

Achieving and Measuring Successful Patient Outcomes Through Effective Medical Process Management

The first in a series of white papers on the importance of outcomes measurement in occupational medicine

by W. Tom Fogarty, MD

Comprehensive results measurement can and must become available in every medical condition. Huge value improvement will occur as all system participants come to expect and use such information. The universal development and reporting of results information at the medical condition level may well be the single highest priority to improve the performance of the health care system.¹

This call-to-action from Michael Porter and Elizabeth Teisberg's landmark book, *Redefining Health Care*, underscores the critical importance of outcomes measurement for the ultimate sustainability of the American health care system. When we consider that health care represents approximately 16% of the nation's gross national product and is growing at an annual rate of 8%-10%, while the overall economy is growing at a rate of just 2%-3% per year, the need has never been greater for action on this front.



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A treatment scenario

Imagine you are watching a sporting event and play stops because of an injury. Also imagine the camera and sound people are able to follow the team doctor to the injured player. You hear the team doctor say, "John, you've sprained your ankle. I'm going to give you a prescription for an anti-inflammatory...I want you to go on bed rest and come back to see me in a week." You would either doubt the competency of the doctor or doubt the reality of the sporting event. In fact, we would expect the doctor to make sure John could walk off the field on his own, tape him up, and either release him to return to the game or have him begin stretching exercises or some kind of simple therapy movements to keep the ankle mobile.

And yet, as unlikely as this scenario is on the playing field, if you put John in a work setting, the primary-care doctor who examines him after a similar workplace injury could very easily say those same words. In fact, it happens every day, and it is a contributing factor to the rising cost of occupational health care and workers' compensation insurance premiums.

These two scenarios beg the question: Is one approach right and one wrong? What is the difference? The simple answer is that appropriate care has been defined by the setting. In the group health/private medicine arena, the major variable cost driver is the number and type of medical services; in the workers' compensation setting, the major variable cost driver is the worker's time away from work.

Applying process management to occupational medicine

Indeed, the occupational medicine physician faces the daunting challenge of providing the highest quality, yet most cost-effective, patient care. Although outcome studies are recognized as crucial to determining best practice patterns, outcome study data have not been widely available or utilized by most physicians. The increased availability of outcome data has made it possible to develop ways to manage the process of occupational injuries in a clinical setting.

In an occupational medicine practice, process management refers to monitoring and directing the processes and events that make up the structure and flow of an individual case, all with the focus of achieving the optimal outcome. These processes and events include variables such as frequency and timing of patient visits; communication with the patient's employer; and referral patterns for consultations and diagnostic testing. By monitoring and managing these components from the beginning to the end of a patient's care, and by knowing how to properly sequence them, the physician can greatly affect the outcome and overall cost of the case.

Origins of occupational medicine process management

The concept of process management as it applies to individual medical cases started with a successful occupational medicine practice that began in the late 1970s and expanded based on the demands of employers and payers who were experiencing continual reductions in the costs of individual cases. The practice, which I helped found and is now known as Concentra Medical Centers, was based on a sports medicine approach translated into the care of injured workers. Accordingly, we advocated earlier and more aggressive involvement in a case through our relationships with patients and employers.

As we expanded the practice to multiple medical centers, the need for more information on how specific variables affect the outcome of individual cases became critical. As a result, Concentra developed a proprietary information system to manage the practice and provide the necessary data to monitor and evaluate the variables that affect case closure. Now, close to a decade later, this system is used nationwide by 310 Concentra Medical Centers in 40 states, and contains detailed information on over four million individual workers' compensation cases that collectively span multiple jurisdictions and severity categories.

We found that applying process management was particularly effective in decreasing indemnity (wage replacement and related) costs, which have consistently been higher than medical costs in the typical workers' compensation case.² Such an approach is especially important in the workers' compensation setting, where the major cost of a case is more dependent on the delivery timing of medical procedures than the type or number of medical procedures that are performed. For example, if a practitioner has a new patient with acute back strain, when is the optimal time for the first revisit: In two days, in one week, in two weeks? Does the timing of the first revisit make any difference in the potential outcome of the case? In cases that require physical therapy, when during the clinical course is the optimal time to apply it?

Four critically important components of effective occupational medicine process management

The answers to the questions posed above can be found in four identified components of effective medical process management. Our analysis shows that these factors have a considerable impact on the ultimate outcome and cost of a workers' compensation case:

By monitoring and managing treatment components from the beginning to the end of a patient's care, and by knowing how to properly sequence the appropriate components of care, the physician can greatly affect the outcome and overall cost of the case.

“There should be no presumption that good quality is more costly. In health care...better providers are usually more efficient. Good quality is less costly because of more accurate diagnoses, fewer treatment errors, lower complication rates, faster recovery, less invasive treatment, and the minimization of the need for treatment.”
Redefining Health Care

Interestingly, early revisits do not increase the actual total number of office visits; in fact, the number is generally decreased. This is strong support for appropriately aggressive utilization of medical services.

1. Treating the patient at frequent intervals in the initial period following an injury.
2. Communicating with the employer about the activity/duty status of the injured employee.
3. Monitoring referrals to ensure that a patient is evaluated in a timely manner.
4. Paying attention to case closure following release to full-duty activity.

