# Outcomes Management for Back injury

## The Canadian Back Institute uses protocols for effective documentation.

Lynda Wilson

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### Abstract

The history of the Canadian Back Institute (CBI) traces back to 1974, when orthopaedic surgeon Hamilton Hall, FRCSC, began a series of educational lectures to improve patients' understanding of neck and back pain. In the course of advising and treating patients in his orthopaedic practice, Hall had become acutely aware of the unnecessary mystery and mythology surrounding spinal pain.

As the educational program expanded, a need to incorporate direct treatment became evident. In 1984, hall and physiotherapist Tony Melles opened a private clinical practice in Toronto. The backbone of the practice was the educational philosophy that patient knowledge and understanding instil a sense of empowerment and confidence to assume ownership of the patient's disability and, subsequently, his/her recovery.

From the onset, a significant priority for CBI was to establish and preserve standard protocols for the treatment of patients. CBI patients progress through a focused, experience-based treatment program encompassing three stages: pain control, recovery of movement, and physical conditioning. This consistent approach enables CBI to achieve better rates of recovery and patients to require less additional management at a lower total treatment cost than conventional neck and back pain management.

Today, the Canadian Back Institute has firmly established itself as a leader in the Canadian rehabilitation industry. With 53 clinic locations from coast to coast, CBI is the largest integrated chain of rehabilitation clinics in Canada. The success of CBI can be largely attributed to two factors: adherence to an innovative patient-centred, time-limited, active approach to therapy; and early adoption of outcomes-based management.

## Documentation

In 1993, CBI began to collect outcome information systematically to document the results of treatment. Patients visiting CBI for treatment had been achieving "good" results for 10 years, but the lack of a standard method for gathering the information made it difficult to quantify "good" and to offer categorical proof that treatments were the least time consuming and the most effective available.

The computer system engineered to handle this information has two main components: the accounting system containing data such as billing party, number of patient visits, and cost per visit; and the research system containing the data collected using the CBI clinical forms.

An important objective of a clinical data collection system is to capture as much relevant information as possible without overburdening patients or clinic staff with excessive information demands. Regular feedback from 400 certified physiotherapists, kinesiologists, and other health professionals working with CBI allows annual review, refinement, and adaption of this simple system.

## Outcome Protocols

The process of assessing outcomes stars on the initial visit and continues through follow-up. CBI has developed a separate protocol for each step.

*Assessment.*

A systematic patient evaluation is facilitated by utilizing a standard assessment form developed to gather clinical intake information. This form is used by the CBI physiotherapists to collect such baseline information as history and physical examination, and the intensity, frequency, and pattern of the patients' pain.

Patients' perception of functional ability is assessed using a separate self-administered questionnaire, the CBIQ. To avoid needless repetition, CBI's research department thoroughly reviewed the existing tools for measuring functional capacity. The 16-question CBIQ uses components of these existing instruments while incorporating additional items that embody CBI philosophies and goals. A 1994 validation study against the Oswestry Low Back Pain Disability Questionnaire demonstrated concurrent validity of the CBIQ.

*Discharge and Follow-up.*

To measure clinical and functional improvement, the CBIQ and pain status questions administered on the first visit are repeated at the time of discharge. To ascertain the long-term impact of treatment, a structured telephone interview conducted 6 months post-discharge solicits the same information a third time. The questions determine the work status and record changes, modifications, or failure. Utilization information (for example, days in treatment and cost of treatment) is accessible through CBI billing system. Individual clinics gather patient satisfaction data at the time of discharge using a standard 11-question survey.

## Keeping records

To avoid the pitfalls of hasty computerization, CBI clinical and administrative staff worked for a period of 18 months with the manual implementation of the various forms and procedures, and offered feedback based on clinical use. This permitted ample time to design and produce a computer program that accurately transferred all of the clinical information to a series of databases.

The completed forms are entered into a system that uses pull-down menus and pop-ups lists to guide data entry. Validation checks built right into the system help control data integrity. Timelines of data entry can be verified by system reports. The user-friendly interface was readily accepted by the CBI staff; and, with a database structure that links billing and clinical data for all patients who visit a clinic in the CBI network, the size of the CBI database is growing rapidly.

Within months, the system contained approximately 5,000 complete patient records, and CBI began to produce outcome reports and clinical analysis for both internal and external requirements. With hundreds of clinical, outcome, and utilization data elements available in the various databases, the reporting possibilities are enormous. To ensure that the internal reports convey useful information to the recipients, the research department continues to solicit input from the clinical staff and modify the system accordingly.

## Accessible Information

Recently, the research department installed a reporting application containing a number of customized clinical and marketing reports in each of the CBI clinic computer systems. Individual clinics now have the capability to access and analyze real-time information so that reports can be added or modified as required locally. This new technology affords the clinicians the capacity for immediate assessment of a patient's functional ability. It addresses the current needs of the clinics constituents.

Shifting the responsibility for outcome reporting to the clinic staff allows for a better appreciation of the inherent relation between the data entered and the resultant information. In the weeks following installation of the new system, CBI's research department began fielding inquiries from the clinical staff concerning missing or questionable data in reports intended for presentation to their own existing and prospective customers. As individual clinics assume greater accountability and interest in their own data, the national database requires less administrative intervention. This translates to increased time and resources for benchmarking, national outcomes management, and new national research initiatives. Just as knowledge empowers back pain patients to learn to treat themselves, outcomes information empowers treatment providers to assess and demonstrate the quality and value (defined by Fry Moyer as the ratio of quality to cost) of a treatment intervention.

## Conclusion

Change in the field of back care is both inevitable and necessary. To meet the challenges posed by today's dynamic and competitive rehab environment, a company must be flexible. Providers that welcome and readily adapt to change will emerge as the clinical quality leaders of tomorrow. Paradoxically, the standardization of services and protocols across its networks of clinics has enabled CBI to accommodate variation and to deliver innovative solutions.

The ability of a provider to present documented proof of the quality and efficiency of services is becoming a vital ingredient for success in today's value –oriented health care industry. As managed care becomes more predominant in Canada and health care consumers become increasingly sophisticated in defining their needs, providers of rehabilitation services will be obliged to continually collect, analyze, report, and act on their outcomes information. Such accountability can only help the rehabilitation profession mature.

## References


1. Frymoyer JW. Quality: an international challenge to the diagnosis and treatment of disorders of the lumbar spine. *Spine*. 1993;18:2148.
2. Ralls EE. Information equals power. *Rehab Management.* 1997;10(3):90.