
REPORT TITLE: Paramedic Services 2021 Response Time Framework

FROM: Cathy Granger, Acting Commissioner of Health Services

RECOMMENDATION

That the recommended Response Time Framework for Peel Regional Paramedic Services for the year 2021, as described in the report of the Acting Commissioner of Health Services, titled “Paramedic Services 2021 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).
 - Based on provincial legislation, Regional Council has input into and approves the response time standards for Paramedic Services for the coming year.
 - Sudden Cardiac Arrest (SCA), Canadian Triage Acuity Scale (CTAS) 1 and 2 response times are the most critical calls.
 - Council approved changing the CTAS 2 response time percentage from 90 per cent to 80 per cent for 2020 to bring the PRPS Response Time Framework in line with other paramedic services.
 - For 2020 (January to July) CTAS 1 time is over target by seventeen seconds and all other goals were met.
 - Response times are impacted by call volume, offload delay, and the triage and dispatch of calls by Mississauga Central Ambulance Communications Centre.
 - COVID related activities such as putting on Personal Protective Equipment (PPE) will impact response times.
 - The recommended 2021 Response Time Framework is unchanged from 2020.
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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 has input into 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:

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- Sudden Cardiac Arrest – This is the amount of time from notification of call to when a defibrillator is at the side of a patient. 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 (Table 1). CTAS is currently used by paramedics and at all hospitals. Response time is measured from when the paramedic is notified (assigned a call) to when they complete their initial assessment of the patient and determine the appropriate CTAS level.

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 (2020) supplements the historic data and helps determine if any modifications should be made to the response time framework. The COVID 19 pandemic of 2020 has impacted response times in 2020 due to reduced call volume and increased levels of PPE required when responding to calls.

2. Findings - 2019 Response Times

Getting to a sudden cardiac arrest 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 continues to exceed the 6-minute timeline above 70 per cent and does not recommend any change to this measure.

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 2019 CTAS 1 response time was 10 seconds better than target and CTAS 2 response time is 49 seconds over the target of 10 minutes. The CTAS 2 response time percentage was changed for 2020 from 90 per cent to 80 per cent to bring PRPS in line with the targets of other paramedic services. The 2020 data (January to July) shows 17 seconds over target for CTAS 1 and 89 seconds under target for CTAS 2. SCA data is not yet available for January to July 2020.

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
2019 and January to July 2020 – 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>	2019 Council Approved Target Time	2019 Council Approved Target %	2019 Actual %	2019 Actual Time at Target %	2020 Council Approved Target %	2020* Actual %	2020* Actual Time at Target %
Sudden Cardiac Arrest* (Patient has no vital signs)	6:00	70%	72%	5:46	70%	%**	**
CTAS 1 (Critically ill or have potential for rapid deterioration)	8:00	75%	76.8%	7:50	75%	71.4%	8:17
CTAS 2 (Potential to life, limb or function, requiring rapid medical intervention, controlled acts)	10:00	90%	86.6%	10:49	80%***	89.1%	8:31
CTAS 3 (May progress to serious problem. Associated with significant discomfort or affecting ability to function)	13:00	90%	94.6%	11:10	90%	95.9%	10:34
CTAS 4 (Conditions that would benefit from intervention or reassurance)	14:00	90%	95.3%	11:45	90%	96.1%	11:11
CTAS 5 (Non urgent, chronic, without evidence of deterioration)	14:00	90%	93.9%	12:21	90%	97.4%	11:08

*2020 CTAS data is based on January 1 to July 31, 2020.

**2020 SCA data is not yet available.

***CTAS 2 Target was changed from 90 per cent to 80 per cent for 2020.

Factors that impact response time by paramedic services include:

- Offload delay – Paramedic Services have recognized a marked increase in offload delay time related to COVID activities within the hospitals. The program works closely to try and adjust these delays.
- COVID pandemic – Infection prevention and control measure within the hospitals and the amount of PPE required to be worn and removed have had significant impacts on system response
- Triage of emergency calls by the Ministry of Health operated dispatch system is not aligned 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 threatening' (over 70 per cent). Required by legislation to respond without delay, these calls place a high demand on the system.

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3. Proposed Direction – 2021 Response Time Framework Recommendation

No changes are recommended for the response time framework for 2021 (see Table 2). While Canadian Triage Acuity Scale 2 targets set for 2019 were not fully met preliminary data for 2020 shows success in meeting the target. The 2020 change of the CTAS 2 target from 90 per cent to 80 per cent brought Paramedic Services into closer alignment with other paramedic services in Ontario.

Paramedic Services continue to seek out strategies to address the highest acuity level (greatest patient need). Modifications and adjustments to our deployment strategy are ongoing. This work guides 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 our partners Fire and Emergency Services are in place for sudden cardiac arrest and some CTAS 1 and 2 type calls. Staff will continue to work toward meeting these targets through the management of other initiatives such as offload delay process improvements, patient diversion strategies and paramedic resource management (e.g. adjustments to deployment plan).

The proposed response time framework recommended for 2021 is:

Table 2
Recommended 2021 Standards

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%

4. Dispatch Improvements

Any improvements to the current dispatch system have been put on hold by the Province as we address the pandemic. The program is hopeful that this fall the Ministry will engage us to move forward with the implementation of the new triage tool and enhanced computer aided dispatch system.

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 2021 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 2021.

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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.

For further information regarding this report, please contact Peter F. Dundas, Director & Chief PRPS, Ext. 3921, peter.dundas@peelregion.ca.

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Reviewed and/or approved in workflow by:

Department Commissioner and Division Director.

Final approval is by the Chief Administrative Officer.



N. Polsinelli, Interim Chief Administrative Officer