



Implementing a Good Catch Program in an Integrated Health System

Debbie Barnard, Marilyn Dumkee, Balvir Bains and Brenda Gallivan

Abstract

In 2004, the Canadian Adverse Events Study (Baker et al. 2004) determined the incidence rate of adverse events (AE) in Canada to be 7.5%. This translates to approximately 185,000 for the almost 2.5 million annual hospital admissions in Canada. The study noted “close to 70,000 of these AEs were potentially preventable.”

In March 2005, a “Good Catch” program was implemented in Edmonton’s Capital Health Region, one of the largest integrated health regions in Canada, as part of the region’s comprehensive system of reporting, analyzing and managing incidents, adverse events and near misses.

Introduction

In 2004, the Canadian Adverse Events Study (Baker et al. 2004) determined the incidence rate of adverse events (AE) in Canada to be 7.5%. This rate translates to approximately 185,000 AEs for the almost 2.5 million annual hospital admissions in Canada. The study noted “close to 70,000 of these AEs were potentially preventable” (Baker et al. 2004).

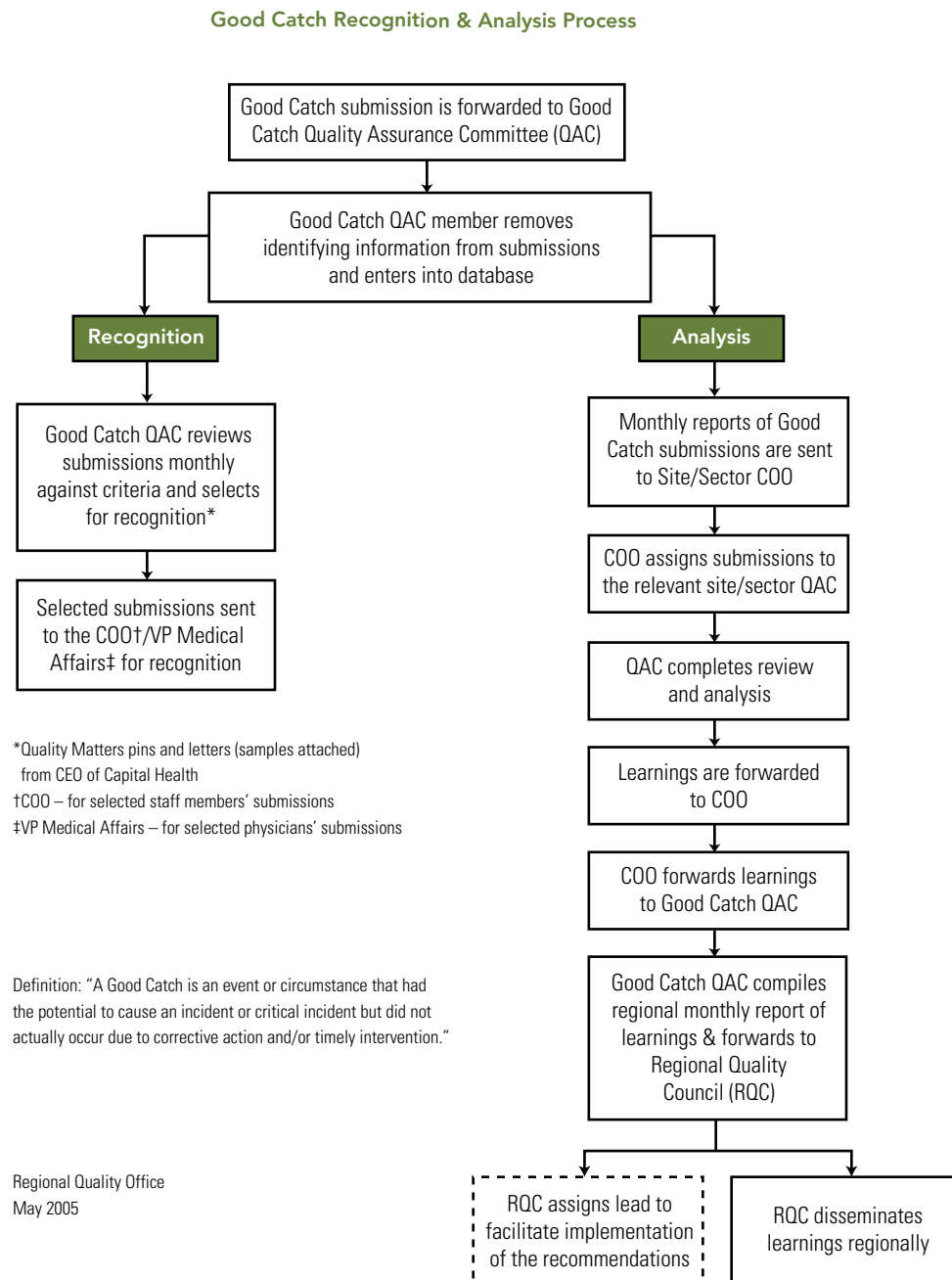
In the quest to enhance its safety systems, in March 2005 Capital Health (CH), one of the largest integrated health regions in Canada, implemented a Good Catch program. It is a part of the region’s comprehensive system of reporting, analyzing and managing incidents, adverse events and near misses. A *Good*

