

Clause 13 in Report No. 1 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on January 22, 2015.

Hospital Memorandum of Understanding Update 2014

Committee of the Whole recommends adoption of the following recommendations contained in the report dated December 18, 2014 from the Commissioner of Community and Health Services:

1. Recommendations

It is recommended that:

1. Council approve amending the offload delay calculation for 2015-31 hospital funding allocation to a 30 minute average measured from the time of paramedics arriving at hospital to when paramedics transfer patient care to the hospital.
2. Council approve that \$1.358 million in funding, currently held within the Hospital Capital Reserve fund and generated from off-load delay hold-backs since 2012, fund initiatives to improve off-load delays as outlined in this report.

2. Purpose

This report is in follow-up to Clause No. 12, Report No. 9, Committee of the Whole, May 1, 2014 in which Council requested a further report by January 2015 outlining the results of the collaborative efforts by York Region Hospitals and York Region Paramedic Services. In addition to an update, staff were to come back with a final methodology and calculation for off-load delay hold backs. Positive progress by all the partners has been made in reducing off-load delays and there are a number of initiatives supporting off-load efficiency activities that require completion. This report proposes that funds held in the Hospital Capital Reserve be used to complete these initiatives.

3. Background

York Region has a long history of contributing to the capital costs of hospital expansion

Municipal contributions to capital costs for hospital expansions pre-date the Region's formation in 1970 with contributions from York County. Cumulatively to the year 2000, York Region contributed about \$51 million to York Region Hospitals for expansions. From 2001 to 2009, Council provided additional support totalling \$62.4 million.

The Province funds up to 90 percent of the "bricks and mortar" for hospital construction. Once equipment and furnishings are accounted for, the provincial share actually accounts for approximately 65 percent of the cost. Thirty-five percent remains to be funded from "community sources".

Multi-year performance targets were agreed upon for Paramedic Services off-load delays

For the purpose of the memorandum of understanding (MOU), off-load delay is calculated from the time an ambulance arrives at the hospital with a patient, to the time the ambulance leaves the hospital.

All of the MOU signing partners agreed to off-load delay targets for each year based on a decrease in 10 minute increments from 70 minutes in 2010 to 30 minutes in 2014. It is expected that the 30 minute target prevails through 2031.

Thirty minutes was chosen as the desirable target for the time required to off-load patients at hospitals because it was considered the industry best practice and standard for Ontario based on recommendations of the 2005 Expert Panel on Ambulance Effectiveness. In 2008, the Ministry of Health and Long-Term Care began funding the Dedicated Nurse Off-Load Program. The program assigned nursing staff the task of accepting patients transported by paramedics. In 2009, the average in-hospital time for all three regional hospitals was 78 minutes. Since 2009, the average in-hospital time has decreased 38 percent.

The MOU committed the Region and hospital officials to meet in a joint Tri-Hospital Group to develop strategies to reduce Paramedic Services off-load delays and ensure that the 30 minute target (or less) was met at all hospitals.

Council approved the use of funds to support off-load efficiency activities with hospitals

In September 2012, Council directed staff to use the difference in funding between the two different methods of calculation (current method under the MOU

versus a proposed method that is specific to hospital-controlled time), of \$319,696 to undertake a number of projects in partnership with the hospitals to improve off-load delays.

In September 2012, Council also considered an alternative method for calculating hospital off-load delays that is specific to hospital-controlled time and uses a new target of 30 minutes, 90 percent of the time. This alternative method was not adopted at that time, but remained a Council consideration to be informed by a future report as an update on York Region Paramedic Services and hospital projects to reduce off-load delays.

Projects needing completion included time stamping and the subsequent calculation methodology and reporting, protocols allowing transition to hospital care for patients experiencing minor non-life threatening conditions, and exploration of joint initiatives in preparation for an aging population.

4. Analysis and Options

Key objectives of the Tri-Hospital Group have been completed and efficiency initiatives have been planned

Council directed staff to work collaboratively with the Tri-hospital Group specifically on key objective areas of:

- Transfer of care calculation methodology
- Data collection, sharing and validation
- Process standardization and efficiency improvements
- Transfer of care guidelines
- Developing alternate treatment pathways

A revision that blends the current transfer of care calculation method with the hospital preferred method is being recommended

The current performance target for York Region's three hospitals is a 30 minute average or less from when paramedics arrive at the hospital to when paramedics depart the hospital. The current transfer of care calculation methodology in the 2009 MOU uses time intervals from the Ministry of Health and Long-Term Care Ambulance Dispatch Download Access System (ADDAS). ADDAS has been the historic data reference of all paramedic responses, with data accessible from

1996 to the present. In 2009, ADDAS was the only data set available to assess and measure the impact of lengthening transfer of care times in hospitals.

