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Robert Aurbach, Editor

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From the DEW Line

Unnecessary Workplace Disability

Editor's Report

We can disagree about many things in the workers' compensation systems in North America. Reasonable people may differ over, the proper intent for consideration of indemnity benefit levels, what workers should be covered by the system and other basic questions, let alone details of an individual system.

One thing that is difficult to disagree about is the notion that avoidance of unnecessary workplace disability is a desirable outcome. By "workplace disability" I mean the absence from work, or inability to perform the full requirements of a job. For purposes of this discussion, I will focus on those workplace disabilities caused by a work-related accident or exposure. By "unnecessary" I mean that there is no objective physiological or medical reason for the workplace disability and that the worker's learned disability belief system (regardless of how it originated) is blocking return to work at employment commensurate with ability.

Who wins when we avoid unnecessary workplace disability? Obviously the worker and their family win. It is clear, from many studies of the adequacy of indemnity benefits as a replacement for wages, that indemnity benefits do not, in any jurisdiction, entirely replace the lost income of the worker. Less tangible, but at least as important are the loss of identity and self-esteem, interference with interpersonal and social relationships and increased morbidity and co-morbidity often associated with workplace disability. Where workers are organized, it is often an organized labor representative that advocates for their interests.

The employer wins when unnecessary workplace disability is avoided. Employers incur significant additional costs when a worker is off work due to injury or illness. Those include the cost of decreased production, the cost of rehiring or hiring temporary help, and the psychological costs to the employer personally, and to the morale of the workforce in general, of dealing with the hole in the workforce created by an injured worker.

The insurer wins when unnecessary workplace disability is avoided. Even assuming that the average cost per claim is fully loaded in premium allowance for losses, the cost of claims administration is reduced by elimination of unnecessary claims associated with the unnecessary workplace disability.

The health care/care giver community wins, because frustration in trying to provide services to patients who appear to resist getting better creates dissatisfaction with the workers' compensation population as a whole. This reaction may be one of the causes of health care provider withdrawal from the workers' compensation market. The time spent on these patients could also be redirected to patients who need and can benefit from the efforts of the health care provider or care giver, creating a better overall economic outcome and a higher level of satisfaction.

The policymaker wins because this class of workers doesn't fit well into most models of workers' compensation, yet it demands the time and energy of the policymaker at the administrative or legislative level to respond to the systemic challenges created by this population. Importantly, cases arising from this population may also have a disproportionate impact on the tendency of the judiciary to utilize their power to do individual justice, despite detrimental impact on the stability of the legislature's overall scheme.

The taxpayer wins because at the limits of workers' compensation the public assistance system ultimately absorbs all too many of these cases, and because the increased cost of workers' compensation is passed on to the consumer through product pricing.

Until relatively recently the potential of the combined power of these groups to actually do something about unnecessary workplace disability has gone untapped. Then a physician, Dr Jennifer Christian, devised a method of bringing together representatives of all these groups within a state so that they could craft locally conceived and locally implemented solutions to the problem of avoiding unnecessary workplace disability. This is no one-size-fits-all canned solution. It's a process of gathering people in critical roles together for a summit meeting, where they define the issues and the solutions that are unique to their circumstances, interests and resources. Dr Christian envisioned the Summit meetings (and follow-up working groups that are the entities that really get things done) to occur in all North American jurisdictions, and thus the "60 Summits Project" was born.

60 Summits Project training leads the participant through a process of discovery. The combined resources of players from all the perspectives described above can result in startling interplay of ideas, allowing creativity and synergy to overcome previously held (mis-) conceptions as to the limitations of the system to effectively prevent unnecessary workplace disability, and lead to epiphany concerning the role of various players in creating and fixing the problem. The process is exhilarating and exhausting.

60 Summit groups within a state or province are not typically started by government. Rather, private organizations and individuals attracted to the vision and goals of this initiative step forward to recruit and organize the local Summit project. Support and expertise is generously offered from the central organization to the state or provincial project, but no attempt at control of the outcome is made. The 60 Summits Project recognizes that their role is supportive, and not directive. They've acted as midwife at a number of these birthings, and can give expert advice as to what's worked and failed to work elsewhere. The ultimate decision process remains in local control throughout.

Participation in a local 60 Summits initiative also creates access to a number of ongoing support resources at the national level. The first national gathering of 60 Summits veterans occurred last fall in Las Vegas. A very active Yahoo group devoted to avoidance of unnecessary workplace disability shares resources and conducts lively debates on relevant subjects. And, of course the national office regards itself as a resource center, sharing the lessons learned from all the initiatives that have led the way with upcoming local Summits.

Participation in the 60 Summits Project is, at the least, a personal education, and may lead to tangible improvement in local system functionality and the reduction of preventable suffering. Every participant in a local 60 Summits initiative is a member of a group that will benefit from the prevention of unnecessary workplace disability. The direct rewards for their active participation in the process include advancement of a worthy end, personal growth and connection with a growing community of likeminded people. Having personally experienced the process, I believe that it is well worth your attention and energy.

Editor's disclosure: The editor has participated in the first 60 Summits national gathering, but has no financial or other interest in the 60 Summits Project or any local 60 Summits initiative. This column has not been requested or reviewed by Jennifer Christian or the 60 Summits staff, and any mistakes or misimpressions contained herein are entirely the fault of the author.

Waiting for the Crisis

Peter Rousmaniere*

Abstract

Predicting the future of workers compensation involves specifying the scope of changes that may occur. The workers compensation system changes radically only when provoked by a major crisis. In the future, Federal concern over the growth of federal disability benefit spending (SSDI) may provoke a crisis in the workers compensation system, because it is an important feeder of SSDI claimants. The term "crisis" is not appropriate to two other developments that still deserve notice. These trends are the growth of medical costs and the deepening of investment by insurers and other parties in information technology.

Introduction

The workers compensation system may change in a radical way only when a crisis impels employers, insurers and/or regulators to act. And responses to crises take years, even decades to unfold. Waiting for the next crisis can be akin to waiting for Godot: there may well not be one coming.

What kind of crises might plausibly occur in the future? There is the possibility of one occurring in the federal work disability program, or Social Security Disability Insurance, due in part to claims originating in the workers compensation field.

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We are in the midst of a worsening problem with rising medical costs, which according to the National Council on Compensation Insurance are rising at double the rate of general medical inflation. This added growth translates into an extra \$1 billion cost to claims payers in 2009. Insurers are not using the tools granted them by the law sufficiently to improve the quality of care.

And we continue to ride the wave of information technology advances, which incrementally are making the workers compensation system more efficient, more transparent, and more accountable.

Thus, deepening investments in information technology, furthering incremental changes in medical management, and a crisis in federal work disability programs may be the news headlines for the next three to five years in workers compensation.

The March of Information Technology

Advances in information technology in the past 10 – 15 years have vastly reduced the costs and operational delays of billions of transactions that occur each year in the workers compensation system. And by reducing costs, by as much as 90%, some tasks which previously were considered too cumbersome to even to consider doing become feasible to do. Information technology in the private sector is behind a slow revolution in making the workers compensation system more efficient, more transparent and more accountable. I am referring to IT investment in the private sector – by risk managers in employers, insurers, and third party administrators, who are managing a total cost of work injury risk of some \$60 billion or more annually. Among these constituents, one sees a sustained investment in IT with numerous examples of high returns on investment.

The implications of this slow revolution are so pervasive that to ignore it in forecasting changes in the next three to five years is to overlook a large portion of changes that take place. As most of my professional practice is in the private sector, my experience with information technology typically is related to how employers, medical providers, and insurers perform their work. Here are some examples.

Fraud Management

The Internet, combined with the automation of many thousands of databases in public and private hands, is bringing the risk of fraud by medical providers, claimants and employers under much better control – until and unless the fraudsters find ways to game the computer.

In 2008, I did a study of how a suspicious claim in Florida was investigated – not with a camera, but with a keyboard and terminal (Rousmaniere, 2008). This case is not chosen to pick on workers – it simply describes more lucidly the transformational effects of the computer.

The investigative team built an initial profile by Google searching and querying online databases. What would have taken a week several years ago now could be done in a matter of minutes. Online, the investigators confirmed the claimant's address and got his vehicle registration. A criminal history search revealed a litany of Florida-based criminal charges, charges that included theft and insurance fraud.

His criminal information was in Florida's online public records. Proprietary databases, accessible by licensed private detective agencies, will in a flash serve up address histories, driver's license, social security verification, property and vehicle ownership, bankruptcy filings and commercial transactions as well as criminal records.

Investigators also discovered online that the claimant previously resided in Ohio where, they found out, he owned and operated a barbecue business. They conducted a business license search by name of owner in Florida and found out that the claimant filed for a license in Florida for his barbecue business just a few weeks prior to his alleged work-related injury. With this information, the investigators did a bit more digging and found out that the claimant's barbecue business was fully operational in Florida. He had recently catered several functions in his town including a church picnic and a local music fest. The team printed out a church bulletin that they obtained via Google search indicating that the claimant catered one of its events after the date of loss. While catering itself may not be inconsistent with the alleged disability, failing to disclose work while disabled did not help his case.

With some video evidence, prosecutors were able to get a conviction and restitution.¹

Getting the Check to the Claimant

There are about 25 million workers who do not have bank checking accounts, and many more workers find check depositing to be a chore. In recent years, claims payers are able to – but few as yet actually do – issue indemnity checks by direct deposit, and automatic credit a debit card for those without checking accounts. This produces savings in transactions costs for the claims payer, probably in the range of \$1 to \$5 a check. It also can greatly simplify life for the claimant.

It has not happened yet, but claimants will eventually be able – and regulators should pressure claims payers to do this – to conduct financial transactions with the claims payer online, in the same manner many people manage their credit cards and bank accounts online.

Better Information About Claims

The variance among employers in their workers compensation claims costs is very high. Employers who have a record of very low claims costs typically have very tight lines of communication and accountability among operational supervisors, department managers, central staff and the company's

¹ The investigative team worked for Ethos Investigative Services

claims payer, which can be an insurer, a third party administrator, or an internal claims unit. Tight coordination means that the circumstances of injuries is more quickly and accurately understood; return to work opportunities and barriers better defined; and all the pertinent parties at the employer can more clearly work towards common goals.

The coordination between the adjuster and employer sharply improves when claims information is quickly provided in user-friendly ways. In recent years, the quality of reporting to employers has shot up, resulting in what I have called "the death of the loss run." Typically in the past, the employer learns about its claims experience by reading loss runs, which are exhaustive and exhausting hard copy reports, listing every fact about every claim. They come too big and too late, and they come with too much data.

Claims reporting is transitioning to online look up, customized online reports, and email messages. I asked Lynn MacGill, an executive with the risk management firm of Marsh & McLennan, to provide me with examples of the kinds of mini-alerts that an employer can now get through an email or a customized online report. Her list:

- List of claims that have had a "change in financials" greater than \$X in last month (or other customized time period);
- list of open claims with highest costs; top departments with highest frequency / severity;
- any new claims;
- percentage of medical care being treated within a provider network;
- lag time the time between time of accident and when reported to the claims payer; and
- duration of claim.

Slouching Towards Better Medical Care

Legislatures and regulators set legal guidelines for medical care, and claims payers work within these guidelines to manage the care delivered to their claimants. That sentence captures the quandary in which medical care for injured workers is stuck. Often claims payers prefer not to use the tools without specific authorization. Often they do not use the tools even when given specific authorization.

Organizational culture of claims payers has often been characterized as conservative with respect to adaptation of new practices in claims management. There is no widely accepted means to establish the truth of this observation. But by tracking the history of managed care in workers compensation since the 1980s, the observation has merit.

The organizational culture of claims payers tends on balance to retard initiative in managing medical care. This explains why, some fifteen or more years after the introduction of managed care laws as we know them today, most insurers do not measure and do not actively promote among the medical community superior clinical practice.

For reader who is not regularly in contact with the operations of claims payers, it may be unsettling to learn of this, and perhaps the reader may be inclined not to believe this statement. Consider then these two examples of claims payer passivity with regard to promoting better medical care.

The first example involves the California provision for medical networks. This provision, enacted in 2004, authorizes employers (and by extension their claims payers) to create medical provider networks – MPNs – which when certified by the state are the sole source of medical care for the employer's injured workers. MPN legislation was enacted with the recognition that some medical providers are more qualified, by experience, specialization, and temperament, to treat injured workers than other providers. An employer, or its claims payer acting in its behalf, can handpick medical providers for its MPN to make sure that only superior providers are included.

It should be noted that there is as yet no hard evidence – outside a few isolated studies – which show that a carefully chosen network of providers will, compared to a random selection of providers, diagnose more correctly, treat more appropriately, facilitate return to work more proficiently, and lower duration of disability and claims costs (Bernacki, 2003; Bernacki, 2005). But the evidence gathered anecdotally from the many large employers that organize informal networks, in all parts of the country, provides a strong endorsement of this proposition. These anecdotes are readily and regularly provided in professional conferences held by self insurance associations, industry publications, and state-specific privately sponsored conferences.

The consensus point of view arising from these gatherings is that if one were to organize "quality" medical providers into provider networks, duration of disability will be lower and medical costs would be lower. Employers, such as Walt Disney, Marriott, and Safeway Foods, are quick to promote this point of view. There are scattered published studies which articulate this assertion. More such studies are needed.

The reality is that in California most claims payers appear have ignored the quality provider message embedded in the MPN idea and simply enrolled as many providers as they could who agreed to accept lower reimbursement.

The second example involves one of the most compelling instances for claims payer initiative – to protect the injured worker from death. Many injured workers are receiving narcotic medications. Chronic pain related claims probably account today for over half of total claims costs. These injured workers are highly visible to claims adjusters and medical case managers assigned to their cases.

Within the medical care community, the risk of serious adverse effects, including death, by narcotic drug misadventures is well known. Washington State, having studied dozens of narcotic related deaths of injured workers, took action to enforce better controls over the prescription of these drugs (Franklin, 2005). The two leading treatment guidelines for

chronic pain, the so-called ODG and ACOEM guidelines,2 endorse specific measures that prescribing physicians should take to lower the risk of adverse effects.

Yet, there is hardly a claims payer in the country who regularly asks, much less demands, that prescribing physicians apply these measures. (These measures include the use of a written treatment agreement between the patient and physician, and regular or random drug testing.) The reason typically given by claims payers for their passivity is that law does not specifically mandate these measures.

Notwithstanding claims payer ambivalence about, or outright opposition to initiatives to improve quality of care, I am more hopeful than in the past that insurers will step forward more. The reason is the constantly high annual growth in medical costs, and the availability in many jurisdictions of authorized means to promote higher quality medical care, such as MPNs in California, a similar system in Texas, and expansion of mandates for using treatment guidelines.

A Federal Disability Crisis?

Data on the percentage of SSDI applicants who are work injured under workers compensation systems are not available. (A worker who was disabled due to a non-occupational condition, such as muscular dystrophy or major depression, is eligible for SSDI benefits so long as she had worked a requisite minimum number of quarters. However, whether the percentage is high or low, if the economically - strained federal establishment perceives that SSDI roles are higher than they should be, it plausible that Washington will start examining with much more scrutiny the ways in which the workers compensation system works as a feeder system for SSDI.

² Work Loss Data Institute's Official Disability Guidelines and American College of Occupational and Environmental Medicine

With the prolonged economic downturn we are expecting, the frequency of injuries will likely drop but more of those that occur may end up with permanent disabilities, at least as accepted by SSDI, because duration of disability has been growing for some time, and down cycles in the economy will increase the length of time away from work by seriously injured workers.

It will not take long for a Congressional staff to come to a conclusion, balanced or strained in reasoning, that the workers compensation system fails too often to prevent long term disability. Circumstantial evidence exists to support this position. One is the recent publication of the American Medical Association's 6th edition guides to permanent impairment. This 6th edition says in effect – not explicitly – that medical advances such as improved surgical and non-surgical techniques give injured workers more functional ability than they would have had a decade ago or earlier. There is some evidence that severely injured workers can recover much more successfully now than ten or more years ago.

The federal government will come crashing down onto the workers compensation system for its SSDI feeder status only if Washington decided that, overall, SSDI has become mired in granting too many people permanent disability awards initially and has never figured out how to encourage or push people off the SSDI rolls if their disabilities lessen.

Concluding Comments

The conservative culture what dominates the workers compensation system tends to resist change, even when existing practices are found to be ineffective or even dysfunctional. I have noted one instance where claims payers even resist taking measures to protect injured workers from risk of death, even though the measures are endorsed by treatment guidelines the claims payer community is mandated to use. Significant change, therefore, may happen only in an environment of crisis. The last period of significant change nationwide was during loss escalation crises in numerous states in the 1988 – 1994 period. More recent spurts of significant

change are associated with loss escalation crises, such as in California and Delaware.

The next three to five years are likely to show more incremental change than crisis-driven change. Information technology will continue to have a transformational effect selectively over the system landscape. These transformations among employers, medical providers and claims payers are largely voluntary. One area in which regulation plays a significant role is in automating the transmission of bills and documents between medical providers and claims payers, as has been mandated in California, Texas and Minnesota.

Medical management will likely trend towards a more enlightened support of higher quality medical care, in response persistently rising medical costs. Some of the tools used to date, such as negotiating medical fee discounts, and utilization review, have pretty much exhausted themselves in delivering savings. One can make a good case that these tools may have been generally of little effect from the beginning.

There is a possibility, but a thin one, that funding will increase for more in-depth analysis of medical care. The NCCI is getting its member insurers to provide more data on medical care. The federal stimulus package includes substantial sums for analysis of the effectiveness of medical care, and some of this research may address conditions and treatments often seen in the workers compensation field. A good question for researchers to ask is: does compliance with treatment guidelines result in better vocational and financial outcomes?

The one area where there may be a significant crisis is in the federal work disability program, SSDI, to which workers compensation serves as a feeder system. Let's see what the Obama administration and Congress do. That, too, may be like waiting for Godot.

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The Evolution of Workers' Compensation: Work Injury Insurance

David J. DePaolo*

Abstract

A national universal health care model would make medical care in workers' compensation irrelevant. Without the medical component, workers' compensation will evolve to work injury protection plans where the incentives are designed to reward productivity.

Historical Shifts and Legislative Reactions

Following are observations about the evolution of workers' compensation addressed to public policy makers and system administrators. Without burdening you by making observations of the obvious (indeed, general newspapers are replete with daily reminders¹) life in the United States is undergoing fundamental change.

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¹ See for example: International Monetary Fund chief Dominique Strauss-Kahn said the world's advanced economies ~ the U.S., Western Europe and Japan ~ are "already in depression." Wall Street Journal, February 9, 2009. Also, former U.S. Federal Reserve Chairman Alan Greenspan said on Feb. 17, 2009, the current global recession will "surely be the longest and deepest since the 1930s..." "Recession will be the worst since the 30s" Feb. 18, 2009.

And with it too, so should what we euphemistically refer to as "workers' compensation" change and your role as a regulator of this important social benefit system.

As you likely know, workers' compensation's historical roots are in the change from an agrarian society to industrialization where the risk of daily living evolved from living off the land and the unpredictability of farming, to mechanized factory hazards. In the past couple of decades another shift has evolved, from industrialization to "informationalization" where the value of a worker lies in his or her skills to leverage knowledge. Even factory workers are not so valued for bolting parts together as they are for operating sophisticated machinery and robots (Giddens & Griffiths, 2006). This is evident in the change in the nature of injuries that make up workers' compensation claims from a majority of traumatic injuries to non-traumatic injuries (Neuhauser, 2008).

Indeed, society's laws have mirrored this shift: those with disabilities are protected from discrimination by the Americans with Disabilities Act and the Fair Employment and Housing Act; those that need time off to care for those injured or sick are protected by the Family Medical Leave Act; medical privacy is protected through the Health Insurance Portability and Accountability Act.

We are at a time where social forces, economic forces, and legal trends are converging. Federal powers are increasing as the government seeks "accountability" from recipients of Troubled Asset Relief Program money, pressure mounts for Federal intervention in health care, and trends point to a Federal insurance charter.

"Reform" - Another Word for Complexity

Workers' compensation laws too have changed and have generally become more complex with each wave of "reform." As recognition that knowledge workers face risks, injuries and disabilities different than our predecessors from occupational hazards (stress versus concussion, carpal tunnel syndrome versus lost phalange, toxic exposure versus coal miner's disease, etc.) protections from liberal legislatures and the courts expanded. In reaction to overzealous access to these expanded protections conservative legislatures increased restrictions.

New laws typically require new regulations to implement. The regulator must execute the legislature's demands, but accounting for prior legislative instruction while accommodating current legislative direction is inherently complex and difficult. Consequently, the wax and wane of legislative and regulatory trends cumulatively produce layers of brute force regulation that unintentionally generate more complexity and otherwise avoidable compliance costs, and foster conditions that encourage litigation, unnecessary expense, and delay in benefit provision.

This increased legislative and regulatory intervention also creates cost shifting to other systems. By way of example, the California Commission on Health, Safety & Workers' Compensation ("CHSWC") recently found that nearly 10% of work injuries, and fully two-thirds of occupational diseases are misclassified as non-industrial, placing the costs on state disability and general health-care (Neuhauser & Mather, 2008).

The health care crisis is well documented and debated in this country. The number of people without medical protection totals 45.7 million (US Census, 2007). When workers' compensation medical costs shift to general health care system then even more Americans will not receive the fundamental care originally promised in the great compromise of workers' compensation, placing ever greater pressure on government to construct some version of universal care.

Thirty seven percent of the "American Recovery and Reinvestment Act of 2009" is devoted to health care reform and includes a mandate that every person in the United States will be in an electronic health record system by 2014 underscoring the Obama Administration's dedication to health care reform. Indeed, barring any miraculous private industry solution, it is now becoming more likely that this generation will see some form of universal health care or socialized medicine.

Which brings the issue full circle: If universal health care becomes a reality, then does the medical portion of workers' compensation have any relevance? I argue that it does not, and ultimately should not.

Hypothesis: Evolution to Work Injury Insurance

It is with the above assumptions that I offer the following hypothesis: that workers' compensation over the next twenty years will evolve to become a work injury insurance plan. The features of this plan will include underlying medical treatment covered by the government and funded by employers with supplemental care insurance through employer/employee contributions. We can expect a work injury insurance plan to feature worker deductibles, workers contributing to their own temporary injury recovery plan with options for term, rate and duration, and incentives rewarding abilities and return to productivity. These features are likely to exist under a system where minimums are legislatively defined but where the employment market dictates the extent of benefits provided (in other words, an employee benefit, much like health insurance or 401K is now).

The hypothesis is based upon the likelihood that policymakers will look for a model already in use to respond to a perceived emergent systemic problem. This seems to be to be a recurring pattern of development of ideas for reforms. When one casts around the US today for different approaches to handling of health care in workers' compensation, two models are immediately apparent – Texas non-subscribers and California "carveout" programs.

In Texas successful non-subscriber employers (and their employees) enjoy faster medical treatment, less disability, and quicker return to work at a cost that is on average one-third less that of traditional workers' compensation. The Texas Department of Insurance reports greater employee satisfaction and employers report quicker return to work times (Texas Department of Insurance, 2002). Physicians enjoy prompt payment on fair pricing and litigation is minimal. California touches on some of these concepts with various "carve out" programs, eschewing elements of traditional workers' compensation for privatized systems based on collective bargaining agreements with Labor.² These are models that provide the underlying framework, studies and data upon which resourceful legislators will rely when tackling the new generation of work injury protection plans.

Evolution means organic change over time, generally for the better. The impetus for the evolution of workers' compensation is going to be changes to the general health care system. There is no doubt in my mind that some time in the very near future nearly all United States citizens will be covered by some universal health care model. It may be that the current economic crisis will delay universal health, but even as I write the current proposed economic stimulus plan passed by the Senate includes billions of dollars towards digitization and portability of health care documents – a necessary requirement for any efficient universal care model.

