

# Knowledge Translation and Patient Safety: The Canadian Adverse Events Study

## Application des connaissances et la sécurité des patients : L'étude canadienne sur les événements indésirables

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### Abstract

The Canadian Adverse Events Study was the first national study of adverse events in Canadian hospitals. Learning from the controversy surrounding similar studies in other countries, the team engaged in extensive knowledge translation activities throughout the life of the project. Using meetings, Web-based communication and other tools, the team successfully prepared most Canadian stakeholders for the study's release, allowing them to develop anticipatory patient safety initiatives. However, upon publication of the study, the policy spotlight quickly shifted to other issues, and the long-term commitment needed to create safer healthcare is still uncertain.

## Résumé

L'Étude canadienne sur les événements indésirables constituait la première étude nationale du genre à être effectuée dans les hôpitaux canadiens. Tirant des leçons de la controverse entourant des études semblables réalisées dans d'autres pays, l'équipe s'est livrée à de nombreuses activités d'application des connaissances tout au long du projet. Au moyen de réunions, de communications par Internet et d'autres outils, l'équipe a réussi à préparer la plupart des intervenants canadiens à la publication de l'étude, leur permettant ainsi d'élaborer des initiatives de prévention en matière de sécurité des patients. Toutefois, après publication du rapport d'étude, les projecteurs politiques se sont rapidement tournés vers d'autres questions, et l'engagement à long terme nécessaire pour créer des soins de santé plus sûrs demeure encore incertain.

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**I**N THE SPRING OF 2002, A GROUP OF RESEARCHERS FROM SEVEN UNIVERSITIES across Canada received funding for the Canadian Adverse Events Study (Baker et al. 2004), the first national study of adverse events in Canadian hospitals. Adverse events are unintended injuries or complications that result in disability, death or prolonged hospital stay and are caused by the care that patients receive, not an underlying disease or condition.

Studies of adverse events in other countries have uncovered unanticipated levels of injury – and have often had unexpected effects. Premature announcement of the results of the Australian study by the federal minister of health soured relationships between the medical association and the federal government for several years. In the United States, the Harvard Medical Practice Study had little policy impact when it was released in 1991. But data from this and other studies became a major news story in 1999, when they were used to create the headline-grabbing press release of a report from the Institute of Medicine (IOM) that stated between “44,000 to 98,000 Americans die in hospitals each year as a result of medical errors.”

Recognizing that the Canadian study would likely have a major impact on healthcare organizations and professionals, the funders – the Canadian Institute for Health Information (CIHI) and the Canadian Institutes of Health Research (CIHR) – worked with the research team to develop a knowledge translation (KT) strategy designed to prepare Canadian stakeholders for the release of the study.

## The KT Initiative

The goal of our knowledge translation strategy was to ensure that decision-makers, representatives of the health professions, health system managers and, through them, the general public would be informed of the study and its progress on an ongoing

basis. Bringing these groups together would also stimulate each organization's efforts to develop appropriate responses to the study and anticipatory initiatives.

Our activities began with the distribution of a media release to over 1,500 media sources in French and English Canada shortly after funding for the study was awarded. In June 2002, an invitational forum was held in Ottawa for national stakeholders, with a focus on sharing knowledge from similar studies carried out in other jurisdictions, and on defining issues that the study might generate for each organization. CIHI also opened an interactive website, which was maintained during the entire project, to update stakeholders on the progress of the research.

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A year later, in May 2003, a second forum for the same group of stakeholders was held to provide an update. Participants were also given an opportunity to work in small groups to share information about

their patient safety policy planning and intended responses to the upcoming publication of the study. By this time, a number of organizations had already begun policy and educational initiatives designed to improve the knowledge and skills of practitioners, managers and policy makers about patient safety.

On January 12, 2004, the principal investigators of the study, Ross Baker and Peter Norton, held a webcast to update the stakeholders on progress. Discussions were already under way at this time with the editors of the *Canadian Medical Association Journal* (CMAJ) to secure an agreement for expedited review and publication of the study.

By mid-April 2004, the study's publication date had been set for May 25, 2004. CMAJ policy was to provide the media with embargoed copies of articles appearing in the journal one week prior to publication. So on May 20, members of the research team and representatives from CIHI and CIHR briefed the press and key stakeholders on the results. The rate of adverse events for patients in Canadian hospitals was 7.5%, higher than that found in similar US studies but lower than the rate reported in the Australian study. Just as important was the level of disability and death associated with adverse events, which indicated a considerable illness burden.

The paper appeared as scheduled on May 25 in CMAJ, but news of the results were leaked three days earlier when journalists from the *Edmonton Journal* and the *National Post* broke the embargo. Because these papers had published the key results of the study, reporters from other media outlets had to scramble to write stories on different aspects of the findings. Despite this, the study generated significant media

coverage. Drs. Norton and Baker each gave approximately 20 interviews, and more than 28 newspaper stories, 47 radio items and 19 TV news items were written or broadcast about the study. However, the announcement of the federal election that weekend truncated the news coverage. An analysis by CIHI of the perceptions of major news events in that period discovered that despite the large number of media stories across the country, few Canadians knew much about the adverse events study and its results.

