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Toronto EMS Response to Recommendations Arising from the Fleuelling Inquest, and in Response to Questions Raised on Efforts to Deal with Overcrowding of Hospital Emergency Departments

(City Council at its meeting held on March 6, 7 and 8, 2001, adopted this Clause, without amendment.)

The Community Services Committee recommends the adoption of the following report (January 23, 2001) from the Commissioner of Works and Emergency Services:

Purpose:

The purpose of this report is to provide the City of Toronto Council with a response to the recommendations arising out of the inquest into the death of Mr. Joshua Fleuelling and responses to Councillor Maria Augimeri's brief submitted to the Community Services Committee on January 11, 2001, (Item No. 7).

Financial Implications and Impact Statement:

There are no direct financial implications associated with this report at this time.

Recommendations:

It is recommended that:

(1) the following report be received by City Council; and

(2) specific recommendations that may have a financial implication be considered as part of the 2001 Operating Budget and 2001-2005 Capital Works Budget.

Background:

On Friday, November 17, 2000, the Ontario Chief Coroner, Dr. Jim Young, received a total of 47 recommendations from the jury who presided over the inquest into the death of Mr. Joshua Fleuelling. Mr. Fleuelling died at Markham Stouffville Hospital two days following a severe asthma attack in his home that resulted in a cardiac arrest.
An ambulance responded, initiated intervention appropriate to the level of their training and transported the patient to Markham Stouffville Hospital. An inquest was called as a result of the closest hospital (Scarborough Grace Hospital) being on Critical Care Bypass, thereby requiring the ambulance to transport the patient to a hospital over 10 kilometres from the patient’s home.

The five member jury released 47 recommendations after hearing three months of testimony and focussed on issues of:

(a) asthma education to address the rising incidents of asthma;
(b) emergency department pressures in the GTA; and
(c) health care system restructuring.

The purpose of this report is to cover the recommendations pertaining to emergency response and Toronto Emergency Medical Services.

Inquest Recommendations:

13. The Toronto Ambulance Service should continue to increase the ALS (Advance Life Support) response capability of its service from the present coverage to full coverage throughout Toronto.

Toronto Emergency Medical Services is currently in the process of converting its system to an all advanced life support service. Currently, there are approximately 140 advanced care Level III paramedics and 140 advanced care Level II paramedics and 30 critical care paramedics out of a total complement of 754 paramedics. The balance is comprised of primary care paramedics.

In 2000, Toronto EMS trained 108 Level II paramedics and 58 Level III paramedics. A similar number will be trained during the 2001 budget year. The number of paramedics training is based on the ability of Toronto EMS to balance the need for ambulance coverage with the time to actually provide in-classroom, clinical and preceptor training.

A primary care paramedic receives two years of community college training and is able to provide a limited amount of advanced care intervention, including defibrillation, the administration of epinephrine, the administration of glucose, the administration of ASA, the administration of nitro-glycerine and the administration of ventolin. An advanced care Level II paramedic receives 12 weeks of additional clinical and in-classroom training in areas of intravenous therapy, advanced assessments, ECG interpretation and advanced defibrillation. The training program has been accredited by the Canadian Medical Association. The Level II paramedic works with a Level III paramedic in a support role.

The Level III paramedic receives an additional 18 weeks of training, including advanced airway management, other advanced delegated intervention skills, including a wide variety of drugs and pharmacologic interventions. The Level III program has also been accredited by the Canadian Medical Association.
At the time of the call to Mr. Joshua Fleuelling, Toronto EMS could ensure that advanced care paramedics responded to 50 percent of all life-threatening calls received. Out of a total of 180,000 emergency responses 55,000 are considered to be life-threatening. As of this date, the capture rate some 10 months following the Fleuelling call has increased to 75 percent through improved deployment and call screening practices. It is the goal of Toronto EMS to have a paramedic at an advanced level on each emergency ambulance ensuring that the capture rate for advanced care for all calls is 100 percent.

14. The Toronto Ambulance Service should be provided with funding for the hiring of eighteen additional full-time equivalent primary care paramedics for backfill positions so that training of advanced level paramedics can proceed at an increased pace.

