

## **DYNAMIC CLINICAL SYSTEMS**

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Dynamic Clinical Systems, Executive Healthcare Management

### Patient reported outcomes: on the front line

***Chris Weiss is the Co-founder, President & Chief Executive Officer of Dynamic Clinical Systems. The DCS secure Web-based solution, Integrated Survey System® (ISS), enables patients to provide health history and outcomes data electronically, lowering the cost of data management, improving the value of data collected, enhancing control in decision making, and documenting empirical measurement of outcomes tailored to care. DCS's vision is to enable outcomes-based care over a patient's journey through the healthcare system.***

The Spine Center at Oregon Health & Science University (OHSU) is implementing an innovative program to track functional outcomes of treatment. Since 2007, the Spine Center, part of Oregon's only health and research university, has been using ISS (Integrated Survey System®) technology to improve each patient's return to a functional lifestyle after being sidelined by spinal problems.

Patient reported outcomes (PRO) are a central focus of the OHSU Spine Center Functional Outcomes program. Every three months, patients provide feedback on their progress using a computerized survey, either in the clinic or online. Data is then collected from Spine Center clinicians to monitor physical progress after different types of surgery or treatment. The survey also gleans feedback from the patients on the quality of care received at the Spine Center. The end goal is to analyze the data, come up with a more specific set of outcome predictors, and use those predictors in real life to more effectively steer the course of a patient's treatment in a timely manner.

It has been a long road, and the journey is definitely far from over. Mark Lovgren, Service Line Director, Spine and Neuroscience Service Lines, outlined five goals for implementing the Functional Outcomes program:

1. Measure the effectiveness of treatment to ensure that a patient receives the care most likely to produce the best outcome for him;
2. Provide real-time decision support at the point of care to facilitate the clinician-patient discussion about care and progress to date;
3. Incorporate findings from the program into a customized system of care that produces the best outcomes for the entire patient population;
4. Demonstrate to payors and other key stakeholders that the outcomes program improves the cost-effectiveness of spinal treatments; and
5. Be transparent with the local community about spine care at OHSU.

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As a complex comprehensive clinical practice, the Spine Center has had to develop unique survey protocols to measure the treatment results from the patient's perspective. Measuring patient reported outcomes is still relatively new in practical use, so the Spine Center has been doing some groundbreaking work in the development of procedures that other clinics will someday be able to customize for their own unique practices. Each survey item contributes to optimum decision support, which is the foundation of every other goal of the Functional Outcomes program.

The Spine Center's surveys have been implemented with regular intervals between self-reported evaluations. At this point, data is collected and summarized in various forms by ISS, which can then generate reports for use in the visit. Currently there is no electronic linkage between the Spine Center's Electronic Medical Record (EMR) and ISS. Clinicians are given the patient's most current survey results in paper format. Integrating the EMR with ISS will be the Spine Center's next project.

Lovgren's strategy is to fine-tune OHSU data collection efforts before moving on to analysis. As that goes on, he intends to facilitate a consensus on how to use the data among clinicians, biostatisticians, information specialists, payors, and management. His goal is to be ready to move forward, with that agreement in place, when the data collection process has been streamlined between key information systems used at the Spine Center.

Lindsay Anderson, the Spine Center's day-to-day manager of the outcomes program, would like nothing better than to have clinical data, outcomes data, and cost data all in one place. She and Lovgren both look forward to being able to provide a seamless integration of information from all three data sets, since this will enable them to finally use cross-concentration statistics to add decision-making value to every collaborator in the Spine Center.

Analysis of those statistics will be a critical step for the Functional Outcomes program. Hans Carlson, assistant professor of Physical Medicine and Rehabilitation at OHSU, says that when a comprehensive analysis of the data can be generated quickly enough to make real-time adjustments in treatment, it will be of greatest use. He and his colleagues are also looking forward to the day when they can see actual detailed analyses of the surveys, both in terms of the "big picture" and of individual functionality.

Meanwhile, patients continue to add to the volume of information collected about functional outcomes, and individual statistics for each patient's progress are being generated. As the sample size increases, Lovgren promises to add outcomes data to the OHSU Spine Web site alongside the demographic charts. For now, they enjoy the ability to provide early results of their outcomes program in a very public way (see <http://www.ohsu.edu/health/page.cfm?id=14172>).

Lovgren is proud of a recent effort to bring payors together in hopes of learning their needs and their expected use of this new data. At a recent luncheon attended by payors' representatives, each insurer was given a mocked-up Payor Report Card, a tool currently in development that will present the payor's patient

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results by diagnosis code and by treatment type (i.e., conservative or surgical). After getting feedback from each payor, it is Lovgren's hope that this new tool will be rolled out within the next six months.

Lovgren realizes that insurance companies want to see changes in practice based on outcomes data. He expects payors to actually insist on seeing the data analysis before authorizing surgeries at some point.

The people working directly with the Functional Outcomes program already have some advice for other clinics who would like to implement the program. Anderson is adamant about the need for a dedicated program manager. She knows that, realistically, dividing the workload among various members of the support staff would be counterproductive. Like any other special project, one project manager is much more likely to ensure that the process stays on track. Her advice includes collaborative planning, specific goal-setting, and intensive research on similar implementation projects before embarking on this type of journey.

Anderson also points out the necessity of educating patients about the value of collecting outcomes to improve their individual care and to advance the field of outcomes research. She says, "Patients further need to understand what happens next and their role in the process."

Anderson puts equal weight on provider education to ensure that individual outcomes are discussed with the patient in the visit to show relevance of the patient's effort to provide outcomes data over the entire course of care. "Outcomes should dictate treatment," states Carlson. Patients, providers, and staff all need to internalize that message and their role in the process.

Lovgren's advice is to get everyone involved in the project at some level, whether in planning, implementation, or ongoing support. He maintains confidence in the ability of the Functional Outcomes program to eventually make a significant impact on the success of treatment at the Spine Center. "We're in it for the long term," he says. "We're going down the right path."