I do not know what universal care will look like, nor do I know how it will operate. But common sense based on the existing structure of health care indicates that it will be an insurance-based model generally funded by employers. In this context, then, there is no reason for workers' compensation as a medical care deliver mechanism to exist any longer. Duplication in medical coverage is not only inefficient (California Commission, 2008), but will not be tolerated by payers, i.e., the employer community.

I have offered this vision to others in the industry, and the general argument I encounter against the disembodiment of medical care from workers' compensation is that the fundamentals of the two systems are inherently different. General health care is focused on the treatment of disease and is not concerned with disability. Workers' compensation, on the other hand, is more concerned with the treatment of injury³ and its primary purpose is to define disability.

² As a specific example, the City of Long Beach entered into a "carve-out" program with its fire and police unions, principally to reduce the amount of time involved in medical disputes, projecting significant savings because in California emergency service workers are entitled to 100% pay while on disability.

 $^{^{3}\,}$ Even then, as noted before, the character of injury has shifted to primarily non-trauma.

To this I argue that the reason workers' compensation is so flawed is because it is in fact so wrapped up in the concept of disability – I will get to that later – and is the primary reason why the current model cannot exist for much longer.

Treatment Utilization Control - Deductibles

For argument's sake, let's remove disability from the medical component of workers' compensation for the moment – what you have left then is medical treatment for treatment's sake, unconcerned with ancillary issues. Only the practice of medicine is left. In my admittedly unsophisticated mind, physicians then do what physicians are trained to do – treat the injury or illness, in this case primary care being provided through universal care.

But universal care would be a minimum, and likely inadequate for the very significant task of getting an injured worker better as quickly as possible to return to work in as little time as feasible, where aggressive medical intervention is typically necessary. This is why work injury insurance would provide a supplemental care component, much like Medicare supplemental policies now provide.

But, how does one control utilization (or more accurately, over-utilization)? Aside from medical treatment guidelines, or as the industry likes to call it, peer-reviewed scientifically based treatment protocols, one proven method of dealing with utilization is deductibles.

All health care plans have them. There is no reason why this should not be the case for work injury insurance. There is, of course, labor's argument that the average working person cannot afford deductibles. I offer that deductibles simply be provided through the worker's work injury health care account, in to which a small percentage is contributed via payroll deduction each pay period and perhaps matched by some contributing formula by the employer.

Reward Productivity

I mentioned disability above and the issue of dealing with it. My plan – don't deal with disability.

Why do we reward people for being disabled? Is there no better model? Why not reward people for productivity?

The issue becomes one of motivation. Some folks will naturally be motivated to do better and others simply aren't. That is the nature of the human condition.

I posit that vocational rehabilitation, return-to-work and all other programs with the good intention of getting people back to work will eventually all fail. The issue is not *assisting* folks get back to work. The issue is *motivating* people to get back to work (or in some cases, to work at all!).

There are two methods of motivation: affirmative and negative. In the affirmative model, the incentive is a positive reward. Do something that is desired and get a reward for it. In the negative model, the incentive is punishment. Do something that is not desired and get punished for it. Rarely in legal or regulatory models are the two put together to provide a comprehensive system of reward and punishment with the desired outcome kept in focus. This is because the desired outcome in the workers' compensation system is to deal with disability. Disability, I argue, is a negative outcome. So anything that is put in to place to deal with it is in itself a negative reward system. There is no good outcome because the ultimate focus is what a person cannot do.

So let's scrap any model of disability indemnity. The message, the motivation, the inherent conflicts are too great.

Of course, folks are going to need some subsistence while they recuperate from their injury or illness. Some states have disability programs in place (note the cost shift found in the CHSWC study, above). States that do not have disability programs may either have to adopt some system, or the social cost will be shifted to another state welfare program such as unemployment.

But state-based welfare provides only minimal assistance, and in a high expense state like California, is woefully inadequate and doesn't even provide poverty level assistance. That is why work injury insurance should provide the worker with a supplemental income benefit that is based on the amount the worker sets aside in his or her disability income insurance account with a corresponding match from the employer. The worker can define what the waiting period is, the maximum benefit, and the maximum duration. The employer can supplement the benefit as an employee recruitment incentive benefit. State law would set minimum levels. The maximum levels would be the product of the employee's contribution level and employer match. All would be invested in an appropriate bond based annuity, and upon transfer or termination of employment, the employee's fund would also be transferred or cashed out (based on age, retirement status, etc.).

What about folks that are permanently disabled? What to do with folks who cannot return to their pre-injury occupation? I say provide incentive compensation for productivity, and make workers accountable for being productive by making them contribute to their own "productivity incentive indemnity account" rather than reward "dis-ability."

For example, assume that the injured worker has a severe back injury and that he or she can no longer do heavy lifting or spend more than two hours sitting. Under old model workers' compensation systems, the worker would be rewarded for this disability. The incentive that is communicated is that it pays to be disabled.

Instead, let's say this worker, who used to make \$25 an hour, can get a job that only pays \$15 an hour. Under old models the worker would have a disincentive to take that job, because not only would it prove that the worker was not as disabled as presumed, but the amount of indemnity that would be paid would be reduced as a result of obtaining a productive level of functioning. Instead, I suggest that the worker be paid the difference in

earnings for a period of time, and that if the worker gets a promotion or makes some other trip up the wage ladder that he or she be paid a bonus as a *reward*. Do more, get paid more.

My critics will say that I am not properly accounting for the folks who cannot, or will not, re-enter the open labor market or make the efforts necessary to obtain some level of societal productivity, and indeed this aspect needs further research, understanding and frankly a better mind than mine. Perhaps they are right. I am admittedly quite naïve about personalities and psychology, and certainly there will be extreme cases of catastrophe that cannot be dealt with in this model. But the point I am making is that it takes some imagination and experimentation to see what works. What I do know is that rewarding people for disability does no one, and in particular the injured worker, any good.⁴

Conclusion

What I am predicting is a massive paradigm shift that I believe is inevitable as a result of changes in the economy, changes in society and changes in politics that cannot be ignored. There are deep tectonic forces that are under way and workers' compensation is still in the ice ages. I am advocating scrapping the old Rooseveltian model of work injury protection, a system that was rooted in an economy that is no longer relevant, and bringing to society a system that is more congenial with our present world: a system that is managed more like an employee benefit rather than an employment burden. Texas allows employers to design and deliver work injury insurance systems, and when done right they are remarkably effective and efficient. It is a model whose time is only a socialized medicine/ universal care plan away.

⁴ Members of the American Academy of Disability Evaluating Physicians have published numerous peer reviewed scientific studies documenting the disabling effects of staying off work, even when "disabled."

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Aging America: The Iceberg Dead Ahead

Tom Lynch*

Abstract

The aging of the workforce presents massive problems to workers compensation systems. The problem is compounded by funding problems with other social insurance programs. Neither states, the federal government, or insurers are prepared for the claims and cost problems identified here. Recommendations are offered to address these problems, including the creation of a special federal commission.

"Observe how he has made a breast out of his back. In life he wished to see too far ahead of him, And now he must crab backwards round this track." Dante Alighieri, The Inferno (Canto XX, Circle Eight – The Fortune Tellers and Diviners)

In agreeing to pen some thoughts about what the future may hold for the world of workers' compensation, I was reminded of Dante's special place in hell for those eternally condemned to eat their words. Nevertheless, I approach the task confident that I have a 50/50 chance of getting it right.

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Introduction

As my colleague, Peter Rousmaniere, trenchantly notes elsewhere in this *Journal*, "Significant change...happens only in an environment of crisis."

There may be many crises on the horizon, but the one that no one discusses, except to dismiss, is the one that concerns me – the aging of our population and its effect on workers' compensation. The position I try to advance in this paper is that the coming crisis to which I allude is a looming catastrophe of the first order. This approaching crisis, bad enough in itself, is compounded by a confluence of unfortunate events. I will discuss each of these further on. They include:

- Seventy-eight million Baby Boomers and their retirement plans;
- A woebegone social security system;
- The global economic meltdown of 2008/2009;
- Ever rising health care costs; and,
- The insurance industry's natural propensity to avoid troubling issues.

I suggest that over the next decade America's increasingly aging workforce will significantly change the face of workers' compensation and of America, itself. Why? How can I justify this assertion?

Workers' compensation professionals agree that the injuries suffered by older workers take much longer to heal and cost at least a third more than similar injuries suffered by younger workers (Shuford and Restrepo, 2005). However, actuaries counter that older workers have proportion-ately fewer injuries than younger workers and that the two factors, less frequency but more severity, tend to offset each other (Restrepo, Sobel & Shuford, 2006). This is a position with which I would agree were the numbers of older workers, specifically older, blue-collar workers on the lower end of the income scale, not about to so dramatically increase and were the foundations beneath the American public and private pension and retirement system, painstakingly cobbled together over the last 75 years,

not under the sustained assault of forces that grow stronger as time passes and inaction continues.

First, A Little History

Social security, workers' compensation and health care insurance all came to us through the efforts of Otto Eduard Leopold von Bismarck, the 19th century Iron Chancellor and Unifier of Germany. Bismarck crafted these three initiatives in the late 1880s (Eyck, 1950), which Bismarck's fellow German conservative politicians considered misguided socialist entitlements.

The German Chancellor's health care plan (enacted 1883), paid $1/3^{rd}$ by employers and $2/3^{rd}$ by workers, provided medical care and sick leave pay for 13 weeks. His workers' compensation program, (enacted 1884) paid entirely by employers, kicked in at the 14^{th} week and provided medical care and $2/3^{rd}$ of worker wages. These were government-administered programs, and Bismarck, a true statesman pragmatist, embraced them in order to avoid even more radical proposals pushed by the growing liberal wing within the German government.

Bismarck's third great initiative was Old Age Retirement (enacted 1885). In 1889, German average life expectancy was 45 years. Bismarck, in another effort to appease socialists, created a government worker retirement program that took effect at age 70 (dropped to 65 in 1916) and was paid in equal shares by employers, the German government and worker contributions (Lerman, 2004).

Over the succeeding fifty years, each of these "entitlement programs" became American policy. We owe a lot to Germany's first Chancellor, whatever his motivations.

The Baby Boomer Phenomenon and Its Effect on Social Security

At one second after midnight on 1 January 1946, America's first baby boomer was born in Philadelphia, PA. Her name is Kathleen Casey-Kirschling, and over time she grew to become a dedicated seventh grade teacher and, on the side, a nutrition consultant. On 25 October 2007, Ms. Casey-Kirschling filed for early retirement with social security. On 1 January 2008, her 62nd birthday, she entered the social security system and began to collect retirement benefits (SSA, 2007).

People who, like Ms. Casey-Kirschling, enter social security at age 62 receive 75% of what would have been their full wage benefit had they waited until age 66 to retire (67 if born after 1960). Those who wait until age 70 can get up to 132% of their full benefit. Moreover, at 65 everyone qualifies for Medicare.

Early retirement has a strong magnetic pull. Until recently, the historic average age of retirement for social security benefits has been 63 (Muldoon & Kopcke, 2008). That is, until we arrived at our present economic predicament in 2008. Obviously, until now many people thought they had salted away enough money to be able to retire early with only 75% of their social security entitlements, and, with the arrival of Ms. Casey-Kirschlin, America's Baby Boomers were set to follow in that tradition.

And, oh, those Boomers. There are so many of them. At least 78 million. The first wave, 3.2 million men and women, turned 62 in 2008 – at the rate of 330 an hour (U.S. Census Bureau, 2009).

According to the Bureau of Labor Statistics, US total employment from 1986 through 2006 grew at the rate of 1.2% annually, from 118 million workers to 151 million, a cumulative growth of 21.8%. Yet, during this same period the number of workers receiving SSDI benefits grew from 2.7 million to 6.7 million, an increase of more than 150%, and total monthly benefits paid to all disabled workers (excluding payments to widows and adult children) grew by more than 500%, from \$1.3 billion to \$6.7 billion

(Annual Statistical Report, 2007). Although a recession and statutory changes account for some of this increase, the demographic tectonic shift caused by Boomers beginning to reach middle age during this time is the predominant cause. As their bodies began to exhibit the inevitable signs of wearing down, making them prone to more serious and costly injuries, many entered the SSDI system.

In 2011, a mere two years from now, the first Boomers will qualify for Medicare because they'll turn 65. In 2012, 12,000 Baby Boomers will turn 65 every day – one every 7 seconds (*Ibid*).

When I consider the pure scope of this phenomenon three facts stand out (Pergamit, Pierret, Rothstein & Verum, 2001):

- In 1985, the median age of American workers was 35; today it is 42. Federal age discrimination statutes classify "older workers" as those 40 years of age and older.
- 2. Today, there are 16 million more older workers in America than in 1998, a 37% increase.
- 3. By 2025, 18% of the populations of 39 states will be over the age of 65; today that is true only of Florida.

The sheer numbers involved suggest that the system cannot sustain itself in its present form. In 1945, only ten years after the advent of American social security, 42 workers paid into the system to support each retiree (Gillion, 2000). Today, the Social Security Administration reports that 3.3 workers must shoulder the entire burden for one retiree (Social Security Trustees, 2007).

Moreover, in a macro sense, things look even worse. Until 2006, New Hampshire Republican Senator Judd Gregg was chairman of the Senate's subcommittee on Retirement and Aging within the Committee on Health, Education, Labor and Pensions. With data from the Congressional Research Service (CRS), he would routinely play Cassandra before the full Senate prophesying the coming social security calamity. He told me that one of his best moments happened when he pulled out what he called

his "ski jump" chart which showed the rapidly increasing, almost overwhelming, share of the US budget social security, Medicare and Medicaid would consume between now and 2028 if nothing changed.

His colleagues got tired of hearing it, but Gregg noted the following:

- Federal spending currently equates to 20% of GDP.
- Social Security, Medicare and Medicaid make up 40% of federal spending, or 8% of GDP. Spending on health care by Medicare and Medicaid makes up a disproportionately large share of this cost. (Aaron, 2009)
- According to the Social Security Administration and CRS, by 2028, if nothing changes, the three entitlement programs will consume 20% of GDP, or the entirety of all federal spending, leaving, as Senator Gregg put it, "nothing for national defense, education, you know, all those other programs."

As Herb Stein, Chairman of the Council of Economic Advisors for Presidents Nixon and Ford, famously said in what has come to be known as Stein's Law, "If something cannot go on forever, it will stop (Stein, 1997)."

However, it is alarming, indeed, that fixing Social Security in a binary way, that is, raising payroll taxes *or* cutting benefits, would mean a 16% increase in taxes or a 13% decrease in benefits. Fixing Medicare similarly would be worse – a 122% increase in payroll taxes or a 51% cut in spending, and that's just for hospital care. This is what American Baby Boomers face (Furman, 2005; Romig, 2008).

As if things weren't bad enough, into this entitlement sea of storms, in 2008, sailed the USS Economic Meltdown.

Until our very leaky financial vessel sank, 43% of men and 48% of women had chosen to retire early, at 62, like Ms. Casey-Kirschling (Muldoon and Kopcke, 2008). Will they now? Can they now? We don't know for sure, but, anecdotally, we hear over and over again that retirement portfolios

have shrunk so much that they no longer support the retirement aspirations of the workers who paid into them over many years.

Working Past Retirement - Wanting To vs. Having To

Since 2000, the Gallup organization and the MetLife Mature Market Institute have surveyed older workers and reported on their retirement views and plans. Additionally, the Sloan Center on Aging and Work at Boston College has analyzed the aging workforce extensively, most recently in "Older and Out of Work: Trends in Older Worker Displacement" (Sloan Center, 2008). Gallup, MetLife and the Sloan Center each suggest a bleak future for many Baby Boomers, and this has significant implications for workers' compensation.

In 2007, Gallup reported the following:

- Whereas in 2000, 36% of America's older workers planned on working past retirement age, in 2007 that percentage had grown to 62%;
- By 2007, only half of all Americans thought they would have enough money to retire comfortably; and,
- In mid-2008, 45% of older workers believed they now "had to" work past retirement age.

The MetLife Mature Market Institute, in coordination with David De-Long & Associates, studied the coming "brain drain" in larger, mostly white-collar companies as older workers prepare to retire. Their work suggested that these companies are making increasingly more intense efforts to retain their older workers and the experience they represent (MetLife, 2006). However, left unstudied was the fate of older workers in blue-collar, labor intensive jobs who are less well paid than their white-collar counterparts and more prone to industrial accidents. Gallup had previously reported that these workers, making less than \$75,000 per year, were disproportionately and heavily represented in the group saying it "had to" work past retirement (Jacobe, May 8, 2008).

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Boston College's Sloan Center on Aging and Work reported in September, 2008, that workers over the age of 50 took a third longer to find work after displacement than younger workers. Further, the jobs they did find paid anywhere from 25% to 40% less than their previous employment (Muldoon and Kopcke, 2008).

Older Workers and the Costs of Workers' Compensation

I have already demonstrated that as the front end of the Baby Boomer generation marched through middle age SSDI awards grew by 150%. The burgeoning of SSDI rolls will likely continue until the tail end of the Boomers passes out of the workforce and is emblematic of what I suggest is about to happen in the world of workers' compensation.

Actuaries and the NCCI point out with regularity that older workers, whose injuries are more costly to treat, have fewer injuries than their younger counterparts. Therefore, the lower frequency of injuries offsets the higher severity of their costs.

However, we are facing a phenomenon not encountered before the Baby Boomer generation. As I have shown, millions of older, blue-collar workers, with few transferable skills, will remain in the workforce considerably longer than their parents. If actuarial history holds, they will continue to have proportionately fewer injuries than younger workers. However, because there will be so many more of them, the sheer number of injuries the group suffers will increase significantly. More workers will result in more injuries, which will result in more costs. A lot more. This will happen in the area of indemnity wage replacement, but to a much larger degree in the cost of medical treatment.

In the spring of 2008, I authored an essay entitled "The Best Health Care in the World" in which I compared the cost and efficacy of US Healthcare, primarily Group Health, to that within the other 29 most economically developed countries in the world, all members of the Organization for Cooperation and Economic Development (OECD) (Lynch, 2008). The data led to two remarkable conclusions: First, American per-capita health care spending is two and a half times the average in the OECD and 25% higher than our closest competitor, Switzerland. Second, despite the heavy spending, Americans do not live longer and are no healthier than the average among OECD countries (Lynch, 2008).

I also discussed the relationship between medical costs within workers' compensation and those within American group health, and I argued that workers' compensation, while only "a small closet in the American health care house that Jack built," is actually proportionately more costly. This is because the cost of workers' compensation health care has consistently risen at twice the rate of group health, driven primarily by severe over-utilization of physical medicine services (Robertson & Corro, 2006).

Just consider the numbers. In 1986, medical costs made up 40% of all workers' compensation loss costs; indemnity wage replacement accounted for the other 60%. By 1997, medical costs had risen to 48% of total loss costs. And in 2008, medical loss costs ballooned to 60% of total losses and to this day show no sign of slowing down (Shuford & Restrepo, 2008).

Add to this stew of high-priced medicine the arrival of 78 million older workers marching at 7-second intervals past the age of 65 for the next twenty years. Stir in the fact that more than 50% of them must continue working into the foreseeable future, because they can no longer afford to retire (Jacobe, May 6 2008). Drop into the mix the inevitable injuries that this group will suffer and the significant medical costs these injuries will incur, the rotator cuff injury being the most common by far (Restrepo). And don't forget to toss in a very large measure of higher indemnity wage replacement costs that will ensue, because older workers take longer to heal. This is a recipe for disaster.

This is a problem largely ignored by the insurance industry. Rather, it has preferred to invest in information technology (which would be good if only the mined data would be used wisely) and the design of, or contracting with, large medical networks whose goals seem to be to get doctors to do more with less. Left a-begging are quality of care and evidence-based medicine, two issues that the American College of Occupational and Environmental Medicine says should be dominant themes now and in the immediate future (Occupational Medicine Practice Guidelines, 2008). Unfortunately, insurers tend to focus on process rather than outcomes.

Unless the insurance industry takes seriously the looming threat posed by the prospect of an avalanche of Baby Boomers, particularly blue-collar Baby Boomers and all their attendant baggage, it will be forever relegated to a reactive existence, rather like driving a car by focusing on the rear view mirror instead of down the road ahead through the windshield.

There is one other factor to consider, and it is a big one. Our system of workers' compensation differs somewhat from state to state. Although some may say that what we have is the same wine in 50 different bottles with 50 different labels, there are significant distinctions among the various states, and each state is certainly parochial in its approach to workers' compensation issues affecting it. However, all states face the Baby Boomer problem. They can choose to confront it separately or together.

All of this leads me, as if I were following a bright red rope in the snow, to the following questions:

- What happens when a 65 year old worker, with forty years proficiency at hanging wallboard, for example, suffers a severe rotator cuff tear and does not heal sufficiently enough to return to work?
- What gainful and productive employment does this unfortunate laborer take up?
- Will anyone hire him at his former rate of pay, or will he simply exist for years in workers' compensation Limbo?
- Does workers' compensation become the retirement plan of choice for people with no other choices?
- How will workers' compensation judges react to such situations?
- Will insurers continue to firmly and deeply stick their heads in whatever sand is available and push to settle these cases, moving

these damaged workers into the social security disability system, the one that is bursting at the seams already?

These are questions that both the nation and the insurance industry must confront eventually. I suggest the sooner the better. For now, following are some conclusions and recommendations for consideration.

Conclusions

- America's Baby Boomers will overwhelm the nation's entitlement programs, specifically Social Security, SSDI and Medicare;
- This will happen rather quickly, beginning in 2012 when the first Boomers turn 66;
- More than 50% of the Boomers will stay in the workforce pushing the median age of the American worker to 45 within 5 to 10 years;
- Workers' compensation losses will rise significantly due to Boomer injuries, driving up employer premiums;
- Workers' compensation medical costs will rise significantly due to Boomer injuries. This will seem as nothing compared to the rise in Medicare costs attributable to Boomer disease and off-the-job injuries; and,
- The national government, all of the states and the insurance industry are totally unprepared to confront the problems of America's aging population

Recommendations

- President Obama should immediately appoint a blue-ribbon commission to study and report on this issue within six months;
- Because this is a Macro problem, states should not micro-manage a solution. They should work with the federal government to find a unified solution;

- The insurance industry should assist in the funding of the Presidential Commission, thereby guaranteeing its active participation; and,
- The National Safety Council, the American Society of Safety Engineers and the NCCI should work together to design viable programs aimed at assisting older workers to remain in the workforce safely.

There is time to successfully confront the issues that our aging population will bring us. But not much time. We need to act now.

In his recent inauguration, President Obama said, "America is still a young nation." As a nation, maybe, but as a people, I'm afraid not.

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New Administration and Congress and the Economic Downturn May Provide Opportunity to Fix Bankruptcy Code Flaw Adversely Affecting Workers' Compensation Claims

Eric Oxfeld*

Abstract

This article discusses the problems associated with workers' compensation claims when a self-insured or illegally uninsured employer files for bankruptcy. It also describes the benefit of amending the Bankruptcy Code to add protections for workers injured on the job, comparable to protections now provided for wages and other types of employee benefits.

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Even though the workers' compensation system is unlikely to be a direct federal focus in 2009, the election of Barack Obama, an expanded Democratic majority in the new Congress, and the severe economic downturn will nevertheless result in consideration of a variety of proposals that are likely to affect it. Some of the clearly relevant national "headline" topics foreseeable as of January 2009 include the following:

- 1. Health insurance reform and initiatives to standardize medical records.
- 2. More intensive federal regulation of financial institutions, possibly including the insurance industry.
- 3. New occupational health and safety standards that may include requirements for employers to compensate workers with job-related medical conditions, along the lines of the OSHA ergonomics standard Congress overturned in 2001.
- 4. Streamlining Medicare's mechanisms to enforce its rights as a secondary payer and more closely coordinating Social Security benefits and veteran's benefits with workers' compensation.
- 5. Revising the tests for determining whether an individual is an *employee* or *independent contractor*.