Catch is defined as an event or circumstance that has the potential to cause an incident or critical incident but that did not actually occur due to corrective action and/or timely intervention.

Previously, the CH paper-based incident reporting system included the ability to report Good Catches, but there had not been emphasis on reporting and analyzing Good Catches or near misses. So the region recognized that an opportunity existed to further strengthen the quality culture of Capital Health while recognizing staff and physicians for their contributions to quality by implementing a Good Catch program.

In the article “Understanding Medical Error and Improving Patient Safety in the Inpatient Setting” (Shojania et al. 2002), three other reasons why healthcare organizations should want to focus on developing systems similar to Good Catch are highlighted:

- Near misses occur three to three hundred times more often than adverse events.
- The fact that no harm has come to the patient means there are none of the emotional/psychological barriers associated with actual events, especially the potential threat of legal action.
- Analysis is not encumbered by hindsight bias, the recognized tendency to judge care as inappropriate when it results in an adverse outcome.

Figure 1. Overview of Good Catch program

Good Catch was implemented in Capital Health in an effort to increase reporting, continue to enhance the culture of safety and provide the health system with the opportunity to proactively identify and implement risk reduction strategies in areas that could cause harm to patients and/or staff. The program endeavours to build an environment that fosters safety reporting with the intent to prevent system breakdowns before they occur,

ultimately reducing the overall number of incidents and adverse events.

Figure 1 provides an overview. The program was designed with two major components: recognition and analysis. All submissions are received by the Good Catch Quality Assurance Committee. This group is responsible for evaluating each submission against defined criteria. The criteria include: impact of patient safety, quality of patient care, service and potential for regional impact. At least two to four staff (including physician partners) are selected for recognition every month, and each staff member submitting a Good Catch gets a letter of thanks from the QAC. Every Good Catch is analyzed at the site and regional levels to try to determine what happened, why it did and what potential processes might be implemented to prevent an actual incident. Learnings from the analysis are presented to the Regional Quality Council for region-wide dissemination.

Implementation

A proposal was presented to the Regional Quality Council (RQC), the group responsible for the overall strategic guidance of Capital Health's Quality and Patient

Safety Program. The membership represents the diverse sites and sectors of the region from acute care to community-based service and primary healthcare. Currently the group is led by two co-chairs, the Vice-President for Medical Affairs and the Vice-President & Chief Liaison Officer, who is administratively responsible for quality and patient safety for Capital Health.

Once the proposal was approved by RQC, a team developed the

program. The team was led by the Director of Regional Quality, and the Vice-President and Chief Liaison Officer was assigned the role of Executive Sponsor. The team included Regional Quality consultants (two nurses and an educator), a Health Information Analyst and a Public Affairs representative along with a Business Support Analyst who monitored the budget.

The team created a Project Management Plan to guide development and implementation. The plan included defined tactics for program design, execution (including education and communication), monitoring and evaluation. The team developed a Toolkit for the execution phase of the program. Feedback from key stakeholders indicated this strategy was the most valuable and was credited with much of the team's success.

