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OUTCOMES OF THE ONTARIO STROKE STRATEGY PILOT PROGRAM

The Health and Emergency Medical Services Committee recommends the adoption of the recommendation contained in the following report, April 16, 2007, from the Commissioner of Community Services, Housing and Health Services:

1. RECOMMENDATION

It is recommended that:

1. Council approve the continuation of the Ontario Stroke Strategy Program to maintain the medical redirection of acute stroke patients to a District Stroke Centre (DSC) by EMS paramedics.

2. PURPOSE

The purpose of this report is to provide the outcomes of the Ontario Stroke Strategy pilot program that commenced in July 2006 in York Region as follow-up from Health and Emergency Medical Services Committee Report No. 5 from June 1, 2006. In addition, this report requests the approval to continue and maintain the established medical redirect program based on the successes demonstrated during the pilot project.

3. BACKGROUND

A stroke is a disruption of the blood flow to the brain which deprives the affected area of oxygen. The part of the body controlled by the damaged brain cells is adversely affected, causing physical and cognitive impairments. For those that survive the first few hours after a stroke, the brain injury may progress quickly and can lead to permanent disability. Studies indicate that effective treatment requires rapid treatment by a team specially trained in stroke management.

3.1 Stroke Treatment

Strokes caused by blood clots (roughly representing 80% of all cases) may be treated with a clot-dissolving drug named tissue Plasminogen Activator (tPA). tPA dissolves the clot and restores blood flow to the brain. tPA is effective only if given promptly within the first three (3) hours of a stroke.

3.2 District Stroke Centre

District Stroke Centres are mandated to organize their human and medical resources so that stroke patients can be identified and treated both rapidly and appropriately for the

needs of the patients. York Central Hospital (YCH) in Richmond Hill was designated as a DSC and officially opened on November 16, 2005.

In accordance with Ministry of Health and Long-Term Care guidelines, YCH implemented delivery of tPA for stroke July 5, 2006.

3.3 EMS Paramedic Acute Stroke Diversion Pilot Program

In June of 2006, Council approved the implementation of the Ontario Stroke Strategy medical redirect pilot program to allow EMS paramedics to transport acute stroke patients directly to the York Central Hospital District Stroke Centre (YCHDSC).

Since the implementation of the Ontario Stroke Strategy program, patients residing in York Region and beyond have been redirected to the YCHDSC by Emergency Medical Services (EMS) to be assessed for tPA eligibility.

As subsequent follow-up to the implementation of the pilot program, the outcomes of the pilot program are described.

4. ANALYSIS AND OPTIONS

4.1 Report on Redirect Policy

York Central Hospital has released a report on patient data collected from July 5, 2006 to January 1, 2007 as part of a pilot project with York Region EMS. The purpose of the report was to monitor the progress of the program, to identify its strengths, opportunities for improvement and provide feedback to the stakeholders.

4.2 Patient Enrolment Data

The total number of tPA patients for this time period was eighteen (18). All eighteen (18) patients arrived at YCH by ambulance which demonstrates EMS paramedics are becoming skilled at applying the Stroke Protocol. Patients are being assessed and treated in times that are equal to those reported by Regional Stroke Centres throughout Ontario, which emphasizes the excellence in care provided, by the YCH staff and EMS. In addition, patients are treated in a timely manner well within provincial benchmarks. The tPA delivery rate was well within the provincial average.

4.3 Patient Outcomes

Generally, the sooner the patient receives tPA, the better the outcome will be in terms of reduction in physical deficits. The type and severity of the stroke also have an effect on tPA success rates. The pilot phase results will benchmark the ongoing effectiveness of the stroke strategy.

Table 1
York Central Hospital District Stroke Centre
Patient Outcomes – July 5, 2006 to January 1, 2007

Discharged Home	Discharged to Hospital	Deceased
3	14	1

As public awareness campaigns by Heart and Stroke Foundation continue, it is expected that higher numbers of patients will recognize stroke symptoms and seek medical attention sooner.

The first six months has provided us with a baseline against which to continue measuring our outcomes. Previous to undertaking this pilot project, we were not privy to the final outcome with stroke patients because the data resided with the hospitals.

4.4 EMS Performance Impacts

There have been no measurable negative impacts to call volume, response time or resource availability attributed to the Ontario Stroke Strategy. This is primarily due to the infrequent presentation of acute stroke patients. It is not anticipated that the continuation of this program will affect EMS performance; however, program impact will continue to be monitored.

4.5 Relationship to Vision 2026

York Region EMS continues to support the Vision 2026 goals of Responding to the needs of Our Residents and Supporting a Safe and Healthy Community.

5. FINANCIAL IMPLICATIONS

All costs related to the continuation of the Ontario Stroke Strategy program have been accommodated within the existing 2007 EMS operating budget. No additional costs have been incurred as a result of the pilot project and no future additional costs are anticipated for the participation in the program.

6. LOCAL MUNICIPAL IMPACT

York Central Hospital is the designated Stroke Centre for York Region. Patients assessed that meet the criteria under the Provincial Acute Stroke Protocol (PASP) will be transported directly to York Central Hospital from any municipality in York Region. With the exception of PASP calls, the current deployment plan will remain intact for all other calls.

7. CONCLUSION

The results of the implementation of the Ontario Stroke Strategy pilot program with York Central Hospital demonstrate the positive effect on patients experiencing acute stroke symptoms through the implementation of the Ontario Stroke Strategy. Because of the first six months of the pilot program, we are now receiving data and have found that there have been no negative impacts on our service. Continuation of the Ontario Stroke Strategy by York Region EMS will ensure timely access to leading treatment options for patients suffering from acute strokes.

For more information on this report, please contact Brad Meekin, General Manager of the Emergency Medical Services Branch of the Health Services Department.

The Senior Management Group has reviewed this report.