Bankruptcy reform is another major issue expected to be considered in the 111th Congress. Amendments to the bankruptcy code could provide a vehicle for fixing the problems that arise in connection with workers' compensation claims when an employer files for bankruptcy. The greatest problem arises for workers whose employer is self-insured or illegally uninsured and who are injured before the bankruptcy filing. Such workers may face significant challenges in receiving their workers' compensation benefits because the federal bankruptcy code does not recognize their claims as entitled to protection.

Federal bankruptcy statutes expressly recognize wages and employee benefits owing from prior to the bankruptcy petition date ("pre-petition") but are silent with respect to workers' compensation. Although workers' compensation wage replacement and medical benefits are obviously analogous to wages, health insurance and non-occupational disability benefits, a worker who is injured on the job prior to the bankruptcy faces significant barriers to receiving workers' compensation wage replacement benefits not yet due and medical benefits for covered treatment not yet provided.

In effect, ongoing open workers' compensation claims by such workers are discharged in bankruptcy and are lumped in with all other unsecured creditors (the least-favored category) in determining the distribution that they receive from the bankruptcy estate. Consequently, it is common for injured workers to recover only a fraction of the indemnity benefits due, and then only after a lengthy delay and significant cost and inconvenience. Moreover, medical providers are often reluctant to provide treatment because of uncertainty whether anyone will pay for it. Compounding the problem, instead of going through adjudication in the state workers' compensation system, claims caught up in a bankruptcy proceeding must be resolved by federal bankruptcy courts system. Such courts are unfamiliar with workers' compensation law and practice.

Disruption can also occur when an *insured* employer goes bankrupt. The workers' compensation insurance carrier remains responsible for any benefits due. However, in *Howard Delivery Service Inc. v. Zurich American Insurance Co.*, the U.S. Supreme Court held in 2006 that workers' compensation premiums in arrears prior to the bankruptcy filing are not protected, unlike health and disability insurance premiums, even though state law requires the employer to carry workers' compensation insurance as a condition for doing business. As the dissent in *Howard Delivery* points out, payment of these premiums is "the surest way to provide the employees with the policy benefits to which they are entitled."

The hardships faced by workers injured before the bankruptcy petition may undermine the goodwill of active employees that is essential for an employer successfully emerging from bankruptcy reorganization.

In addition, the cost of the defaulted workers' compensation claims may be unfairly shifted from the employer to other businesses or taxpayers, adding to the burden on the economy and financially distressed state governments State government officials, worker representatives, and employer organizations have previously called for Congress to fix the problems bankruptcy law creates for workers' compensation by giving injured workers protections comparable to active workers.¹ Their proposal recommended that, for workers' compensation claims open at the time of bankruptcy, new installments of wage replacement benefits would be fully payable as they come due, and additional medical care would be fully payable when it is provided. In addition, benefits in arrears at the time of the bankruptcy petition would be given express priority. And workers' compensation claims would be exempt from the bankruptcy stay.

Despite their efforts, such a fix was not included in the bankruptcy reform law in 2005. At that time, the workers' compensation issue was unfamiliar to federal public policy makers, who were focused on other problems.

In the past, insolvent self-insurers were relatively rare. However, in the present extraordinary economic situation, there may be greater risk that large national or regional employers could collapse, jeopardizing benefits for thousands of injured workers.

Opportunities to amend the bankruptcy code come along infrequently, but there is a very good chance that the new Congress will consider bankruptcy amendments As this article was being drafted in mid-January, amendments relating to home mortgage obligations were under active discussion. There was also considerable interest in legislation that would provide a "pre-packaged" bankruptcy for the auto industry, if other forms of assistance prove insufficient. Furthermore, during the 2008 election campaign, Barack Obama and senior members of Congress pledged to re-open the 2005 bankruptcy reform law.

Unfortunately, the amendments to the bankruptcy code now under consideration or expected to be introduced in Congress are not likely to address workers' compensation because there is little awareness of the prob-

¹ The IAIABC and National Association of Attorneys General are on record supporting such reforms to guaranty access to benefits.

lem (or its likely magnitude) in Washington, DC. But this outlook could change if those who are concerned with workers' compensation public policy bring the issue to the attention of elected officials in Washington.

Strengthening the protections for injured workers employed by a bankrupt employer would provide more equal protection for all workers of such firms regardless of the stage of financial collapse or recovery from bankruptcy. It would also be consistent with the purposes of broad bankruptcy reform or amendments narrowly tailored for the auto industry. It will help workers, employers and states and reduce the burden on bankruptcy courts – all without adding to federal expenditures.

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Musculoskeletal Impairments - A Comparison of Evaluations Using the AMA Guides 4th, 5th and 6th Editions

Mark Melhorn*

Abstract

This paper illustrates the development of various editions of the AMA Guides to the Rating of Impairments, along with criticisms of the AMA Guides. It focuses on the axioms and other novel features of the 6th Edition of the AMA Guides. It offers the author's reflections on the limitations of the new AMA methods and his suggestions for improvement.

History of the Guides

In 1956 the AMA assembled an ad hoc committee entitled, The Committee on Medical Rating of Physical Impairment. In a special edition of the

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Journal of the American Medical Association (JAMA), February 15, 1958, "A Guide to the Evaluation of Permanent Impairment of the Extremities and Back" was published. Over the next 12 years, 12 additional *Guides* were published in JAMA. In 1971, the 1958 to 1970 publications were combined and labeled the First Edition of the AMA *Guides*. This was followed by the 2nd Edition in 1984, the 3rd Edition in 1988, the 3rd Edition Revised in 1990, the 4th Edition in 1993, the 5th Edition in 2000, and the 6th Edition in 2008. The AMA *Guides* have grown in pages: the 2nd Edition was 245 pages, the 3rd Edition 254, the 3rd Edition Revised 262, the 4th Edition 339, the 5th Edition 613, and the 6th Edition 658 pages.

Criticisms of the Guides

The 6th *Edition* AMA *Guides* lists previous criticisms on page 2 and includes: 1) failure to provide a comprehensive, valid, reliable, unbiased, and evidence-based rating system; 2) impairment ratings did not adequately or accurately reflect loss of function; and 3) numerical ratings were more the representation of "legal fictions than medical reality."

Criticism of the AMA Guides is not new. Often the criticism depends upon one's perspective, defense attorney, plaintiff attorney, payer, insurer, judge, legislator, employer, physician, evaluator, or impaired individual. Spieler et al. (2000) thoroughly criticized the 4th edition in their seminal article in the *Journal of the American Medical Association*.

The 5th Edition was also considered controversial. For example, the new approach to "pain impairment" was considered new, undocumented, and scientifically unsupported. Summarizing this section:

If the individual appears to have pain-related impairment that has increased the burden of his or her condition *slightly*, the examiner may increase the percentage found in A (evaluate the individual according to the body or organ rating systems, and determine an impairment percentage. During the evaluation, the examiner should informally assess pain-related impairment) by up to 3% (Chapter 18, p 573). My criticisms of the 5th Edition were: 1) lack of a diagnosis based impairment rating system that would allow for appropriate ranges of impairment which could reflect a good, average, or poor outcome at the time of maximum medical improvement; 2) a consistent approach for the musculoskeletal chapters (upper, lower, and spine) commonly labeled as "user friendly"; and 3) a methodology that results in a valid, fair, unbiased impairment that would be inter-rater and intra-rater reproducible based on consensus opinion (previous method), or when available a Delphi method, or evidence-based table.

Another concern about the 5th Edition is the overall impact it had on the environment in which impairment ratings occur as summarized by the following question: "What is the overall socioeconomic cost of the AMA Guides on society!" This number remains elusive, however, chapter 18, section 18.2b, page 567 suggests, "Pain is among the most common reasons for seeking medical attention, accounting for more than 70 million office visits to physicians each year (Woodwell, 2000). It is also the most common cause of disability, with chronic low back pain alone accounting for more disability than any other condition, resulting in nearly 150 million lost work days in 1988 (Guo, Tanaka, Halperin, & Cameron, 1999).³ Medical expenditures for pain-related assessment and treatment, indemnity costs, loss of productivity, and loss of tax revenues are estimated to be \$125 billion each year in the United States" (Okifuji, Turk, & Kalauokalani, 1999).

Impressions Regarding the 5th Edition of the AMA Guides

Currently, the 4th Edition is used in ten states, the 5th Edition was used in 26 states before the 6th Edition was published, and 16 states were legislated to use the "latest" edition. The exact number continues to change as states amend their state statues to remain with or return to the 5th Edition.

Many of the impressions that I have of earlier editions of the AMA Guides were formed while conducting training on their use for other physicians. Such training is commonly requested because the AMA Guides have not been easy to master, at least recently, without assistance. Challenges interpreting and appropriately using the AMA Guides have resulted in many "how-to books" such as *The Guides Casebook* (AMA Press), *Master the* AMA *Guides* (AMA Press), and *The Guides Newsletter* (AMA Press). Among the CME courses offered by national professional organizations (in alphabetic order): American Academy of Disability Evaluation Physicians (AADEP), American Academy of Orthopaedic Surgeons (AAOS), and American College of Occupational and Environment Medicine (ACOEM).

When teaching the 5th Edition with other physicians at conferences, I found The Lower Extremity Table 17-2, Guide to the Appropriate Combination of Evaluation Methods and the Diagnosis Related Estimates (DRE) Methods, easily learned, inter-rater and intra-rater reproducible, user-friendly (required the least amount of time to complete impairment rating), and the method preferred by the evaluator attendee. When reviewing medical records for third party organizations, I found the lower extremities impairment ratings using this method to be consistently fair and showing only limited bias.

Similarly, I found when the DRE Method was used, the method was easily learned, inter-rater and intra-rater reproducible, user-friendly (required the least amount of time to complete impairment rating), and the method preferred by the evaluator attendee. When reviewing medical records for third party organizations, I found the spine impairment ratings using DRE method to be consistently fair and showing only limited bias. However, when the impairment rating changed to the Range of Motion (ROM) method, I found the opposite. Bias significantly increased and I was able to determine the bias of the evaluator/rater. The abandonment of the ROM method is one of the features of the 6th Edition that was intended to increase inter-rater reliability. Of interest is that when the 4th Edition introduced the DRE or "injury" model for spine and the alternative approaches to assessing the lower extremity based solely on the diagnosis, even if maximum medical improvement (MMI) had not yet been reached, the introduction caused quite a stir. The fact that the retreat from that methodology in the 6th Edition also caused controversy says something about the tendency toward habituation amongst the persons utilizing the AMA *Guides*, including the attorneys who argue based on impairments generated by them.

Often three more units of time were devoted to the evaluation of Upper Extremity impairments than for Lower Extremity or Spine impairments at Continuing Medical Education programs. The number of pages devoted to the evaluation of Upper Extremities in the 5th Edition is more than twice the number (88) of pages devoted to evaluation of the Lower Extremities (41). The treatment of the Spine in the 5th Edition consumes only 51 pages. The page count and the required time for training reflect the relative complexity of the sections. Hours were spent trying to help attendees understand when to add versus combine impairments, what impairments could be combined and which could not (no table like 17-2), and why impairment for strength testing could not be added to every impairment.¹

The 5th Edition created the 3% add-on impairment for pain. The 6th Edition in chapter 3, states, "If pain accompanies objective findings of injury or illness that permits rating using another chapter in the , then pain-related impairments are not used as 'add-ons.'" This clear language appears to be designed to prevent the "double-dipping" (using two methods to rate the same impairment thus "doubling" the rating) commonly seen in impairment ratings made under the 5th Edition.

In my opinion, the lack of a Diagnosis Based Impairment (DBI) approach in the 5th Edition was the primary reason for the lack of an impairment methodology which could reflect a good, average, or poor outcome at the time of maximum medical improvement, a consistent "user-friendly" ap-

¹ Or why an acromioplasty (removing the extra bone of the distal clavicle with rotator cuff surgery) was not considered a separate impairment under "resection arthoplasty" which entitled an additional 10% of the UE in addition to the range-of-motion loss. While acromioplasty does involve removing bone, it does not remove part of a joint, and thus it is not a "resection arthroplasty."

proach for the three musculoskeletal chapters (upper, lower, and spine), and a methodology that resulted in a valid, fair, unbiased impairment that would be inter-rater and intra-rater reproducible. The complex methodology of the 5th Edition allowed for unintentional errors and intentional bias.² For example, the section says, "If, after an optimal recovery time following surgical decompression...." This would imply the bias of the authors that everyone with the diagnosis CTS will have surgery because the authors believe that everyone improves with surgery.

To summarize, while people who used the 5^{th} Edition became used to its features, the edition had significant flaws, and the attempts to address them in the 6th Edition were well-intentioned and often justified.

How the Axioms Affect the Musculoskeletal Chapters in the 6th Edition AMA Guides

"New Direction for 6th Edition," section 1.2b page 2, outlines five new axioms to guide the interpretation of the AMA *Guides*. These axioms are said to control when questions arise about the intent of the specific text. The axioms state that the intent of the new edition is to: 1) adopt the terminology and conceptual framework of disablement as put forward by the ICF; 2) utilize a more diagnosis-based rating system, with diagnosis being evidence-based when possible; 3) improve simplicity, and ease-of-application, while following the precedent of prior editions where consistent with the rest of the intent of the edition; 4) be functionally based, to the fullest practical extent possible; and 5) create congruity of methodology within and between organ system ratings.

² It should be noted that there was an early attempt at an upper limb DBI on page 495, 5th Edition, where three possible scenarios for carpal tunnel syndrome are provided. Although this was the first step toward a DBI model, this section was not without its critics.

Axiom 1: Adopt the terminology and conceptual framework of disablement as put forward by the ICF

There are no evidence-based studies to imply or conclude that adoption of the ICF model is appropriate. A MEDLAR search using "all fields" for "ICF" and "impairment" returned 76 articles with none linking ICF to determine physical impairment, only 3 discussing musculoskeletal function, and the majority dealing with rehabilitation concepts or stroke patients. A MEDLAR search using "all field" for "ICF" and "impairment" and "rating" returned 1 article on generic patients in emergency rooms. A GOOGLE search using "ICF impairment rating" returned 5,620 articles, the majority linked to the 6^{th} Edition AMA Guides. I have been unable to find any published comparison testing or studies that would indicate that changing to the ICF model is a valid method for determination of physical impairment. It should be noted that the National Institute of Health has adopted the ICF model and if future research and funding are to be available, utilization of the ICF model will likely be required. At the same time it should be noted that approximately 190 countries around the world have adopted this model. The scientific basis for them doing so remains unclear.

Axiom 2: More diagnosis-based, with diagnosis being evidencebased when possible

The move to a Diagnosis-Based Impairment DBI approach is the best feature of the 6th Edition. Diagnosis is how physicians (evaluators) think. Clinical education and discussion of illness and injury usually included four considerations which are often described as the SOAP note (subjective, objective, assessment, plan). The 6th Edition impairment model now uses: 1) what symptoms and functional difficulties does the individual report (history), 2) what are the physical findings (examination), 3) what are results of the clinical studies, and 4) what is the problem (diagnosis). The diagnosis now directs the rater to the appropriate table to start the impairment rating process.

Axiom 3: Simplicity, ease-of-application, and following precedent

This is where the Axioms 1 and 2 come into conflict. Adding the layer of "functional scale" to each impairment does not result in simplicity and ease-of-application as will be demonstrated below (Impact of the *6th Edition AMA Guides*, "example vignettes.") Further, there is no previous "precedent" or current models for applying the ICF model.

Axiom 4: Functionally based, to the fullest practical extent possible

Guidance is needed to keep the instruction to be "evidence-based" from being insufficiently specific. Perhaps chapter 1, section 1.5a, page 8 can provide insight: The steps for determining levels of evidence and grades of recommendations for evidence-based clinical guidelines are as follows:

- 1. Levels of evidence are defined and ranked hierarchically based on study design (see Table 1-2) and methodological quality of individual studies;
- 2. Questions to be addressed are carefully defined;
- 3. Eligible evidence is defined, as are inclusion and exclusion criteria;
- All studies meeting the aforementioned criteria relating to a specific question are obtained using clearly defined search strategies;
- 5. Eligible studies are summarized in an evidence table;
- 6. The strength of evidence to support a given intervention or hypothesis is stated; and
- 7. Judgments regarding the consistency, generalizability, applicability, and overall clinical impact are considered in linking evidence to clinical recommendations.

Unfortunately, this is the methodology for determining evidence-based treatment, not diagnosis or impairment. The axiom implies that these steps should also be taken for each diagnosis. This conclusion is reinforced by material presented in the 6th Edition:

Given the dearth of higher-level, evidence-based criteria on which to base impairment ratings, the following approach was followed for this edition of the AMA *Guides*:

- Current literature was consulted to ensure evidence-based approach for diagnoses used to determine consensus based impairment ratings;
- 2. Where rating must be consensus based, due to absence or lack of valid objective data, explanations of the specific basis on which the ratings are derived are provided. Normative judgments that are not data driven will follow precedent in many cases and must await future validation studies before significant change is adopted; and
- Attempts have been made to normalize impairment ratings across organ systems to improve internal consistency. Decisions, in such cases, are consensus based and will remain so until future validation studies can be carried out (AMA, 2008, p 9).

The Guides Newsletter states:

The editorial process used an evidence-base foundation when possible, primarily as the basis for deterring diagnostic criteria, and a Delphi panel approach to consensus building regarding the impairment ratings themselves. When there was no compelling rational to alter impairment ratings from what they had been previously, ratings provided in prior editions were the default (Guidelines, 2008, p 4).

My impression is that this is not a new phenomenon. The AMA *Guides* has always been a consensus document. Although the goal of moving to evidence-based impairment is ideal, evidence-based literature is lacking. The Delphi panel approach may help improve future editions of the AMA *Guides*.

In this context, there is an additional concern concerning potential conflicts of interest that are not addressed or disclosed. Previous Editions better linked the contributors with their sections allowing for the reader to consider possible bias. The lack of disclosure concerning the identity of the authors of the various sections of the Edition is disturbing. Such nondisclosure would not be allowed in most peer-reviewed journals.

Axiom 5: Congruity within and between organ system ratings

The following is a brief introduction to the concept of Diagnosis-Based Impairments (DBI). The desire for greater congruity resulted in the formation of the Diagnosis-Based Grid Template (Table 1). The key in most cases, but not all, is the diagnosis. This grid is based on five diagnostic classes and within four of the diagnostic classes, five letter grades, as seen in Table 1.

Diagnostic Criteria	Class 0	Class 1	Class 2	Class 3	Class 4
RANGES	0%	Minimal %	Moderate%	Severe%	Very Severe%
GRADE		ABCDE	ABCDE	ABCDE	ABCDE
History	No problem	Mild problem	Moderate problem	Severe problem	Very severe problem
Physical Findings	No problem	Mild problem	Moderate problem	Severe problem	Very severe problem
Test Results	No problem	Mild problem	Moderate problem	Severe problem	Very severe problem

Table 1. Generic DBI Table

To select the appropriate Grade (A, B, C, D, or E) the diagnosis is then "adjusted or modified" by using the adjustment grid seen in Table 2. The criterion for what fits into each grid for each non-key factor varies for each diagnosis and therefore requires reading of the sections describing how to use the adjustment grids or tables. It would have been easier to list the

rules under each table for clarity and avoid having to turn back and forth between pages, which would help the evaluator to avoid missing essential steps.

Non-Key	Grade	Grade	Grade	Grade	Grade
Factor	Modifier 0	Modifier 1	Modifier 2	Modifier 3	Modifier 4
Functional	No problem	Mild	Moderate	Severe	Very severe
History		problem	problem	problem	problem
Physical	No problem	Mild	Moderate	Severe	Very severe
Exam		problem	problem	problem	problem
Clinical	No problem	Mild	Moderate	Severe	Very severe
Studies		problem	problem	problem	problem

Table 2. Generic Non-Key Factor Table

In an effort to provide "congruity" this five scale ICF taxonomy was applied to all organ systems with results that were sometimes unhelpful. The application of five classes and five grades of impairment in Classes 1.4 results in a matrix of 21 possible impairments. The resulting complexity creates a conflict between Axiom 2 (diagnosis-based impairments), Axiom 3, (simplicity) and Axiom 5 (congruity). There are, for instance, Upper Extremity examples (trigger finger, for instance) where the taxonomy should be limited to two levels (two possible outcome based impairment ratings) based upon the diagnostic criteria, but the editors insisted on five levels, to foster consistency of rating systems. The result is added complexity and increased time to complete impairments as demonstrated in the section "Impact of the *6th Edition* AMA *Guides*" example vignettes, shown below.

Impact of the 6th Edition AMA Guides

So, how does all this change affect the impairments? Policy makers, lawyers, impairment evaluators, and other users of the Guides want to know how these changes will affect them. It will take time to generate good comparative data on the impact of the 6th Edition. In the absence of such data, the method traditionally used is to consider comparable ratings under different editions using case vignettes. The vignettes that follow were completed before the errata. Now that the errata is available, these vignettes could be updated to include a fourth approach labeled, 6th Edition with Errata, since the Errata will change how some impairments are calculated. Ah, the Errata; consider that *errata* is Latin for "Oops" and is defined as "An error or mistake in writing or printing." The Errata will of course create jurisdictional nightmares, since some states have legislated that only the *Guides* can be used, and a given jurisdiction may or may not accept the published Errata as part of the *Guides*. So even though the Errata is available it may not be applicable. It is similar to the *Guides Newsletter*, which is published bimonthly with excellent answers to common questions, but often ignored by states. So it may be possible to come up with two different impairment ratings for the same condition.

I will present several example vignettes³ for your consideration.

Carpal Tunnel Syndrome

Ms. Smith is a 50-year-old woman who has worked for computer manufacturing for 15 years. Her job is assembly of the parts to the motherboard. She describes work as repetitive with the maximum lift of 5 pounds. She related that onset of numbness and tingling in her right dominant hand occurred over time without a specific injury. Currently, her hand is falling asleep at night and she says she must shake or flick her hand to get it to wake up. Her primary care physician treated her with a wrist splint and an injection to her wrist. After six weeks, nerve conduction studies revealed findings consistent with a sensory conduction delay. She elected right carpal tunnel release. After three months her symptoms stabilized for the last two office visits which were 1 month apart and she had returned to her previous employment with the additional physician recommendation of task rotation. Individual risk factors for the development of carpal tunnel syndrome included age, gender, and BMI. Her carpal tunnel syndrome was determined administratively to be work-related.

³ Vignettes describing in brief certain medical conditions for comparative and educational purposes are common in teaching medical practitioners.

Current Symptoms: Complaints of occasional sensations of tingling in cold weather and yet is able to perform all activities of daily living and work without symptoms.

Functional Assessment: The QuickDASH score is 14.

Physical Exam: Physical examination showed a well-healed incision. Sensory examination was normal for 2 point at 4 mm and monofilament testing at 1.65 gm of force for her thumb and all fingers. Muscle strength testing was normal, there was no atrophy, and grip strengths were 24 kg on the right and 21 kg on the left.

Clinical Studies: Electrodiagnostic studies pre-operatively revealed mild sensory conduction delays of the right median nerve (distal peak sensory latency of 4.1 ms) and normal motor studies (distal motor latency of 4.5 ms).

Comment: Carpal tunnel syndrome (CTS) is the most common peripheral nerve entrapment and results in a set of symptoms that may include pain, weakness, numbness, and/or paresthesias of the hand and fingers that may be associated with functional limitations. Establishing an appropriate method for addressing the symptom complex has resulted in very different approaches between the 4th, 5th, and 6th Editions of the AMA *Guides*.