The manager's Toolkit included posters, forms, information mailers and paycheck stuffers. A copy of the Good Catch Poster is displayed in Figure 2. The team also replicated the

opened a detailed Good Catch Toolkit that included handouts and an electronic presentation that described the objectives, goals and program strategy, a Good Catch definition, the process for submitting a Good Catch, selection and recognition criteria and suggestions for unit-level implementation.

The team also made presentations to all key management staff across the entire region on the Toolkit and answered questions over a three-month period prior to the program kickoff. The Good Catch program was also highlighted in all newsletters circulated in the region, both at the site and at regional levels.

The majority of reports received are related to medication administration, and this correlates with the actual incident reporting data in the region over the past few years. Consequently, medication safety has been identified as one of the primary focus areas for the Quality Improvement Program.

Figure 2. Good Catch poster



Results

The team defined and communicated a comprehensive summary of the Good Catch process to all key stakeholders in the region to ensure that everyone was aware of their responsibilities for each component of the process, from reporting and analysis to dissemination of learnings.

During the first month of the program, 13 reports were received, but there has been a steady increase; from October 2005 to February 2006 reports received ranged from 103 to 135 per month. Figure 3 displays Good Catches submitted from March 2005 to February 2006. Reports have been received from all disciplines with an approximate distribution for nursing at 64%, pharmacy at 26%, lab at 5%, diagnostic imaging at 4% and physicians at 1%.

The majority of reports received are related to medication administration, and this correlates with the actual incident reporting data in the region over the past few years (see Figure 4). Consequently, medication safety has been identified as one of the primary focus areas for the Quality Improvement Program.

From March 2005 to February 2006, 77 Good Catches have been selected for special recognition. Each staff member who is selected for recognition receives a Capital Health "Quality Matters" pin and a letter of recognition from the CEO and the Vice-President for their site or sector. Physician partners receive a letter of recognition that is also signed by the Vice-President for Medical Affairs. All staff members who report a Good Catch receive a formal note of thanks.

To ensure that the review and the analysis of Good Catches are as thorough as possible, a Good Catch Review Tool (see Appendix 1) was developed. It incorporates all the elements used when performing a root cause analysis, such as:

Good Catch Toolkit on the Regional Quality intranet site, which gave staff and physicians at all sites ready access to all the program materials.

