California Workers' Compensation Institute
1111 Broadway, Suite 2350, Oakland, CA 94607 • Tel: (510) 251-9470 • Fax: (510) 251-9485

Medical Dispute Resolution: Utilization Review and Independent Medical Review In the California Workers' Compensation System

By Rena David, Brenda Ramirez & Alex Swedlow
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Medical dispute resolution is a vital component of all healthcare delivery systems. This study examines the key linkages between utilization review (UR) and independent medical review (IMR). IMR is a new process of dispute resolution within the California workers' compensation system implemented within recent reforms. Special datasets were compiled to assess the proportions of approved, modified and denied medical treatment requests. The results show that after internal and elevated UR, over 94.1 percent of UR decisions result in approval of medical treatment requests. At current IMR decision rates, if all remaining 5.9 percent of the treatment requests that were denied or modified by elevated UR went through IMR review, 1.2 percent would be overturned, reducing the overall treatment denial/modification rate to 4.7 percent. A detailed review of the characteristics of modification and denials suggest potential areas of further dispute resolution enhancement.

Background: The Progression of Resolving Medical Treatment Disputes

For more than 20 years, the California workers' compensation system has been modifying its process for resolving medical disputes. Prior to 1993, under the "free choice" model, injured workers selected physicians to treat their injuries, and treatment disputes were determined based on a preponderance of the evidence. Like many healthcare systems, disputes over whether the treatment proposed for an injured worker was medically necessary were resolved initially by negotiation between physicians representing the worker and the insurance carrier or self-insured employer (payor). Unlike other systems, if no resolution could be found, the matter would be adjudicated before a workers' compensation judge and ultimately decided by the Workers' Compensation Appeals Board (WCAB). This litigation required expert medical evidence and each physician would compile his rationale and supporting documentation and attempt to resolve the dispute through the use of medical treatment guidelines, community standards, and other conventions. This process was commonly referred to as "dueling docs." Over time, this practice was found to be time consuming, expensive, and could result in arbitrary, inconsistent medical decisions.

In 1993, the California Legislature enacted major reforms that included a presumption that the findings of the treating physician were correct.[1] In 1996, an en banc decision by the WCAB confirmed that the injured worker's primary treating physician (PTP) had a presumption of correctness on all medical treatment issues.[2] This ruling also limited a payor's ability to challenge the PTP unless they could prove the PTP's opinion was erroneous, incomplete or legally incompetent, a nearly impossible task.

[1] CA Labor Code Section 4062.9
[2] Minniear v WCAB, 1996.

In the wake of the presumption, there was an unprecedented surge in medical benefit costs: between 1996 and 2002, the estimated average ultimate cost of medical care for a California workers' compensation indemnity claim rose by 167% from $13,137 to $35,201.[3] Gardner and Neuhauser showed an association between the significant cost increase trend and the PTP presumption of correctness.[4,5]

In 2003, the Legislature reformed the workers' compensation medical care delivery system by repealing the PTP's presumption of correctness and implementing an objective standard of care determined by evidence-based medicine guidelines.[6] The result was the creation of a Medical Treatment Utilization Schedule (MTUS),[7] a dynamic series of medical treatment guidelines designed to create a "standard of care" by which proposed medical treatment would be evaluated.

In the years following the creation of the MTUS and the introduction of Medical Provider Networks, the determination of medical treatment disputes was adjudicated through the medical legal process[8] with the selection of qualified medical evaluator (QME) panels, medical legal examinations, QME reports, additional discovery, and a trial before a workers' compensation judge. The final determination on appeal came from the WCAB and (rarely) the court of appeal or Supreme Court. This was considered a lengthy, expensive, and often unsatisfactory path for injured workers and claims administrators. Many felt that QME reports and the decisions of judges often failed to adequately consider and apply evidence-based guidelines and, consequently, the opinion of the judge failed to consistently enforce the statutory medical standard of care established by the MTUS.