Carpal Tunnel Syndrome – Summary

Sixth Edition References Section 15.4f (6th Edition, p 433), Table 15-23 (6th Edition, p 449), summary assess testing findings, clarify history and determine sensory and motor findings, define average Grade Modifier, assess QuickDASH and select impairment. Sixth Edition Impairment 1% UEI, 1% WPI.⁴

⁴ To provide an impairment using section 15.4, the diagnosis of carpal tunnel syndrome must be confirmed with an appropriate pre-operative electrodiagnostic study and the patient must be at maximal medical improvement as defined on page 447.

Fifth Edition References Section 16.5d (5th Edition, p 491), use documented severity of sensory loss, pain, and muscle weakness. Select appropriate scenario for rating as described on page 495. Fifth Edition Impairment 2% UEI, 1% WPI.⁵

⁵ Section 16.5d Entrapment / Compression Neuropathy (5th p 491-495) and specifically page 495 discusses impairment ratings for carpal tunnel syndrome. The Guides note that "only individuals with an objectively verifiable diagnosis should qualify for a permanent impairment rating. The diagnosis is made not only on believable symptoms but more important, on the presence of positive clinical findings and loss of function. The diagnosis should be documented by electromyography as well as sensory and motor nerve conduction studies."(5th p 493) "The sensory deficits or pain, and/or the motor deficits and loss of power, are evaluated according to the impairment determinations method described in Section 16.5b. In compression neuropathies, additional impairment values are not given for decreased grip strength. In the absence of CRPS, additional impairment values are not given for decreased motion."(5th p 494)

If, after an optimal recovery time following surgical decompression, an individual continues to complain of pain, paresthesias, and/or difficulties in performing certain activities, three possible scenarios can be present (5th p 495):

1. Positive clinical findings of median nerve dysfunction and electrical conduction delay(s): the impairment due to residual CTS is rated according to the sensory and/or motor deficits as described earlier.

2. Normal sensibility and opposition strength with abnormal sensory and/or motor latencies or abnormal EMG testing of the muscles: a residual CTS is still present, and an impairment rating not to exceed 5% of the upper extremity may be justified.

Apply Section 15.4f Entrapment Neuropathy (6th p 432) to Table 15-23, Entrapment / Compression Neuropathy (6th p 449). Testing findings are grade modifier 1 (conduction delay), history is grade modifier 0 or 1 (mild intermittent symptoms), and physical findings are grade modifier 0 or 1 (normal). The grade modifiers of test findings, history, physical findings could range from a total of 1 (1+0+0) to 3 (1+1+1). The sum of the grade modifiers is divided by 3, which results in the final grade modifier of .33 to 1 which is applied to Table 15-23. Since her QuickDASH score 14 her functional scale modifier is 0. Therefore the lowest impairment for Grade Modifier 1 is assigned 1% UEI. Table 15-11 can be used to convert to 1% hand impairment or 1% WPI if required by jurisdiction.
Fourth Edition References Section 3.1k (4th Edition, p 46), Table 11 (4th Edition, p 48), Table 12 (4th Edition, p 49), Table 15 (4th Edition, p 54), Table 13 (4th Edition, p 51), Table 16 (4th Edition, p 57). Fourth Edition Impairment is 0% or 5% or 10% UEI converted to 0% or 3% or 6% WPI.⁶

In this case when at maximal medical improvement there are no objective, anatomical findings consistent with ongoing median nerve involvement. In the past, however, the diagnosis of CTS was confirmed by electrophysiological studies. Therefore, scenario two exists, and according to the 5th edition Guides "an impairment rating not to exceed 5% of the upper extremity may be justified."

Considering the mild symptoms 1% or 2% UEI is assigned which per Table 16-3 (5th p 439) converts to 1% whole person permanent impairment. But, if 5% was given, then the conversion is to 3% WPI.

⁶ Section 3.1k Impairment of the Upper Extremity Due to Peripheral Nerve Disorders (4th p 46 - 57, subsection "Entrapment Neuropathy", the Guides states that "impairment of the hand and upper extremity secondary to entrapment neuropathy may be derived by measuring the sensory and motor deficits. The most precise approach to assessing impairment is done by grading the severity using Table 11, Determining Impairment of the Upper Extremity Due to Pain or Sensory Deficit (4th p 48) and Table 12 Determining Impairment of the Upper Extremity Due to Loss of Power and Motor Deficits (4th p 49). Objective decreased sensibility is required to have a sensory deficit, e.g. pain alone is not ratable. These deficits are then multiplied by the values for the Median Nerve (below midforearm) provided in Table 15 (4th p 54). Maximum Upper Extremity Impairments Due to Unilateral Sensory or Motor Deficits or Combined Deficits of the Major Peripheral Nerves (4th p 54), e.g. if the entire median nerve is involved 38% upper extremity impairment due to sensory deficit or pain and 10% due to motor deficit. In this case there is no objective evidence of ongoing sensory or motor deficits on clinical examination. Therefore, the appropriate rating according to the AMA Guides to the Evaluation of Permanent Impairment, Fourth Edition would be zero or there is no ratable impairment. However, these tables are often used to imply function loss by using subjective symptoms to determine a sensory deficit in Table 11 and grip strength testing to determine a motor deficit in Table 12.

^{3.} Normal sensibility (two-point discrimination and Semmes-Weinstein monofilament testing), opposition strength, and nerve conduction studies: there is no objective basis for an impairment rating.

Comparison of Guides: Seven surveys were sent out to experienced uses of the Guides. These seven board certified physicians (area of specialty was Orthopaedics, Family Medicine, and Occupational Medicine) are members of the American Academy of Disability Evaluating Physicians and were selected from their CME faculty. These physicians are experienced in teaching other physicians in the use of the AMA *Guides* and routinely complete physical impairment evaluations. All seven surveys were returned. The author acknowledges that this is not a random sampling and that a bias in the selection process may result in skewing of the impairment ranges and times required to complete the case examples.

The questions and answers received for this case are:

1. What do you believe is the correct rating UEI and WPI using the AMA *Guides* as they were intended?

6 th Edition:	1% UEI or 1% WPI
5 th Edition:	2% UEI or 1% WPI
4 th Edition:	5% UEI or 3% WPI

2. Considering the fact that both plaintiff-friendly and defense-friendly raters can "distort" the AMA *Guides*, what is the rating you have seen for

An alternative method is provided in Table 16 Upper Extremity Impairment Due to Entrapment Neuropathy (4th p 57). The evaluator should not use both methods. Impairment of the upper extremity secondary to an entrapment neuropathy is estimated according to the severity of involvement of each major nerve at each entrapment site (4th p 56). Table 16, however, does not provide definitions for the terms for the degree of severity, and therefore is not the preferred approach. This concern was addressed in The Guides Newsletter, November/December 1996 by Talmage, Carpal Tunnel Syndrome: Challenges in Impairment Rating.5 Although some evaluators would consider this individual to have 10% from Table 16, this impairment would be inconsistent with impairments from the 3rd, 5th, and 6th editions of the Guides, which is why the table was dropped from the 5th edition.

Another approach would be to use Table 13 (4th pg 51) for median nerve in the C5 and C6 dermatomes instead of Table 15. Appropriate application of this table would also result in zero impairment.

this case?

6 th Edition:	1% to 3% WPI
5 th Edition:	1% to 15% WPI
4 th Edition:	3% to 20% WPI

3. How long did it take you to complete this impairment evaluation in minutes for each *Guide*?

6 th Edition:	25 minutes
5 th Edition:	5 minutes
4 th Edition:	15 minutes

De Quervain's Disease

Ms. Johnson is a 35-year-old left-hand dominant legal secretary who has worked for her new employer for a total of 4 weeks. About 5 days after she started her new job she started experiencing pain in her right wrist. She tried wearing a splint and took some aspirin but that did not help. She quit her job at the end of the month. She described her job as answering the phone, typing, checking in clients, and filing charts. For the last 2 years she has been unemployed. She is currently unemployed. She was seen by the "company" doctor who provided 6 weeks of therapy and one anesthetic – corticosteroid injection. No treatment helped. She said she was worse and so she was referred to a plastic surgeon who suggested a De Quervain's surgical release. She elected the surgery. Six months after her surgery, she was released to return to regular work and was provided a 10% impairment to the right forearm. You are seeing Ms. Johnson as an IME for determination of current impairment.

Current Symptoms: She has pain in the right forearm that goes up to her shoulder. She says she is unable to do simple household activities and has been unable to find anyone who will hire her until the "work comp mess" is over. She does not require assistance with self-care activities and is not currently taking any medications for her limb pain.

Functional Assessment: Her QuickDASH is 82.

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Physical Exam: Right and left upper limbs appear equal and symmetrical for size, shape, color, warmth, and function. She has a well healed longitudinal scar of 3 cm over the right wrist first dorsal compartment consistent with her surgery for De Quervain's Disease. Her neurological and motor examinations were normal but she complains of pain in a glove pattern over her entire right upper limb. Finkelstein's test caused pain but did not seem to be a traditionally positive diagnostic test finding. Her range of motion active and passive was normal. Her grip strength on repetitive testing was 5, 5, 5 kg right and 15, 15, 15 left. Testing grip in the 5 Jamar dynamometer handle positions showed grip strength of right of 5, 5, 5, 5, 5 and left 5, 7, 15, 10, 5, while rapid exchange grip testing showed the right hand grip increased with this distraction maneuver to an average 15 right, which was equal to the grip on her left.

Clinical Studies: X-rays were normal for age.

De Quervain's Disease - Summary

De Quervain's disease is commonly described as tenosynovitis or as an inflammation of the sheaths of the tendons that move the thumb up and out (away from the hand) in the first dorsal compartment. It is technically referred to as a stenosing tenosynovitis because both the tendons and their surrounding tissue sheaths are involved, in the area where the tendon has to go through a small fibro-osseous tunnel at the wrist. The "inflamed" tenosynovium becomes painful at the tunnel area. Surgical release of the tunnel often results in resolution of symptoms.

Sixth Edition Impairment Rating

Section 15.2 Diagnosis-Based Impairments (6th Edition, pp 387 – 419), Table 15-3 Wrist Regional Grid (6th Edition, pp 365 – 397) diagnosis of "wrist sprain/strain e.g., de Quervain's Disease" has Class 1, Section 15.3a Adjustment Grid: Functional History (6th Edition, p 406) and Table 15-7 Functional History Adjustment: Upper Extremities (6th Edition, p 406), QuickDASH, Section 15.3b Adjustment Grid: Physical Examination (6th Edition, p 407), 15.3c Adjustment Grid: Clinical Studies (6th Edition, p 407) and Table 15-9, Clinical Studies Adjustment: Upper Extremities (6th Edition, p 410).

Sixth Edition Impairment is 1% UE or 2% UE or 1%WP.⁷

Fifth Edition Impairment Rating

Section 16.7d Tendinitis (5th Edition, p 507) says, "Several syndromes involving the upper extremity are variously attributed to tendinitis, fasciitis,

The DBI requires use of Section 15.3a Adjustment Grid: Functional History (6th Edition, p 406) and Table 15-7 Functional History Adjustment: Upper Extremities (6th Edition, p 406) her symptoms are assigned Grade Modifier 2; the Functional History is consistent with "pain / symptoms with normal activity; +/- medications to control symptoms; able to perform self-care activities independently" but her QuickDASH score is 81 which would put her into Grade modifier 3 with a range of 61 - 80. Section 15.3b Adjustment Grid: Physical Examination (6th Edition, p 407) is not applicable, since used for placement in diagnostic group. Likewise, 15.3c Adjustment Grid: Clinical Studies (6th Edition, p 407) and Table 15-9, Clinical Studies Adjustment: Upper Extremities (6th Edition, p 410) also reflects the diagnosis. The single adjustment factor is a Grade Modifier 2 or 3. If 2 is selected, one more than the Class 1, the final Grade is D, one place to the right of the default, and results in 2% UEI.

A caveat (6th p 406), "the examiner must assess the reliability of the functional reports, recognizing the potential influence of behavioral and psychosocial factors. If the grade for functional history differs by 2 or more grades from that described by physical examination or clinical studies, the functional history should be assumed to be unreliable. If the functional history is determined to be unreliable or inconsistent with other documentation, it is excluded from the grading process. Therefore, the single adjustment factor could be excluded, resulting in the default impairment of 1% UEI.

⁷ Diagnosis-Based Impairments (DBI) are the default or preferred approach for the Sixth Edition. Using section 15.2 Diagnosis-Based Impairments (6th Edition, pp 387 – 419), Table 15-3 Wrist Regional Grid (6th Edition, pp 365 – 397) diagnosis of "wrist sprain/strain e.g., "de Quervain's Disease" has Class 1 with "history of painful injury, residual symptoms without consistent objective findings" (this impairment can only be given once in a individual's lifetime) provides for a range of 0 to 2% UEI.

or epicondylitis. Although these conditions may be persistent for some time, they are not given a permanent impairment rating unless there is some other factor that must be considered.

Fifth Edition Impairment is 0% UE or 0% WP.8

Fourth Edition Impairment Rating

Section 3.1m (4th Edition, p 63) Other Musculoskeletal System Defects does not address De Quervain's disease. Fourth Edition Impairment is 0% UE or 0% WP.

Comparison of Guides:

1. What do you believe is the correct rating UEI or WPI using the AMA *Guides* as they were intended?

6th Edition:	1 or 2% UEI or 1% WPI
5th Edition:	0% UEI or 0% WPI
4th Edition:	0% UEI or 0% WPI

⁸ Section 16.7d on Tendinitis (5th Edition, p 507) says: "Several syndromes involving the upper extremity are variously attributed to tendinitis, fasciitis, or epicondylitis. Although these conditions may be persistent for some time, they are not given a permanent impairment rating unless there is some other factor that must be considered." Further, it would not be appropriate to rate by strength loss, since the AMA *Guides* states, "Decreased strength cannot be rated in the presence of decreased motion, painful conditions" (5th Edition, p 508). Therefore, there is typically no ratable impairment by Chapter 16, "The Upper Extremities." This was further confirmed by the AMA *Guides Newsletter* (2003, May-June). No example of impairment rating is provided in the companion text, *The Guides Casebook – Cases to Accompany Guides to the Evaluation of Permanent Impairment Fourth or Fifth Edition*.

2. Considering the fact that both plaintiff-friendly and defense-friendly raters can "distort" the AMA *Guides*, what is the rating you have seen for this case?

6th Edition:	0% to 2% WPI
5th Edition:	0% to 10% WPI
4th Edition:	0% to 10% WPI

3. How long did it take you to complete this impairment evaluation in minutes for each *Guide*?

6th Edition:	19 minutes
5th Edition:	2 minutes
4th Edition:	2 minutes

Rotator Cuff Repair

A 50-year-old postman is seen for shoulder pain after a fall at work 2 weeks earlier, where he slipped on some ice and landed on his outstretched arm. He was found to be unable to abduct his arm past 60 degrees with considerable pain. He was suspected of having a rotator cuff tear and was referred to an orthopaedic surgeon. His x-rays demonstrated osteoarthritis of his right AC joint and his MRI was positive for rotator cuff tear. With continued symptoms and functional loss, he elected surgery. The rotator cuff was found to have a complete, full thickness (>4cm) tear of the rotator cuff. This was surgically repaired with an open procedure with a distal clavicle shaving not a resection. He underwent a course of physical therapy and has been declared medically stable. He has returned back to his regular work with a work guide of limit right hand over shoulder activities.

Current Symptoms: He has mild pain at the end of the work day. He feels like the right shoulder is weaker than the left.

Functional Assessment: His quick dash score is 60.

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Physical Exam: Shoulder muscle appearance is normal with small deltoid splinting incision. He has pain with manual muscle testing of shoulder strength, but his cuff repair appears on exam to be intact. His strength is 4.5/5 and his range of motion (in degrees) is flexion 100 of 180, extension 30 of 50, abduction 100 of 170, adduction 30 of 40, internal rotation 60 of 80 and external rotation of 60 of 60. There is no neurologic deficit or shoulder instability on capsular stress testing.

Clinical Studies: Initial x-rays consistent with age related osteoarthrosis of AC joint. MRI consistent with rotator cuff tear from workplace injury.

Comments: Rotator cuff tear injuries are the seventh most common lost time claim in workers age 45 to 64. This example is rated by Range of Motion in each edition. With the 6th Edition, most conditions are rated using the Diagnosis-Based Impairment approach. However, in this case, Range of Motion resulted in greater impairment and therefore, this approach was used. In the Sixth Edition, Range of Motion impairment values are provided in a table, rather than a pie chart. This was a decision by the editor to imply a uniform appearance. The 5th Edition provides more direction on how to measure motion, but the values for motion deficits remain similar to the 4th Edition. Motion measurements falling between those shown in a pie chart may be adjusted or interpolated. In an effort to develop increased intra-rater and inter-rater reliability, the 5th Edition added instructions permitting apportionment of diminished joint motion. "If a contralateral 'normal' joint has a less than average mobility, the impairment value(s) corresponding to the uninvolved joint can serve as a baseline and are subtracted from the calculated impairment for the involved joint" (5th Edition, p 453). In this case, however, the uninvolved shoulder had normal motion. These same directives are present in the 6th edition. A process for rating weakness of the shoulder was provided in the 5th Edition, but could only be used if shoulder range of motion was normal. Strength deficits for the shoulder are obtained from clinical assessment and based on ranges derived from unit of motion values. The ratings are presented in Table 16-35, Impairment of the Upper Extremity Due to Strength Deficit from Musculoskeletal Disorders Based on Manual Muscle Testing of Individual Units of Motion of the Shoulder and Elbow (5th Edition, p 510). As in the 4th Edition, loss of strength is rated only "In a rare case, if the examiner believes [it]...represents an impairing factor...not...considered adequately by other methods in the AMA Guides..." (5th Edition, p 508). A rating for weakness could be combined with other impairments, but only if due to an unrelated cause. Unfortunately, inappropriate additions to the impairment or "double dipping" impairments still occurred, requiring additional clarification in the 5th Edition. Therefore, the 5th Edition states that strength loss "cannot be rated in the presence of decreased motion, painful conditions, deformities, or absence of parts." It would not be appropriate to combine impairment for strength loss in this case, since this is not a rare case, and there was decreased motion. On review of impairment ratings by third-party reviewers, the inappropriate use of strength loss was still occurring so strength loss is not rated with the 6th Edition.

Rotator Cuff Tear – Summary: Sixth Edition References Section 15.7g (6th Edition, p 472), Table 15-34 (6th Edition, p 475) consider Diagnosis-Based Impairments first. If other methods do both and select largest impairment method. In this case used Range of Motion. Measure range of motion of the six shoulder motions and compare to table. Sixth Edition Impairment 10% or 11% UEI or 6% WPI or 7% WPI⁹

⁹ This individual can be rated by two possible methods. If applicable, the Diagnosis-Based Impairments is the preferred method (most impairments are based on the diagnosis-based impairments (DBI) 6th p 387) or 15.7g Shoulder Motion (6th p 472), however both methods should be completed and the method that provides the largest impairment used. Diagnosis-Based Impairment involves the use of Table 15-5 Shoulder Regional Grid: Upper Extremity Impairments (6th pp 401-405). Range of Motion involves the use of Table 15-34 Shoulder Range of Motion (6th p 475). For this individual the Range of Motion method results in a higher rating. This method measures the six motions of the shoulder: flexion and extension, abduction and adduction, internal and external rotation. By using Table 15-34 Shoulder Range of Motion (6th p 475), the rater determines the impairment for each motion of the joint. These impairment values are then added.

Diagnosis-based impairment method, Shoulder Grid (6th p 403) – rotator cuff injury, full-thickness tear, residual loss, function with normal motion, is the maximum DBI and this does not fit clinical information.

Fifth Edition References Section 16.4i (5th Edition, pp 474-479), Figure 16-40 (5th Edition, p 476), Figure 16-43 (5th Edition, p 477), Figure 16-43 (5th Edition, p 479) use measured range of motion of the six shoulder motions and compare to pie charts with a possible rating for strength loss in the rare case, and only if motion is normal and not a painful condition. Fifth Edition Impairment 12% UEI or 7% WPI¹⁰

Referencing Table 15-35 Range of Motion Grade Modifier (6th p 477), based on motion deficits <12% upper extremity impairment for the shoulder the grade modifier is 1. Referencing Table 15-7 Functional History Adjustment: Upper Extremities (6th p 406), the modifier is 2 based on QuickDASH of 60 but is 1 based on descriptions. Since his ROM and Functional history adjustment are equal the 1 is used and therefore, no modification of impairment is required per Table 15-36 (6th p 477). The final rating is 10% upper extremity impairment. However, if the QuickDASH of 60 is used to modify to 2, then Table 15-36 is 1 higher, so the 10% is multiplied by 5% and the result is added to 10%, for a total of 10.5%, which is rounded up to 11%. Using Table 15-11 Impairment Values Calculated From Upper Extremity Impairment (6th p 420), 10 % UEI converts to 6% WPI or the 11% upper extremity impairment converts to 7% whole person impairment. (Late Update: The 6th edition Errata contains a clarification to Page 387, Right Column, Paragraph 4 "Thus, when rating rotator cuff injury/impingement or glenohumeral pathology/surgery, incidental resection arthroplasty of the AC joint is not rated.")

¹⁰ Section 16.4i, Shoulder Motion Impairment (5th p 474) is the best method which measures the six motions of the shoulder: flexion, extension, abduction, adduction, and internal and external rotation. By means of the pie charts on pages 476 to 479 in the Fifth Edition, the evaluator determines the impairment for each motion. The impairment values are added. Figure 16-40, Pie Chart of Upper Extremity Motion Impairments Due to Lack of Flexion and Extension of Shoulder (5th p 476), having only 100° of flexion is a 5% UEI and 30° of extension is a 1% UEI. Figure 16-43, Pie Chart of Upper Extremity Motion Impairments Due to Lack of Shoulder (5th p 477),

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The 6th edition addresses ROM by rounding to the nearest whole number ending in 0 (6th p 461). Therefore, according to Table 15-34 Shoulder Range of Motion (6th p 475), for 100° of flexion there is 3% upper extremity impairment (UEI), for 40° of extension there is 1% UEI, for 100° of abduction there is 3% UEI, for 30° of adduction there is 1% UEI, for 60° of internal rotation there is 2% UEI, and for 60° of external rotation there is 0% UEI. These impairments are added for a total 10% upper extremity impairment.

Fourth Edition References Section 3.1j (4th Edition, p 41), Section 3.1m (4th Edition, p 63), Figures 38, 41, and 44 (4th Edition, pp 43-45) use measured range of motion of the six shoulder motions and compare to pie charts. Fourth Edition Impairment 13% UEI or 8% WPI¹¹

¹¹ This individual is best rated by range of motion as described in Abnormal Motion of Shoulder (4th pp 41-45). This method measures the six motions of the shoulder: flexion, extension, abduction, adduction, and internal and external rotation by means of the pie charts on pages 43 to 45. The impairment values are then added "because the relative value of each shoulder function has been taken into consideration in the impairment charts" (4th p 45). Figure 38, Upper Extremity Impairments Due to Lack of Flexion and Extension (4th p 43), having only 100° of flexion is a 5% UEI and 30° of extension is a 1% UEI. Figure 41, Upper Extremity Impairments Due to Lack of Abduction and Adduction of Shoulder (4th p 44), 100° of abduction is a 4% UEI and 30° of adduction is a 1% UEI. Figure 44, Upper Extremity Impairments Due to Lack of Internal and External Rotation of Motion (4th p 45), 60° of internal rotation is a 2% UEI and 60° of external rotation is a 0% UEI. These impairments are added to yield a final rating of 13% range of motion upper extremity impairment. In addition, the resection arthroplasty of the AC joint is rated from Table 27 (p. 61) and this 10% upper extremity rating is combined with the range of motion rating, per the instructions in the arthroplasty section on pages 61-62. This results in a 22% upper extremity impairment rating. Table 3, Conversion of Impairment of the Upper Extremity to Impairment of the Whole Person (5th p 20), converts the 22% upper extremity impairment to a 13% whole person impairment rating.

having only 100° of abduction is a 4% UEI and 30° of adduction is 1% impairment. Figure 16-46, Pie Chart of Upper Extremity Impairments Due to Lack of Internal and External Rotation of Shoulder (5th p 479), having 60° of internal rotation is a 2% UEI and 60° of internal rotation is a 0% UEI. These impairments are added to yield a final range of motion rating of 13% upper extremity impairment. In addition, the resection arthroplasty of the AC joint is rated from Table 16-27 (p. 506) and this 10% upper extremity rating is combined with the range of motion rating, per the instructions in Section 16.7b on page 505. This results in a 22% upper extremity impairment rating. Table 16-3, Conversion of Impairment of the Upper Extremity to Impairment of the Whole Person (5th p 439), converts the 22% upper extremity impairment to a 13% whole person impairment rating.

