

2

RESUSCITATION OUTCOMES CONSORTIUM

The Health and Emergency Medical Services Committee recommends the adoption of the recommendations contained in the following report, September 10, 2007, from the Commissioner of Community Services, Housing and Health Services with the following additional recommendation:

- 3. That the Health and Emergency Medical Services Committee be apprised of the results of the clinical trials.**

1. RECOMMENDATIONS

It is recommended that:

1. Council approve York Region EMS' participation in clinical trials through the Resuscitation Outcomes Consortium.
2. The Commissioner of Community Services Housing, and Health Services be authorized to sign the necessary agreements for York Region EMS' participation in clinical trials through the Resuscitation Outcomes Consortium, subject to review by Legal Services.

2. PURPOSE

York Region EMS has the opportunity to participate in a North America wide research project involving a broad scope of pre-hospital related studies. The results will help to establish best practice standards for our patients based on scientific evidence. This report will outline the opportunities and risk mitigation for the Region.

3. BACKGROUND

3.1 Resuscitation Outcomes Consortium

The Resuscitation Outcomes Consortium was created by the U.S. National Institutes of Health to provide infrastructure and project support for pre-hospital clinical trials and other outcome-oriented research in the areas of cardiopulmonary arrest and severe traumatic injury. The findings of this research will lead to evidence-based change in clinical practice for all paramedics. The focus on pre-hospital and early hospital interventions recognizes the critical importance of this time frame for emergency cardiac and trauma patients.

The Resuscitation Outcomes Consortium consists of 10 Regional Clinical Centers throughout North America (*see Attachment 1*) and a Data Coordinating Center located at the University of Washington in Seattle. The Data Coordinating Centre provides the necessary infrastructure to conduct multiple collaborative trials and to translate trial outcomes into scientific and clinical data to be used to improve resuscitation outcomes. The 10 Regional Clinical Centers capture a population of approximately 35 million people.

3.2 Toronto Regional RESCUEnet

Toronto Regional RESCUEnet is the local office for the Resuscitation Outcomes Consortium and is coordinated through the Pre-hospital and Transport Medicine Research Program at the University of Toronto. The Pre-hospital and Transport Medicine Research Program is dedicated to the advancement of the science of pre-hospital emergency health care. This program conducts research and has experience in conducting large scale clinical trials involving Toronto EMS, and Ontario Air Ambulance. The Resuscitation Outcomes Consortium has been operating for over a year with several municipalities participating including Peel Region, Toronto, Halton Region, Durham Region, Simcoe County and District of Muskoka.

4. ANALYSIS AND OPTIONS

4.1 Scope of Research and Opportunities

The Central East Patient Care Program, formally York/Durham Base Hospital, currently provides medical delegation and oversight for York Region EMS and is already involved with this project supporting Durham EMS. They are supportive of York Region EMS participating in the Resuscitation Outcomes Consortium and other clinical trials.

The initial phase of the Resuscitation Outcomes Consortium requires that all services participate in Epistry (Epidemiological Registry). York Region EMS will benefit from the information available including our performance on cardiac arrests and major trauma benchmarked with other EMS systems participating. Adopting scientific-based protocols for system improvement will assist in the future of pre-hospital care and delivery. The Resuscitation Outcomes Consortium also represents the first opportunity to collect a standard data set that will be available to participating EMS services, including York Region, to compare our performance against our neighbours within the GTA. With this information, York Region EMS can make recommendations for changes to our deployment models, staffing complements, and delivery models and measure the effectiveness based on the data.

4.1.1 Resuscitation Outcomes Consortium International Resuscitation Registry

Epistry is a standardized registry for tracking pre-hospital cardiac arrest and life threatening trauma cases that has been developed by the Resuscitation Outcomes Consortium project. Epistry is the initial phase for all research sites. This phase gives each site the opportunity to demonstrate that there are adequate internal processes to

ensure effective and efficient reporting of patient data. In order to participate in further research, ethics approval for these research projects stipulates that all sites must demonstrate that their infrastructure is adequate to support minimum reporting time(s) and achieve a minimum standard of documentation requirements.

4.1.2 Hospital Outcome Data

The Resuscitation Outcomes Consortium will require information including survival discharge data, in-hospital data focusing on complications, and care delivery for patients entered into the pre-hospital study. The Central East Patient Care Program will develop partnerships with regional hospitals to be able to acquire this data for the purposes of research. To date, this information has not been available and has made reporting outcome data very challenging.

4.1.3 Other Opportunities

Once York Region EMS has been established as an acceptable research site, opportunities to participate in future clinical trials related to prehospital care can be considered such as pediatric cardiac arrest, specialized fluid administration in trauma patients, and modified cardiac arrest protocols. All of these opportunities will have a positive impact on the residents of York Region by providing improved patient care modalities.

4.2 Personal Health Information Protection

The Resuscitation Outcomes Consortium will adhere to Canada's federal privacy law (*Personal Information Protection and Electronic Documents Act 2000 - PIPEDA*) and the Ontario privacy legislation (*Personal Health Information Protection Act 2004 - PHIPA*), in preserving patient confidentiality and the need to obtain informed consent. Toronto Regional RESCUeNET has apprised the Information and Privacy Commissioner of Ontario regarding the clinical trials through the Resuscitation Outcomes Consortium to ensure that appropriate safeguards are in place to protect participants' personal health information.

Once data has been processed through RESCUeNET it will be uploaded to the data collection center in Seattle, Washington. As a safeguard, no patient identifiers will be included in the uploaded data.

4.3 Relationship to Vision 2026

Responding to the needs of our residents is one of the goals of vision 2026. By participating in the Resuscitation Outcomes Consortium, York Region EMS paramedics will be involved in investigating new protocols and patient care techniques that could improve our ability to deliver high level of care to the residents of York Region. In addition, with accurate patient outcome data, deployment and delivery models can be modified with a goal to improve patient outcome.

5. FINANCIAL IMPLICATIONS

The Resuscitation Outcomes Consortium is funded through sponsors that have committed funding for at least five years at approximately ten million per year.

The following is a list of the consortiums sponsors:

- U.S. National Heart, Lung and Blood Institute (the lead U.S. Federal Government sponsor of this program)
- U.S. Department of Defense
- Other U.S. Institutes within the National Institutes of Health
- Institute of Circulatory and Respiratory Health (ICRH) from the Canadian Institutes of Health Research
- Canadian Defense Research and Development
- Heart and Stroke Foundation of Canada

Training costs for York Region EMS paramedics will be covered within the existing annual operating budget. All required training for paramedics will take place during regularly scheduled Continuing Medical Education. The Central East Patient Care Program has a contract with RESCUeNet to conduct all data entry so there is no cost to York Region EMS. Existing infrastructure and established documentation processes are in place to support the needs of the Resuscitation Outcomes Consortium project, so there will be no additional costs to the Region. Participation in this project will be part of normal EMS operations and no additional staff resources will be required.

6. LOCAL MUNICIPAL IMPACT

By participating in this study York Region EMS is able to safely and scientifically modify treatment and transportation protocols to better serve our patients.

7. CONCLUSION

The Resuscitation Outcomes Consortium includes world class scientific personnel partnering with ten regional centres across North America sharing a goal to provide promising scientific and clinical advances to improve patient outcomes in the pre-hospital environment.

York Region EMS is requesting approval for participation in the Resuscitation Outcomes Consortium and that the Commissioner of Community Services, Housing and Health Services be authorized to approve the implementation of individual programs and trials brought forward by Toronto RESCUeNET.

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

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)