In order to advance and increase the number of paramedics trained the jury recommended that Toronto EMS hire 18 additional primary care paramedics to provide backfill in order to continually train paramedics without compromising ambulance coverage. The additional primary care paramedics would allow Toronto EMS to ensure a consistent level of training without having to defer or delay training programs in order to meet peaks in ambulance demand.

15. We recommend Toronto Ambulance Service be provided with funding to hire more paramedics in order to increase the minimum car count by three ambulances per quadrant at all times. In addition to the paramedics required to staff these additional vehicles, we recommend that funds be allocated from the Province to the ambulance service for the purchase of the required vehicles and related equipment.

Toronto EMS has established a staffing to demand formula, which results in minimum ambulance vehicle counts during various periods of a 24-hour day. The minimum coverage requirements are as follows:

### Monday-Friday

<table>
<thead>
<tr>
<th>Time</th>
<th>Ambulances</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:00-10:00 hrs.</td>
<td>70</td>
</tr>
<tr>
<td>10:00-14:00 hrs.</td>
<td>78</td>
</tr>
<tr>
<td>14:00-19:00 hrs.</td>
<td>85</td>
</tr>
<tr>
<td>19:00-22:00 hrs.</td>
<td>48</td>
</tr>
<tr>
<td>22:00-02:00 hrs.</td>
<td>43</td>
</tr>
<tr>
<td>02:00-07:00 hrs.</td>
<td>36</td>
</tr>
</tbody>
</table>

### Saturday-Sunday

<table>
<thead>
<tr>
<th>Time</th>
<th>Ambulances</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:00-10:00 hrs.</td>
<td>47</td>
</tr>
<tr>
<td>10:00-14:00 hrs.</td>
<td>51</td>
</tr>
<tr>
<td>14:00-19:00 hrs.</td>
<td>55</td>
</tr>
<tr>
<td>19:00-22:00 hrs.</td>
<td>43</td>
</tr>
<tr>
<td>22:00-02:00 hrs.</td>
<td>41</td>
</tr>
<tr>
<td>02:00-07:00 hrs.</td>
<td>36</td>
</tr>
</tbody>
</table>
The jury has recommended that the minimum vehicle counts be increased by 12 additional ambulances over a 24-hour, 7-day a week basis. Depending on the shift rotation, the 12 ambulances would be distributed over the 12-hour day period 07:00-19:00 hrs. with 12 additional ambulances being added to the evening hours of 19:00-07:00 hrs. The cost implications of this recommendation would include approximately $1.8 million in vehicles and equipment and $9 million in additional staffing costs associated with approximately 100 additional paramedics.

Toronto EMS is currently examining its shift rotation and, may within existing complement, be able to increase the vehicle counts during various hours of the 24-hour day Monday-Sunday by four-six ambulances, however, this move would not effectively add the number of vehicles recommended by the jury.

Discussions regarding subsidy support from the Ministry of Health and Long-Term Care for both equipment and staffing would need to be reviewed.

The media release from the Ministry of Health would closely examine the recommendations, however, there has been no indication as to whether or not they would support either the full or partial cost of this recommendation.

16. We recommend that the Toronto Ambulance Service undertake its best efforts to ensure as many paramedics as practical are assigned permanent stations.

Toronto EMS is currently working with Local 416 to assign staff permanently to stations. The reality of the health care system today requires paramedics to have a thorough understanding of the total geography of the City of Toronto largely due to patient distribution and destination requirements. Due to hospital specialties and the current emergency department overcrowding issue, ambulances transport patients to all areas of the City of Toronto. Ambulances become available for calls regardless of their destination location, thereby requiring them to have a thorough knowledge of the City’s geography.

17. The Toronto Ambulance Service should institute a communication system that permits ready communication between the paramedics and the dispatchers by radio from any scene in order that paramedics do not have to rely on landline or cellular phones.