Comparison of Guides:

1. What do you believe is the correct rating UEI or WPI using the AMA *Guides* as they were intended?

6th Edition:	10% UEI or 6% WPI or 11% UEI or 7% WPI
5th Edition:	7% WPI
4th Edition:	8% WPI

2. Considering the fact that both plaintiff-friendly and defense-friendly raters can "distort" the AMA *Guides*, what is the rating you have seen for this case?

6th Edition:	1% to 12% WPI
5th Edition:	1% to 35% WPI
4th Edition:	1% to 30% WPI

3. How long did it take you to complete this impairment evaluation in minutes for each *Guide*?

6th Edition:	25 minutes
5th Edition:	10 minutes
4th Edition:	5 minutes

Rotator Cuff Repair: Alternative Scenario

Arthroscopic rotator cuff repairs often include the description of "distal clavicular resection" as part of the operative procedure. When viewed post operatively by x-rays, this is often a "shaving" or partial removal of the acromial spur (underside of the clavicle), not a complete resection. However, because the operative note says "distal clavicular resection" some raters will include an impairment for the resection. Lets consider how this impacts the impairments

Rotator Cuff Tear – Summary: Sixth Edition References Section 15.7g (6th Edition, p 472), Table 15-34 (6th Edition, p 475) consider Diagnosis-

Based Impairments first. If other methods do both and select largest impairment method. In this case used Range of Motion. Measure range of motion of the six shoulder motions and compare to table. Sixth Edition Impairment is 6% WPI or 7% WPI.¹²

¹² This individual can be rated by two possible methods. If applicable, the Diagnosis-Based Impairments is the preferred method (most impairments are based on the diagnosis-based impairments (DBI) 6th p 387) or 15.7g Shoulder Motion (6th p 472), however both methods should be completed and the method that provides the largest impairment used. Diagnosis-Based Impairment involves the use of Table 15-5 Shoulder Regional Grid: Upper Extremity Impairments (6th pp 401-405). Range of Motion involves the use of Table 15-34 Shoulder Range of Motion (6th p 475). For this individual the Range of Motion method results in a higher rating. This method measures the six motions of the shoulder: flexion and extension, abduction and adduction, internal and external rotation. By using Table 15-34 Shoulder Range of Motion (6th p 475), the rater determines the impairment for each motion of the joint. These impairment values are then added.

Diagnosis-based impairment method, Shoulder Grid (6th p 403) – rotator cuff injury, full-thickness tear, residual loss, function with normal motion, is the maximum DBI and this does not fit clinical information.

The 6th edition addresses ROM by rounding to the nearest whole number ending in 0 (6th p 461). Therefore, according to Table 15-34 Shoulder Range of Motion (6th p 475), for 100° of flexion there is 3% upper extremity impairment (UEI), for 40° of extension there is 1% UEI, for 100° of abduction there is 3% UEI, for 30° of adduction there is 1% UEI, for 60° of internal rotation there is 2% UEI, and for 60° of external rotation there is 0% UEI. These impairments are added for a total 10% upper extremity impairment.

Referencing Table 15-35 Range of Motion Grade Modifier (6th p 477), based on motion deficits <12% upper extremity impairment for the shoulder the grade modifier is 1. Referencing Table 15-7 Functional History Adjustment: Upper Extremities (6th p 406), the modifier is 2 based on QuickDASH of 60 but is 1 based on descriptions. Since his ROM and Functional history adjustment are equal the 1 is used and therefore, no modification of impairment is required per Table 15-36 (6th p 477). The final rating is 10% upper extremity impairment. However, if the QuickDASH of 60 is used to modify to 2, then Table 15-36 is 1 higher, so the 10% is multiplied by 5% and the result is added to 10%, for a total of 10.5%, which is rounded up to 11%. Using Table 15-11 Impairment Values

Fifth Edition References Section 16.4i (5th Edition, pp 474-479), Figure 16-40 (5th Edition, p 476), Figure 16-43 (5th Edition, p 477), Figure 16-43 (5th Edition, p 479) use measured range of motion of the six shoulder motions and compare to pie charts with a possible rating for strength loss in the rare case, and only if motion is normal and not a painful condition. Combine the motion impairment with the AC resection arthroplasty impairment from Table 16-27, page 506. Fifth Edition Impairment 22% UEI or 13% WPI¹³

Fourth Edition References Section 3.1j (4th Edition, p 41), Section 3.1m (4th Edition, p 63), Figures 38, 41, and 44 (4th Edition, pp 43.45) use

¹³ Section 16.4i, Shoulder Motion Impairment (5th p 474) is the best method which measures the six motions of the shoulder: flexion, extension, abduction, adduction, and internal and external rotation. By means of the pie charts on pages 476 to 479 in the Fifth Edition, the evaluator determines the impairment for each motion. The impairment values are added. Figure 16-40, Pie Chart of Upper Extremity Motion Impairments Due to Lack of Flexion and Extension of Shoulder (5th p 476), having only 100° of flexion is a 5% UEI and 30° of extension is a 1% UEI. Figure 16-43, Pie Chart of Upper Extremity Motion Impairments Due to Lack of Abduction and Adduction of Shoulder (5th p 477), having only 100° of abduction is a 4% UEI and 30° of adduction is 1% impairment. Figure 16-46, Pie Chart of Upper Extremity Impairments Due to Lack of Internal and External Rotation of Shoulder (5th p 479), having 60° of internal rotation is a 2% UEI and 60° of internal rotation is a 0% UEI. These impairments are added to yield a final range of motion rating of 13% upper extremity impairment. In addition, the resection arthroplasty of the AC joint is rated from Table 16-27 (p. 506) and this 10% upper extremity rating is combined with the range of motion rating, per the instructions in Section 16.7b on page 505. This results in a 22% upper extremity impairment rating. Table 16-3, Conversion of Impairment of the Upper Extremity to Impairment of the Whole Person (5th p 439), converts the 22% upper extremity impairment to a 13% whole person impairment rating.

Calculated From Upper Extremity Impairment (6th p 420), 10 % UEI converts to 6% WPI or the 11% upper extremity impairment converts to 7% whole person impairment. The 6th edition Errata contains a clarification to Page 387, Right Column, Paragraph 4 " Thus, when rating rotator cuff injury/impingement or glenohumeral pathology/surgery, incidental resection arthroplasty of the AC joint is not rated."

measured range of motion of the six shoulder motions and compare to pie charts. Combine the motion impairment with the AC resection arthroplasty impairment from Table 27, page 61. Fourth Edition Impairment 22% UEI or 13% WPI¹⁴

Comparison of AMA Guides

1. What do you believe is the correct rating UEI or WPI using the Guides as they were intended?

6th Edition:	10% UEI or 6% WPI or 11% UEI or 7% WPI
5th Edition:	13% WPI
4th Edition:	13% WPI

Why the difference?

When the 4^{th} and 5^{th} Editions were completed, a "distal clavicular resection arthroplasty" usually included removal 1 or 2 centimeters of the dis-

¹⁴ This individual is best rated by range of motion as described in Abnormal Motion of Shoulder (4th pp 41-45). This method measures the six motions of the shoulder: flexion, extension, abduction, adduction, and internal and external rotation by means of the pie charts on pages 43 to 45. The impairment values are then added "because the relative value of each shoulder function has been taken into consideration in the impairment charts" (4th p 45). Figure 38, Upper Extremity Impairments Due to Lack of Flexion and Extension (4th p 43), having only 100° of flexion is a 5% UEI and 30° of extension is a 1% UEI. Figure 41, Upper Extremity Impairments Due to Lack of Abduction and Adduction of Shoulder (4th p 44), 100° of abduction is a 4% UEI and 30° of adduction is a 1% UEI. Figure 44, Upper Extremity Impairments Due to Lack of Internal and External Rotation of Motion (4th p 45), 60° of internal rotation is a 2% UEI and 60° of external rotation is a 0% UEI. These impairments are added to yield a final rating of 13% range of motion upper extremity impairment. In addition, the resection arthroplasty of the AC joint is rated from Table 27 (p. 61) and this 10% upper extremity rating is combined with the range of motion rating, per the instructions in the arthroplasty section on pages 61-62. This results in a 22% upper extremity impairment rating. Table 3, Conversion of Impairment of the Upper Extremity to Impairment of the Whole Person (5th p 20), converts the 22% upper extremity impairment to a 13% whole person impairment rating.

tal clavicle (the joint) not just a shaving. As techniques and technology have changed, so have the impairment guides. The Guides Newsletter has addressed this concern in May/June 2002, Acromioplasty: Is It An Impairment? by Charles, N. Brooks, Sept/Oct 2005 in Acromioclavicular Joint Arthritis by Charles N. Brooks and Christopher R. Brigham, and Nov/Dec 2006, p 12. This was further clarified by the 6th Edition Errata which contains the following, "Thus, when rating rotator cuff injury/ impingement or glenohumeral pathology/surgery, incidental resection arthroplasty of the AC joint is not rated" (*p* 387, *right column, paragraph* 4).

Musculoskeletal Pain

Ms. Decker is a 47-year-old registered nurse who has been in nursing for 15 years and just started working for a new hospital one month ago as a floor charge nurse. Most of her activities are administrative with only 2 hours per day in patient contact. On her second week of work she was writing on a chart when she felt a pulling sensation in the right wrist with pain up to the elbow. It was a busy time so she was going to tough it out. Three days later the pain was worse, more diffuse, and seemed to involve the dorsal and palmar area of her hand and wrist. She does not remember any specific injury, swelling, or discoloration, but she shares that she feels her job is "very repetitive." She sought treatment from the hospital company doctor with a diagnosis of pain in limb. The condition was administratively determined to be workplace related. Not getting better and unhappy with the company doctor, she asked several physicians for hallway consults. She received a lot of suggestions that included, heat, cold, over the counter medications, splints, injections, casting, and surgery. Not sure of what advise to use, she had her family physician refer her to an orthopaedic surgeon. His diagnosis was continued pain in limb. She had 3 months of therapy, modification to activities, anti-inflammatory medications, and an anesthetic - corticosteroid injection. All treatments seemed to help for a short time. Now 9 months from the date of injury the physician suggested that she was at maximum medical improvement, that surgery was not indicated, and that he would provide an impairment rating for her continued pain in limb. She was released to return to work with a 35-pound lift limit on the right.

Current Symptoms: Intermittent, inconsistent, vague, and diffuse pain of the right wrist and forearm. She can perform her regular activities at home and work, but she has pain and does the activities slower, and takes aspirin infrequently as needed.

Functional Assessment: The QuickDASH score is 70.

Physical Exam: Showed normal appearance for the right and left upper limbs with no visible swelling. The range of motion of the right wrist in flexion, extension, radial and ulnar deviation and supination and pronation was normal. There was no localized tenderness, no signs of subluxation or carpal instability, and no deformity. Muscle strength testing by Jamar dynamometer showed poor effort, and forearm circumference measures were similar, resulting in the conclusion that the assessment of strength was invalid. All upper extremity reflexes were normal and symmetric. Her range of motion of the elbow, shoulder and cervical spine were normal. The sensory examination with two-point discrimination, monofilament and sharp (pinprick) was normal. Wrist percussion, Phalen's, reverse Phalen's, direct pressure, pronator and Finkelstein testing were normal; however, she did complain of diffuse tenderness over the dorsal and palmar aspect of the hand and wrist. Circulation was judged as normal on the basis of color, warmth, radial and ulnar artery pulses, and the absence of edema.

Clinical Studies: X-rays were normal. She had insisted on an MRI which was normal. Motor and sensory nerve conduction studies were normal for the median, radial, and ulnar nerves.

Comments:

This type of case has been frustrating for the rater; it reflects a frequent situation in which no definitive diagnosis can be made but the individual continues to have pain associated with an event or activity. The individual may or may not have a history of previous workers' compensation claims. Often the individual has little or no improvement with treatments. For lack of better label, but not diagnosis, some raters would place such symptom behavior into label of "cumulative trauma disorder." This descriptive

term remains only a label for musculoskeletal pain and is not a clinical diagnosis. Therefore, the etiology is controversial.

Consider that the Fourth Edition states, "In general, the impairment percents shown in the chapters that consider the various organ systems make allowance for the pain that may accompany the impairing conditions" (4th Edition, p 9). It also notes, "Pain is a subjective perception. Usually no exact relationships exist among the degree of pain, extent of physical change, and extent of impairment" (4th Edition, p 309). The Fifth Edition approach is stated in Section 2.5e, Pain, "The impairment ratings in the body organ system chapters make allowance for any accompanying pain" (5th Edition, p 20). Chapter 18, Pain, provides a mechanism for rating cases, providing up to 3% whole person permanent impairment in selected cases.

Therefore, the problem with previous editions was that since no objective deficit was present, no impairment could be provided. Unfortunately, this left the impression that the rater or physician did not believe the individual was experiencing pain. Therefore, the 6th Edition allows the rater to acknowledge continued musculoskeletal without a specific anatomic-pathophysiologic source. The default impairment value is 1% upper extremity permanent impairment and this impairment can be provided only once in a lifetime. Also, if this method is used, an additional impairment form Chapter 3 Pain-Related Impairment cannot be provided. In general, the basis of rating pain requires the evaluation of pain in the context of an underlying objectively defined condition that has caused a deficit or impairment. The Social Security Administration and the US Department of Veterans Affairs view pain as significant only when it is associated with mental impairment.

Musculoskeletal Pain – Summary: Sixth Edition Impairment is 1% WPI.¹⁵

¹⁵ The default approach is using the Diagnosis-Based Impairment Tables (DBI), section 15.2 Diagnosis-Based Impairment (6th p 387), and Section 15.2c Wrist (6th p 390).

Diagnosis-Based Impairment (DBI) Tables, Section 15.2 Diagnosis-Based Impairment (6th Edition, p 387), and Section 15.2c Wrist (6th Edition, p 390), Table 15-3, Wrist Regional Grid, section on Soft Tissue or Muscle/ Tendon (6th Edition, p 395), Section 15.3a Adjustment Grid: Functional

DBI requires use of section 15.3a Adjustment Grid: Functional History (6th p 406) and Table 15-7, Functional History Adjustment: Upper Extremities (6th p 406) she is assigned Grade Modifier 2; the Functional History "pain/symptoms with normal activities, able to perform self-care with modification but unassisted" and the QuickDASH score is 70 in the range of 61 - 80 puts her into grade modifier 3. The rater might consider functional history as the factor used to select the DBI and therefore should be removed from the modifier calculation. Another consideration is (6th p 406), "the examiner must assess the reliability of the functional reports, recognizing the potential influence of behavioral and psychosocial factors. If the grade for functional history differs by 2 or more grades from that described by physical examination or clinical studies, the functional history should be assumed to be unreliable. If the functional history is determined to be unreliable or inconsistent with other documentation, it is excluded from the grading process. The Functional History Grade Modifier differs by two or more from the Physical Examination and Clinical Studies Adjustment Factors; therefore it is excluded in this example. Section 15.3b Adjustment Grid: Physical Examination (6th p 407) and Table 15-8, Physical Examination Adjustment: Upper Extremities (6th p 408) she is assigned Grade Modifier 1; the physical examination revealed "minimal palpatory findings." Section 15.3c Adjustment Grid: Clinical Studies (6th p 407) and Table 15-9, Clinical Studies Adjustment: Upper Extremities (6th p 410) she is assigned Grade Modifier 1; the clinical studies "confirm diagnosis of pain in limb without other etiology." In summary, the adjustments are: Functional History Grade Modifier N/A, Physical Examination 1, and Clinical Studies Grade Modifier 1. Net adjustment [GMFH-CDX (3-1) = invalid] + [GMPE - CDX 1-1 = 0] + [GMCS - CDX (1-1) = 0] = 0 compared to Diagnosis Class 1 is 0; therefore the Grade is C (default) or 1% UEI.

Table 15-11, Impairment Values Calculated from Upper Extremity Impairments (6th p 420) this converts 1% UE to 1% WPI.

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Table 15-3, Wrist Regional Grid, section on Soft Tissue or Muscle/Tendon (6th p 395), for the Diagnosis "Wrist pain" there is a Class 1 rating for nonspecific wrist pain post acute injury or surgery (not otherwise specified)", with Class 1, history of painful injury, residual symptoms without consistent objective findings (this impairment can only be given once in an individual's lifetime) with a default impairment of 1% upper extremity. This case probably does not fit the diagnosis of Wrist sprain/strain as no specific injury occurred.

History (6th Edition, p 406) and Table 15-7, Functional History Adjustment: Upper Extremities (6th Edition, p 406) the Functional History Grade Modifier, Net adjustment.

Sixth Edition Impairment is 1% UE or 1% WPI.

Fifth Edition Impairment is 0% WPI.¹⁶

Section 16.7d Tendinitis (5th Edition, p 507).

Fifth Edition Impairment is 0% UE or 0% WPI.

Fifth Edition Impairment is 0% WP. Another approach would be to consider rating by Chapter 18, Pain, if the individual is credible and the diagnosed condition has a well-defined pathophysiologic basis. However, in this case, the pain complaints were diffuse, beyond a specific anatomic distribution, and there was no documentation of limitation in the performance of activities of daily living. In addition, the instructions give a three-question test to determine whether use of the pain chapter is appropriate. If the answer to any of the three questions is "No," the chapter is not to be used. The third question is, "Is the condition one that is widely accepted by physicians as having a well-defined pathophysiologic basis?" In musculoskeletal pain sometimes called cumulative trauma disorders, there is no objectively definable pathophysiology, and the source of her pain is undetermined.

¹⁶ Section 16.7d Tendinitis (5th p 507) says: "Several syndromes involving the upper extremity are variously attributed to tendinitis, fasciitis, or epicondylitis. Although these conditions may be persistent for some time, they are not given a permanent impairment rating unless there is some other factor that must be considered." Further, it would not be appropriate to rate by strength loss, since the Guides states, "Decreased strength cannot be rated in the presence of decreased motion, painful conditions." (5th p 508) Therefore, there is typically no ratable impairment by Chapter 16, The Upper Extremities. This was further confirmed by the AMA Guides Newsletter of 2003 May-June Issue. No example of impairment rating is provided in the companion text, "The Guides Casebook – Cases to Accompany Guides to the Evaluation of Permanent Impairment Fourth or Fifth Edition."

Fourth Edition Impairment is 0% UE converted to 0% WPI.¹⁷

Page 19, titled "Cumulative Trauma Disorder," in Section 3.1a.

Fourth Edition Impairment is 0% UE or 0% WPI.

Comparison of Guides:

1. What do you believe is the correct rating UEI or WPI using the AMA *Guides* as they were intended?

6th Edition:	1% UEI or 1% WPI
5th Edition:	0% UEI or 0% WPI
4th Edition:	0% UEI or 0% WPI

2. Considering the fact that both plaintiff friendly and defense friendly raters can "distort" the AMA *Guides*, what is the rating you have seen for this case?

6th Edition:	1% to 2% WPI
5th Edition:	0% to 15% WP
4th Edition:	0% to 15% WP

3. How long did it take you to complete this impairment evaluation in minutes for each *Guide*?

6th Edition:	20 minutes
5th Edition:	5 minutes

¹⁷ The fourth edition is unique as it has a section on page 19, titled "Cumulative Trauma Disorder," in Section 3.1a, Evaluation that says, "A patient with wrist or hand pain or other symptoms may not have evidence of a permanent impairment. Alteration of the patient's daily activities or work-related tasks may reduce the symptoms. Such an individual should not be considered to be permanently impaired under Guides criteria." Chapter 15, Pain is not applicable. Since there are no physical findings that would allow for application of the Guide, for example, no ROM loss, no neurologic loss, or no vascular loss.

4th Edition: 5 minutes

General Comparisons Between 6th and 5th Edition

Please remember that the following tables are based on the original 6th Edition and that the impairments may have changed now that the Errata is available. The approach for the impairment table was consistent for each example. The example number is from the 6th Edition and then the same example using the information contained in the 6th Edition was applied to the 5th Edition.

Upper Extremity Diagnosis-Based Impairment Examples					
Example	Region	Class	Diagnosis	Sixth Edition Impairment (WPI %)	Fifth Edition Impairment (WPI %)
15-1	Digit	0	Stenosing tenosyno- vitis, resolved with surgery	0%	0%
15-2	Digit	1	Fracture metacarpal	1%	0%
15-3	Digit	1	Stenosing tenosynovi- tis, symptomatic	1%	2%
15-4	Digit	2	Distal interphalangeal joint dislocation, reduced	2%	3%
15-5	Wrist	0	Contusion	0%	0%
15-6	Wrist	1	Ganglion cyst	2%	0%
15-7	Wrist	3	S/P Wrist Fusion	17%	18%
15-8	Elbow	0	Lateral epicondylitis	0%	0%
15-9	Elbow	1	Distal biceps tendon rupture	4%	6%
15-10	Shoulder	1	Nonspecific shoulder pain	1%	0%
15-11	Shoulder	1	Status post rotator cuff repair	4%	3%
15-12	Shoulder	2	Total shoulder arthro- plasty	13%	14%
Average				4%	4%

Table 3

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Lower Extremity Diagnosis-based Impairment Examples					
Example	Region	Class	Diagnosis	Sixth Edition Impairment (WPI %)	Fifth Edition Impairment (WPI %)
16-1	Foot and ankle	0	Contusion	0%	0%
16-2		1	Plantar fasciitis	1%	0%
16-3		1	Ankle instability	2%	2%
16-4		2	Bimalleolar fracture	8%	9%
16-5		3	Ankle arthritis	10%	12%
16-6		5	s/p Total ankle replacement with poor result	24%	30%
16-7	Knee	0	Knee strain, resolved	0%	0%
16-8		1	Meniscal tear	1%	1%
16-9		1	s/p Anterior cruci- ate reconstruc- tion and medial meniscus repair	5%	4%
16-10		2	Subluxing patella	6%	3%
16-11		3	s/p Total knee replacement	15%	20%
16-12		4	Knee arthritis	20%	20%
16-13	Hip	0	Contusion	0%	0%
16-14		1	Hip dislocation and relocation	1%	0%
16-15		3	Hip fracture	12%	25%
Average				7%	8%

Table 4

Spine Impairment Examples					
Example	Region	Class	Diagnosis	6 th Edition Impairment (WPI%)	5 th Edition Impair- ment (WPI%)
17-1	Cervical	0	Cervical sprain/strain	0%	0%
17-2	Cervical	1	Intervertebral disc hernia- tion (cervical disc herniation with resolved right-sided C6 radiculopathy)	6%	7%
17-3	Cervical	1	Intervertebral disc hernia- tion or AOMSI at a single level (s/p nucleus pulpo- sus and anterior cervical discectomy) and fusion at C5-6 with intermittent left arm pain	7%	25%
17-4	Cervical	2	Intervertebral disc hernia- tion or AOMSI at a single level (cervical disc hernia- tion with C8 radiculopathy)	12%	18%
17-5	Cervical	3	Intervertebral disc her- niations and AOMSI at multiple levels (cervical disc herniations at 2 levels, with unresolved Radiculopathy at single level)	12%	23%
17-6	Cervical	4	Vertebral fractures at multiple levels (vertebral fracture with C4-7 fusion and unresolved radiculopa- thy at 2 levels)	29%	23%
17-7	Thoracic	0	Thoracic sprain / strain (postural discomfort)	0%	0%
17-8	Thoracic	1	Intervertebral disc hernia- tion or AOMSI at one or more levels (HNP T1-2 with thoracic radiculopathy at T2)	4%	5%

Table 5

17-9	Thoracic	3	Vertebral fractures at multiple levels (compres- sion fractures of T7 (40%) and T8 (60%) treated with vertebroplasty)	12%	10%
17-10	Lumbar	0	Lumbar sprain/strain (non-specific low back pain, resolved)	0%	0%
17-11	Lumbar	1	Intervertebral disc hernia- tion or AOMSI at a single level (herniated nucleus pulposus L5-S1, left, now asymptomatic)	0%	0%
17-12	Lumbar	1	Recurrent low back pain without objective findings (recurrent low back pain without objective findings on examination or clinical studies)	1%	5%
17-13	Lumbar	2	Intervertebral disc hernia- tion or AOMSI at a single level (lumbar disc hernia- tion, L4-5, left posterolat- eral, with left L5 radicul- opathy)	12%	10%
17-14	Lumbar	2	Intervertebral disc hernia- tion or AOMSI at a single level (s/p lumbar fusion at L4-5 with persistent L5 radiculopathy)	13%	25%
17-15	Lumbar	3	Intervertebral disc hernia- tion or AOMSI at multiple levels (lumbar disc her- niation L5-S1 with multiple level fusion)	19%	18%
Average				8%	8%

Summary of the 6th Edition AMA Guides

The 6th Edition reflects a very substantial change in how impairments are determined. Although the methodology has added significantly to the time required to complete the evaluation, the impairment values are similar (when calculated appropriately) for many common diagnoses in the 4th, 5th, and 6th Editions (Brigham, Rondinelli, et al., 2008).⁶ Intentional or unintentional erroneous ratings with prior editions often occurred because unreliable examination findings were used to define impairment. The potential for errors in determining impairment with the 6th Edition will occur with inaccurate diagnosis resulting in assignment to an inappropriate diagnosis class or by misclassification of the grade within the diagnosis class.

