

REQUEST FOR APPLICATIONS (RFA)

The Economics of Patient Safety

October 8, 2009

Submission deadline: November 17, 2009 at 12:00 pm MT

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A. Introduction

1. Purpose and Intent

The Canadian Patient Safety Institute (CPSI) together with 3M and Baxter have jointly identified the need to better understand the “economics” of patient safety. In particular, the CPSI, 3M and Baxter wish to gain an evidence-informed sense of the cost borne by the health system in Canada arising from adverse events and the economic value of programs which enhance the use of best practices and reduce unsafe practice - at the level of clinics, large institutions and whole populations. This information will assist CPSI in:

- Providing health organizations with an estimate and order of magnitude of the economic costs they bear as a result of current patient safety practices/adverse events;
- Motivating change in the health system to reduce adverse events;
- Targeting initiatives that could be used to reduce adverse events and the associated economic costs; and
- Prioritizing areas for future research in patient safety.

Towards this goal, CPSI is requesting applications from research teams that will report on the “economics” of patient safety. For the purposes of this Request for Applications (RFA) and the research paper, *patient safety* is defined as “...the reduction and mitigation of unsafe acts within the health care system rather than from the patient’s underlying illness, as well as through the use of best practices shown to improve patient safety outcomes” (adapted from The Canadian Patient Safety Dictionary, October 2003).

The successful applicant team will update a Project Committee comprised of CPSI staff and a member of staff from 3M and Baxter on project progress during the course of the project. The schedule for these update meetings will be established at the time of the completion of a research agreement. The Project Committee may also work closely with the successful applicant team to develop knowledge translation activities related to the project results.

2. Background

The Canadian Patient Safety Institute (CPSI)

<http://www.patientsafetyinstitute.ca/>

CPSI was established by Health Canada in December 2003, as an independent not for-profit corporation. CPSI, along with its many partnering agencies, is working to define the key patient safety issues throughout Canada, and reduce the occurrence of adverse events, in pursuit of a safer Canadian health system. CPSI performs a coordinating and leadership role, promotes leading practices and raises awareness to enable the building of a culture of patient safety and quality improvement throughout the Canadian health system. In order to reach its mandate, key activities are organized in the following four areas of focus:

- Education: CPSI will work with partners to ensure integration of leading patient safety practices into education and training systems for undergraduate and practicing healthcare professionals across the continuum of care.

- **Research:** The discovery of new information and the gathering of existing knowledge is the basis from which CPSI will champion the improvement of safety in the Canadian healthcare system. Research will provide important information to help better understand the magnitude of the current patient safety challenge, know what is achievable, and identify ideas that have worked to improve safety.
- **Tools and Resources:** CPSI engages experts and practitioners to act as a catalyst in the development of and spread the use of tools and resources for improving patient safety across the continuum of health settings.
- **Interventions and Programs:** Healthcare professionals are dedicated to the delivery of safe, evidence-based care. However, significant time and resources are needed to stay current. For individual professionals and organizations, interventions and programs represent a way to expedite the discovery, adaptation, implementation and evaluation of patient safety methodologies locally.

3M

3M Health Care is a global leader in medical and oral care products, and drug delivery and health information systems. 3M supplies innovative and reliable products that help health care professionals improve the quality of care.

Baxter Canada

Baxter International Inc. develops, manufactures and markets products that save and sustain the lives of people with hemophilia, immune disorders, infectious diseases, kidney disease, trauma, and other chronic and acute medical conditions. As a global, diversified healthcare company, Baxter applies a unique combination of expertise in medical devices, pharmaceuticals and biotechnology to create products that advance patient care worldwide.

Baxter's Medication Delivery business manufactures products used in the delivery of fluids and drugs to patients. These include intravenous (IV) solutions and administration sets, premixed drugs and drug-reconstitution systems, pre-filled vials and syringes for injectable drugs, IV nutrition products, infusion pumps, and inhalation anesthetics, as well as products and services related to drug formulation and enhanced packaging technologies.

3. Objectives of the Work

CPSI, supported by unconditional support grants from 3M and Baxter, is interested in commissioning research which will ultimately report on the “economics” of patient safety in Canada. This work will entail the development and completion of a review that will ideally include:

- A summary of research in the area including identification of challenges, pitfalls and promising approaches in economic evaluation in this area. This summary should include assessment of the weight of the evidence on the economic impact of adverse events and potential benefit of patient safety initiatives. Key informant interviews may be helpful in rounding out this section. The proposal should include justification by the applicant team regarding whether this activity will be necessary and if so, the methods that they propose to undertake the Canadian and

international interviews. A literature review will be available from CPSI for the team to use and/or build upon (see CPSI website).