A series of studies conducted by Ireland found that the implementation of the MTUS and other medical reforms were associated with an initial overall reduction of medical treatment costs, followed by a return to significant annual increases in medical benefit expenditures, driven by rising medical severity (average medical payment per claim). These reforms also were associated with an immediate and sustained increase in medical cost containment expenses which nearly tripled between 2002 and 2010.[9] In addition, anecdotal assertions of inconsistent decisions by the WCAB on interpretations of the MTUS cast doubt on whether non-medical adjudicators such as judges were the optimal choice for medical dispute resolution.

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[3] WCIRB 2003.

[4] Gardner, L., Swedlow, A. The Effect of 1993 – 1996 Legislative Reform Activity on Medical Cost, Litigation and Claim Duration in the California Workers' Compensation System. *Research Note.* CWCI. May 2002.

[5] Neuhauser, F. Doctors and Courts: Do Legal Decisions Affect Medical Treatment Practice? An Evaluation of Treating Physician Presumption in the California Workers' Compensation System. A Report for the California Commission on Health and Safety and Workers' Compensation. November 2002.

[6] Assembly Bill 749 (2003) and Senate Bill 899 (2004).

[7] CWCI published a three-part series on evidence based medicine and 2003-2004/post reform outcomes: Harris, JS, Swedlow, A. Evidence-Based Medicine & The California Workers' Compensation System. *A Report To The Industry.* CWCI. Jan 2004; Harris, JS, Swedlow, A., Gardner, L., Ossler, C., Crane, R. Utilization Review and Medical Treatment Guidelines in the California Workers' Compensation System. *A Report to the Industry.* CWCI. February 2005; Swedlow, A., Gardner, L. Harris, JS, Crane, R. Measuring the Value of Medical Treatment outside ACOEM Guideline Targets on Low Back Soft Tissue Injury Outcomes. *Research Note.* CWCI, September 2005.

[8] CA Labor Code Section 4062.

[9] Ireland, J., Swedlow, A., Gardner, L. Analysis of Medical and Indemnity Benefit Payments, Medical Treatment and Pharmaceutical Cost Trends in the California Workers' Compensation System. CWCI, June 2013.

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In late 2012, another round of reforms began to take shape in the form of Senate Bill 863. The Senate legislative analysis of SB 863 stated that the purpose of the bill was "To reduce frictional costs [and] speed up medical care for injured workers." In section 1 of SB 863, the Legislature expressly stated the rationale for creating Independent Medical Review. The Legislature declared:

> (d) That the current system of resolving disputes over the medical necessity of requested treatment is costly, time consuming, and does not uniformly result in the provision of treatment that adheres to the highest standards of evidence-based medicine, adversely affecting the health and safety of workers injured in the course of employment.
>
> (e) That having medical professionals ultimately determine the necessity of requested treatment furthers the social policy of this state in reference to using evidence-based medicine to provide injured workers with the highest quality of medical care and that the provision of the act establishing independent medical review are necessary to implement that policy.
>
> (f) That the performance of independent medical review is a service of such a special and unique nature that it must be contracted pursuant to Government Code Section 19130 and that independent medical review is a new state function ... that will be more expeditious, more economical, and more scientifically sound than the existing function of medical necessity determinations performed by qualified medical evaluators...The existing process of appointing qualified medical evaluators to examine patients and resolve treatment disputes is costly and time-consuming, and it prolongs disputes and causes delays in medical treatment for injured workers. Additionally, the process of selection of qualified medical evaluators can bias the outcomes. Timely and medically sound determinations of disputes over appropriate medical treatment require the independent and unbiased medical expertise of specialists that are not available through the civil service system.
>
> (g) That the establishment of independent medical review and provision for limited appeal of decisions resulting from independent medical review are a necessary exercise of the Legislature's plenary power to provide for the settlement of any disputes arising under the workers' compensation laws of this state and to control the manner of review of such decisions.

The inability of the adversarial and judicial systems in workers' compensation to effectively implement the standard of medical care intended by the prior reforms through the adoption of the Medical Utilization Treatment Schedule and utilization review led to the creation of a new medical dispute resolution process: independent medical review. The Legislature determined that medical professionals should decide whether treatment was medically necessary, and that the determination of these issues requires independent and unbiased medical expertise.