York Region's paramedics recently implemented an electronic patient record system that captures precise event times

Since 2009, York Region's Paramedic Services implemented an electronic patient record system that captures additional key time intervals. Revising the methodology to calculate the hospital's transfer of care performance time will better reflect the true transfer of care performance. The average time from when the paramedic arrives at the hospital to paramedic patient transfer of care to hospital can now be calculated. A 30 minute average for this new time interval is recommended to assess a hospital's performance on a go forward basis. The members of the Tri-Hospital Group favor this new method of calculation.

Linking paramedic and hospital data is possible with the new application available from the Paramedic Services electronic patient care record system vendor

A new component is available from the vendor of the Paramedic Services electronic patient record system that will allow the real-time sharing of paramedic records to hospitals. This component will permit a monitoring of actual transfer of care performance and can link the paramedic record to the hospital record so that data validation and accuracy checks can take place. This will ensure that there is a high level of confidence in the data and resulting reports amongst organizations.

Table 1 summarises the current, 2012 hospital proposed and the recommended Tri-Hospital Group proposed methodology for calculating transfer of care time.

Table 1
Transfer of Care Calculation Methodology

	2009 MOU	2012 Hospital Proposed	2014 Tri-Hospital Group Proposed and Recommend
Time Interval	Paramedic Arrive Hospital to Paramedic Depart Hospital	Paramedic Arrive Hospital to Patient Transfer of Care	Paramedic Arrive Hospital to Patient Transfer of Care
Target	30 Minute Average	30 Minute 90% of the time	30 Minute Average
Data Source	Provincial Ambulance Dispatch Download Access System	Provincial Ambulance Dispatch Download Access System and Paramedic Electronic Patient Care Record System	Dispatch Download Access System and Paramedic Electronic Patient Care Record System

A Tri-Hospital and multi-Paramedic Service efficiency and standardization project has been endorsed

Members of the Tri-Hospital Group have endorsed the completion of a study to standardize the most efficient transfer of care processes between Paramedic Services and the Region's hospitals. The process will be facilitated by an external consultant. The Region of Peel completed a similar process with some of its regional hospitals and achieved a 20 percent reduction in transfer of care time.

Standardized guidelines to transfer non-urgent patients directly to the waiting room have been implemented at all Regional hospitals

The Tri-Hospital Group has developed clinical criteria to identify patients being transported to hospital by paramedics who can safely be transferred directly to waiting rooms. These guidelines are now in place and permit paramedics to return to service in a short amount of time. About 15 percent of the patients transported by paramedics will fall within these guidelines.

Three key research initiatives have been identified to support the development of alternate treatment pathways in preparation for an aging population

The Tri-Hospital Group reviewed various research initiatives that are essential to achieve long-term efficiencies. Ensuring that the right patients receive care at emergency departments while connecting patients requiring care from other components of the health care system to the appropriate resources benefits all system partners. The Tri-Hospital Group is recommending the three following research initiatives to be implemented and funded as outlined in this report.

1. Improving Patient Centred Care and Transportation (IMPACT)

The goal of the IMPACT project is to improve patient care and health resource usage through the development of alternative pathways. These pathways will enable the paramedics to safely deliver patients to other services and divert them away from emergency departments.

IMPACT is a two-year, five-phase project with the following objectives:

- 1) Identify existing alternative referral pathways and treat-and-release programs aimed at improving patient support (Phase 1)
- 2) Identify patient types, groups or medical conditions that may be improved by paramedic intervention or alternative healthcare options (Phase 2)
- 3) Identify existing infrastructure barriers to implementation and opportunities for improving patient support (Phase 3)
- 4) Determine paramedics' ability to accurately, safely and effectively improve patient disposition (Phases 4 and 5)

2. Expanding Paramedicine in the Community in Long-Term Care

Currently, York Region Paramedic Services are participating in the Expanding Paramedicine in the Community project in collaboration with Family Health Teams. In this trial, expanded-scope paramedics are visiting patients with heart failure, chronic obstructive pulmonary disease and diabetes in their homes to assist in the management of their condition and avoid emergency department visits and hospital admissions.

An expansion of the Expanding Paramedicine in the Community program into regionally operated long-term care (LTC) homes would provide long-term care physicians the option of contacting an expanded-scope paramedic to assist in the acute assessment and management of their residents. The anticipated benefit of this intervention would be to safely reduce transports to hospital of LTC

residents, decrease stress and wait times for LTC home patients and families and increase bed availability in the emergency departments.

Analysis of patients presenting from LTC to a local hospital demonstrated that approximately 75 percent of patients are not admitted after assessment at the emergency department and a recent Canadian Institute of Health Information report stated that 66 percent of patients presenting to the emergency department from LTC are preventable emergency department visits. Currently, two similar programs are operating in LTC homes within Canada. In Alberta, expanded-scope paramedics have decreased emergency department visits by 40 percent and in Nova Scotia, expanded-care paramedics have demonstrated a 75 percent decrease in transports from LTC to emergency departments.

3. Mental Health Paramedicine Response Risk Assessment, De-escalate and Referral Pilot

In the current 911 system, paramedics frequently encounter patients experiencing mental health crisis, but have limited options to assist these patients outside of transport to an emergency department.

