

AUTOMATION:

REHABILITATION COST-CUTTER

By Brenda Rusnak, President,
Active Physiotherapy Rehabilitation Group, Toronto

Improvement through past experience is a concept that most people readily accept. The key to significant improvement is learning not only from one's experience, but also learning from others and being able to apply new knowledge in a systematic way.

It is popular opinion that the method to accomplish this in the rehabilitation industry is through the development of clinical practice guidelines. In fact, observers estimate that guidelines can save as much as 25 per cent of health care costs.

However, to gain any cost savings from developing and applying clinic guidelines, sophisticated automated systems must be in place to allow information to flow freely in a real time environment.

The rehabilitation industry is of two minds as to how clinical guidelines should be created.

Some argue that clinical guidelines should be based purely on baseline data, collected through outcomes research. Others feel that, without thorough knowledge of how clinic results are achieved, outcome data is of limited value.

I believe that both must occur simultaneously to create a system that allows continual improvement in the quality of care being provided, while continually developing less expensive ways of providing this care.

The real challenge in developing such a system is in how to collect and analysis the data and disseminate the information gleaned from this approach. To learn from data, we have to collect large quantities of it and ensure the data being collected is accurate.

This simply is not possible under a manual data entry system.

Clearly, if rehabilitation practitioners are serious about developing practice guidelines and continually improving patterns of practice, automation must be embraced.

Because a system of data collection must ensure completeness of data sets and accuracy of the submitted data, it therefore must include filters, which ensure the in-

tegrity of the data being collected. The more complex the filter mechanism is, the more confidence can be placed in the accuracy of the information the system yields.

Equally important is the ability of the system to allow information to be disseminated back to providers in such a way that they can apply it in their clinical practice.

Guidelines developed by analysing outcome data can influence practice patterns only to the extent they are followed. And there is plenty of evidence that suggests merely creating a guideline and disseminating it does not guarantee changes in practitioner behaviors. A printed guideline does not provide a dynamic system in which information about what's happening in the present can be compared with norms for a specific population.

Guidelines have to function in real time.

Ideally, you want practitioners to be able to access the guidelines on a computer before and during treatment to ensure that norms or benchmarks are being reached at each stage of the recovery process. Guidelines not only need to be meaningful, but readily accessible to providers, case managers and payers.

The only way to accomplish this is with real time automation.

Any system developed to collect and analyse outcome data must ensure confidentiality of the data sources. This can be accomplished in two ways.

The first is to disallow any data to be entered that identifies the source. The problem with this method is that there is no mechanism for tracing the source if clarification of the data is required.

The second method is to allow an independent third party to set up and maintain a data system off-site, with strict policies and procedures in place to assure confidentiality. This is a more reasonable option as it ensures confidentiality, while providing a mechanism for tracking data back to the source, if required.

How much data is required to begin

seeing patterns and develop practice guidelines?

A minimal sample of 3,000 files is necessary to begin producing general guidelines. Population-specific guidelines require a sample of at least 10,000 files. Actuaries estimate at least 120 months of data that tracks people longitudinally is needed to produce a good measurement of outcomes.

It means that the sample size of data is an important factor in determining how much confidence to have in making decisions based on the data.

In addition to the sample data, enough data must be collected on each file to produce population-specific outcomes and cost information. The more specific the data is to a particular population, the more effective the practice guidelines will be in assisting clinicians to use best practices.

An well-designed electronic system should also be able to measure the performance of providers and institutions against norms or benchmarks. Provider profiles, as well as detailed performance measures, such as procedure-specific information, outcomes, patient satisfaction, recurrence rates and complication rates, are all possible when advanced automated systems are in place.

The more specific the data is to a particular population, the more effective the practice guidelines will be in assisting clinicians to use best practices.

After a year and a half in development, Assure Health Inc., which specializes in real time adjudication and health care services invoicing, and Active Physiotherapy Rehabilitation Group, have a project in its final test phase that meets the above criteria. It is expected to be available this summer.

Meanwhile, the Active Group has manually collected and entered more than 14,000 files into its database.

Once a system of accountability is available that measures provider performance and follows up that performance regularly with scientific validity and detail, the need for focused, case-specific review will decrease.