Utilization Review and Independent Medical Review: A Primer

A common principle of both UR and IMR is the process of evaluating requests for medical tests and treatments for medical necessity, efficacy, and appropriateness. California law requires each employer or their workers' compensation insurer or third party administrator to have a utilization review process to authorize medical payments for compensable work injury and illness claims.

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The UR process, which addresses modality, frequency, duration and setting of medical services, must be governed by written policies and procedures consistent with the requirements of the California Labor Code[10] and must be filed with the Administrative Director of the Division of Workers' Compensation.

Almost all payors use a layered review process. At the first level, claims examiners and/or nurses review requests for treatment using support tools and treatment guidelines. Any cases they are unable to approve are then elevated to the next level for physician review.

In UR/IMR, medical guidelines provide the clinical rationale to determine whether requested medical services are necessary, efficacious and appropriate. The medical treatment utilization guidelines adopted by the Administrative Director are presumed correct. The MTUS guidelines in California workers' compensation must reflect evidence-based, peer-reviewed, nationally recognized standards of care. Review of requests for payment for treatment should be consistent within particular injury or diagnostic categories and be based on evidence of effectiveness. As payment for ongoing care is requested, the patient's progress towards recovery, response to previous treatment, and non-medical factors that may delay return to function also should be taken into account. Thus, as treatment continues, those conducting utilization review should consider the patient's clinical condition to determine whether the care is contributing to objective functional improvement. The treating physician may make a case for variance from the guidelines. In such cases, peer-to-peer review by a physician generally occurs. Workers' compensation UR generates recommendations regarding payment authorization, but does not mandate how a provider treats a patient.

California law requires the determination of medical necessity to be based on the medical treatment utilization schedule. If the injury/condition is not addressed in the MTUS then UR should rely on guidelines or studies that are evidence-based, peer-reviewed and nationally recognized. Ideally treatment decisions should be based on high-grade medical evidence.[11]

IMR is initiated by a notification process between the payor and the injured worker following a UR decision. The injured worker or a properly designated agent has 30 days to submit an IMR application. The employer is then required to submit supporting documentation within 10 days of notice of assignment or within 24 hours if there is an imminent threat to the injured worker's health. The injured worker or his agent may submit supporting documentation but is not required to do so. The treating physician should have provided any required reports and supporting documentation to the claims administrator, who would have submitted them to the independent medical review organization (IMRO). The IMRO may request any additional documentation from the treating physician or the claims administrator, as necessary. The cost of IMR was established by the Division of Workers' Compensation[12] and is paid for through fees covered by the payor. The process and workflows for adjudicating medical disputes that connect all forms of UR and IMR are outlined in Appendices A through C2.

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[10] CA Labor Code Section 4610

[11] Examples of high-grade evidence-based medicine studies include randomized controlled trials in which patients are randomly assigned to treatment and control groups. Low-grade studies include anecdotal observations which typically include a group of cases with no match or control group or reports of individual cases.

[12] CA Labor Code 4610.6 (l) authorizes the Administrative Director of the Division of Workers' Compensation to establish a fee schedule to pay for IMR. Administrative Director's Regulation 9792.10.8 establishes the fee schedule for IMR.

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Evaluating the UR and IMR Medical Dispute Resolution Process

The authors focused on three issues concerning UR and IMR:

1. What types of medical services are subjected to elevated UR and IMR?

2. What percentage of medical treatment events and requests that are subjected to elevated UR and IMR are approved, modified and denied?

3. Could additional reforms increase quality of care, raise the efficiency of medical treatment request review and lower the system-wide cost of medical oversight?

Data

The authors compiled data for utilization review and independent medical review decisions from a variety of sources.

Initial Review

To estimate the volume of all medical treatment requests that are elevated to utilization review, the authors interviewed senior claims and managed care experts from CWCI member companies, as well as 5 utilization review companies operating in the California workers' compensation system.