To ensure consistency across the region, the team also devel-

Figure 3. Good Catches by month, March 2005–February 2006

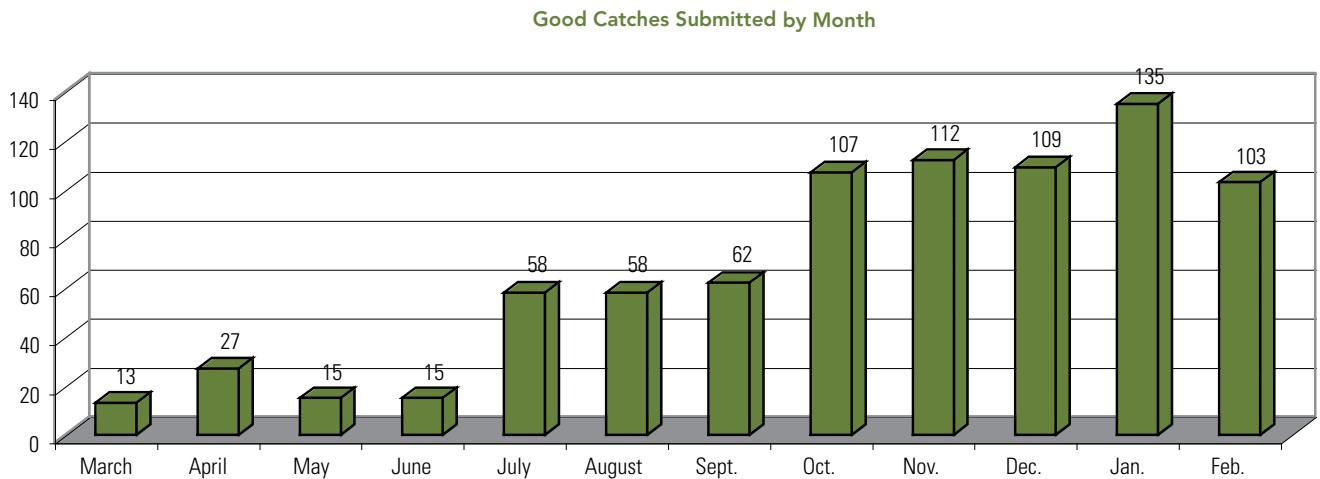
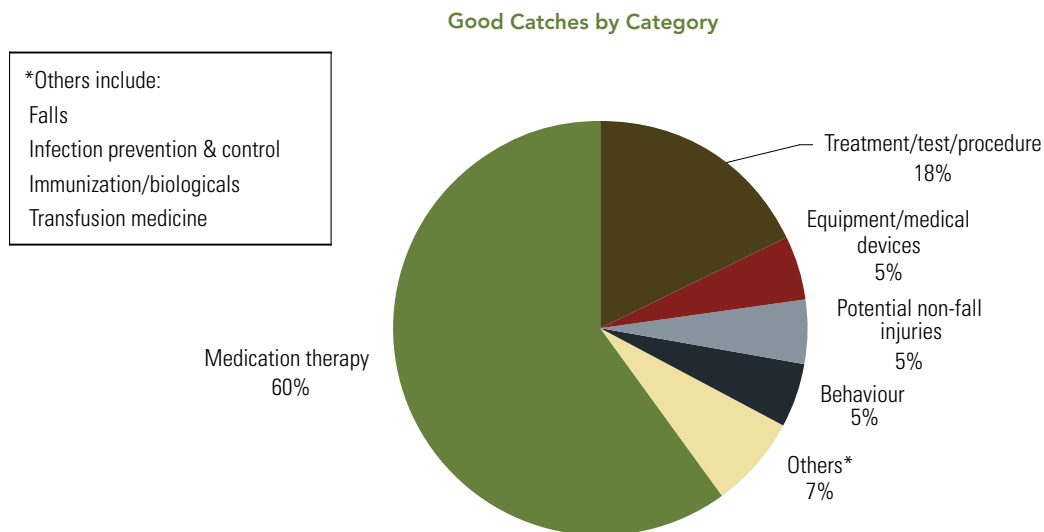


Figure 4. Good Catches by category, March 2005–February 2006



1. What happened?
2. Why did it happen?
3. How can it be prevented from happening again?

The reports are aggregated and reviewed quarterly by site and then by region. A Risk Priority Matrix is used to determine events that require immediate follow-up and a more in-depth analysis. The Matrix includes a review of severity and probability.

Limitations and Lessons Learned

To ensure that CH found and maintained a balance between accountability, system transparency and protection for staff reporting incidents, prior to launching Good Catch the CH legal counsel reviewed the entire program. On guidance from legal counsel, the Good Catch Selection Committee was designated as a Quality Assurance Committee (QAC) and all Good-Catch-related discussions at the site and the regional level are conducted by the appropriate QACs. The staff and physician

Figure 5. Some kinds of positive changes implemented

Good Catch Examples	Action/Follow-up	Hierarchy
In the ICU Pyxis both MgSo4 10 cc multidose vials and Midazolam 10 cc multidose vials are very similar in appearance – both have green and navy blue strips on white labels.	Manufacturer has changed labelling to alleviate confusion – all old stock replaced and returned.	Strong
Patients inadvertently connect to air flow meter when oxygen required.	RAH currently leading Regional initiative to implement force function to prevent misconnections.	Strong
Patient on a puréed, level-3 fluids diet order. Nursing staff noted he received a dinner roll on his lunch tray and removed it.	Regional Nutrition and Food Services have discussed with specific staff and at general staff meeting. Bun position on tray has been changed to ensure that a bun from the upper tray cannot fall off onto the lower tray.	Intermediate
Sterile water solution for injection was mistakenly placed on a renal replacement therapy cart. Anticoagulant for dialysis looks very similar to the dialysis anticoagulant trisodium citrate 1 premixed bag.	IV solutions are now stored separately from the dialysis solution.	Intermediate
Specimens received in the lab from the ward unlabelled.	Team selected this as a Proactive Risk Assessment Demonstration Project. Recommendations to follow.	Weak
In netCARE (electronic health record), under “Blood Work” when you look at a Type and Screen it has the phrase “Blood Available Until” and a date. When you look at a crossmatch it also has a phrase “Blood Available Until” and a date. This refers to how long the sample is good for, not how long the crossmatch or type and screen is good for. Staff read that to mean there was blood available for transfusion in the blood bank for the patient.	Wording changed to improve clarity of the phrase “Blood Available Until” and reflect that this is sample availability only.	Weak

