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REPORT
Meeting Date: January 31, 2013
Emergency and Protective
Services Committee

For Information

DATE: December 7, 2012

REPORT TITLE: **PARAMEDIC OFFLOAD DELAY UPDATE**

FROM: Janette Smith, Commissioner of Health Services

OBJECTIVE

To inform on the current status of paramedic offload delay in Peel and identify strategies which have been developed and implemented to reduce its impact.

REPORT HIGHLIGHTS

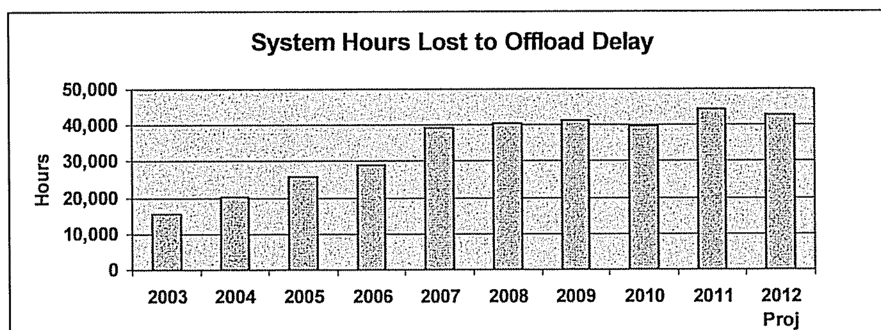
- Paramedic offload delay removes approximately 42,000 paramedic hours annually from the system which equates to approximately $8.8 million.
- Process improvement initiatives assisted in the mitigation of system growth pressures for 2013.
- Numerous strategies are required to address this ongoing issue.

DISCUSSION

1. Background

Since the transition of land ambulance responsibilities from the Province on January 1, 2001, Paramedic Services has seen a steady increase in paramedic offload delay. Council has supported requests to increase service hours annually and these hours have been used to address growth in call volume as well as address system time lost to offload delays. Offload delay has been a factor in the delivery of out of hospital medical care in Peel in all subsequent years.

The chart below illustrates the growth in offload delay over the past ten years.



Paramedic Services continues to work with their healthcare partners within the Ministry of Health and Long-Term Care, Local Health Integration Networks (LHINs), Community Care Access Centres (CCACs) and the area hospitals to develop and implement strategies to reduce the amount of offload incurred at each emergency department.

2. Offload Delay

Even in a "perfect scenario" where there is no offload delay, there is an expected amount of time the paramedics will spend at the hospital. This includes time needed to transfer care of the patient to the hospital, complete paperwork, clean equipment and restock bags from vehicle supplies. In the Ontario system, and based on prevailing expectations and system capacities, the benchmark time for these activities is 30 minutes. Any time in excess of this 30 minute expected time spent at the hospital is called "offload delay".

The principal cause of ambulance offload delay is an inability to transfer care of the patient to the hospital. The bottleneck occurs within the hospital where the emergency department has literally no available room or staff to take over the care. This bottleneck is the end of a long chain reaction of what is occurring in the overall setting. For example hospitals care for alternative level of care patients awaiting placement in the community and they also have an inability to discharge patients who require supportive services in their home. This lack of space forces the care of admitted patients within the emergency department itself. With limited space in emergency departments, new incoming patients, both via Paramedics and walk-ins, are triaged where only those of the most urgent need can be seen immediately. The rest of the patients who require care are left to wait and this creates overcrowding and paramedic offload delays.

Paramedic offload delay is an element of a stretched health system and not solely the fault of the emergency department where patients are received. It is a chronic and systemic issue of the broader healthcare system where health funding has not kept pace with population growth nor shifted health services to meet the changing needs of the community including the increase in chronic diseases. Paramedic Services is the "soft" spot in the system where the early warning signs of critical system conditions are first seen. Paramedic Services are also a fairly flexible resource in the health care system where time and resources can be most easily adjusted to meet demand. Hospitals in turn are restricted by space and cannot control demand as the need comes to them either by ambulance or walk-in whereas the need for paramedic services is initiated through 911 and is a controlled response through a deployment strategy.

Paramedics account for approximately 20 to 25 percent of the overall patient volume in an emergency department. Hospitals must balance this number with the 75 to 80 percent volume of walk-in patients to the emergency department. The actual patient volumes in both cases continue to grow and the acuity levels of care are increasing.

3. Offload Status by Hospital

There are two central contributors to offload delay. One is average offload time (time for patient processing). The second is total patient volume. These two multiply and combine to be the total number of offload hours.

As indicated in the chart below, all three Peel hospitals had similar average offload delay times. The patient volumes are such that Credit Valley and Mississauga Hospitals' have about the same patient volume whereas Brampton Civic handles about one and a half times (about 50 per cent more).

Using comparative year over year data, the results seen in the Civic are significant. Average offload delay time has been reduced by fifteen minutes. Even though patient volumes have gone up by about 2,500 patients, total offload delay at the Civic has been reduced by about 2,900 hours.

	Credit Valley	**Trillium**	**Brampton Civic**	**TOTAL**
2011				
Average Offload (min)	50	59	54	
Total # Patients on offload	13,722	14,029	18,719	46,470
Total Offload hours	11,386	13,763	16,853	42,002
2012 (prorated)				
Average Offload (min)	49	56	39	
Total # Patients on offload	14,214	15,042	21,310	50,566
Total Offload hours	11,528	14,004	13,981	39,513

**Numbers based on current available ARIS data as of November 28, 2012

3. Health System Collaboration and Integration – Impact of Partnership with Brampton Civic to Reduce Offload Delay through Process Improvement Initiative

In 2011 and 2012 and faced with chronic patient growth, Paramedic Services and its hospital partners have taken a different approach to assessing the issue of offload delay. This different approach is to take a strong process view of defining, improving and measuring the status of offload delay.