Elevated Utilization Review

Elevated utilization review is a physician review of medical treatment requests. The authors compiled a database of 919,370 elevated utilization review events and decisions made by California workers' compensation insurance companies representing approximately 35 percent of all premium and is representative of the current California insured market. The elevated utilization review events occurred between January 2011 and June 2012. Each UR decision contained information on the medical treatment service type and volume of medical treatment service under review, and whether the decision was approved, denied or modified. Where the request was modified, the data contain the approved/negotiated level of visits/units of specific treatment.

Independent Medical Review

Data on independent medical review was compiled by downloading all available application determination letters in PDF form from the DWC website[13] and converting selected areas and elements into a database. As of January 2, 2014, the authors accessed and downloaded 1,141 IMR determination letters and 2,476 medical service decisions from all available records posted.

Results

In order to provide the proper and full context of medical dispute resolution, the authors sought to estimate the initial level of medical treatment requests that are subjected to elevated UR. Representatives of UR organizations and claims and medical cost containment experts were interviewed by the authors to assess the level of medical treatment requests that are approved by claims adjusters, nurses and others, and the level of requests that are elevated to UR conducted by physician reviewers.

[13] DWC IMR website: https://www.dir.ca.gov/dwc/IMR/IMR_Decisions.asp

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The general consensus is that due to the availability of the MTUS and other evidence-based medical guidelines, three out of four medical treatment requests are approved by claims adjusters without the need for additional oversight, with 25 percent of the treatment requests requiring elevated utilization review.

Table 1 displays the distribution of the 919,370 medical treatment requests included in the study sample broken out by service category, and the results of the UR decision.

Table 1. Distribution of UR Events and Procedures by Service Category and Resolution

	UR Events			
	All Events	Approved	Modified	Denied
Pharmacy	43.0%	74.1%	7.2%	18.7%
Diagnostic Testing	12.1%	80.0%	2.1%	17.9%
Physical Therapy	9.4%	75.1%	12.6%	12.4%
DME, Prosthetics & Orthotics	8.2%	71.5%	6.3%	22.2%
Consultation	7.5%	93.2%	1.8%	5.0%
Medical Treatment – Other	5.0%	84.2%	3.5%	12.2%
Injections	4.1%	70.9%	4.8%	24.3%
Surgery	3.4%	82.6%	2.1%	15.4%
Chiropractic Manipulation	2.6%	64.9%	16.0%	19.1%
Acupuncture	1.1%	53.4%	21.2%	25.4%
Psych Testing & Treatment	1.0%	76.3%	13.3%	10.4%
Facility - Inpatient & Outpatient	0.8%	91.9%	2.7%	5.4%
Occupational Therapy	0.6%	77.4%	13.0%	9.6%
Home Health Care	0.5%	83.8%	5.6%	10.6%
Pain Mgt.	0.2%	70.3%	14.8%	14.9%
Anesthesia	0.1%	98.0%	0.1%	1.9%
Complementary & Alt Med (CAM)	0.1%	34.4%	14.8%	50.9%
Ergonomic Evaluation	0.1%	98.7%	0.0%	1.3%
Functional Capacity Evaluation	0.1%	71.3%	1.0%	27.7%
Rehab & Skilled Nursing Facility	0.1%	92.0%	3.3%	4.8%
Work Conditioning/Hardening	0.1%	38.5%	10.8%	50.7%
Lab & Pathology	0.0%	68.8%	9.4%	21.9%
Osteopathic Manipulation	0.0%	52.9%	11.8%	35.3%
Grand Total	**100%**	**76.6%**	**6.6%**	**16.9%**

Of the 919,370 medical treatment requests submitted for elevated utilization review, more than three out of four were approved. Pharmacy-related requests accounted for the highest percentage of the UR decisions (43 percent), and the outcomes data show that 74.1 percent of those pharmacy requests were approved, 7.2 percent were modified and 18.7 percent were denied. Although

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relatively infrequent, treatment requests for Ergonomic Evaluation and Anesthesia had the highest UR approval rates – both 98 percent or above. In contrast, Complementary & Alternative Medicine (CAM) had the lowest UR approval rate, with 34.4 percent of the requests for those services approved, 14.8 percent modified and 50.9 percent denied. High-volume procedures such as physical medicine, chiropractic and acupuncture services had the highest levels of treatment request modifications – 12.6 percent, 16.0 percent, and 21.2 percent respectively. The 23.4 percent of all treatment requests that advanced to elevated UR and were denied or modified form the outer bound or maximum pool of IMR referrals as it is unlikely that an approved medical treatment request would be appealed.