Since August of 2014, York Region Paramedic Services has been participating in a working group through the Central Local Health Integration Network to refine the model of mobile crisis intervention in York Region. Through this working group, opportunities to enhance the role of paramedics in the response to mental health crisis have been identified and this pilot is an opportunity to invest in these opportunities and investigate the effectiveness of this new model of care.

The objectives of this pilot are:

- 1) Investigate the needs of patients calling 911 in mental health crisis in York Region
- 2) Provide training to 24 front-line paramedics in advanced mental health assessment, de-escalation techniques and referral to community resources
- 3) Provide risk assessments using standardized tools and assessments, and collaborate with community partners for patients in mental health crisis
- 4) Directly link patients in mental health crisis with community and hospital providers
- 5) Function as members of the mobile crisis response team in collaboration with York Regional Police and community mental health care providers

It is anticipated by implementing this model of care, patients in mental health crisis will have better access to the community mental health system, reducing transports to the emergency department and mental health admissions.

Link to key Council-approved plans

Investing in York Region hospitals meets the priority area to “Improve Social and Health Support” outlined in the 2011-2015 Strategic Plan. The Hospital Capital Funding MOU also meets the priority area to “Manage the Region’s Finances Prudently” by providing the option for Council to reduce hospital funding related to potential operating costs incurred by EMS to maintain response times while contending with off-load delays above set targets.

5. Financial Implications

All parties agreed to a desired reduction of Paramedic Services off-load delays. Not meeting the targets exposes the hospitals to reductions that can be applied to increase Paramedic Services resources – a measure that may be necessary to offset hospital delays and maintain mandated response times.

In 2012, a hospital-recommended method for calculating off-load targets was proposed

The hospital MOU set targets for off-load delay from an average of 70 minutes in 2010, decreasing annually by 10 minute increments to 30 minutes by 2014 onward. It used a calculation that included some York Region Paramedic Services-controlled time that the hospital could not be responsible for (i.e. time used by paramedics to restock ambulances to be ‘ambulance-ready’).

Prior to the current recommendations of the Tri-Hospital Group, the hospitals recommendation was to use a target of 30 minutes 90 percent of the time, and a calculation that isolated the hospital-controlled time only.

Table 2 summarizes the potential funding since 2009 and the total funding held in the Hospital Capital Reserve pending Council resolution of the funding method and the collaborative efforts by York Region Hospitals and York Region Paramedic Services.

Table 2
Summary of Available Funding and Off-load Delay Reductions

Year	Potential Funding	Reductions for Off-load Delays	Adjusted Potential Funding	Difference in MOU and Hospital - Recommended Funding Methods held in Hospital Capital Reserve
2009	\$ 8,000,000		\$ 8,000,000	
2010	12,324,000		12,324,000	
2011	12,706,044	\$ 691,200	12,014,844	
2012	13,070,000	861,208	12,209,792	\$ 319,696
2013	13,362,640	679,064	12,683,576	357,148
2014	13,637,910	876,381	12,761,529	682,111
Total	\$73,100,594	\$3,107,853	\$69,993,741	\$1,358,955

In September 2012, Council directed staff to use the difference in funding between the methods to undertake a number of activities to support the collective goal of improving off-load delays.

The proposed projects can be fully funded with the funds currently being held in the Hospital Capital Funding reserve.

Table 3 outlines the costs and estimated timing of expenditures related to the initiatives to improve off-load times, and initiatives to assess new models of care to be funded from the Hospital Capital Reserve.

All costs to complete the identified initiatives have been included in the gross expenditures for the 2015 proposed Paramedic Services operating budget and 2016 outlook operating budget for Paramedic Services. Total costs of \$1,358,955 over 2 years, are fully offset by funding from the Hospital Capital Reserve with no additional net tax levy impact.

Table 3
Initiatives to be Funded from the Hospital Capital Reserve

Project	2015	2016
In-Hospital Patient Record Interface	\$ 61,455	
Tri-Hospital Lean Study	95,200	
IMPACT Study	311,000	\$267,000
Paramedicine in Long Term Care		159,500
Mental Health Crisis Paramedicine	464,800	
Total	\$932,455	\$426,500
Temporary FTEs	2	2.5

6. Local Municipal Impact

All local municipalities will gain from the outcomes of the identified initiatives completed by the Tri-Hospital Group and York Region Paramedic Services through shorter transfer of care times and new models of care to better link patients to the right care needed in the right time frame.

7. Conclusion

This report recommends amending the method to calculate hospital off-load performance to best reflect the hospitals' actual performance and identifies initiatives that will be mutually beneficial to the Region and hospital partners. Assessing initiatives aimed at providing the right care to the right patient at the right time are key to ensure the effective and efficient delivery of services for a growing and aging population.

Hospital Memorandum of Understanding Update 2014

For more information on this report, please contact Norm Barrette, Chief and General Manager, Paramedic and Senior Services at ext.74709.

The Senior Management Group has reviewed this report.

December 18, 2015

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