With each new edition of the AMA *Guides*, "corrections" have been made for real or perceived problems and abuses of previous editions that have undermined the goal of the AMA *Guides* to provide a valid, fair, and unbiased impairment.

Conditions that did not previously receive impairments, such as non-specific musculoskeletal pain and lateral epicondylitis are now ratable. The emphasis has shifted from types of treatments to end-result and impact on the individual.

When assessing the impact of the 6th edition it will be important to carefully define the baseline. Previous criticisms of the AMA *Guides* have been the wide range of impairments that were or could be provided for a similar condition. The baseline should be established by using "expert ratings" that are consistent with the appropriate application of current and previous Guides. With the diagnosis based impairments, the 6th Edition impairment ratings for both the novice and the expert should be very similar. Previous comparative studies of ratings performed by the 3rd Edition, 3rd Edition Revised, 4th Edition, and 5th Edition concluded that the 4th and 5th Editions were more complex than the 3rd Edition and, in general, required more time to complete and often resulted in a lower rating (Brigham, Mueller et al., 2004).⁷

The Future

It will be months before each of the interested parties becomes familiar with the 6th Edition and its impact on their "turf." The process of defining impairment and understanding the complexities of human function are not perfect. Therefore the process of "creating" the AMA *Guides* is still in evolution. Although I seldom like change, the 6th Edition has some merit and I look forward to the opportunity to improve the 7th Edition.

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Introducing Identity Resolution

A New Approach to Workers' Compensation Fraud

Charles Clendenen

Abstract

Workers' compensation fraud is a serious problem for the various workers' compensation systems administered by states nationwide. The Ohio Bureau of Workers' Compensation, for example, estimates that they pay as much as \$320 million annually in fraudulent claims (2008). This paper briefly reviews the three major classes of workers' compensation fraud, i.e., fraud committed by medical providers, by employees making claims, and by employers who avoid paying premiums. The article then introduces a new technology, called "identity resolution," that is being applied to the workers' compensation employer fraud problem. Next, the software and how it works is described, followed by a discussion of the return on investment (ROI) that agencies may expect to derive through better detection of employer fraud.

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If there is one topic that unifies all parties involved in workers' compensation, that topic is the desire to eliminate fraud. Whether it is created by the employer/insurance company or the employee, there is no place for fraud in the system and legitimate efforts to eliminate it are worthwhile.

_- Leonard T. Jernigan, Jr., Larson's merging Issues and Trends

Despite volumes of information written every week about workers' compensation fraud committed by employees and medical providers, employers who fraudulently avoid paying premiums may constitute an even more significant threat to the health of state insurance funds. This article discusses three types of workers' compensation fraud and examines a new technology called identity resolution that is being used to improve airline passenger screening. The same technology can be applied to make the process of finding potential employer fraud easier and more cost-effective than current methods.

The Workers' Compensation Problem

The results of a survey by Navigant Consulting conducted for the Bureau of Audits in California highlight the serious problem fraud has become for the various workers' compensation systems administered by states nationwide. The "Workers' Compensation Medical Payment Accuracy Study" published June 17, 2008, does not break out fraud as a separate category, but it estimates that more than 20% of total payments were "errors" (Navigant Consulting, 2008, p. 18). Over \$1 billion in payment errors were processed in a single year in California alone (Navigant Consulting, 2008, p. 26).

The Ohio Bureau of Workers' Compensation estimates that they pay as much as \$320 million annually in fraudulent claims (Ohio Bureau, 2008). Here is their definition:

Fraud is defined as an intentional act or series of acts resulting in payments or benefits to a person or entity that is not entitled to receive those payments or benefits. Fraud is committed when a person:

- Knowingly receives benefits which he or she is not entitled to receive by law;
- Makes false or misleading statements for the purpose of receiving money or services;
- Enters into a conspiracy to defraud the Ohio State Insurance Fund or self-insuring employer under the Workers' Compensation Act.

Studies conducted by other states, e.g., Texas and Florida, demonstrate similar levels of errors. A small portion of the errors were thought to be administrative mistakes, but these studies made it clear that a significant percentage of errors are potentially the result of fraudulent activity, and anti-fraud efforts in several states are confirming that workers compensation fraud is a significant problem.

While the total aggregate amount of money lost to workers' compensation fraud and abuse of the system may be in dispute, the numbers almost certainly run into the billions nationwide. While many states use technology to address fraud and abuse, a problem this large and costly, involving millions of persons and transactions annually, deserves the assistance of state-of-the-art technology designed for dealing with fraud.

Those involved in bad acts know that their behavior is dishonest, so they try to hide their activities in various ways:

- by making transactions look as normal as possible,
- by obfuscating identity information, and
- by hiding their relationships with other players in the system.

Both traditional and emerging technologies must be applied to stay abreast of the bad actors. No single technology is best for identifying and investigating all types of fraud. The processes of uncovering and verifying indicators of fraud are called *screening* and *targeting*. First, data is screened to identify potentially fraudulent entities and transactions. This is typically an automated process. Next, an investigator who understands the characteristics of true fraud targets (drills down on) the suspicious activity to determine whether fraud is, in fact, taking place. When a domain expert finds likely fraud, emerging technologies can now find even more hidden relationships within previously obscured and obfuscated data, providing additional leads to pursue once the investigator identifies probable fraud.

Types of Workers' Compensation Fraud

Identifying and employing the right software in this struggle requires an understanding of the types of workers' compensation fraud that are burdening the system. There are three types of workers' compensation fraud: medical provider fraud, employee claims fraud, and employer premium fraud (New York State Workers' Compensation Board, 2008).

Medical Fraud

Medical providers can be involved in fraudulent transactions in several ways. They may charge for products and services never provided, or they may charge for more expensive treatments or unnecessary goods or more services than is medically necessary. Fraudulent providers sometimes conduct these activities independently, or at times they conspire with employees being treated. Sometimes attorneys may be involved in fraud rings in collaboration with medical service providers and claimants desiring to make some "free" money.

Since this type of fraud is similar to Medicaid fraud, states and insurers with experience in this area tend to employ the same sort of data mining software (statistical analysis, pattern recognition, neural networks, etc.) to sift through large and complex data sets in order to identify provider fraud. This is an appropriate application of technology for the fraud detection stage. However, not every suspicious transaction is fraud. Once potential fraud is identified, different software capabilities are needed to drill down and confirm the suspicions raised by data mining technology. While the process of drilling down should focus on individual data records and attributes, it should simultaneously uncover important relationships between other data elements and entities.

For example, if a batch process finds potential fraud, and a domain expert confirms that the activity is probably fraudulent, an investigator may want the software to search the relevant information (attributes) from this newly found information against all the available data. If hidden or difficult-tofind relationships exist, it might indicate that more than one person or entity is involved. In other words, the software casts a wide net to catch potential fraud, and when a data record confirms probable fraud, the software casts a net again in a more targeted fashion to catch more fish of the same type.

Employee Fraud

Employee claims fraud is the type perhaps best known to the general public. There is a constant flow of news stories about individuals who either qualify themselves for workers' compensation benefits by lying about or exaggerating the actual extent and severity of their injury, or else they continue to draw benefits long after they have recovered and are working at another job. Sometimes these individuals are caught when their benefit records are matched with new employment records, but often they are apprehended through the efforts of fraud investigators using traditional detective techniques. Bear in mind that even the most suspicious cases sometimes turn out to be something other than fraud. Technology must always be coupled with human judgment.

Employer Fraud

Employer premium fraud, while less publicized, can involve millions of dollars in unpaid or underpaid premiums and can cause much more damage to the insuring agency. Employer premium fraud can take several forms. In order to avoid paying premiums, a company's owners may illegally classify permanent employees as contractors. Alternately, they may operate for some time without paying their premiums, and then when the insurer is about to take action, they simply shut down the company on paper and reconstitute it under another name. Companies also use this "going out of business" ploy in cases where their experience (or modification) rating has gone up due to multiple injuries, thereby resulting in higher premiums. By reopening as another company, they can effectively reset their experience rating.

According to New York State's Workers' Compensation Board (2008), other employer fraud (or related bad acts) methods include:

- Under-reporting the number of employees,
- Misrepresenting the nature of the work performed by the employee,
- Misrepresenting past loss experience,
- Misrepresenting the company's ownership,
- Forcing employees to pay premiums that should be paid by the business,
- Discouraging employees from seeking medical treatment,
- Falsely informing an employee that workers' compensation benefits, are only available if he or she has been employed for six months or more, and
- Getting kickbacks from medical providers for referrals.

Employer fraud is not uncommon, and it can be very difficult to identify without the help of sophisticated software, such as identity resolution solutions. To support all their fraud detection and investigation efforts, workers' compensation stakeholders need the best technology available. Given the realities of today's economy, neither states nor employers can afford fraud and abuse of the workers' compensation insurance systems. Even a modest investment in the fight against fraud likely will result in a significant return.
How Identity Resolution Technology Works

The events of 9/11 accelerated the development of technologies that help find persons intending to cause harm using airplanes. What these wouldbe terrorists share with other fraudsters is a desire to make their identity difficult or impossible for traditional screening technologies to detect. They do this by modifying portions of the attributes associated with their identity.

Identity resolution software looks at who you are, whom you know, and to what you are connected. It analyzes all the information known about an entity in order to determine whether that entity is a good citizen, customer, organization, or company, or whether instead the entity poses a risk or threat that should be identified and flagged for further investigation. In addition, identity resolution software finds hidden connections that expose fraud networks.

Simply stated, identity resolution technology reveals who's who and who knows whom across multiple, unique data sources containing both structured and unstructured data. An all-encompassing view of internal and external interactions with employees, customers, vendors, and organizations helps to distinguish good from bad, to assess fraud patterns and risk, and to implement and enforce sound policies. Without this information, organizations are much more vulnerable to deception, fraud, and theft.

So how does identity resolution software actually work? First, it aggregates information from multiple existing data stores in order to form a clear, composite depiction of the identity of an individual or other entity (e.g., a company). It then applies sophisticated search algorithms to calculate the distance between search and target attributes. Example attributes for an individual might include name, address, SSN, phone number, and employer's name. Based on the similarity of these multiple attributes, it presents a unified view and it highlights otherwise hidden relationships.

Table 1 shows two different identities for the same person from two different data sources. Note that almost every attribute is different and would

therefore not be identified as the same person by traditional systems, yet to a human being it is quite clear that these two identities are the same person. The similarity search capabilities of identity resolution solutions easily automate the handling of ambiguity.

Attribute	Identity #1	Similarity Search Score	Identity #2
First Name	Michelle	95%	Shelly
Last Name	O'Brian	90%	OBryan
Company Name	HARMAN INTL. IND. INC.	95%	HARMAN INTERNATIONAL INDUSTRIES, INC.
Street Address	3550 Twisted Oak Drive	93%	3505 Twisting Oaks
City	Jacksonville	90%	Jackson
State	Florida	100%	FL
Zip Code	35035	91%	35305
Passport ID	MY255909	87%	MJ225090
License Plate	510 B81	82%	SIO 13B
Eye Color	Hazel	90%	Green
DOB	4/11/56	92%	11-4-1956

Table 1 Identity Comparisons across Data Sources

Identity resolution presents a unified view of individuals with multiple identities. Just as important, comprehensive identity resolution technology uncovers hidden relationships between individuals, whether they are employees, medical providers, or employers.

Applying Identity Resolution to Workers' Compensation Employer Fraud

While identity resolution technologies can be applied to employee and provider fraud, they are particularly effective at uncovering employer premium fraud. Finding companies who are not registered for workers' compensation involves comparing databases where companies are advertising themselves as open for business to lists of businesses registered with state workers' compensation programs. The results can highlight companies who have not registered or are not paying premiums, companies who have changed their name often, and companies involved in hidden contractor/ subcontractor relationships. The IRS, other state agencies (e.g., Secretary of State corporation registration, professional licensing, construction permits), and third-party data providers (e.g., Dun & Bradstreet) are good sources of company data.

As stated earlier in this article, some businesses avoid paying workers' compensation by changing their names and identifying data regularly. By analyzing multiple data attributes (company name, owner name, address, phone number, etc.) across multiple state databases, identity resolution software can find matching entities and draw connections between people, places, and things that indicate fraud is likely occurring.

If a contractor hires subcontractors, the hiring contractor is responsible for covering his own workers' compensation, and the subcontractors are supposed to carry their own insurance. Identity resolution software can search multiple data sources to find those who don't have valid workers' compensation (e.g., a licensed HVAC subcontractor falsely claiming the contractor is carrying insurance).

Return on Investment

For organizations that devote budget to fraud detection technology and resources, cost savings as well as revenues generated through increased premium collections more than pay for the investment. In their Annual Fraud Reports to the Legislature, Washington State's Department of Labor and Industries (L&I) described their Return on Investment (ROI) through vigorous anti-fraud efforts. In 2006 L&I employer audits identified assessments totaling nearly \$21 million; investigations of claimants prevented the loss of over \$15 million; and medical provider reviews resulted in the collection of nearly \$500,000 in improper billings (Washington State Department of Labor and Industries, 2006, p. 6-9). These figures represent a return of \$10.20 for every \$1 spent in anti-fraud efforts.

Washington State attributes these savings to an increase in fraud fighting capability, faster collections, funding for technology advances, and better communications and referrals across the various programs in the department. Additional investment in 2007 brought a major increase in investigation efficiency over 2006, and return on investment achieved a nearly 10 to 1 ratio (ten dollars saved or recovered for each dollar invested).

Besides the monetary savings, 20 fraud cases were referred for prosecution in 2006 and an additional 13 were referred in 2007 (Washington State Department of Labor and Industries, 2007, p. 13). These prosecutions are expected to have a deterrent effect on those who would scam the system.

How to Invest in Anti-Fraud Efforts?

Washington State's investments in applying human capital, technology, and legislation against fraud provide significant benefits to their workers' compensation system. When states evaluate what kinds of investments to make, the answer depends on the type of workers' compensation insurance they have in place. States with exclusive or competitive workers' compensation insurance systems can invest directly by maintaining their own compliance or anti-fraud programs within their workers' compensation departments. States with no investigation or enforcement arm need to pass anti-fraud legislation that mandates oversight to verify that private insurance carriers comply with anti-fraud insurance laws.

In either case, adding identity resolution can significantly increase investigator productivity by prioritizing the potential fraud cases that are detected and can provide significant return on investment by uncovering fraud, preventing loss, and aiding in collection from or the prosecution of fraudsters. In short, there is ample and convincing evidence that antifraud investments (increased staff, more effective technology, and better laws on the books) pay for themselves many times over.

Conclusion

Data mining is still an excellent way of screening large and complex data stores to identify patterns that indicate potential fraud. Newer identity resolution and relationship detection software, however, is emerging as a method of enhanced data screening and discovery of suspicious relationships that reflect fraudulent activity. And identity resolution, coupled with relationship detection and visualization capabilities, is a promising new technology for investigators to use for drilling down on information relating to individuals and rings suspected of fraud.

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Editor's note: As sought under the procedures of this Journal, the author has disclosed that his employer, Infoglide Software sells a product that might be of interest to readers in the field of workers' compensation claims.

Preventing Further Harm to the Harmed – Towards a Therapeutic Approach to Workers' Compensation

Robert Guthrie* and Stephen Monterosso**

Abstract

Workers who contract disease or who are injured in the course of their employment not only suffer the consequences of a work injury or disease in terms of disability and impairment. In addition some workers are subjected to a myriad of claims procedures, medico-legal investigations, dispute processes and surveillance which retards recovery and produces further assault on the workers' physiology and psychology. The delay in recovery for these workers has economic consequences for them, the employer and the economy as a whole. The consequences of this double harm frequently arise out a deep scepticism directed towards claimants. Often inexperienced claimant litigants seek workers' compensation income support from government and corporate agencies who are frequent players in a complex legal and medical system. This paper sets out to develop guiding principles by which a

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workers' compensation system should operate. Based on the principles of therapeutic justice and adopting a principle of Above all, Do no Harm, the paper posits that systems of income support for disability and impairment should be premised not only on the provision of adequate income support for workers who are harmed through work, but also on the prevention of further harm to the worker through bureaucratic claims processes, over zealous claims management and lack of good faith in claims handling. It asserts that having such guiding principles provides a sound economic, medical and ethical basis for income support.

Introduction

This first part to this paper draws on the seminal work of Canadian Researcher Katherine Lippel who initiated a dialogue on the therapeutic and anti-therapeutic consequences of workers' compensation systems (Lippel, 1999). Her paper Therapeutic and Anti-Therapeutic Consequences of Workers' Compensation published in 1999 drew on the work of Wexler (1997) relating to the principles of therapeutic jurisprudence, provides an important perspective on personal injuries claims. Lippel outlined a number of concerns with the existing workers' compensation schemes in United States and Canada, observing that whilst such schemes had been established for the benefit of workers there was evidence that workers' compensation schemes had serious negative outcomes for some workers. She noted that tort systems have been acknowledged as being effective in allowing an injured person in 'having their day in court' to tell their story and to empower that individual in being part of a process which sent a message to the defendant that the plaintiff had been wrongly harmed. However, she also argued that the anti-therapeutic affects of this system outweighed the positive effects (Lippel, 1999, p. 524).

These anti-therapeutic effects include long delays in the litigation process often resulting in, at least interim, poverty for claimants, hostile working environments and reduced prospects of full return to work (Lippel, 1999, pp. 524-5). Interim poverty might be bought about for some workers by administrative delays in payment and long term litigation. Hostile workers environments can result from the development of adversarial approaches

when employers and workers adopt positions in line with interests which are not shared. This may arise where a claim for compensation has been denied. Lippel also observed in more general terms that;

While many assume that workers in the compensation system behave in the way they do because they have an economic incentive to do so, few have looked at the system itself to find out how the process impacts on the mental health of the claimant. ...Injured workers have often demonstrated behaviour that would lead one to believe that the system itself is, if not directly responsible for, at least causally related to, psychiatric injury that can have nefarious consequences, not only in terms of lost work days but far more importantly, on the long-term health of the worker (Lippel, 1999, p. 527).

Workers' compensation systems do alleviate some of the anti-therapeutic effects of tort systems by providing, in most cases, rapid payments of income maintenance and medical treatment, which reduces the potential for dwelling on the circumstances of an injury or disease (Lippel, 1999, p. 541). However opportunities for blaming still arise in workers' compensation systems. These opportunities arise around questions concerning the causation of a workers disability, the level of incapacity and the requirement for ongoing medical and related treatment. As a consequence there are many points of tension in workers' compensation systems. A number of studies confirm that workers experienced the workers' compensation system as cumbersome, frustrating and demeaning (Strunin & Boden, 2004, p. 345). Workers' compensation systems are also characterised by allegations of fraud by workers resulting in stigmatisation of claimants (Beardwood, Kirsh & Clark, 2005, p. 31). There is evidence that some of these effects slow the recovery and return to work of the injured (Dichraff, 1993, p. 491).

No fault workers' compensation systems were initially developed in United States and Australia to reduce the anti-therapeutic affects of torts systems. These systems would, in theory, avert hostile litigation and eliminate the need to blame the employer (Lippel, 1999, p. 527). The historical reasons for the adoption of no-fault schemes varied somewhat. In the United States no-fault workers' compensation schemes were adopted in the early part of the 20th Century in a historic bargain between employers who agreed with workers to accept workers' compensation liabilities on condition that workers abandon rights to bring negligence actions against them (Purse, 2005). In Australia, tort law co-existed with workers' compensation until the 1980s when some State and Territory jurisdictions abolished workers rights to bring negligence actions against employers.¹ Other States and Territories either retained tort law rights or imposed limitations upon workers access to tort law by implementing gateways or thresholds which allowed access to tort only where the worker was severely injured.²

It is also important to note that in both the United States and Australia due to the range of statutory entitlements and obligations covered in each jurisdiction cross-jurisdictional comparisons are often difficult. This is certainly true of the United States with 50 different systems. Likewise in Australia with 10 workers' compensation systems in operation it is useful to note in the context of this article that certain administrative differences arise which may ameliorate or in some cases aggravate some of the anti-therapeutic effects of the systems. For example, in some jurisdictions employers are obliged to make payments of the first week or two for lost injury time before a workers' compensation insurer commences indemnity. Such systems may actually reduce delays in workers' compensation payments in some instances. Further, in Australia workers' compensation payments are taxable, and are generally paid at the rate equivalent to average weekly earnings. However in some jurisdictions in the United States workers' compensation payments are not taxed, which may reduce outgoings for employers and insurers and allow statutory benefits to be paid for longer periods. The historical differences between the United States and Australia may have also influenced later responses to the operation of workers' compensation systems. In particular there has been a different response to the acceptance of the tort of breach of good faith in relation to workers' compensation claims management.

¹ South Australia and Northern Territory

² Western Australia and Victoria

The purpose of this paper is, in part, to revisit Lippel's work in the Australian context, and in part to propose the adoption of a therapeutic approach within the Australian systems based on a principle of *Above all*, *Do No Harm*. This paper will firstly consider the issue of causation in the context of workers' compensation claims, and then it will examine the evidence of workers' compensation fraud in Australia. It will then briefly consider the development of the tort of breach of good faith in workers' compensation claims in Australia, contrasting this with the United States response. Finally, the paper will develop the principle of *Above all*, *Do No Harm* as it could be applied to workers' compensation claim management and will attempt to provide a blueprint for this approach.

Causation

All Australian workers' compensation jurisdictions predicate acceptance of a workers' compensation claim on the proof of three essential thresholds. First, that the injured person is a *worker*. For the purposes of the present paper the legal formulae which determines whether a person is a worker is not central to this discussion. However, it is worth noting that in many cases the legal relationship between the injured person and the person or body which has engaged them is complex and only resolved by lengthy litigation which in most cases is not conducive to the return to work or physical or mental recovery of the worker. Second, and importantly for this discussion, the worker is required to prove the causal connection between their injury or the contraction of a disease and their employment before they can establish a claim. Third, and related to the second issue, compensation is preconditioned upon the requirement to prove that the injury or disease causes incapacity.