In terms of IMR outcomes, the authors focused on three initial areas:

- the number of medical treatment decisions per letter;
- the distribution of IMR decisions by medical service category; and
- the distribution of IMR reviewers by specialty category.

IMR submissions have different levels of detail and treatment requests, so IMR determination letters often include decisions on multiple treatment requests. The authors reviewed the 1,141 IMR decision letters included in the study sample to determine the number of decisions rendered in each letter. The resulting distribution is shown in Table 2. The analysis uses decisions posted to the DWC website as of January 2, 2014 and should be considered a preliminary first look.

Table 2. Distribution of Decisions per Determination Letter

Decisions per Letter	# of Letters	% of Letters	Cum % of Letters	# of Decisions	% of Decisions	Cum % of Decisions
1	634	56%	56%	634	26%	26%
2	193	17%	72%	386	16%	41%
3	121	11%	83%	363	15%	56%
4	80	7%	90%	320	13%	69%
5+	113	10%	100%	773	31%	100%
Total	**1,141**	**100%**		**2,476**	**100%**	

Out of the 1,141 IMR determination letters recorded as of January 2, 2014, almost three out of four had one or two medical treatment decisions, while one out of every 7 letters had 4 or more decisions. The average number of decisions per letter was 2.2.

Table 3 displays the distribution of IMR decisions by medical treatment category.

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Table 3. Distribution of IMR Decisions by Service Category

Service Category	% of Decisions	% Upheld	% Overturned
Pharmacy	36%	78.4%	21.6%
Physical Therapy	12%	85.4%	14.6%
DME	10%	86.8%	13.2%
Surgery	8%	79.4%	20.6%
Major Imaging	7%	78.0%	22.0%
Injection	7%	79.8%	20.2%
Acupuncture / Chiropractic	4%	79.8%	20.2%
Tests & Measurement	4%	64.7%	35.3%
Lab	3%	65.8%	34.2%
Consultations	2%	50.0%	50.0%
Psych	2%	85.7%	14.3%
Pain Management	2%	73.7%	26.3%
Minor Imaging	1%	86.1%	13.9%
Other	2%	75.7%	24.3%
Total	**100%**	**78.9%**	**21.1%**

IMR upheld 78.9 percent of all reviewed elevated UR decisions, while overturning 21.1 percent, with a majority of the UR decisions upheld in all 14 medical service categories. As was the case in elevated UR, pharmacy-related IMR decisions were by far the most prevalent, accounting for one third of all IMR determinations. Of those pharmacy-related reviews, 78 percent upheld the UR decision, while 22 percent overturned the prior UR decision. Consultations, laboratory services, and tests and measurement had the highest percentage of overturned UR decisions following IMR (50 percent, 34.2 percent and 35.3 percent respectively). Among the high-volume IMR requests, durable medical equipment, which accounted for 1 out of 10 IMR determinations, had the lowest percentage of UR modifications (13.2 percent), while 85 percent of all IMR decisions on physical medicine upheld the UR determinations.

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The authors reviewed the IMR determination letters to identify the medical specialty of the IMR reviewers. (Table 4).

Table 4. Distribution of IMR Reviewers by Specialty Category

Reviewer Specialty	# of Letters	% of Total
Physical Medicine	493	43%
Occupational Medicine	225	20%
Orthopedics	158	14%
Family Practice/Internal Med	119	10%
Chiropractic	42	4%
Psychiatry/Psychology	30	3%
Other	74	6%
Grand Total	**1,141**	**100%**

Physical medicine practitioners accounted for the largest proportion of the reviewers (43 percent), followed by occupational medicine specialists (20 percent), orthopedists (14 percent) and family practitioners/internal medicine specialists (10 percent). No other medical specialty accounted for more than 5 percent of the IMR reviewers.