partners agreeing to be recognized for a Good Catch submission are – in order to protect their privacy – not associated with details of the actual Good Catch or any subsequent improvement. For all reporting and discussions at the regional level, Good Catches are stripped of any identifying information about patients, healthcare providers and patient care units.

The team found that this element of the program design was important to staff and physicians, as it ensured protection under Section 9 of the *Alberta Evidence Act*.

Conclusion

Due to the Good Catches reported during the last year from March 2005 to February 2006, many opportunities for improvement of patient safety and care have arisen throughout the region. Figure 5 includes a sample of the kinds of positive changes that the region has implemented as a result of the Good Catch program. Some changes have included working with manufacturers; in one incident the manufacturer had changed the labels of a medication, so the region worked with it to

Due to the Good Catches reported during the last year from March 2005 to February 2006, many opportunities for improvement of patient safety and care have arisen throughout the region.

replace all the old stock to avoid the “lookalike” drug mix-up. In another instance the “bun” placement on the tray was changed by Regional Nutrition and Food Services to avoid buns falling from one tray to another on the delivery cart.

The program has also facilitated the uptake of patient safety science in the region. Two new projects are under way, with one team performing a proactive risk assessment to look at the issue of specimen labelling and another investigating force function mechanisms available to prevent inadvertent misconnections of patients to air instead of oxygen.

The team continues to refine the program in response to the comments received from key stakeholders. Planning is under way aimed at: reducing the cycle time from when a Good Catch is reported to when actual feedback and action is received by staff in the care areas; increasing the capability in the region to use the analysis and learning tools, that is, proactive risk assessment and root-cause analysis; consistently identifying regional improvement priorities and acting upon them; and consistently communicating lessons learned in an efficient and timely manner across the region and, when indicated, provincially and nationally.

To view Appendix see <http://www.longwoods.com/product.php?productid=18373&cat=452>

About the Authors

Debbie Barnard has worked in the healthcare industry for over 23 years in extensive practice settings including acute care, home health, hospice and an academic setting. She has successfully performed in a series of progressive postings, including Nurse Instructor, Healthcare Consultant, JCAHO Surveyor, PI Director and Acting Regional Quality Director, Capital Health. She currently holds the position of Project Manager with the Canadian Patient Safety Institute.

Marilyn Dumkee has over 20 years of clinical nursing experience and remains active in the nursing profession as a casual pediatric nurse. She has worked in Capital Health's Regional Quality Office since 2000 and is currently the chair for the Good Catch Selection QAC and a Clinical Quality Consultant for the region.

Balvir Bains is a Health Information Management Professional for Capital Health's Regional Quality Office. She has over 10 years' experience working with patient safety and quality improvement initiatives and projects.

Brenda Gallivan has extensive clinical nursing experience, including intensive care, home care and nursing management. She has worked in Capital Health's Regional Quality Office for five years; her current focus is developing and implementing regional clinical pathways and guidelines.

Please direct correspondence to: Debbie Barnard, MS, CPHQ, Project Manager, Canadian Patient Safety Institute, Suite 1414, 10235 – 101 Street, Edmonton, AB T5J 3G1. Tel: 780-498-7259. Fax: 780-409-8098. E-mail: debbiebarnard@cpsi-icsp.ca.

Marilyn Dumkee, Clinical Quality Consultant, Regional Quality, Capital Health Centre, North Tower, Suite 200, 10030 – 107 Street, Edmonton, AB T5J 3E4. Tel: 780-735-0872; Fax: 780-735-0873.

