
REPORT TITLE: Paramedic Services 2022 Response Time Framework

FROM: Nancy Polsinelli, Commissioner of Health Services

RECOMMENDATION

That the recommended Response Time Framework for Peel Regional Paramedic Services for the year 2022, outlined in the report of the Commissioner of Health Services, listed on the October 14, 2021 Regional Council agenda titled “Paramedic Services 2022 Response Time Framework”, be approved.

REPORT HIGHLIGHTS

- Land ambulance delivery agents are required to set response time standards for their municipality each year and to communicate them to the Ministry of Health (Ontario Regulation 267/08, July 30, 2008).
 - Sudden Cardiac Arrest (SCA), Canadian Triage Acuity Scale (CTAS) 1 and 2 response times are the most critical calls.
 - For 2021 (January to July) CTAS 1 time is over target by twenty-three seconds and all other goals were met. The 2020 CTAS 1 time was over target by thirty-two second.
 - Response times are impacted by call volume, offload delay, and the triage and dispatch of calls by Mississauga Central Ambulance Communications Centre (CACC).
 - The recommended 2022 Response Time Framework is unchanged from 2021.
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DISCUSSION

1. Background

Land ambulance delivery agents are required to set response time standards for their municipality each year and to communicate them to the Ministry of Health by October 31 (Ontario Regulation 267/08, July 30, 2008).

Regional Council reviews and approves the response time standards for the coming year and, through Paramedic Services, reports on compliance with the six call severity categories to the Ministry of Health. The six call categories are based on two types of calls:

- Sudden Cardiac Arrest – This is the amount of time from notification of call to when a defibrillator is at the side of a patient; this response time is set by the Ministry of Health. The clock stops when a bystander, emergency responder or paramedic first applies the defibrillator to the patient.
- Canadian Triage Acuity Scale (CTAS) – This scale is a standard medical triage system that divides patients into five categories (refer to Table 1). CTAS is currently

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used by paramedics and at all hospitals. Response time is measured from when the paramedic is notified (assigned the call by CACC) to when they complete their initial assessment of the patient and determine the appropriate CTAS level. The CTAS 1 response time is set by the Ministry of Health.

A large body of historical data, including Peel's overall call volume, response timeframes and cardiac arrest data (based on evidence from our Fire Services and Public Access Defibrillation program), form the foundation for the response time targets. Data from the first seven months of the current year (2021) supplements the historical data and helps determine if any modifications should be made to the response time framework. The goal is to be at or below Ministry and Council approved targets.

The COVID 19 pandemic of 2020-2021 has impacted response times in 2021 due to inconsistency in call volume (reduced call volume during the peak waves and returning to near normal at other times), increased levels of PPE required when responding to calls and changes in highway traffic flow during specific periods during the pandemic.

2. Findings – 2020 and Year to Date 2021 Response Times

Getting to a sudden cardiac arrest (SCA) quickly is paramount to the survival outcome of the patient. Having a bystander or first responder start CPR and apply a defibrillator prior to paramedic arrival enhances their chance of survival. Paramedic Services, together with other Emergency Responders, continues to exceed the 6-minute timeline (5:46) above 70 per cent (72 per cent). SCA data is not yet available for January to July 2021.

CTAS 1 and 2 response times are the most critical non-SCA calls paramedics respond to and provide care. Together, these times and the sudden cardiac arrest response time account for approximately 25 per cent of total transports to hospital. The 2020 CTAS 1 response time was 32 seconds over target and CTAS 2 response time is 65 seconds under the target of 10 minutes. The 2021 data (January to July) shows 23 seconds over target for CTAS 1 and 41 seconds under target for CTAS 2.

CTAS 3 calls account for most transports to hospital (approximately 66 per cent) and Paramedic Services are within the current framework. The same is true for CTAS 4 and 5 transports that represent approximately 9 per cent of activity. These measures remain within Council approved targets.