Gauging the Prevalence of Elevated Utilization Review and Independent Medical Review
One of the key public policy issues concerning the progression of medical treatment requests is the estimated proportion of medical treatment requests that are ultimately approved, denied or modified after internal review, elevated utilization review and independent medical review.

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Using the data presented above, the authors were able to estimate the percentage of medical treatment requests that are modified or denied after elevated UR and IMR have been completed (Table 5).

Table 5. Progression of Medical Treatment Requests, Elevated UR and IMR Dispute Resolution

Progression of Medical Treatment Requests	Percent of All Medical Treatment Requests
A. Estimated percentage of all medical treatment requests elevated to UR	25%
B. Percent of elevated UR treatment requests that are modified or denied (Table 1)	23.4%
C. Percent of all medical treatment requests with elevated UR that are denied/modified. (A x B)	5.9%
D. Maximum % of elevated UR denials/modifications sent to IMR	100%
E. Percent of elevated UR denials/modifications sent to IMR and upheld (Table 3)	78.9%
F. Percent of elevated UR denials/modifications sent to IMR and overturned (Table 3)	21.1%
G. Percent of all medical treatment requests denied or modified by UR and IMR (C x D x E)	4.7%
H. Maximum percent of all med treatment requests overturned by IMR. (C x D x F)	1.2%

The proportion of all treatment requests with elevated UR (25%) can be used to adjust the database findings on elevated UR modified or denied decisions (23.4%) to calculate an overall UR denial/modification rate of 5.9%. This becomes the pool of potential IMR requests. It is highly unlikely that all elevated UR denials and modifications are referred to IMR. However, the authors do not have information on the proportion that is submitted for IMR and therefore use the assumption that 100% of denials/modifications will go to IMR to derive the maximum possible impact of IMR on the overall denial rate. Under this assumption, 4.7% of total treatment is denied/modified after the combined UR/IMR process and 1.2% is overturned by IMR.

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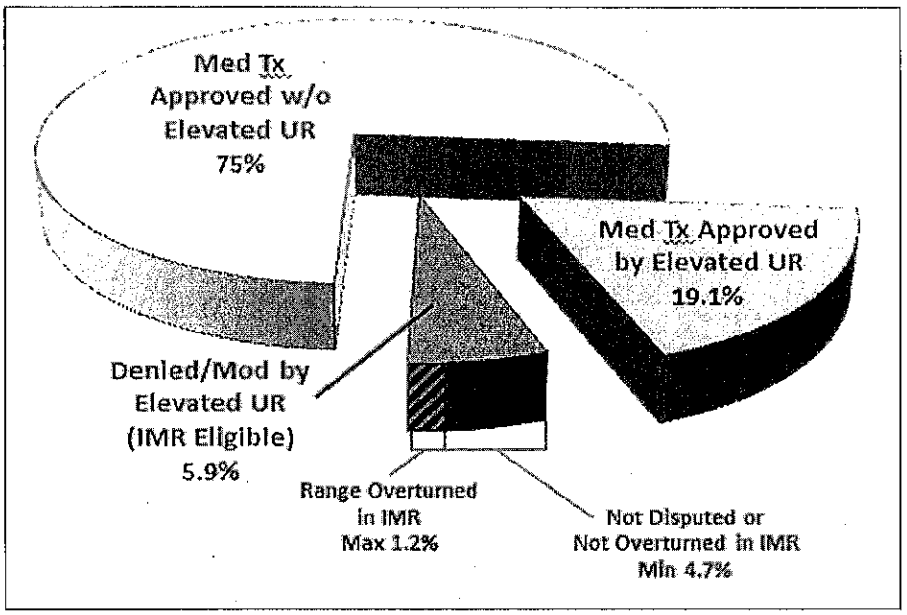
Exhibit 1 shows the percentages in a different orientation by isolating the percentage of all approved medical treatment at the three stages of review: internal payor (claim adjuster) approval, elevated UR and IMR.

