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HOSPITAL OFFLOAD DELAY PROJECT

The Health and Emergency Medical Services Committee recommends the adoption of the recommendation contained in the following report, June 1, 2006, from the Commissioner of Community Services, Housing and Health Services:

1. RECOMMENDATION

It is recommended that:

1. Council approve an increase to the permanent staff complement of 1.0 EMS Operations Supervisor position effective August 1, 2006.

2. PURPOSE

The purpose of this report is to inform Council of the results of the Offload Delay Project requested by Council at its December 15, 2005 meeting, and the actions that are being taken by EMS Branch as a result of the outcomes. The objective of the project was to assess the impact of offload delay times as a result of assigning an EMS Operations Supervisor to a hospital emergency department.

3. BACKGROUND

At its December 15, 2005 meeting, Council received a report from the Health and Emergency Medical Services Committee that outlined the strategies and operational changes that EMS Branch staff have taken to address the issue of hospital offload delays.

At that meeting, Council directed EMS staff to implement an Offload Delay pilot project, that would determine the extent to which stationing an EMS Operations Supervisor in a hospital emergency department impacts offload delay times.

4. ANALYSIS AND OPTIONS

4.1 Project Scope

A York Region EMS Operations Supervisor was assigned to York Central Hospital (YCH) to evaluate and attempt to mitigate increasing Ambulance Offload Time (AOT). The supervisor was assigned for 61 days from January 9, 2006 to May 4, 2006 totalling 543 hours. The Supervisor worked flexible shifts including weekdays and weekends. Over the 61 days, 869 patients were evaluated.

4.2 Project Impact on Offload Delays

Table 1 compares the YCH offload delay times for the project period.

Table 1

Ambulance Arrival at YCH to Ambulance Clear YCH Time Interval for 911 Calls,
All Priority Transports by York Region EMS

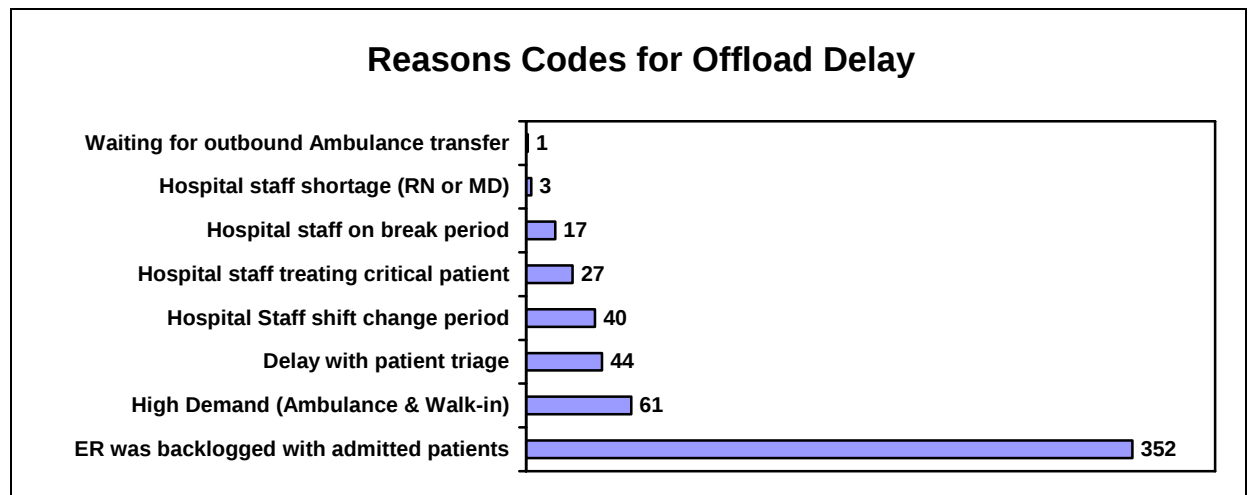
	Average Ambulance Arrival to Ambulance Clear (YCH)	90 th Percentile Ambulance Arrival to Ambulance Clear (YCH)
January 1 to April 30, 2005	54 min	119 min
September 1 to December 31, 2005	57 min	132 min
January 1 to April 30, 2006	62 min	159 min

The conclusion drawn from Table 1 is that the presence of an EMS Operations Supervisor did not observe any improvement to offload delay times at YCH.

4.2.1 Offload Delay Factors

The Supervisor documented the numerous factors associated with ambulance offload delays and assigned a “reason code.” Chart 1 illustrates the major reasons identified for offload delay.

Chart 1



The most frequent reason for ambulance offload delay was due to a backlog of admitted patients utilizing emergency department stretchers 76% of the time. Capacity to receive

patients arriving by ambulance with limited available hospital stretchers contributed to ambulance offload delays.

4.3 Other Project Findings

4.3.1 Ambulance Arrival Time to Triage Time

The time interval from ambulance arrival at the facility to the time the patient was initially assessed by the hospital triage nurse was measured for 858 arriving patients (99% of the total patients evaluated). The average arrival to triage time was 13 minutes with 90% of patients triaged within 23 minutes. The longest measured arrival time to triage time was 106 minutes.

4.3.2 Ambulance Arrival Time to Offload Time

The time interval was measured from ambulance arrival at the facility to the time the patient was offloaded to the hospital stretcher with hospital staff assuming care for 835 arriving patients (96% of the total patients). This included offload delay and non-offload delay patients. The average offload time was 84 minutes with 90% of patients offloaded within 214 minutes (3 hours and 34 minutes). The longest measured arrival time to offload time was 545 minutes (9 hours and 5 minutes).