A process approach was successfully used to materially improve the performance (average time) for offload delay at the Brampton Civic. Together with the benefits provided by the additional 100 per cent MOHLTC funded Hospital Nursing Program, this process improvement has led to a reduction of over 7,000 hours from where the system would have been for 2012. By enabling these service hours to return to active response, this has mitigated the system growth pressures and allowed Paramedic Services to forego the 9.5 FTE that they would have required in 2013 to address growth. Plans are underway to begin process improvement work at the Mississauga and Credit Valley Hospital sites in 2013.

Even as the program and the area hospitals improve the transfer of care processes, there remains the chronic growth of patients to the hospitals. Given the growth projections, the increased effect of obesity and diabetes on the community and the aging of the community, the overall numbers of patients in the emergency departments and those using the 9-1-1 service may not be reduced.

4. Other Related Offload Strategies

There are three main impacts that face paramedics when the system is stretched due to population growth, an aging population and inadequate capacity in other parts of the health system. Specifically, the paramedics do not get their breaks or lunch; are held past the end of shift; and/or are stranded on offload delays at hospital for extensive periods of time.

Because offload has such a profound effect on the system, the citizens and the paramedics, the Program and senior Regional staff spend a great deal of effort working on solutions. Here is a brief listing of the additional inroads made to address the issue:

- Hospital Offload Nursing Program – In late 2008, the Ministry of Health and Long-Term Care (MOHLTC) announced the Hospital Nursing Program (HNP) and funded emergency department nursing staff for oversight of up to 4 patients at each hospital 12 hours per day. The initial year (2009) saw 3,600 a reduction in offload hours, however the magnitude of reduction was reduced to 1,275 hours in 2011 because of population growth and increase in emergency room volumes.

  Additional 100 per cent provincial funding was announced in 2012 to expand the Program. The expectation is to have nurses stationed at each of the three Peel Hospital emergency departments for up to 32 hours per day to oversee up to 8 patients at a time who have been brought into the hospital by paramedics. These patients have been assessed both by paramedics and hospital staff and are assigned to the hospitals offload nurse for care and admission into the ER. Paramedic Services continues to monitor the performance of all three hospitals and meets regularly with the senior management and the LHINs to discuss solutions.

  The program is a shorter term initiative to bring some relief. Additional hours for the Hospital Nursing Program do not necessarily provide additional value for several reasons:

  - The hospitals provide staff based on their shift hours and labour constraints, and may not be able to perfectly match nurse resources to patient demand;
  - There is a point of diminishing economic return where staffed nursing hours do not see sufficient number of patients (i.e. off peak flow hours) to make the program worthwhile;
  - The hospitals are constrained by the physical design and they run out of space;
  - The MOHLTC has a cap on funding based on the annual request.

- Transfer of Care Protocols – Protocols have been established for both paramedics and hospital emergency department staff for the care of those patients in offload delay and the process to manage the patients from the paramedics' care to admittance in the emergency department.

- Waiting room protocol – Protocol to permit lower acuity patients to be moved from the paramedics' stretcher and placed in the waiting room or hallway allowing the paramedics to return to the community.

- Real-Time Emergency Department negotiations – On a regular basis and during the normal course of business Paramedic Services management staff negotiate with the Charge Nurse during times of high offload to clear stretchers on a regular basis.

- Community Referral by EMS (CREMS) – Paramedics identify and refer patients who would be better cared for in a non-hospital setting to the local Community Care Access Centres (CCAC) who then contact the patient and provide them with alternative solutions for their health care needs. Over 250 patients have been enrolled in this program from January 1, 2009 to current.

The CREMS program is a solution very well suited to identifying those patients who are in need of extra assistance and where that extra assistance can be a diversion of calls from the 9-1-1 system.

- There is a Term of Council Priority focused on reducing non-emergency transports to hospitals and while this is a scope within the control of Council, it does not address the thousands of emergency department visits that happen outside the 9-1-1 process. Patient diversion to alternative sites, expanding the scope of CREMS along with treat and release strategies are part of the feasibility study. Preliminary data analysis suggest that there is no one category that can materially reduce paramedic transports. Calls are widely distributed along medical issue, age, and geography. Some third party information suggests that a primary cause may be an inability to navigate the complicated health care system (i.e. cognitive, physical, medical or social related patient barriers).

  Continued work on the Term of Council Priority related to community paramedicine/patient diversion will further reduce the impact of offload delay by reducing the number of patients transported to the hospital. An update report related to this Term of Council Priority will be presented in the Fall of 2013.

CONCLUSION

Paramedic offload delay is the result of broader health care system issues. It is an element of the system and is expected to continue. However, through the continued commitment of program staff and cooperation of our three hospitals offload delay will be reduced to an acceptable level over the next couple of years, ideally 30 minutes or less. Establishing a predictive value for each patient transport by paramedics assists the program to plan for community coverage annually. Only through ongoing process improvement will we be able to achieve this outcome.

Trillium Health Partners has committed to the methodology and approach for the process work as was done at the Brampton Civic which will commence in the early part of 2013. We value the support and commitment of the Brampton Civic staff, from the President and CEO of the hospital to the frontline workers who have made these changes possible.

It is through these strong partnerships and commitment that all of the stakeholders have in the delivery of emergency health care that paramedic offload delay is being reduced. The right care at the right time in the right place continues to be the focus.

Janette Smith
Commissioner of Health Services

Approved for Submission:

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