

Key aspects of the regulations include:

- Multiple response time targets based on medically relevant categories;
- Allows for variable percentile performances; and,
- The targets of time and percentile performance can be maintained or changed at the discretion of Council.

The timelines for submission and reporting are:

- October 1 of each year report to the MOHLTC the response time standards, as approved by Council, for the upcoming year;
- By March 31 of each year, file the previous year's response time actuals with the MOHLTC; and,
- Between April and June of each reporting year, the municipal response time plan and results achieved will be posted on the MOHLTC website for public viewing.

Reportable Call Criteria

The response time framework is based on the following:

1. The percentage of times that a person equipped to provide any type of defibrillation has arrived on-scene to provide defibrillation to **sudden cardiac arrest patients within six minutes** of the time notice is received. (*A bystander, emergency responder or Paramedic with a defibrillator will stop the clock*).
2. The percentage of times that an ambulance crew has arrived on-scene to provide ambulance services to sudden cardiac arrest patients or other patients categorized as **CTAS 1 within eight minutes** of the time notice is received respecting such services.
3. The percentage of times that an ambulance crew has arrived on-scene to provide ambulance services to patients categorized as **CTAS 2, 3, 4 and 5 within the response time targets set by the upper-tier municipality** or delivery agent under its response time plan.

Canadian Triage Acuity Scale

The response time standards utilize the Canadian Triage Acuity Scale (CTAS) as shown in (Figure 1). CTAS is a medically proven triage tool currently utilized by all hospitals and Paramedics in Ontario. CTAS is based on a five-level scale with Level 1 (resuscitation) representing the "sickest" patients and Level 5 (non-urgent) representing the least ill group of patients. CTAS scores are based on an assessment of the patient's condition by the paramedic after arrival at the scene.

Patient Severity Categories

Level of Acuity	Type of Call
Sudden Cardiac Arrest	Patient has no vital signs
CTAS 1	Critically ill or have potential for rapid deterioration
CTAS 2	Potential to life, limb or function, requiring rapid medical intervention, controlled acts
CTAS 3	May progress to serious problem. Associated with significant discomfort or affecting ability to function.
CTAS 4	Conditions that would benefit from intervention or reassurance
CTAS 5	Non urgent, chronic, without evidence of deterioration

Figure 1

Improving Response Times

Paramedic Services continues to evaluate and pursues opportunities that have the potential to improve response times, these include:

Medical Tiered Response Protocol – review the current protocol for Greater Sudbury Fire Services who respond to Sudden Cardiac Arrests and Unconscious calls;

Public Access Defibrillator Program – continue to work with community partners to expand the number of public access defibrillator units within the city.

Paramedic Services - System Status Plan Review – assess deployment and resource utilization with an aim to improve response times within Greater Sudbury;

Paramedic Training Officer in the Field (Pilot) – Paramedic Training Officer (PTO) are regularly scheduled on the road, Monday to Friday to provide education to the Paramedics, while on shift. The PTO pairs up with one Paramedic from a crew, the second Paramedic is assigned to a Paramedic Response Unit (PRU) during this time. We are evaluating the impact of utilizing this PRU resource in locations, within our catchment area.

Ambulance Off Load Delay (AOD) Nurse Program – the reduction of Ambulance delays can free up available Paramedic Services resources resulting in improved response times.

Response Time Targets

The response time standards for sudden cardiac arrest and CTAS 1 calls have a fixed time set by the Province of six (6) and eight (8) minutes respectively. These fixed times are based on the most current medical evidence for these calls. The City reports on the percentile of time a defibrillator (*Paramedic, Fire, or public access defibrillator*) for sudden cardiac arrest calls or a Paramedic for all CTAS 1 calls has arrived at the patient for each of these categories.

For CTAS 2 to CTAS 5 patients, the City is to set both the response time target and the percentile these response times are achieved. Paramedic Services submitted the following response time targets in for 2018 (Figure 2).

Level of Acuity	Target Time	Percentage
Sudden Cardiac Arrest	6 minutes (set by MOHLTC)	70%
CTAS 1	8 minutes (set by MOHLTC)	80%
CTAS 2	10 minutes (set by CGS)	85%
CTAS 3	15 minutes (set by CGS)	85%
CTAS 4	15 minutes (set by CGS)	85%
CTAS 5	15 minutes (set by CGS)	85%

Figure 2

Paramedic Services is not recommending a change in the current plan for 2018. The response time targets have been determined by the following:

- Retrospective review of Sudbury's 2015, 2016 and 2017 response time performance for Sudden Cardiac Arrest and CTAS 1 to CTAS 5.
- Review of response time performance data and targets from other land ambulance services in Ontario.
- In consultation with the Services' Medical Director.

Response Times for 2017

Paramedic Services achieved the response time targets that were submitted for 2017 (Figure 3).

Level of Acuity	RTS in Minutes	RTS Approved	2017 RTS
Sudden Cardiac Arrest	6 minutes (set by MOHLTC)	70 %	73%
CTAS 1	8 minutes (set by MOHLTC)	80 %	80%
CTAS 2	10 minutes (set by CGS)	85 %	88%
CTAS 3	15 minutes (set by CGS)	85 %	97%
CTAS 4	15 minutes (set by CGS)	85 %	97%
CTAS 5	15 minutes (set by CGS)	85 %	97%

Figure 3

Conclusion

Paramedic Services has submitted the response time standards plan as provided above (Figure 2) for 2018, based on the best available call information and evidence-based medical practices in Sudbury. This plan is considered both achievable and builds on the current performance of Sudbury Paramedic Services through its tiered response protocol with Fire Services and the local public access defibrillation program.