Exhibit 1. Progression of Medical Treatment Requests, Elevated UR & IMR Dispute Resolution



Discussion

Medical dispute resolution is a vital component of all healthcare delivery systems. This study examines the key linkages between UR and IMR within the California workers' compensation system.

The results show that after internal and elevated UR, 94.1 percent of UR decisions result in approval of medical treatment requests. Among the 5.9 percent of medical treatment requests that were denied or modified by elevated UR, three out of four of the elevated UR denials/modifications were upheld by IMR, reducing the overall denial/modification rate to 4.7 percent of all requested medical treatment.

The fact that only a small proportion of medical treatment requests are modified or denied shows that UR/IMR are serving as intended, as an exception process.

Optimizing UR and IMR

The California workers' compensation system uses the evidence-based medicine guidelines embedded within the MTUS as a comparison point for proposed medical treatment. However, it is estimated that only a minority of medical treatment is directly addressed by high-grade medical evidence studies, and such studies are rarely conducted exclusively on workers' compensation patients.

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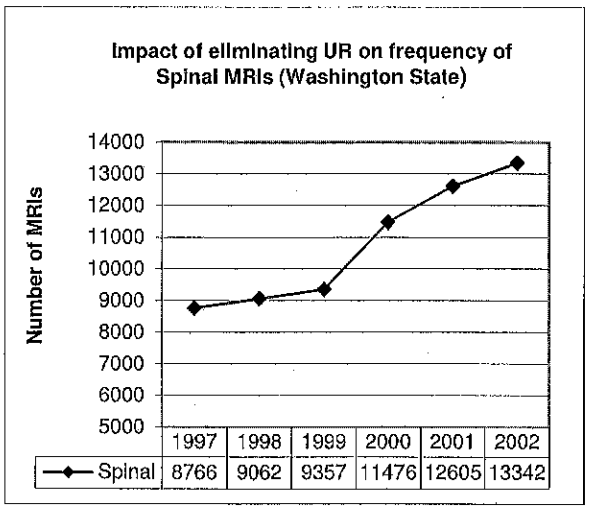
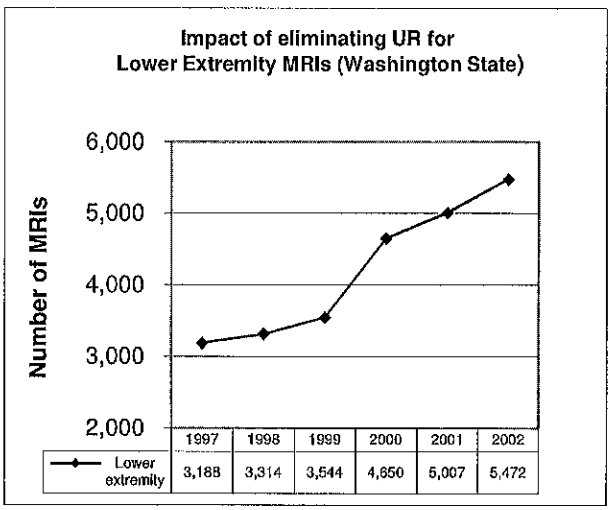
How do other healthcare delivery systems balance medical treatment costs with cost containment within the limits of evidence-based medicine? Federal and group health plans typically use a shared risk model to balance supply and demand for medical services. Medicare, Medicaid and almost all group health programs use mandatory utilization review, along with supply-side controls such as fee schedules, closed provider panels, highly regulated pharmaceutical formularies, explicit limits on specific procedures and therapies and prohibitions on experimental procedures and equipment and demand-side controls such as co-payments and deductibles, contractually based limitations on services. Because cost controls such as co-payments and deductibles cannot be used in the workers' compensation system, cost containment programs are typically limited to the use of fee schedules, medical treatment guidelines, partial limits on specific procedures and utilization review.