- Development of a conceptual framework to guide future research on economics of patient safety.
- An estimate of the costs incurred by the health system in Canada as a result of adverse events in acute care settings in areas such as surgery, medications, and infections, and potentially in community-based settings (such as home care, long term care, mental health, etc) if the evidence to support such analyses is available. For example, what is the economic burden of illness associated with the current prevalence of adverse events? A similar overview is needed on the economic burden of care gaps in diagnosis, prescription, adherence and access.
- An assessment of the possible cost benefits that can be realized by improving patient safety. It is anticipated that these estimates will be based on modeling of evidence derived from practice improvement and adverse event reduction programs carried out in Canada or in other countries that have applicability to Canada, in various disease states and settings, in the recent past (1990-present). They may include macroeconomic analysis, such as budget impact assessments at regional, provincial, territorial and national levels when such programs are operative; as well as cost benefit analyses of clinical endpoints such as reduced hospitalizations and increased productivity.
- A list of priority target areas, based on the cost benefits and intervention opportunity viewpoints identified from the above analyses. Specifically, the data and conclusions should indicate which disease states, care gaps and potential adverse events offer the best return on investment and should be the preferred focus as improvements are made to the health system in Canada.

The final document must be written so that policy and decision makers are able to understand the basic concepts and findings of the work.

Target Audience

- The primary audience for the outcomes of this research project and its final report are decision and policy makers in government health ministries, political leaders engaged in these areas, members of health authority boards, hospital boards, CEOs and members of senior executive teams in health service delivery organizations.

Deliverables

The final document must be submitted in 1:3:25 page format, which includes a one-page summary of key messages, a three-page executive summary, and a 25-page main report, supplemented by references and appendices as appropriate. The successful applicant team will be encouraged to publish the project results in a peer-reviewed journal.

Budget

The maximum funding available for this project is **\$120,000**. It is recognized that additional funding may be desirable and necessary to support the work that teams propose. Should applicant teams require additional funding, they must secure the additional support and state in their application the amount of additional funding along with the name of the organization that will provide that support.

Assumptions

CPSI, 3M and Baxter will provide suggested names for key informant interviews and of some Canadian/international experts who must be consulted during data collection.

The proposed research can be completed in a period of 12-15 months.

B. Proposal Process

1. General

Costs incurred by applicants during the design, preparation, or submission of a proposal will not be reimbursed.

Submitted proposals will not be returned to the applicant. The proposal and supporting documentation become the property of CPSI, however the rights to any proprietary information included in the proposal remains that of the applicant and/or their organization.

CPSI reserves the right to contact any person or organization cited in a proposal and to take steps necessary to fully assess the professional reputation and credibility of the applicant and team, without seeking the authorization of the team.

2. Timetable and Submission Method

Anticipated competition timeline is outlined below.

Activity	Deadline
Request for Applications Issued	October 8, 2009
Proposals Due to CPSI	November 17, 2009
Peer/Merit Review of Applications	February 2010
All applicants will be advised of the status of their submission	March 2010
Research Agreement signed with successful team	March 2010
Successful team will be publicly announced	April 2010

Completed packages must be received at the CPSI office no later than **November 17, 2009 at 12:00 pm MT**. Applications must be complete and include all required supporting documents.

Applications or portions thereof received after the deadline will not be accepted.

The original fully signed application and three complete paper copies must be submitted to:

RFA: Economics of Patient Safety
Canadian Patient Safety Institute
10235 - 101 Street, Suite 1414
Edmonton, Alberta T5J 3G1

In addition to the paper copies, applicants must also submit the completed application form electronically in Microsoft Word format (excluding attachments) to rfa@cpsi-icsp.ca. Electronic signatures on the original application form will be accepted.

Proposals received after the deadline will not be considered and will be returned. All applicants will receive acknowledgement via e-mail shortly after receipt of the proposal. Announcement to the successful applicant will be by telephone and letter. All unsuccessful applicants will be notified electronically.

Applications will be accepted in English or French. Please note that the project details and budget justifications sections of French language applications received by CPSI will be translated to English. Applicants may arrange to have these sections of their application translated by a translator of their choice and CPSI will reimburse them at the rate of \$0.25 per word. Applicants will have up to one week after submitting their proposal to submit their translation. (**Please note:** the original application must still be submitted by the deadline).

Applicants must use the CPSI application form to indicate their decision regarding the commissioning of the translation. Any revisions made to the application during the translation process will disqualify the application from consideration in the competition.

3. How to Apply

Applicants must submit a completed application form. To obtain a copy of the application form and/or submit any questions or seek clarification, please, email CPSI at rfa@cpsi-icsp.ca with the Subject Heading “Economics of Patient Safety.” Applicants **must** follow all instructions within the application form.