References

Baker, G.R. et al. 2004. "The Canadian Adverse Events Study: The Incidence of Adverse Events among Hospital Patients in Canada." *Canadian Medical Association Journal* 170(11): 1678–86. Retrieved August 8, 2006. <<http://www.cmaj.ca/content/vol170/issue11>>

Baker, G. Ross and Peter Norton. 2000. "Patient Safety and Healthcare Error in the Canadian Healthcare System: A Systematic Review and Analysis of Leading Practices in Canada with Reference to Key Initiatives Elsewhere" [report to Health Canada]. In L. Kohn, J. Corrigan and M. Donaldson, eds., *To Err Is Human: Building a Safer Health System*. Washington, DC: National Academy Press, Committee on Quality of Health Care in America, Institute of Medicine.

Barach, Paul and Stephen D. Small. 2000. "Reporting and Preventing Medical Mishaps: Lessons from Non-medical Near Miss Reporting Systems." *British Medical Journal* 320: 759–63. Retrieved August 8, 2006. <<http://bmj.bmjjournals.com/cgi/collection/quality-improvement?page=21>>

Brennan, T.A, L.L. Leape, N.M. Laird, L. Hebert, A.R. Localio, A.G. Lawthers, J.P. Newhouse, P.C. Weiler and H.H. Hiatt. 1991. "Incidence of Adverse Events and Negligence in Hospitalized Patients: Results of the Harvard Medical Practice Study I" [abstract]. *New England Journal of Medicine* 324(6): 370–6.

Bridges, W.G. 2000. "Get Near Misses Reported, Process Industry Incidents: Investigation Protocols, Case Histories, Lessons Learned." Pp. 379–400 in Proceedings of the International Conference and Workshop on Process Industry Incidents: Investigation Technologies, Case Histories, and Lessons Learned. October 2, 5, 6, 2000. New York: American Institute of Chemical Engineers.

Grass, Christine. 2002. "Would You Be a Patient in Your Own Hospital?" *US Pharmacist*, January 27. Retrieved August 8, 2006. <http://www.uspharmacist.com/oldformat.asp?url=newlook/files/Feat/BeAPatient.htm&pub_id=8&article_id=811>

"IAFC to Develop Near-Miss Reporting System." 2004. International Association of Fire Chiefs site. August 24. Retrieved August 8, 2006. <<http://www.iafc.org/news/article.asp?id=131>>

Killen, A., R. Beyea and C. Suzanne. 2003. "Learning from Near Misses in an Effort to Promote Patient Safety." *AORN Journal* (PSF) 77: 423.

Lawton, R. and D. Parker. 2002. "Barriers to Incident Reporting in a Healthcare System." *Quality and Safety in Health Care* 11: 15–18. Retrieved August 8, 2006. <<http://qhc.bmjjournals.com/cgi/content/full/11/1/15?ijkey=KcbMYiClK4VgQ>>

Mills, P.D., Julia Neily, Diana Luan, Erik Stalhandske and William Weeks. 2005. "Using Aggregate Root Cause Analysis to Reduce Falls and Related Injuries." *Joint Commission Journal on Quality and Patient Safety* 31(1): 29.

Phimister, J.R., U. Oktem, P.R. Kleindorfer and H. Kunreuther. 2000. "Near-Miss System Analysis: Phase I." Risk Management and Decision Processes Center, The Wharton School site. Retrieved August 8, 2006. <<http://opim.wharton.upenn.edu/risk/downloads/wp/nearmiss.pdf>>

Reason, J. 2000. "Human Error: Modes and Management." *British Medical Journal* 320(7237): 768–70.

Shojania, K.G., B.W. Duncan, K.M. McDonald and Robert M. Wachter (Eds.). 2000. "Making Healthcare Safer: A Critical Analysis of Patient Safety Practices. Evidence Report/Technology Assessment No. 43 from the Agency for Healthcare Research and Quality." Publication #AHRQ 01-E058. Rockville, MD.

Shojania, Kaveh G., Heidi Wald and Richard Gross. 2002. "Understanding Medical Error and Improving Patient Safety in the Inpatient Setting." *Medical Clinics of North America* 86(4)(July): 847–67. © 2002 W.B. Saunders Company.

Webb, R., M. Currie, C. Morgan, J.A. Williamson, P. Mackay, W.J. Russell and W.B. Runciman. 1993. "The Australian Incident Monitoring Study: An Analysis of 2000 Incident Reports." *Anaesthesia and Intensive Care* 2: 520–8. Abstract.