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Table 1
2020 and January to July 2021 – Targets and Actual Performance

Level of Acuity <i>(Targets for Sudden Cardiac Arrest and CTAS 1 are set by Ministry of Health and Long-Term Care)</i>	2020 Council Approved Target Time	2020 Council Approved Target %	2020 Actual Time at Target % (minutes)	2020 Actual %	2021* Actual Time at Target % (minutes)	2021* Actual %
Sudden Cardiac Arrest* (Patient has no vital signs)	6:00	70%	5:46	72%	**	%**
CTAS 1 (Critically ill or have potential for rapid deterioration)	8:00	75%	8:32	69.2%	8:23	71.9%
CTAS 2 (Potential to life, limb or function, requiring rapid medical intervention, controlled acts)	10:00	80%	8:55	87.0%	9:19	84.6%
CTAS 3 (May progress to serious problem. Associated with significant discomfort or affecting ability to function)	13:00	90%	11:00	95.1%	11:56	92.6%
CTAS 4 (Conditions that would benefit from intervention or reassurance)	14:00	90%	11:37	95.7%	12:02	94.4%
CTAS 5 (Non-urgent, chronic, without evidence of deterioration)	14:00	90%	11:38	95.8%	12:41	93.5%

*2021 CTAS data is based on January 1 to July 31, 2021.

**2021 SCA data is not yet available.

Factors that impact response time:

- COVID-19 – Infection prevention and control measures within the hospitals and the amount of PPE required to be worn before connecting with the patient or responding to the call have significantly impacted system response.
- Rapid Response Units – These units, staffed by a single paramedic, are strategically in place to provide care quickly to the higher acuity calls in the community. As the need to transport more COVID patients to the hospital increased, these units were suspended so that staff could be placed on ambulances to help address the demand.
- Staffing – Paramedics have steadfastly followed all the COVID-19 Public Health measures to protect themselves and the community. During the height of the third wave, every call was related to COVID, so heightened precautions and anxieties have led to wellness decline where more paramedic absences are occurring.
- Offload delay – Paramedic Services has recognized a marked increase in offload delay time related to COVID infection prevention and control measure activities and limited Hospital staff resources to address patients being cared for and monitored by

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paramedics. The program continually works with hospital partners to improve these delays.

- Triage of emergency calls by the Ministry of Health operated dispatch system remains misaligned with the CTAS criteria. In the absence of a robust, evidence-based triage tool, the dispatch centre continues to send a large portion of call responses out as 'life.

3. Proposed Direction – 2022 Response Time Framework Recommendation

No changes are recommended for the response time framework for 2022. The proposed response time framework recommended for 2022 is:

Table 2

Recommended 2022 Standards – No Change For 2022

Level of Acuity	Time	Current %	Proposed %
Sudden Cardiac Arrest	6 minutes (fixed time)	70%	70%
CTAS 1	8 minutes (fixed time)	75%	75%
CTAS 2	10 minutes	80%	80%
CTAS 3	13 minutes	90%	90%
CTAS 4	14 minutes	90%	90%
CTAS 5	14 minutes	90%	90%

Paramedic Services continue to seek out strategies to address the highest acuity level (greatest patient need). Modifications and adjustments to paramedic deployment strategy are ongoing. This work guides CACC dispatch to optimally position ambulance resources where the call demand is likely to occur. In addition, staff work to maintain a one-minute reaction time (from call notification to depart station) for the most urgent calls (red lights and sirens).

Tiered response agreements with Fire and Emergency Services partners are in place for sudden cardiac arrest and CTAS 1 and 2 calls. Staff will continue to work toward meeting these targets by managing other initiatives such as offload delay process improvements, patient diversion strategies and paramedic resource management (e.g., adjustments to deployment plan).

Although the 2021 forecasted volumes reflect the 2019 pre-COVID volumes, uncertainty exists with how call volume will be impacted in 2022 as a result of COVID. To address uncertain call demand in 2022, through the 2022 budget process, staff will be requesting contingency staffing resources funded by the rate stabilization reserve to allow flexibility in adding additional staffed ambulances in the system during peak times of days of the week. This will have no net impact on the 2022 Budget and provide staff time to analyze and evaluate call volumes and related impacts in 2022 and bring forward a more comprehensive request for staffing needs in 2023 to manage response time, as required.

4. Dispatch Improvements

Improvements to the current dispatch system were put on hold by the Province as they addressed the pandemic. Staff is hopeful that the Province will implement the medical priority dispatch system for triaging calls for Halton and Peel Paramedic Services by next spring. Staff will continue to keep Regional Council apprised of any advancements and impacts to paramedic services.

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CONCLUSION

As quality response times lead to good health outcomes for the residents of Peel, it is recommended that Council approve the proposed response time standards for 2022 as they are based on best available call information and medically based practices currently utilized in Peel.

Staff will continue to monitor response times and growth impacts and if required will report back to Council with recommendations to address these trends in 2022.

Paramedic Services remains committed to delivering the highest standard of care in Ontario despite the system pressures and continues to implement process improvements and strategies to meet Council approved response times.

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