

How does Rescu Work?

Rescu is a collaborative research organization based out of St. Michael's Hospital, in Toronto. Participants include paramedic and fire services across south-central Ontario, community and specialty hospitals, and research oversight from academic hospitals and the University of Toronto.

Together, Scientific Investigators have developed the Rescu Epistry research protocol. The Epistry study follows cardiac arrest, severe trauma, acute stroke, and sepsis patients that have been treated by paramedic or firefighter services in the Toronto Regional RescuNET catchment area.

The Rescu Epistry study has the following objectives:

- Collect comprehensive, standardized, multicentre prehospital data to guide future EMS and Fire as well as in-hospital care for cardiac arrest, trauma, stroke, and sepsis patients
- Evaluate relationships between outcome and regionalized patient care systems, identify best practices, and compliance with guidelines and scientific statements or current evidence
- Use Rescu Epistry as the data collection interface to enable evaluation of innovative strategies and system changes in the prehospital setting (e.g. cohort studies, controlled clinical trials, and knowledge translation implementation trails)
- Expand data collection to include other regions of care in Canada to provide provincial and national data sets
- Examine epidemiologic and outcomes aspects of acutely ill patients by linking Rescu Epistry to existing administrative datasets in Ontario

How does Rescu Epistry help Canadians?

Major traumatic injury leads to nearly 13,000 deaths each year, and out-of-hospital cardiac arrest has a mortality rate as high as 95% in some communities. By working towards the above objectives, Rescu Epistry provides a wealth of data that can be used to identify practices that result in improved survival and functional outcomes for these patients.

In addition to identification of best practice, Epistry can provide targeted feedback to individual regions and agencies to provide performance indicators and benchmarks to work towards those best practices.

Finally, studies done using the Rescu Epistry have contributed to the scientific literature world-wide, helping to improve patient outcomes both locally and abroad. See our list of featured publications for more details.

How does Rescu collect data?

Before any data can be collected by a RescuNET site, the Rescu Epistry study protocol must be approved by local Research Ethics Boards (REBs). These REBs review any study involving human subjects, which is critically important in Rescu Epistry since obtaining consent is not feasible for patients in life-threatening situations. The REB-approved study protocol is also referenced in agreements with each participating hospital or EMS agency, allowing the Rescu research team to use the health data collected by clinicians.

Rescu research staff work with the participating organizations to access patient charts and collect the Rescu Epistry study data. This data is entered into a secured database at St. Michael's Hospital, which



has undergone extensive validation and security and privacy assessments. Any identifying information is separated from the main dataset and linked via a unique study ID. Only select team members have access to identifying information as required to perform research functions noted in the REB-approved protocol.

Who can see the Rescu Epistry data?

The study data is only available to the organizations that collected it, and certain members of the Rescu Epistry research team. Any time researchers want to present the data at conferences or in publications, they must make a request outlining the data variables. The Rescu Data Access Committee will then review each request.

Rescu Epistry only includes data that is routinely captured by paramedics, firefighters, or hospital staff, during routine course of care. If patients or their next of kin wish to view their study data, they should contact the organization that provided care and performed initial medical documentation.

Who decides how the data can be used?

Rescu and collaborating researchers can only use data from the Rescu Epistry study as permitted by the Research Ethics Boards that approved the study protocol. The Rescu Publications Committee works with the Data Access Committee (DAC) to ensure uses of data are in line with REB-approved usage.

The Data Access Committee (DAC) is comprised of Rescu investigators, and must contain at least one privacy representative from St. Michael's Hospital, and at least one community member that is not otherwise affiliated with Rescu. The DAC then reviews each request to ensure it is in line with one of the REB-approved study objectives. The DAC also ensures that releasing the data will not subject any individual or groups of patients to possible harm or stigmatization. Finally, the committee will ensure that only the minimal required data is released, and that it is sufficiently de-identified.

If the vote is not unanimous, the data request will be rejected and must be restructured, or may require addition Research Ethics Board approval.

Rescu believes that transparency is an important part of protecting Canadians' rights in clinical research. We encourage you to browse www.rescu.ca for more information, or contact Rescu@smh.ca if you have further questions.