Thus, the question of causation features in two of the preconditions for a successful workers' compensation claim. Difficulties with causation are potentially a feature of any claim; however, they consistently feature as concerns in relation to musculo-skeletal conditions, so-called stress claims and

Repetitive Strain Injury (RSI)³ claims in particular which are difficult to assess and measure empirically (Strunin & Boden, 2004, p. 342). As a consequence, first line workers' compensation administrators (in Australia, this is generally private insurers) develop an institutionalised scepticism for such claims. In some instances because of the continual weighing of evidence which takes place in relation to these claims the dignity of the claimant may be affected (Strunin & Boden, 2004, p. 342; Lippel, 1999, p. 538). Lippel (1999, pp. 530-532) has also noted that in some instances gender plays an important part in the determination of workers claims, particularly where there is a concentration of a certain adverse health outcomes in portions of the workforce dominated by women. The need to prove the relationship between work and the injury, (or disease) and continually establish ongoing incapacity, frequently involves the worker in medical examinations, which do not assist in the process of medical recovery or treatment and often make the workers condition worse (Lippel, 1999, p. 534). Lippel notes that:

As with all medico-legal issues, cases raising issues of causation expose the worker to multiple medical investigations and the necessity of repeating their personal medical history and the evolution of their current injury. Thus anti-therapeutic consequences...will arise continually as the causation issue is presented. It is common to see causation questioned several times during a claim. First, when the initial claim is examined. Then once the injury is judged to be work related, corollary questions as to the duration of disability, the nature of the permanent disability and the functional limitations will follow. All these issues allow for a debate on causation (1999, p. 535).

³ RSI is not a universal label. It is used in Australia and New Zealand as well as Occupational Overuse Syndrome, which is said to be a subset of Musculoskeletal Disorders. In Europe, the term Work Related Musculoskeletal Disorders is used. Repetitive Motion Trauma is adopted in the USA where the condition is also referred to as Cumulative Trauma Disorder. In Japan and Scandinavia it is known as Occupational Cervicobrachial Disorders.

The repetition of medical history continually focuses the workers mind on their disability and the need to prove that an injury has been suffered; that it causes pain and limits capacity for work. The cumulative effect of this is, in some cases, the creation of psychological barriers to healing. Continual scrutiny, if not overt surveillance, are features of most workers' compensation systems. (Strunin & Boden, 2004, p. 342). This may not always be anti-therapeutic. For example, it is hard to argue against the attention given to those workers who are provided with early intervention assistance to aid return to work. However, the payment of compensation by income maintenance, which is a feature of all Australian jurisdictions, means that the worker is under constant scrutiny in relation to earning capacity.

Leaving aside problems that can arise when claims are disputed and payments are delayed other issues can arise because of this form of periodic payment (Strunin & Boden, 2004, p. 342). Income maintenance systems make periodic payments subject to the workers capacity to earn. As the workers condition improves, the income maintenance payments are reduced. This is because payments are linked to the workers ability to earn and as the workers capacity to work improves the potential to earn increases and accordingly insurers move to reduce workers' compensation payments. Lippel (1999, p. 539) argues that experience rating, which is the process of assessing workers' compensation premiums for employers based on their accident/disease record also provokes scrutiny of claims and incites adversarial approaches as employers seek to protect their premium rates by contesting claims. The link between injury and disease rates and insurance premiums may also lead to forms of employer fraud discussed below. The causation concern is linked inextricably with the need for medico-legal examinations. As Lippel notes:

Ison's research has shown the necessity of proving causation in workers' compensation schemes leads to a multiplicity of nontherapeutic medical evaluations, including invasive tests designed not to better treat the worker but to show the cause of the disability. In cases of injuries that could be caused by a variety of circumstances, stressful litigation adds to the multitude of medical exams. Ison argues that a compensation system based on disability rather than cause would reduce the litigious aspects of current compensation systems, allowing for rapid recovery without exacerbating medico-legal complications (1999, p. 526).

Ison's work focussed mainly on the Canadian context, although these findings seem to have some universal application. Strunin and Boden conducted a study of self-reported experiences of workers' compensation claimants with back injuries in Florida and Wisconsin in the United States (2004, p. 341). At the time of their study, Wisconsin was regarded as a low litigation jurisdiction, which allowed workers the right to seek medical care of their choice at the employer's expense. Florida employers, by contrast, did not pay for treatments that were not provided at the employer's request. In Florida the employer had the right to choose the treating physician. The findings of this study are interesting in the context of a therapeutic approach. First, Strunin and Boden found that workers, in both jurisdictions, who reported a positive rapport with the employer's workers' compensation insurer found these relationships to be caring and supportive. However, they found that more workers described problems with interactions with workers' compensation than reported positive experiences. Overall, workers in both jurisdictions found their experiences in the workers' compensation system to be cumbersome, frustrating and demeaning. This conclusion is supported by Niemeyer who found that workers experience of compensation systems was that they felt demoralised and invalidated in circumstances where their credibility was put in issue (1991, p. 264). The issue of credibility has been noted by Lippel who referred to Ison's research:

Ison has shown how medico-legal issues adversely affect the worker's relationship to his doctor, how the mere fact that an injury could be compensable sometimes dissuades a physician from accepting a worker as a patient, and how the adversarial atmosphere surrounding contested claims may incite workers to exaggerate their symptoms, the more they are confronted with manifestations of disbelief (Lippel, 1999, p. 526).

Interestingly, Strunin and Boden found that the experience of workers in Wisconsin was much the same as those in Florida, perhaps because although workers had the right to chose medical care they were more likely to have problems with the insurer in paying for that treatment. Some workers were so frustrated with the insurer delays they applied for payment of medical expenses through their own health insurance (Strunin & Boden, 2004, p. 345).

This United States research is mirrored in Australia. Roberts-Yates (2003) researched the issues and concerns of injured workers in relation to workers' compensation claims in South Australia and found that the workers she interviewed considered that the workers' compensation claims procedures added to their disability and created stress. She found that workers felt they were portrayed as abusing the system, but had no option but to endure this stigma. Workers considered that the perceived belligerence of some workers could be explained by the sense of grief experienced through lost careers, status, friendships and financial status.⁴ She recommended a paradigm shift in claims management towards a partnership based relationship with workers to develop quality injury management processes.⁵ She also noted the importance of focussing on the return to work (Roberts-Yates, 2003). Similar outcomes were noted in a Western Australia survey completed in 2007, which found that 'nearly three in ten respondents indicated that they felt the process of making a workers' compensation claim had made things worse for them'. This survey found that: "being fit to go back to work, feeling pressured by the insurance company, being offered part-time work and a worker's family wanting them to go back to work were statistically influential in a worker's decision to return to work" (WorkCover WA, 2007).

⁴ A very similar investigation was carried out in Canada with almost identical conclusions, see Beardwood B A, Kirsh B & Clark N J Victims (2005).

⁵ This is also advocated in Beardwood B A, Kirsh B & Clark N J (2005) and Kirsh B & McKee P (2003).

The importance of return to work surfaced as a key issue following a major inquiry into workers' compensation fraud in Australia during 2002-3. The inquiry was conducted by the Australian Government House of Representatives Standing Committee on Employment and Workplace Relations, which produced the report *Back on the Job: Report into aspects of Australian workers' compensation schemes* (The Parliament, 2003). The Standing Committee considered evidence from participants in all Australian jurisdictions in relation to return to work issues, but also importantly in relation to fraud in workers' compensation systems. The Standing Committee specifically addressed the issue of the extent of fraud by workers, employers and insurers, with some consideration of the role of rehabilitation providers and legal practitioners in this process. The findings of the Standing Committee are discussed in more detail below.

Workers' compensation Fraud in Australia

Worker Fraud

In 2002, the then Minister of Employment and Workplace Relations asked the House of Representatives Standing Committee on Employment and Workplace Relations to enquire into:

- 1. The incidence and costs of fraudulent claims and fraudulent conduct by employees and employers, and the structural factors that may encourage such behaviour;
- 2. The methods used and costs incurred by workers' compensation schemes to detect and eliminate:
 - (a) fraudulent claims; and
 - (b) the failure of employers to pay the required workers' compensation premiums or otherwise fail to comply with their obligations; and factors that lead to different safety records and claims profiles from industry to industry and the adequacy, appropriateness and practicability of rehabilitation programs and their benefits
- 3. Factors that lead to different safety records and claims profiles

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from industry to industry, and the adequacy, appropriateness and practicability of rehabilitation programs and their benefits.

From the terms of reference it can be seen that considerable focus for this enquiry was placed on the issue of worker and employer fraud. The Standing Committee concluded in its report that in fact the level of employee fraud was generally considered to be low, although it is difficult to quantify. Very few witnesses to the enquiry were able to support assertions of wide-spread fraud with data (The Parliament, 2003, p. 4). The Standing Committee observed that, in Australia, there was little consensus in relation to the definition of workers' compensation fraud (which is often undefined in statutes). For workers this probably involves a spectrum of behaviours commencing with unwitting and innocuous embellishment that is reinforced by doctors, solicitors, unions, family and friends. This may (apparently in a minority of cases) culminate in deliberate, conscious and focused attempts to deceive (Ibid, pp. 13-15). For employers the range of activities that could amount to fraud included, not obtaining insurance coverage, falsely declaring the number of workers and the nature of their work to reduce premium imposts, not paying full entitlements to workers and incorrectly informing workers that they were not covered under the relevant legislation (Ibid, pp. 16-17).

Service provider fraud included the submission of false invoices for services not provided, medical incompetence, legal delays caused by not progressing claims and overserving in relation to rehabilitation (*Ibid*, p. 19). Significantly, for the purposes of discussion below, insurer fraud was noted to occur when insurers were inactive in claims management and contributed to fraudulent claims, poor or no existent claims investigation which is influenced by pressure from employers not to pay genuine claims, obtaining medico-legal reports from practitioners who have a vested interest in reporting in favour of the insurer (doctor shopping), and a lack of duty of care in presenting reports that favour the worker, failure to notify the worker of contradictions in employer statements and inaccurate reporting by the employer (*Ibid*, pp. 20-21).

The Standing Committee noted that the perception of fraud differs depending on the individuals' role and experience with workers' compensation schemes (*Ibid*, p. 4), and that what constitutes fraud and fraudulent behaviour are subject to significant subjective variation. It also noted that some activities that were perceived as fraud may be related to inaction and incompetence (*Ibid*, p. 4).

The Standing Committee was unable to cite any definitive data that quantified worker fraud, although the overall view of witnesses to the enquiry was that worker fraud was overstated and not significant. It did note that there was a body of opinion that drew a distinction between "hard" fraud which related to willful dishonesty and deception and "soft" fraud which related to forms of exaggeration of medical conditions. In relation to the latter there was some evidence to the effect that this form of fraud was more prevalent (*Ibid*, pp. 30-31). That said there was also evidence to the Senate Standing Committee that high numbers of workers did not lodge claims for work related injury and disease in part due to the stigma associated with claiming as well as not wishing to prejudice future employment (*Ibid*, pp. 32-35).⁶ As Lippel has observed in this regard:

It is recognised that acceptance of a compensation claim offers the worker not only economic support, but social legitimacy. The corollary is that the refusal of benefits is often a denial of social legitimacy. When discriminatory stereotypes contribute to systematic refusals of compensation claims, adverse health effects may be even more severe, given the additional component of unfairness (Lippel, 1999, p. 526).

An additional issue in this regard is the capacity potential effect for claimants on future employment prospects. As noted above, Lippel avers to the issue of the taint of a compensation claim. This phenomenon was observed in the 2007 Western Australia study referred to above which noted that some workers declined to make legitimate workers' compensation claims on the grounds that this could create a hostile working environment and act as a barrier to future employment prospects (WorkCover WA, 2007).

⁶ This is also supported by studies in other jurisdictions; for example in Canada see Shannon & Lowe (2002).

Employer Fraud

In relation to employer fraud, the Standing Committee found that in large part this was due to the failure of employers to insure or fully insure. Employer advocates argued that this may be due to the complexity of the workers' compensation system and/or the failure of small businesses in particular to understand their obligations. The failure of an employer to pay the correct premium rates has an impact upon all other employers whose rates may accordingly be affected (The Parliament, 2003, pp. 39-40). Importantly, in all Australian jurisdictions systems of investigation and auditing are in place to attempt to detect employer non-compliance although there are low rates of prosecution due largely to administrative sanctions being imposed (*Ibid*, pp. 39-40). Likewise, in relation to service providers the ability to detect over servicing largely depended on audit systems and generally did not result in criminal sanctions (*Ibid*, p. 45).

The Role of Workers' Compensation Investigators

Workers' compensation investigators are used in Australia to gather evidence for insurers so that claims can be assessed. In some cases this evidence may show the worker performing activities inconsistent with their injuries.⁷ The Standing Committee however, noted evidence to the effect that investigators were encouraged not to collect evidence detrimental to the insurer/employer (*Ibid*, p. 55). This aspect of workers' compensation claims management will be discussed further below. It is telling that the Standing Committee recommended that a national code of practice be developed for those engaged as investigators in pursuing potentially fraudulent claims (*Ibid*, p. 221). These practices were also allied to reported insurer behavior, which involved denial of Due Process⁸ to workers through the failure to provide workers with opportunities to comment on contradictory statements obtained from employers and witnesses (*Ibid*, p.

⁷ Recent examples which have been noted at trial are *Pointer v Local Government* Association [2008] SAWCT 11 and Ambelidis v Cantire Investments Pty Ltd [2008] VCC 970

⁸ Natural Justice in Australian terms.

57). The Standing Committee heard evidence that in some jurisdictions the funds expended on pursuing fraudulent claims exceeded the amount spent on rehabilitation of workers (*Ibid*, p. 62).

The Extent of Workers' Compensation Fraud

The Standing Committee found that the evidence of claimant fraud was minimal and the costs of fraud are not known. The findings of the Standing Committee are by and large supported by academic literature. For example, based on her review of the literature Niemeyer established that the actual percentage of outright malingers – sociopaths and 'Bunco artists,'⁹ who commit deliberate fraud – appears small, between 2-10 percent in most medical practices (Niemeyer, 1991, p. 261). She also asserted that:

The malingerer is a distinctive category of individual: injured workers with chronic pain may exhibit unusual or noteworthy illness behaviours (1991, p. 256). This salience may lead workers' compensation service providers to overestimate the incidence of malingering among injured workers in general and their caseload in particular, thus reinforcing the expectation that they will encounter more of the same (Niemeyer, 1991, p. 262).

Medically, many cases in which malingering or fraud are alleged may arise due to the inability of the medical profession to diagnose physical injury with accuracy (Lippel, 1999, p. 530). Likewise, because insurers have conflicting goals (to assist policy holders and to make a profit by limiting the amount of any payout) this may affect the perceptions of decision makers who are unconsciously and subtly affected by these conflicting goals (Lippel, 1999, p. 530; Strunin & Boden 2004, p. 342). This may in some instances result in insurers making decisions bases on limited, incomplete or biased information.

⁹ Also known as a confidence man or con artist. Retrieved October 14, 2008 from the World Wide Web: http://www.wkonline.com/d/con_artist.html

RSI is a case in point – in Australia where it was alleged that there was evidence of "mass psychogenic illness" arising from the sharp increases in reportage of these kinds of conditions.¹⁰ Aggressive behaviours by insurers together with cultural stereotyping (Niemeyer, 1991, p. 263) in relation to class, gender¹¹ and ethnicity (Chung, Cole & Clarke, 2000, pp. 69-90; Niemeyer, 1991, p. 259) probably contributed to influencing medical opinions sufficiently to reduce claims for this condition to the point where the theory of mass psychogenic illness could be supported. There is evidence that claims of this kind come under more scrutiny than other claims (Strunin & Boden, 2004, p. 342).

The Standing Committee concluded that a large proportion of what is perceived as fraud or fraudulent behaviour reflects inefficiencies, incompetence, mismanagement, misinterpretation and lack of understanding of the process of and the perspective of the other participants (The Parliament 2003, p. 69). They observed:

In an adversarial system the participants appear to be largely focused on regulatory compliance or perceived lack of compliance by others and this has, on occasion, taken precedence over the goal of returning the injured workers to meaningful employment. In cases where fraud or overservicing is suspected, the timely return to work of the claimant will reduce costs and to a large extent control the extent of fraudulent activities without extensive use of legal intervention (*Ibid*, p. 69).¹²

¹⁰ Note the controversial views in Lucire (1986) who considered that RSI was not an organic condition. See also Spillane & Deves (1987); Spillane & Deves (1988) Bammer (1988); Bammer (1990); Bammer & Martin (1988); The arguments about RSI: An Examination' (1988) XII(3) *Community Health Studies* 348; C D Nolan, B M Nolan & Faithful (1984); Willis (1986).

¹¹ See for example, Reid et al. (1991).

 $^{^{12}\,}$ These views have considerable support in the academic literature, as noted in the literature review in Beardwood, Kirsh & Clark (2005).

As to the question of inefficiencies, incompetence or mismanagement, the Senate Standing Committee noted that in an adversarial environment such as that which currently operates within the Australian workers' compensation system, practices such as the failure to allow workers opportunities to comment on contradictory statements made by employers, treating an disease as an injury by accident, manipulating claims provisions to attained desired results and price fixing with insurance premiums, might fall into this category (The Parliament, 2003, p. 57).

The *Back on the Job* report is significant for a number of reasons. First, it stands as the most comprehensive investigation of workers' compensation fraud attempted in the history of workers' compensation is Australia. Second, and significantly for this discussion, the Standing Committee clearly shifted its attention from the issue of fraud, to the issue of the return to work of injured workers. Although the terminology of therapeutic jurisprudence is not used in the report, it is clear that the Standing Committee appreciated that the administration of claims may have anti-therapeutic consequences upon workers. This shift in focus gives an important sign-post to the possible future directions for the treatment of workers and the administration of workers' compensation claims is critical element of scheme design, it is now appropriate to consider the issue of good faith in workers' compensation claims management.

Good faith in Workers' Compensation Claims in Australia

The duty of good faith in relation to workers' compensation claims is not recognized in Australia¹³ although there has been considerable agitation

 $^{^{13}}$ See however the recent case of *Garcia v* CGU Workers Compensation Pty Ltd (2006) 3 DCLR (NSW) 135 where the District Court of New South Wales at first instance found that an insurer had breached its duty to manage a worker's claim in good faith and awarded the worker damages for economic loss and

for the introduction of this tort, which is well recognised in the United States.¹⁴ The essence of this tort is that an injured worker is owed a duty of care by the claims administrator to administer claims in a manner that is timely, fair and in accordance with all available evidence.

At the heart of the duty is the requirement for a claim administrator should fairly assess evidence presented by the worker and make decisions based on the weight of evidence, not simply that evidence which best suits the needs of the administrator. In the United States the availability of this tort has allowed workers who would otherwise be prevented from pursuing any tort action for work related injury to pursue insurers for damages on the grounds that they have suffered additional harm by reason of the

¹⁴ Recent examples include the Texas Court of Appeals decision Texas Mutual Co v Ruttiger, Ruttiger suffered a hernia whilst lifting at work on June 24, 2004. Insurance investigators (loss adjusters) acted on unsubstantiated information and rumour that the injury was not work related and lodged a denial of claim within the statutory limit of 60 days as provided for under Texas laws and in July 2004 an operation for relief of the workers condition was cancelled on the basis of the denial of liability. Ruttiger bought an action for breach of the duty of good faith against the insurer. The Court of Appeals held that the investigator should have been highly suspect of the unsubstantiated allegations made against Mr Ruttiger. It held the investigation was extremely limited, one sided and produced nothing more than highly suspicious rumours and speculation from the employers. The court held that the insurer failed in its obligation to conduct a proper investigation, and that denial of the claim was made without any bona-fide evidence. It also found that the insurer did not make an adequate attempt to contact the worker to clarify the information at hand. The Court of Appeals awarded Mr Ruttiger US \$100,000 for mental anguish arising out of the wrongful denial of the claim. Importantly Ruttiger draws attention to the Texas Insurance Code which codifies the duty to act in good faith in a detailed manner. On Appeal from the 122nd District Court - Trail Court Cause 05-CV-0796 retrieved October 13, 2008 from the World Wide Web http://www.dovleraizner.com/CM/ Custom/Ruttiger%20Opinion.pdf and Texas Appeals LEXIS 440(2008)

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non economic loss for injuries consequent upon the insurer's poor claims management and punitive damages for recklessly increasing the harm to the worker. The decision was however overturned by the *New South Wales Court of Appeal in CGU Workers (NSW) Limited v Garcia* [2007] NSWCA 193 holding that the duty to act in good faith should not be recognised in Australian tort law.

rejection or maladministration of a compensable claim. One argument in favour of such a right of tort is that it forces administrators and/or insurers to review the evidence of a claim in a timely and fair manner. On the other hand, it may ironically engage the worker in additional litigation in order to press home the claim for damages. Where legal practitioners in the US are free to extract contingency fees for this additional litigation there is potential allegations of breach of good faith to be added to existing compensation claims as means of forcing an insurer to consider lump sum settlement of claims.

These issues suggest that consideration of a statutory form of this duty with limitations as the amount which can be awarded and capping of litigation costs and legal practitioner fees might be worthy of consideration as a means of ensuring fair and timely consideration of compensation claims. In Australia this leap has not been taken although there are provisions that require insurers to pay interest on claims that have been delayed.

Towards a Therapeutic Workers' compensation Model in Australia

James and Brownlea (1995) established, through their study of Australian workers' compensation claimants, that the level of 'injury impact' is not always related to medically observable injury severity. That is to say, the level of dislocation, isolation and upset to ones way of life as a consequence of injury is not necessary measured by levels of impairment or loss of function (James & Brownlea, 1995). They found that impact upon an injured worker increased where threats to employment security increased, compensation payments were delayed, when the diagnosis and prognosis of injury is unclear, or when social roles or personal independence is affected. Impact was reduced where employment was secure, the employer believed the claim was valid and when social support was strong. The work injury was often the concluding stressor - those who were more vulnerable were more stressed: those who were less vulnerable were less stressed by the incidence of injury (James & Brownlea, 1995, pp. 90-91). They concluded, among other things, that injury impact can be modified through the provision of instrumental, emotional and formal supports (James & Brownlea, 1995, p. 92).

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Roberts-Yates (2003), in research briefly noted above, observed the difficulties of injured workers progressing through the South Australian WorkCover system. She concluded that it was necessary for there to be a partnership between injured workers, employers and medical care providers in order maximise return to work outcomes. At the heart of these recommendations is the notion that the there should be a holistic approach to worker rehabilitation, which recognises social/psychological issues. Kirsh and McKee reached similar conclusions following their research study in Ontario Canada (Kirsch & McKee, 2003).

In essence, the combination of this research points to the adoption of a bio-psychosocial approach to workers injuries. It also confirms the Lippel thesis that whilst workers' compensation systems may have been designed to provide benefits to workers in a therapeutic manner there continues to be evidence that the systems have anti-therapeutic effects. Wexler noted "therapeutic jurisprudence focuses our attention on...humanizing the law and concerning itself with the human emotion, psychological side of the law" (Wexler, 1999).