## Results of the KT Experience

The success of the knowledge translation efforts linked to the Canadian Adverse Events Study must be judged by the extent to which key stakeholders were aware of the study results, and by the short- and long-term impacts on patient safety policy initiatives.

In terms of the first question, the level of stakeholder knowledge about the study, the KT efforts were largely successful. Representatives from more than 35 ministries of health, national professional organizations, regulatory and policy authorities and nongovernmental organizations attended the two stakeholder forums in 2002 and 2003. A large number also participated in the 2004 webcast. Feedback from the early events was used to improve the interaction between stakeholders and researchers in later meetings and communications.

A count by *CMAJ* showed that the paper was downloaded from its website more than 25,000 times in the first four days after its publication, a level of activity never before seen at the journal. In the year following publication, the study team authors gave more than 50 presentations at meetings of professional groups and healthcare organizations, and many more presentations to smaller groups of researchers, managers and practitioners. However, while practitioners and policy makers were clearly aware of the study and its results, the abbreviated press coverage meant that the public was largely uninformed.

Work by many organizations in the two years between the first stakeholder forum and the release of the study helped advance patient safety efforts across Canada. Policy initiatives and educational programs were developed by many professional organizations, including the Canadian Medical Association, the Canadian Nurses Association and the Canadian Healthcare Association. Following the study's release, the Canadian Council on Health Services Accreditation (CCHSA) created a Patient Safety Advisory Group (which includes both Drs. Norton and Baker, along with other researchers and decision-makers). This group has helped CCHSA develop a set of patient safety goals and required organizational practices that will be implemented in accreditation surveys beginning in 2006. Some observers have also speculated that the launch of the Canadian Patient Safety Institute, recommended by the National

Steering Committee on Patient Safety in 2002, was pushed forward in late 2003 because of the need to show a federal government commitment to patient safety prior to the release of the study.

## Lessons Learned

While the study has clearly contributed to the awareness and engagement of many organizations, professional groups and individual practitioners and managers, there is also the possibility that our knowledge translation efforts had the paradoxical effect of desensitizing some parts of our audience.

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Many organizations worked hard in 2002 and 2003 to develop policies, inform their members and create media strategies that demonstrated understanding of the issue. In the aftermath of the study's release, and the success of these organizations in their anticipatory efforts, the policy

spotlight may have shifted to other issues. In addition, the federal election was called in the same week as the study's publication, and the issues of waiting times and access were chosen as the key healthcare platform for the federal Liberal Party's campaign.

Did some organizations believe that they had achieved what was needed (or what was possible) for patient safety by May 2004? Did the emergence of waiting times and access as the key healthcare issues, and the funding that was promised to address them, cut short the focus on patient safety? Did the early involvement of the stakeholder groups in patient safety consultations lead to a waning of enthusiasm for further initiatives once the study results were released?

These questions are difficult to answer. However, recent discussions of the mixed success of the United States in improving patient safety, prompted by the five-year anniversary of the IOM report, suggest that patient safety issues will require continued attention.

## Conclusions and Implications

The knowledge translation efforts centred on the Canadian Adverse Events Study led to a major shift in policy for many Canadian governments and healthcare organizations. But knowledge translation alone has been insufficient to ensure the necessary

investment in new resources needed to create safer healthcare. Other efforts, including the development of the Safer Healthcare Now campaign, which targets the reduction of mortality and morbidity from infections and adverse drug events, will be needed to demonstrate and help reduce the gap between current performance and the potential for high-reliability healthcare.

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#### REFERENCES

Baker, G.R., P.G. Norton et al. 2004. "The Canadian Adverse Events Study: The Incidence of Adverse Events among Hospital Patients in Canada." *Canadian Medical Association Journal* 170(11): 1678–1686.

## Call to Authors

Linkage and Exchange provides a forum for knowledge translation (KT) case studies. Submissions should include an abstract of no more than 100 words, a brief statement of background and context, a description of the KT initiative, a presentation of results (including challenges that arose and how they were addressed) and a discussion of lessons learned, highlighting those that are potentially transferable to other topics and settings. Manuscripts should be a maximum of 2,000 words, excluding the abstract and references.

## Appel aux auteurs

« Liens et échanges » fournit un forum pour des études de cas en application des connaissances (AC). Les articles soumis doivent comporter un résumé d'au plus 100 mots, une brève mise en contexte, une description de l'initiative d'AC, une présentation des résultats (y compris les défis qui se sont présentés et comment ils ont été relevés), ainsi qu'une discussion des leçons apprises, surtout celles qui sont potentiellement transférables à d'autres sujets et à d'autres cadres. Les manuscrits doivent être d'au plus 2 000 mots, excluant le résumé et les références.

For more information contact Rebecca Hart, Managing Editor at rhart@longwoods.com.