1) Recheck Schedule...a 300% Improvement in Return-to-Work Ratio

Our analysis of practice patterns has shown that for many work-related injuries, the most efficacious patient treatment involves reevaluation within two to three days of the first visit, and perhaps the second visit, and then rechecking the patient when the patient’s activity status is expected to change sufficiently to result in termination of care and case closure (see Figure 1).

This follow-up schedule is more frequent than most primary-care physicians may be accustomed to recommending. The data clearly show, however, that adherence to such a regimen is more likely to result in faster recovery of the worker and is

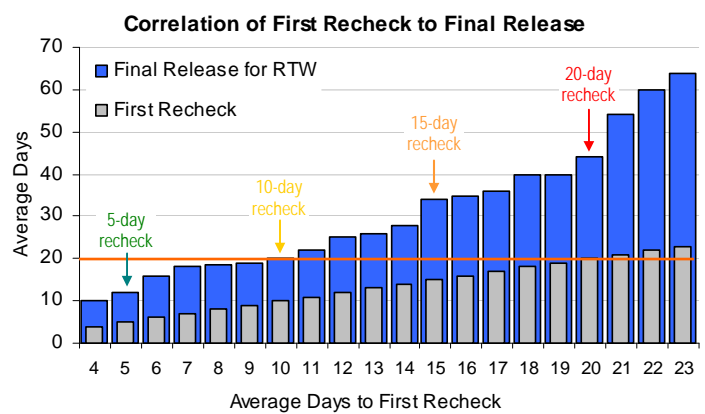
therefore more cost-effective overall. For example, the orange line in the chart illustrates how the patient whose first recheck is at 20 or more days was sitting in the doctor’s office while the patient who was first rechecked at 10 days or less was already back to work. This is particularly significant given that earlier case closure results in a decrease in indemnity costs. The frequent initial visits allow the physician to better orchestrate management and to identify those patients at high risk for delayed recovery.^{4,5}

In addition, frequent visits encourage the development of a strong therapeutic alliance between the patient and the physician early in the process of treatment. This alliance is especially important in meeting the patient’s expectation of high-quality care. This regimen facilitates a more expeditious return to regular duty, thus reducing the lost time and indemnity costs. Interestingly, early revisits do not increase the actual total number of office visits; in fact, the number is generally decreased.⁶ This is strong support for appropriately aggressive utilization of medical services.

2) Communication...Physician-Employer-Patient

Communication is an essential element of effective medical process management. After the initial visit, and when the case does not follow the expected course, communication with the employer about the activity status of the employee and expectations for recovery facilitates a strong employee-employer relationship. Physicians who take the time to call the employer to report on the patient’s condition not only achieve better outcomes in terms of the amount of disability that their patients incur, but also find an improved degree of satisfaction of both the patient and the employer.

Figure 1 — Direct correlation shown between days to first recheck and days to final release of patients with back pain injuries. On average, reducing time between initial visit and first recheck by one (1) day shortened days to final release by 3.1 days.³



3) Monitoring of Testing and Referrals...the Right Care at the Right Time

Monitoring referrals for physical therapy, specialist evaluation, and diagnostic testing, and assuring their appropriateness, are critical for optimal medical process management. For patients who require physical therapy — that is, those with loss of function — the studies show that earlier intervention results in earlier case closure.^{6,7} Moreover, as with early revisits, earlier therapeutic intervention generally results in a similar decrease in the total number of visits to the physician and also the physical therapist.

Effective monitoring of specialist referrals begins with the choice of appropriate specialists. Those who appreciate the early-intervention approach, who understand the factors that affect the cost drivers of a workers' compensation case, and who practice evidence-based medicine, have the ideal combination of expertise. Also important is the development of tracking mechanisms that help keep a patient from "getting lost" in the system. Once the patient is referred, the specialist should manage the medical aspects of the injury until the patient is released or referred back to the primary care physician. The activity status, however, must be managed by the primary care physician, and this goal is accomplished through communication between the physicians.

4) Management of Case Closure...Providing "Full Circle" Care

When the physician and health care specialists maintain their focus on the goal of returning the patient to a pre-injury level of activity, appropriate case closure tends to take care of itself. This goal can be accomplished by having the patient return for a final treatment following release to full duty and by properly documenting that the patient has recovered and has returned to a pre-injury level of activity.

Properly applied, process management for occupational medicine can provide both a template for the successful management of an individual case and a structure for an effective occupational medicine practice. When combined with a continual focus on outcomes data analysis and research, all participants in the occupational health care cycle — physicians, patients, employers, and payers — will be better able to recognize best practice patterns. The result could be no less than a superior strategy for both occupational and private health care delivery. ●

About Concentra

Concentra serves the workers' compensation, occupational, auto, and group health care markets. The company provides employers, insurers, and payers with a series of integrated services including employment-related injury and occupational health care: in-network and out-of-network medical claims review and repricing; access to specialized preferred provider organizations; first notice of loss services; case management; and other services focused on improved outcomes for patients, employers, and payers.

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