Likewise, King (2006) suggests that the therapeutic approach can promote self-determination, healing and well being amongst litigants. Under this more benevolent and compassionate approach an opportunity to resolve the problems underlining the legal problem such social/psychological issues suffered by workers following workplace injury can be addressed promoting a more comprehensive resolution to the legal dispute. In contrast, the traditional adversarial litigation approach often elevates conflict and ill feeling between parties (King, 2006, pp. 129-131). The therapeutic approach also seeks to imbed the law into social contexts to the benefit of all stakeholders involved in disputes with an emphasis on communication, empathy and direct engagement (Anleu & Mack, 2006, p. 173) while providing a vehicle for infusing an ethic of care into the judicial process (Casey & Rottman, 2000, p. 451). Essentially, this provides stakeholders, such as workers in a workers' compensation dispute, with a voice by providing an opportunity to tell their side of the story in a supportive environment in addition to validation and respect by their inclusion in the decision making process. The therapeutic method's promotion of selfdetermination and healing can be utilised even in the typically arduous and coercive judicial environment (King 2006, p. 130) and will require a more inclusive and less impersonal attitude toward litigants (Anleu & Mack, 2006, p. 175).

Wexler further observed that "legal rules, legal procedures, and the roles of legal actors (such as lawyers, judges and often therapists) constitute social forces that like it or not, often produce therapeutic and anti-therapeutic consequences" (Wexler, 1997, p. 233). The harmful effects of these social forces have been raised for example by members of the medical profession in the area of family law where disputes can be particularly stressful and emotional for claimants (King, 2006, p. 132). Therapeutic jurisprudence promotes the positive or curative effects of the law and aims to take advantage of the "teachable moment" where a more therapeutic outcome can be achieved through the use of a fair yet empathetic approach to dispute settlement (Birgden, 2004, p. 287). Further, a reduction in anti-therapeutic consequences while bridging the gap between rights and care perspectives can potentially be achieved under the therapeutic approach without diminishing due process and other judicial values (Casey & Rottman, 2000, p. 447).

Lippel also urged that:

Those responsible for the design of these (workers' compensation) systems should learn to factor in the therapeutic and antitherapeutic consequences of insurer and employer behaviour in cost-benefit analysis of every aspect of the compensation scheme. The mental and physical health of claimants should be attributed value, not just when it costs the system money, but because of the social consequences of unfair or callous treatment of claimants going through the system (Lippel, 1999, p. 542).

It is reasonable also to assert that design issues relate not only to questions of policy and practice of insurers and employers, but also legislative design in determining the range of persons covered by the legislation and the range of benefits or entitlements provided. These "coverage" issues also provide friction in the system is the system is so ambiguous or so narrowly defined as to lead to inevitable contests. The essential message from this body of workers' compensation research is that compensation systems have a capacity to do harm additional to that which has already been suffered. Beardwood and her colleagues referred to this as being a "victim twice over" (Beardwood, Kirsh & Clarke, 2005, p. 31).

Interestingly, medical care providers have long been familiar with the concept of harm reduction. The medical profession acknowledges the aphorism "Above all, do no harm".¹⁵ This principle is laudable, but in practice for doctors it is probably deficient as an over-arching guide. It is a defensive statement; to prevent harm, which is desirable. Its application depends on the circumstances. Avoiding harm may not meet the challenges of positively promoting improved health, curing disease and alleviating suffering. In medicine a doctor may have to balance the harms that flow from the administration of certain treatments, substances or therapies. If the rule is applied rigidly, it may not in fact allow a doctor to carry out their proper duties, as often the practice of medicine requires the balancing of potential gains against possible harm (Smith, 2005). That said, this paper proposes the application of the principle, Above al, do no harm, to the administration of workers' compensation claims has considerable resonance and is consistent with, and translates to, the general intention of therapeutic jurisprudence for application to personal injuries matters. In essence, this means that the concept of harm prevention, which is well known in the area of occupational health and safety, should also be applied to workers' compensation.

To develop this theme in more detail it useful to look at the purposes of workers' compensation legislation in Australia. The common themes as set out in the legislation usually include statements to the effect that the purpose of the legislation is *inter alia*:

- a) To make provision for compensation for injured workers
- b) To promote rehabilitation of workers

 $^{^{\}rm 15}\,$ This principle is often attributed to Hippocrates, but this does not appear to be correct

- c) To promote safety measures
- d) To hear and determine disputes in a fair, just, economical, informal and quick manner.¹⁶

If the concept of "Above all, *Do No Harm* is imbedded into the objects of the workers' compensation legislation, it acts as an aid to interpretation of the entire scheme. It can be applied specifically in respect of two existing objects namely the object of rehabilitation and dispute resolution.

In many systems informal dispute resolution processes have adopted to reduce the delays and negative effects of the traditional adversarial litigation model such as stress related health issues and financial strain following often inappropriate¹⁷ and lengthy litigation. Often, claimants engage in litigation without a thorough awareness of the impact of litigation on relationships, legal costs and well being that typically leaves them with reduced lifestyles and fewer resources with which to cope. Frequently, these negative effects are prolonged until settlement by which time physical and social/psychological issues are not easily reversed. Consequently, claimants under the traditional adversarial litigation model habitually experience protracted recovery from workplace injury compared to those dealt with through informal dispute resolution processes (Royal College, 2001; Cassidy et al., 2000).

However, whilst this trend toward informal dispute resolution, evidenced by the widespread of adoption of conciliation and mediation in work-

¹⁶ South Australia includes two interesting features. First, it contains a statement that the workers rehabilitation and compensation scheme is to achieve a reasonable balance between the interests of employers' and the interests of workers. Second the South Australian provisions require that the objects of the Act should be interpreted without bias towards the interests of employers or workers. These objects seem to be a legislative variation to the principles enunciated by the Australian High Court in series of cases to the effect that where alternative interpretations are available the interpretation most beneficial to the worker is to be preferred.

¹⁷ Coaching by lawyers to report symptoms is an obvious example in this context. See Mulford,et al. (2005)

ers compensation claims in Australia, is generally positive, provisions to prevent workers becoming 'victims twice over' such as safeguards against delay and unnecessary adjournments, reductions in medico-legal reviews and strict requirements to disclose all relevant evidence, are an essential element of any dispute system if there is to be fair adjudication of claims. Likewise, if this principle is imbedded into the rehabilitation regime it encourages early intervention, partnerships in injury management and respect for the dignity of injured workers. Further, as the evidence to the Standing Committee suggests surveillance of workers should be limited to clear cases or fraud and not used routinely as a means of intimidation. In addition surveillance reports should not attract legal professional privilege where they have been the subject of consideration by medical practitioners in a medico-legal setting. Consistent with these principles are legislative provisions to provide workers with all relevant documentation used by first line decision makers on their files even prior to litigation, and acceptance by the parties that full and frank exchange of documents during litigation is best practice.

As part of the program to prevent further harm to worker the frequency of medico-legal examinations has to be reduced. In Western Australia regulations now provide a limit of three medico-legal examinations. Medical panels are also used to assess claims where causation and incapacity are in issue.

Consistent with this theme is the requirement that first line administrative decision makers (whether private insurers or state fund claims officers) should be trained comprehensively in relation to workers' compensation practice and procedure. In Australia, there is very little in the way of professional development and further education available for claims officers seeking workers compensation expertise. Likewise, appointment of adjudicators and arbitrators under workers' compensation schemes should include requirements that mandate experience in workers' compensation practice and procedure and continuing professional development in alternative dispute resolution. As part of the regime of "Above all, do no harm" initiatives workers' compensation schemes in Australia should legislate to provide for good faith claims administration. This could be done by specific provisions in the workers' compensation disputes procedures or as license conditions for insures and self-insurers. Providing a statutory duty of good faith or the codification of those principles does not prevent an insurer from arguing that a claim should be declined on the grounds that it has a genuine reason for declining the claim.¹⁸

Good faith claims handling could also be investigated by a workers' compensation Ombudsman to reduce unnecessary litigation. The Ombudsman would have power to review insurer files and make recommendations or award addition compensation if necessary to inculcate a respect for the dignity of claimants into the administration of claims. A code which requires all claims officers to provide clarity in decision making and invite the claimant to speak to them and provide additional information are important steps.

At the heart of these few suggestions is a move away from the default position entrenched in the consideration of some workers' compensation claims which is a mindset that stigmatizes some workers as frauds towards a focuss on returning workers to meaningful durable employment. At the core of this thesis is the requirement that decisions in workers' compensation matters should be made in a timely fashion so that a workers whose claim is declined should be made aware as soon as possible the grounds for doing so and likewise where a legitimate claim is made by a worker it should be processes and paid without delay.

¹⁸ Covia v Robinson 507 N.W. 2d 411 (Iowa 1993) and Gilbert v USF Holland Inc (637 N.W. 2d 194 (Iowa 2001) applied in Belger v United Parcel Service and Liberty Mutual Insurance retrieved October 14, 2008 from the web at: http:// www2.iwd.state.ia.us/dwc/wcdecisions.nsf/9feb668853f5a87f86256e7d005c4b0 9/8d1893eaf4293a3186257323005a9fe1!OpenDocument

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An Evaluation of the Effectiveness of Using a Prospective Peer Review Process to Control Excessive Physical Therapy Visits

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Abstract

This study analyzed the effectiveness of using a prospective peer review process to control excessive physical therapy visits for workers' compensation injuries. The study was based on a national data base of physical therapy claims. The claims included those that were processed through a bill review process and claims that were provided a prospective peer-review. The top five cost driver diagnoses were identified and the average number of visits and most frequent treatments provided were identified for both the peer-reviewed and non peer-reviewed claims. The results showed the peer-review claims had a slightly higher average number of visits for all five diagnoses than those without peer-review. This appeared to be due to the increased severity of the claims that were pre-identified for the peer-review process. Both peer-reviewed claims and non peer-reviewed claims had a number of claims with excessive physical therapy visits. A nested study was conducted on a subset of the peer- review claim data that represented a "monitored" peer-review process

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where the payer was provided monthly reports on the status of all physical therapy claims in terms of the number of recommended visits. This information was used by the payer to monitor the case management process and ensure that the peer review recommendations were integrated into the medical management of the claim. Monitoring the review recommendations resulted in a reduction in the average number of visits from 13 to 8.5 visits per claim. The study results indicated that simply providing prospective peer-review may not control excessive physical therapy visits unless the information is integrated into the medical management of the claim.

Background

The workers' compensation medical share of total claim losses has grown dramatically-from just over 40% in the early 1980s to almost 60% today (Restrepo & Shuford, 2008), and almost half of the increase can be attributed to growth in medical utilization. There is also some evidence that in spite of the implementation of medical cost management reforms and solutions, medical costs are continuing to go up. A recent study by the California Workers' compensation Institute (Swedlow & Ireland) showed that in California the cost of medical management has nearly tripled for medical only claims from a ratio of medical cost containment payments to total medical benefits at 12 months post injury of 3.4 percent for AY 2002 claims to 10.1 percent for AY 2006 claims, and in spite of the California reform efforts to control medical costs medical costs appear to be again on the rise. Increases in the cost of medical cost containment and the increases in the cost of medical services may mean that workers compensation payers are paying more for medical cost management solutions that are ineffective in terms of controlling increases in medical costs. Although there may be reason for concern, there have been few studies that have focused on the cost effectiveness of specific medical cost management solutions and services.

Workers' compensation medical cost management solutions include bill review services, provider networks such as PPOs, case management, utilization review, and peer review. Some solutions, such as utilization review, are mandated by states (California), but the majority of these solutions has evolved from copying models from those used by the group health care
industry, or have been designed by vendors for the workers' compensation payer community. Until most recently, the trend has been for payers to contract with external vendors for these services. However, we are now seeing more insurance companies and self insured employers bring these solutions "in-house."

Physical medicine treatments including Physical Therapy (PT) represent a major cost driver treatment type for injured workers. A recent NCCI study looked at factors influencing the growth in treatments per claim and found that treatments per claim overall were significantly impacted by physical therapy treatments, which constituted approximately 50% of all treatments per claim. The NCCI study entitled "Factors Influencing the Growth in Treatments per Claim," which analyzed lost-time (LT) claims countrywide from eight accident years 1996 through 2003, found that Physical Therapy (PT) treatment costs went up 61% during the study period. The researchers examined the reasons for this increase, and found that the percentage of lost time claims receiving physical therapy services increased 14% and that the number of services per visit grew by 7% during the study time period. However, the largest cost driver was the number of visits per claim, which grew 41%. The study concluded that, "for physical therapy, the primary driver is an increase in the number of encounters [visits] per claim (Restrepo & Shuford, 2008).

Although there is a number of medical cost containment solutions used to control excessive physical therapy treatment visits, this study focused on analyzing the effectiveness of using a peer review process to control overutilization of services. The nature of "peer" review as a medical cost containment approach used by workers' compensation payers to control overutilization of physical therapy visits can represent different approaches. Utilization review is one form of peer review conducted by a medical provider with "like" certification, training or education prior to, or during the course of treatment. Peer review can also be a contracted process where a 'peer" reviewer is used prospectively on certain identified claims. These claims are identified at the onset and monitored in terms of standards that reflect research based treatment guidelines.

Study Objective

Physical therapy treatment is a major cost driver of medical services for injured workers. The primary driver is an increase in the number of encounters [visits] per claim. The main objective of this study was to evaluate the effectiveness of using a prospective peer-review process to control "excessive" physical therapy visits. The peer-review process in this study represented prospective peer review conducted by Physical Therapists using evidence based treatment guidelines, on preselected claims, to recommend to case managers appropriate treatment in terms of the number of visits.

Data

This study was based on a large national, workers' compensation physical medicine database. The database included six years of medical data and over a million claims representing more than 80 million dollars in paid claims. Although the data base included billing data for chiropractors and acupuncturists, the majority of the claims, 87%, represented treatment that was provided by physical therapists.

For the purposes of this study we only analyzed the data representing treatment provided by physical therapists. We created a study database, which represented the most recent twenty four months of physical therapy claim data, 01/09/06 to 01/09/08. We used a "clear windows" technique eliminating claims where treatment was not initiated and completed within the timeframe to ensure the data represented complete treatment claims. The initial PT data base included 50,025 claims. An analysis of the raw data found that over 20% of the claims had fewer than two visits. Based on a review of a sample of these claims at the claim detail level, 4,718 claims were eliminated from the study database that represented "data entry errors", those that had only one visit in which a Functional Capacity Evaluation (FCE) was the only service performed, and claims where the patient did not return to complete the treatment. There were two types of claims in the PT analysis database, claims where a prospective peer-review was conducted and claims where the only medical cost containment intervention was medical bill review. The peer- reviewed claims included a significant amount of detailed information; however, we only had the information on the medical bill for the bill reviewed claims. The final analysis database included a total of 45,307 claims with 13,272 peer-reviewed claims and 32,035 claims with only bill review. The final study database represented \$46,065,383.76 in paid claims and 485,009 patient visits.

We identified the average number of visits nationally, by state and by peerreviewed and non peer- reviewed claims. We identified the top six cost driver diagnoses in terms of frequency and dollars nationally, by state and peer- reviewed and non- peer reviewed claims. We also analyzed the percent of total claims that were completed within certain time intervals. Since there appears to be a standard physical therapy practice model of weekly and monthly visits we expected that those claims with excessive numbers of visits would represent the longest treatment time frames.

We ranked each cost driver diagnoses by the number of claims and the number of treatment visits associated with the claim. We identified the range of the number of visits and the average number of visits for each diagnosis. We then identified the cost driver (or most frequent) treatment types provided, by diagnoses and analyzed differences in types of physical medicine treatments used for claims above the mean number of visits with claims below the mean number of treatment visits. We looked at differences in cost driver diagnoses by type of claims (peer-reviewed and non peer-reviewed) and the type of treatments provided. We conducted an analysis of a sample of the prospective peer reviewed claim data to interpret the data related to excessive numbers of visits.

We then identified the most frequent treatment codes by cost driver diagnoses and for peer-reviewed and non-peer reviewed claims to see if the treatments provided varied for those claims with fewer visits and claims that had been peer-reviewed. Lastly, we conducted a nested study of a subset of the peer-reviewed claims that included active "real" time monitoring of the use of the recommendations by case and claims managers.

Results

Cost Driver Diagnoses

The physical therapy data set included 1,124 different diagnoses, so to create a sub-set of the data that was manageable for analysis; we conducted a cost driver analysis to identify the top cost driver diagnoses. Cost driver diagnoses were defined as those diagnoses that were the most frequent and the most costly in terms of the percent of total dollars they represented. The top six diagnoses were the same for both peer -reviewed and non-peer reviewed claims although in different order of priority. The top six diagnoses that accounted for 29.54% of the total dollars were as follows:

% of Total Costs	Total Cost	Primary ICD9	Descriptor
6.69	\$3,065,676	724.2	LUMBAGO
6.16	\$2,822,009	847.2	SPRAIN LUMBAR REGION
5.25	\$2,402,564	719.41	JOINT PAIN-SHLDER
4.08	\$1,868,390	847	SPRAIN OF NECK
3.76	\$1,695,270	840.4	ROTATOR CUFF (capsule)
3.60	\$1,648,008	719.46	JOINT PAIN-L/LEG

Each cost driver diagnoses was ranked in terms of the number of visits by number of claims and the average number of visits per claim. There were claims that appeared to have an excessive number visits across all diagnoses in both the peer-reviewed and non peer-reviewed claims.

The following chart shows the average number of physical therapy visits by cost driver diagnoses, nationally and for prospective and retrospective claims. For all cost driver diagnoses, the peer reviewed claims had higher average numbers of visits than the claims without peer review. Overall, there were significantly fewer claims that received peer review than those that did not.

Average Visits	7.59	9.18	12.63	9.19	10.84	17.85
Total Visits	21219	18295	14027	15518	9618	11050
Non Peer Claims	2794	1994	1111	1688	887	619
Average Visits	9.16	10.5	15.85	12.17	13.61	21.74
Total Visits	11545	14135	10131	5926	6723	4869
Peer Rev Claims	1261	1346	639	487	494	224
Average Visits	8.08	9.71	13.8	9.86	11.83	18.88
Total Visits	32764	32430	24158	21444	16341	15919
All Claims	4055	3340	1750	2175	1381	843
ICD9	847.2	724.2	719.41	847	719.46	840.4

Time Frame Distribution of Visits

The treatment was completed in six days or less for 18.59% of the claims representing 2.64% of all the visits. In 15.04% of the claims, treatment was completed in 19 to 30 days and these claims represented 10.89% of the total visits. What was interesting in this analysis was the percent of claims, 17.2%, that had three or more months of visits. As expected, when the treatment was provided over a longer period of time the number of visits also increased.

Time Frame	Claims	Visits	%total Claims	%total Visits
<6 days	8423	12794	18.59%	2.64%
6-12 days	5647	22595	12.46%	4.66%
13-18 days	4668	25840	10.30%	5.33%
19-30 days	6813	52823	15.04%	10.89%
31-60 days	8011	93098	17.68%	19.20%
61-90 days	3939	67949	8.69%	14.01%
90+ days	7806	209910	17.23%	43.28%

Treatment Analysis

We identified the most frequent cost driver treatments overall, by peer reviewed claims and non-peer reviewed claims and by cost driver diagnoses. We found very little variation in the most frequent types of treatments provided for all claims in the study. The following chart shows the top cost driver treatment codes for all claims. The most frequently provided treatment across all claims and overall was 97110 – defined as: "Therapeutic procedure, one or more areas; therapeutic exercises to develop strength and endurance, range of motion and flexibility."

CPT Code	No of Lines	No of Claims	Total Dollars	% of Total \$s
97110	256867	24644	\$13,415,018.63	29.00%
97140	115638	12641	\$3,657,804.01	8.00%
97530	55248	6724	\$2,493,008.52	5.00%
97014	117378	15645	\$1,614,092.15	4.00%
97250	37779	5649	\$1,393,306.70	3.00%
97112	31361	4207	\$912,732.88	2.00%
98940	23024	3153	\$693,577.54	2.00%
98941	20284	2432	\$780,504.72	2.00%
97002	8077	4613	\$233,914.65	1.00%
97010	83955	9650	\$480,517.82	1.00%
97012	20308	2970	\$299,232.03	1.00%
97113	5702	462	\$354,057.03	1.00%

The specific treatments identified in this study may not represent the experience of any individual state since state specific medical payment policies and fee schedules impact the treatment codes that can be billed.

Discussion

Effectiveness of Using a Peer Review Process for Physical Therapy Claims

We did not find significant differences between the peer-reviewed claims and the non-peer reviewed claims in terms of the range of the number of visits per claim, both had claims with one or two visits and claims with over 24 visits. There were no major differences between peer-reviewed claims and non peer-reviewed claims in the distribution of the time frame in which the visits were provided, the cost driver diagnoses, or the most frequent type of treatments provided. We might expect to find that claims that were managed with a prospective peer-review process would have fewer visits per claim. However, we found that the average number of visits for the peer-review claims was actually higher, an average of 12.69 visits per claims compared to non peer-reviewed claims with an average of 9.88 visits. The only medical cost containment process we were aware of that was used for the non- peer reviewed claims was processing the claims through a bill review process. When we drilled down into the detail level data for the peer reviewed claims we found that claims that were peer reviewed were primarily ones where there was time off work, possibly representing greater severity requiring an additional number of visits.

Excessive Visits

We identified claims with excessive number of visits (>24 visits) represented in both peer reviewed and non peer reviewed claims across all diagnostic groups. It may be that claims with an excessive number of visits receive little to no care management oversight (non peer-reviewed), or even when the prospective peer-review information is provided the information is not used by the case or claim manager for managing the medical component of the claim.

Monitoring Peer Review Recommendations

Within the peer-reviewed claims data we had a subset of claims that represented an additional "monitoring" process to ensure the peer-review information was being used by the case or claim managers. We conducted a "nested" study of these claims which represented a national payer who had contracted to receive "real time" information monthly on the recommended number of visits and claims approaching or exceeding the peer- review recommendations. The employer used this information to hold their third party administrator (TPA) accountable for using the peer-review information to manage the medical part of the claim. The average number of physical therapy visits was 13 per claim prior to using this "monitoring" approach and was reduced to 8.57 visits per claim once the "monitoring" approach was implemented.

Conclusion

Peer-reviewed and non peer-reviewed claims that represent physical therapy treatment do not appear to differ significantly in terms of cost driver diagnoses, the distribution of visits over time, and the most frequent treatments provided. Peer-reviewed claims may have a higher average number of visits per claim since they are preselected and represent greater severity. In this study both peer-reviewed claims and non peer-reviewed claims included claims with excessive numbers of visits based on benchmarks from evidence based treatment guidelines. Both types of claims included claims with over 80 visits per claim. These findings indicate that contracting for a prospective peer- review process may not control all excessive physical therapy visits per claim. An oversight or monitoring process may be necessary to ensure that the peer-review information is being used in the case or claims management process.

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Janet D. Jamieson, PhD, is the Principal Consultant for Jamieson & Associates, a workers' compensation managed care consulting practice. She has more than 20 years' experience in research, evaluation, and implementation of information-systems solutions for healthcare organizations. She has worked with a broad range of client in the private and public sectors that include state insurance funds, state workers' compensation jurisdictions, insurance carriers, third-party administrators, managed-care programs, hospital/physician groups, national employers and research organizations. She currently is serving as President of the Physical Medicine Research Institute (PMRI) which is an independent non-profit research institute initiated in 2008, and whose mission is to foster research for the advancement of best practice in physical medicine and rehabilitation

IN MEMORIUM: George Wood

George Wood, former Executive Secretary of the Montana Self-Insurers Association and Montana Self Insurers Guaranty Fund, and a long-term member and friend of the IAIABC, died on December 18, 2008, of natural causes, at the age of 82.

Those of us who knew George could not fail to be struck and inspired by his incisive intellect, outspoken honesty and warm genuineness. George listened well in any debate, considered the positions and fearlessly expressed his opinions. His courage in always striving to do what was right and consistent with his beliefs was complimented by a warmth and humanity that was based in his strong values, friendships and spiritual life. He believed that his role in workers' compensation was that of a steward, and he strove tirelessly to fulfill that responsibility.

George was a genuine personality, all his own, unique and special. His life enriched the entire workers' compensation community, and he is, and will be, missed.

For a more complete obituary, please see: http://helenair.com/articles/2008/12/18/obits/wood_081218.txt

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