Toronto EMS has submitted a proposal in the 2001-2005 Capital Works Program to replace the portable radio system to provide enhanced communication from paramedics to the Central Ambulance Communications Centre. Regardless of improvements to the radio system there remains a need for a reliance on cellular phones to remain in close contact with the delegating physician. The length of time of a consult between a paramedic on-scene and the delegating physician is such that it would tie up a conventional radio system, especially when simultaneous patches are occurring within the system. The cost of a radio system would be approximately $1.3 million and Toronto EMS is currently working with Ministry of Health and Long-Term Care regarding full or partial funding for this project.
18. We recommend the implementation of a communication and/or information system that would permit ambulance dispatch information to be sent electronically to fire dispatch as soon as it is identified as a “delta” response. The system should allow that updates in information received should flow both ways electronically between the two dispatch systems.

Chief Speed and the General Manager of Toronto Emergency Medical Services have agreed to electronically link their respective computer aided dispatch systems. Toronto EMS will also be able to communicate directly through an electronic link with other dispatch systems surrounding the City of Toronto. In order for this project to be implemented, the Toronto Fire Services must complete the amalgamation of their fire dispatch systems and implement their computer aided dispatch system. Both the TFS and Toronto EMS CAD systems are inter-operable and are capable of being linked through software programs.

The Toronto Fire Services, as part of the communities tiered response (first responder) program responds to 28 percent of the total emergency medical volume that occurs within the City of Toronto.

19. Dispatchers should continue to be trained to increase their medical knowledge and understanding of medical terminology to ensure that paramedics and dispatcher are clearly communicating the nature of an emergency situation.

Toronto EMS is currently upgrading the training and medical knowledge of its Emergency Medical Dispatchers. In addition, the Toronto CACC is being accredited by an international agency for designation as a centre of excellence for the dispatching and deployment of emergency medical resources. This accreditation program requires a thorough knowledge in emergency medical practices by dispatchers.

20. Clear communication by Dispatch and paramedics should allow for input from both parties concerning the alternative destinations for transport of the patient. We recommend that the ultimate decision on transport should remain with Dispatch.

This is currently the practice of Toronto Emergency Medical Services, whereby Emergency Medical Dispatchers work co-operatively with paramedics to determine the most appropriate medical facility best able to meet the needs of the patient’s condition. To a degree this practice was in conflict with the Ambulance Act of Ontario and its accompanying regulations. The Ambulance Act specifies that the exclusive responsibility for determining the destination of a patient is the dispatcher. This may very well apply to areas of Ontario where there is perhaps one or two hospitals to choose from, however, in Toronto patient’s past medical history, condition and level of specialty of hospitals requires a more integrated decision-making process between the dispatcher and the paramedic. Toronto EMS concurs that the final decision should rest with the dispatcher based on coverage requirements and the status of hospitals at the time of transport. Consultation with the Ministry of Health and Long-Term Care will be required on this recommendation.
21. The Ministry of Health and Long-Term Care should ensure that the term “nearest” as contained in Regulation 501/97, Section 47 and the term “closest” as contained in the Standard issued pursuant to the regulation that requires dispatchers to direct ambulance crews to the closest hospital is defined. It should be made clear that the term “nearest” and “closest” refer to not just distance to a hospital, but the time that may be required to travel to the hospital taking into account traffic patterns and flow, population density, and other potential impediments.

Toronto EMS recognizes that multiple factors contribute to the choice of the best hospital destination. As discussed in the previous recommendation, paramedics, in concert with the dispatcher, are in the best position to make a clinical decision as to destination with the dispatcher providing input as to the status and availability of the hospital of choice.

22. The Director of the Emergency Health Services Branch of the Ministry of Health and Long-Term Care should meet, on a priority basis, with ambulance services, and hospitals and make any changes necessary to the August 2000 Ambulance Standard for patient priority override and other matters related to RDC and CCB, so that the standards are workable in the City of Toronto and other urban areas.

Toronto EMS agrees with this recommendation and is currently working with the CEOs of the four major hospitals, Sunnybrook and Women’s Health Sciences Centre, St. Michael’s Hospital, Hospital for Sick Children and St. Joseph’s Hospital in the development and implementation of specific guidelines related to RDC and CCB.