4.3.3 Mitigation of Ambulance Offload Time – “Doubling Up”

A function of the supervisor’s responsibility was to assume care for some of the patients arriving in the emergency department thereby allowing the Paramedic crew to become readily available. This was used as a mitigation technique to reduce offload delays. These patients received ongoing care from the supervisor, or were “doubled-up” with a Paramedic crew so that one Paramedic crew looked after two patients that were experiencing offload delay.

A total 199 patients were “doubled up.” Seven had no offload delay and 192 had offload delays. Patients were offloaded onto extra EMS stretchers in 59 % of cases. The remaining 41% were offloaded onto hospital stretchers, but had either Paramedics or the supervisor continue to provide patient care until a hospital stretcher and patient care was assumed by hospital staff. The average offload delay for “doubled up” patients was 176 minutes. The data demonstrates that patients that were “doubled up” experienced longer ambulance offload times than those that were not.

Ambulance arrival to ambulance clear data shows that ambulances that transferred patients to other Paramedics or the supervisor returned to service quicker. However, this savings is off set by the longer time spent providing patient care for the “doubled-up” patients. In addition only 36% of patients experiencing an off-load delay were able to be “doubled-up”. Factors affecting the ability to “double-up” patients include severity of medical condition, monitoring equipment needed, stretcher availability and patient to Paramedic ratio. Ongoing in-hospital patient care is outside the normal scope of Paramedic practice.

4.4 Project Impact on EMS Operations

During the course of this project, the EMS Operations Supervisor was in a position to directly supervise and mentor Paramedics, to more efficiently monitor patients in the emergency department hallways, and to develop positive working relationships with hospital staff. The presence of the Operations Supervisor made an overall positive impact on staff morale, and rapport with hospital staff, and expedited return to service for Paramedics once the patient is accepted by hospital staff.

4.5 Findings and Actions

Although this project has determined that the assignment of an EMS Operations Supervisor to a hospital emergency department would have no positive impact on offload delay times, other EMS operations benefits have been identified. It has also brought a number of policy and procedural issues to the attention of EMS management where actions are necessary and where service improvements may be achieved.

4.5.1 Offload Delay Time

The hospital is accountable for offload delay times. EMS Branch is not in a position to, alone, effect change and yet must manage its consequences. EMS senior management have established meetings with senior hospital management to review ways to cooperatively improve offload delay times. These discussions include patient transfer policies, the responsibilities of hospital staff for patients in the holding areas, holding area equipment and accommodation standards, and rest areas for Paramedics.

4.5.2 Service Improvements

This project has established that a Supervisor assigned to hospital emergency departments will facilitate stronger working relationships with hospital staff, will enhance staff morale and service standards, and will expedite return to service. To achieve the benefits of direct supervision during offload delays, Supervisors will continue to respond to a hospital when offload delays occurs.

Although permanent full-time staff assignments to hospital emergency units remain impractical since they would require a significant increase in staffing resources, EMS senior management propose a decentralized supervision model that will support the benefits of in-hospital supervision, and will enhance the ability of Operations Supervisors to supervise, coach, and direct Paramedic staff.

Currently Operations Supervisors are stationed centrally at Cane Parkway in Newmarket. The proposed decentralized supervisor model would have Supervisors start and end their shifts at each of the three paramedic response stations closest to the York Region hospitals. Although centralized supervision brings advantages in areas of consistency and management communications, it does make the Supervisor more distant from the Paramedic and when responding to larger incidents in a timely fashion due to geography.

An additional 1.0 permanent full-time Supervisor is required to implement a decentralized supervision model. In addition to the benefits noted above, the current field supervisor to staff ratio would be reduced from 1:30 to 1:27. This would bring the staff ratio more in line with our neighbouring EMS service providers —Durham 1:22, Halton 1:23, Peel 1:26, and Toronto 1:26.

4.5.3 EMS Policies and Guidelines

The project has noted areas where there is a need to review and revise Base Hospital and EMS policies and guidelines concerning patient care and Paramedic responsibilities during offload periods. EMS senior management have reviewed current practices, and are developing offload delay policies and directives concerning the transfer of patient care between Paramedics, reassessments, documentation, patient movements, and Paramedic/patient ratios.

5. FINANCIAL IMPLICATIONS

Implementation of a Decentralized Supervision Model will require an increase to the permanent staff complement of 1.0 EMS Operations Supervisor position, effective August 1, 2006. The salaries and benefits for the period August 1st to December 31st, 2006 is approximately \$44,800 (annualized \$107,400) and these costs will be accommodated within the existing 2006 EMS budget.

6. LOCAL MUNICIPAL IMPACT

Hospital offload delays continue to be outside of the control of York Region EMS. Staff, however, will continue to monitor and evaluate the situation and implement any strategies that fall within its mandate to minimize the effects.

7. CONCLUSION

The hospital is accountable for offload delays and the EMS Branch is not in a position to, alone, effect change. It is incumbent upon EMS senior management to enter into continuing discussions with hospitals to cooperatively seek ways to mitigate the effects of these delays on EMS staff and resources.

As a result of the Offload Delays Pilot, EMS senior management has examined actions that it may take to continue the positive operations benefits of in-hospital supervision. In order to provide more timely presence and accessibility to staff during offload delay, staff recommend that Supervisors start and end their shifts at each of the three paramedic response stations closest to the York Region hospitals.

The Senior Management Group has reviewed this report.