Mandatory Competition Requirements

The following are the eligibility criteria for this competition:

- The **principal** focus of the project is the economics of patient safety. Applications where patient safety is deemed to be a secondary consideration will not be eligible for further consideration.
- Project results will generate knowledge that can be readily applied across patient populations, health care settings, services, or jurisdictions in Canada.

- Team lead/co-lead must be employees or affiliated with a Canadian not-for-profit organization (e.g., hospital, health region, university, professional association, etc.). These individuals may not be paid through the project budget.
- Applicant teams are encouraged to have at least one Decision Maker and one experienced Researcher on the project team.
 - The Decision Maker should be someone positioned to effectively facilitate the adoption of project results; a Decision Maker is an individual who makes decisions or influences policies that have a direct influence on the organization, delivery, financing, management, or regulation of health systems or services.
 - The Researcher is an individual with experience in conducting research who is able to effectively plan, develop, and conduct research of strong scientific rigor.
- Applicant teams are encouraged to involve interdisciplinary and/or multi-jurisdictional teams of Researchers and Decision Makers.
- Project funds must be held by a Canadian not-for-profit healthcare organization or a Canadian university that is legally able to hold and administer research funds.
- The project must have innovative, integrated knowledge translation which must reach beyond publication in peer-reviewed journals and presentations at conferences.

Exclusion Criteria

The following are not eligible for CPSI funding through this research competition:

- biomedical or basic health research;
- teams in which the lead applicant is not affiliated with a Canadian not-for-profit institution;
- additional funding for ongoing research or demonstration projects;
- work related to master or doctoral theses that have publishing and/or information sharing restrictions;
- salary support for faculty within a post secondary academic institution such as a University, College, Technical Institute or other educational institutions who educate current or future health care providers. To be eligible to be paid through project funds, the team member's current job description must not include conducting or participating in research: this must be something new to his/her portfolio as a result of their involvement in the project.

4. Competition Process

Stage 1: Screening Process

All applications received will undergo a screening process. The screening is to assess applications for consistency with the competition requirements as outlined in this document. Please note applications whose focus is not primarily on the economics of patient safety will not receive further consideration.

Screening Criteria:

- Full application is received on or before November 17, 2009 at 12:00 pm MT.
- Application includes one original and three hard copies, and one electronic copy via e-mail.

- Application is complete and includes all mandatory information, required signatures and supporting documentation, including all letters of support. Applications received by fax will **not** be accepted.

Applications successfully satisfying the screening criteria will undergo a Peer/Merit Review process by a Peer/Merit Review Panel.

The team lead of all applications unsuccessful in Stage 1 will receive notification from CPSI in March 2010.

Stage 2: Peer/Merit Review Process

All applications successful in Stage 1 will qualify for Stage 2. During this stage, applications will be reviewed by a Panel of recognized health system researchers and decision makers, knowledgeable in the area. The names of Panel members will be published on the CPSI website after the Panel meeting.

The Peer/Merit Review Panel will meet to discuss all applications and collectively select the highest ranked application for funding.

Peer/Merit Review Criteria

- The scientific feasibility and viability of the project:
 - Are the project questions and objectives clear?
 - Are the methods and analytical/evaluative approaches appropriate for the research questions and topic?
- Are the data sources necessary to support the analysis well defined, available and reliable?
- Are the project plan and timelines clear and feasible? Is the budget reasonable and appropriate?
- The potential benefit to the healthcare system in improving patient safety:
 - To what extent will the project yield new information that will contribute to meaningful and sustainable improvements in numerous patient safety areas and settings in the Canadian healthcare system?
- Does the proposal include interdisciplinary and/or multi-jurisdictional collaboration (e.g. more than one province/territory, more than one health delivery organization, more than one profession participating, etc.)? Preference will be given to proposals which include these aspects.
- Strengths and suitability of applicant team:
 - What is the quality and capacity of the lead applicant and the project team? Do their track records demonstrate that they have the composite experience, skills, and

expertise to achieve the project objectives in all components as required and function as an effective team?

Applications that have undergone Stage 2: Peer/Merit Review will be notified of the results of the process in March 2010.

Stage 3: Agreement and Project Commencement

The proposal recommended for funding will be required to resolve all conditions for funding identified by the Peer/Merit Review process. Upon successful resolution of the conditions, a Research Agreement will be forwarded to the team lead for review and signature by the authorized executive of the institution. Once the signed agreement has been returned to and processed by CPSI, project funds will be released to the financial lead for disbursement as outlined in the payment schedule of the agreement. The Research Agreement will include clauses which address Confidentiality, Ownership of Intellectual Property, and Conflict of Interest.

Projects must commence no later than **April 2010**, including obtaining ethics approval. If this is not possible, CPSI may withdraw funding for the project.

5. Agreement

This RFA should not be construed as an agreement to acquire services. The successful team will not have the right to assign the work nor any interest therein nor subcontract the performance of any service without the prior written consent of CPSI.