23. The Ministry of Health and Long-Term Care should proceed to obtain agreement among the stakeholders to establish the protocols referred to in ambulance standard #1 contained in the August 2000 standards for patient priority override and other matters related to RDC and CCB. This jury wishes to emphasize the immediacy of this recommendation as a high priority to alleviate the problems that we foresee for the coming winter.

The draft protocol will be presented to the Ministry of Health and Long-Term Care by the Hospital Network Steering Committees and Toronto EMS on November 29, 2000, as a completed package. The Hospital Network Steering Committees, CEOs and Toronto EMS have considered this a priority since May of 2000 and have submitted proposals to the Ministry of Health and Long-Term Care for consideration. It is expected that the Ministry of Health and Long-Term Care will endorse this proposal on November 29, 2000.

24. It is recommended the override protocols should include a requirement that the ambulance services contact the receiving emergency department to advise of the ambulance crew’s intention to override CCB or RDC. The emergency department should be provided with specific information about the nature of the patient’s emergency so as to provide the hospital with the maximum opportunity to prepare for the patient’s arrival by gathering the appropriate resources required to treat the patient.
The Ministry of Health and Long-Term Care and all hospitals within the Greater Toronto Area endorsed the Toronto EMS protocol to override CCB. This protocol was developed by Toronto EMS and the Toronto Base Hospital immediately following the Fleuelling call in January of 2000. The protocol will be formalized in the submission to the Ministry of Health and Long-Term Care on November 29, however, it has been in place for over 10 months. The recommendation pertaining to RDC override is possible, however, the residual impact of such a protocol will result in extended transfer of care times as crews attempt to offload their patients in busy emergency departments. Extended transfer of care times results in ambulance availability being restricted, as there is a delay in returning the ambulance to active service.

25. The Director of the Emergency Health Services Branch of the Ministry of Health and Long-Term Care should ensure that investigators have proper training, expertise, and equipment, or access to such, and should retain their field notes. This would allow them to conduct an effective diligent investigation.

The process of investigations and the role of the Ministry of Health and Long-Term Care as a regulator is a matter that is currently under review by the AMO Land Ambulance Implementation Steering Committee. Toronto EMS agrees that quality investigations is important.

26. The Toronto Fire Service and the Base Hospital Program should conduct a feasibility study to determine the benefit of training firefighters to increase their initial patient assessment skills.

It is important to ensure that firefighters have a base line standard of skill prior to evaluating any increase in their scope of skills and practice. Toronto EMS and the Sunnybrook and Women’s Base Hospital Program must be included in assessing both current skills, required upgrading and any increase in scope of practice of firefighters as part of the first responder/tiered response program.

27. Participation in Criticall should be mandatory in all hospitals to ensure that their Emergency Department status is key current.

Toronto EMS agrees that current information is vital to the success of the emergency medical system. Toronto EMS has proposed to the Network Steering Committee that the Toronto Central Ambulance Communication Centre facilitate the real-time management of emergency department resource availability to ensure that this information is made available to all hospitals as well as paramedics. Discussions are currently underway to develop and improve real-time data management system that provides the Toronto CACC with current and up-to-date resource information so that this can be made available to paramedics, regional ambulance services and all hospitals within the GTA. This process has been supported by the Network Steering Committee.

28. Criticall should develop an alert system, both auditory and visual, within their computer program for Emergency Room status to indicate to Emergency Department staff when the Critical Care Bypass (CCB) 30-minute time limitation is about to terminate and default to a re-direct consideration (RDC).
Toronto EMS agrees with this recommendation with the understanding that a default to RDC in a busy emergency department may result in a corresponding impact on the transfer of care time for Toronto EMS. Provision must exist to deal with extended transfer of care times in order to reduce the impact of ambulances being tied up for extended periods of time in hospital emergency departments that are busy.

29. Criticall should work with front line staff in hospitals to determine the best configuration of computer screens for their needs.

Toronto EMS agrees that hospital emergency department personnel must be trained to utilize the Criticall system and, further, that the Criticall system be designed to be more user friendly to ensure that the system is kept up-to-date on a real-time basis.

Community Services Committee, January 11, 2001, (Item No. 7):

Responses to Councillor Maria Augimeri:

(1), (2) The CCTU program is 100 percent funded by the Ministry of Health and Long Term Care (MOHLTC). Given that about 60 percent of the 150-170 patients moved monthly originate within Toronto, these patients are getting the benefit of an essentially free program. The additional skills and equipment provided by the MOHLTC are available to Toronto citizens when they are not doing CCTU calls. Of the non-emergency calls done by the MOHLTC-funded hospital clearance units, over 95 percent are within Toronto, or within five kilometres of the border.

(3) The Destination Protocol, which essentially says that all patients will be taken to one of the four closest hospitals, was put into practice on January 7. All local hospitals, Toronto EMS and the MOHLTC have signed written agreements approving its implementation. While there are no penalties for failure to live up to the protocol, in all instances where hospitals refuse patients under the protocol, the CEO of the hospital and the MOHLTC are notified so they can begin an investigation. All such incidents would be brought up for discussion at the clusters, so that each hospital’s peers would be aware of the situation.

(4) The hospitals in Toronto have formed local clusters based on geography. Each of these clusters has done extensive work in developing recommendations to help solve the emergency department problem. These reports have been given to the MOHLTC. The cluster co-ordinators, together with Toronto EMS, the Ontario Hospital Association, and the MOHLTC are examining all the reports to develop a priority list of recommendations. These will be submitted to the MOHLTC and the hospitals for decisions and approvals. They will probably be made public at that time.

Toronto EMS, together with the hospitals and the MOHLTC, sits on the Regional Network Steering Committee. At the most recent meeting, the following topics were considered: ambulance offloading times, hospital bed increases, CCB/RDC working group update, system performance over the holiday period, steering committee goals and action plan, Toronto EMS coverage maintenance proposal, and contingency planning for City-wide crisis.
(5) The audits in question were initiated by the MOHLTC, and have been continued by the individual clusters. They were to examine how the hospitals were complying with the MOHLTC standards for RDC and CCB. To date the following hospitals have been surveyed:

- Toronto East General;
- North York General Hospital – both sites;
- Humber River Regional Hospital – both sites;
- Rouge Valley Health System – both sites;
- York Central Hospital; and
- Markham Stouffville Hospital.

The results of the audits have been passed on to the clusters and the hospitals involved. Any decision on releasing the results would have to come from them.

(6) The Critical Care Bypass Override policy has been in place since January 2000, and the Fleuelling inquest strongly recommended that Toronto EMS continue with the practice. The destination protocol that took effect on January 7 contains an agreement that the hospitals will accept all patients that meet the criteria of the CCB override protocol, regardless of their diversion status. All local hospitals have signed this understanding.

(7) Releasing information on the current status of emergency department serves no useful purpose. Since these situations are fluid, and change from moment to moment, the release of the information will not help citizens make appropriate decisions about where to seek medical aid. Indeed, giving out this information gives the public the erroneous impression that hospitals are “closed”, when they are in fact requesting Toronto EMS to avoid them if possible. All hospitals are always open to the public.

Releasing this information creates fear in the public mind, and has caused some people with serious medical problems to drive themselves to local hospitals, rather that call 911. This puts their health and the safety of others at risk.

Information on rates of CCB and RDC will be released by the MOHLTC as part of their regular reporting.

Conclusions:

We welcome the recommendations from the Joshua Fleuelling Inquest and offer our sincerest condolences to the Fleuelling family on the tragic loss of their son.

Toronto Emergency Medical Services echoes the sentiments expressed by the Minister of Health, Elizabeth Witmer, “our mission is to enhance the delivery of emergency health services…we will continue to work tirelessly to ensure that our health system meets the needs of each and every family.”
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The Community Services Committee reports, for the information of Council, also having had before it during consideration of the foregoing matter a communication (February 9, 2001) from Ms. Karen McNama, National Representative, Toronto Civic Employees’ Union, Local 416, responding to the Toronto EMS recommendations arising from the Fleuelling Inquest.