The discussion over the proper level of UR and IMR often includes proposals to limit UR on services that cost more than the review process. Lessons from other states warn that consideration of eliminating UR on a strict cost basis should be taken with care.[14] The Department of Labor and Industries ("L&I") is Washington State's sole source of workers' compensation insurance for employers covered by its industrial insurance laws. In 1994, L&I developed criteria related to the use of MRIs of the lumbar spine. Based on observations of MRI requests, UR found that almost all requests were appropriate and that it was paying $2 in UR costs to save $1 on inappropriate MRI requests. Because patient safety was not an issue, and because there was not a financial benefit from paying for utilization review on MRI requests, L&I decided to eliminate the program. In January 2000, the department notified all affected providers that any request submitted by a provider to the utilization review process would be approved.





In 2003, L&I reviewed the effect that the elimination of UR had on MRI use and found a 54 percent increase in spinal MRI scans and a 72 percent increase in lower extremity MRI scans following the elimination of utilization review, and the reviewers were unable to identify any variable other than the removal of the UR requirement that accounted for the increase in MRI utilization.

[14] Case study submitted by Dr. Lee Glass, Associate Medical Director, State of Washington Department of Labor and Industries (2005).

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The California workers' compensation system has its own examples of non-EBM utilization controls. Prior to the 2003-04 reforms, physical medicine and chiropractic manipulation costs were considered a significant cost driver. Utilization and cost controls for these services were addressed in two ways: (1) within the MTUS guidelines; and (2) through the imposition of 24-visit caps on physical medicine and chiropractic manipulation. The 24-visit caps were derived by consensus during the 2003-04 reform debate and were not based on any specific study or body of evidence. Exceptions to the caps were allowed for injured workers requiring surgery and other select conditions. Cost containment threshold tests such as the 24-visit caps can be automated within medical bill review systems, and therefore require fewer resources to implement. Ireland found that following the implementation of the MTUS, all outpatient treatment services increased by 35 percent at 36 months post-injury between 2005 and 2010 compared with physical medicine, which increased by 14 percent and chiropractic manipulation which decreased by 44 percent. Ireland also found that 13 percent of injured workers requiring physical medicine and 4 percent of injured workers requiring chiropractic manipulation received more than 24 visits, providing evidence of flexible UR exception criteria.[15]

As noted above, UR and IMR pharmaceutical reviews represent 43 and 25 percent of all decisions respectively. In terms of pharmaceutical control, a chronic pain management guideline was implemented within the MTUS in July 2009 for the purposes of providing better oversight controls on the use Schedule II and Schedule III opioids and other pain management therapies. Ireland has found that between 2009 and 2012, Schedule II and Schedule III opioids have essentially remained at one quarter of all California workers' compensation outpatient prescriptions and 30 percent of total prescription drug expenditures. This data compiled on UR and IMR decisions suggests that between one-third to one-half of the UR and IMR pharmacy reviews involved opioids or compound drug requests. The authors have also separately documented the high rate of Schedule II opioid prescriptions for minor back pain, strains of the extremities and mental health disturbances, a questionable use of these highly addictive and dangerous pain medications. The sustained high rate of Schedule II and Schedule III opioids and the high rate of pharmacy-related UR and IMR decisions suggest an opportunity for stronger pharmaceutical utilization and cost controls. A forthcoming CWCI study will compare new trends in Schedule II and Schedule III opioid use in California workers' compensation and compare California utilization and cost factors against an alternative closed formulary method used in other states.

The study was not able to address all issues relating to UR and IMR. As of January 2, 2014, an estimated 65,000 IMR submissions have been filed. It is possible that the distribution and results of a larger sample of medical treatment decisions may be different than the sample processed by the authors, although incremental analysis of IMR approval, modified and denial decisions between September through December 2013 have remained stable and consistent. Complete IMR data is not currently available for analysis and without a way to directly link UR and IMR claims, the authors are not able to assess how many UR claims did not file for IMR. Subsequent studies will analyze the underlying use of evidence-based medicine and other justifications for UR and IMR decisions.

Finally, it is also unknown if the new linkage between UR and IMR has resulted in a significant change in overall medical treatment utilization and cost. The authors will revisit this issue in late 2014 and 2015 to begin to measure system-wide changes in medical delivery and the cost/benefit of the new UR and IMR medical dispute resolution process.

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[15] Ireland, J., Swedlow, A., Gardner, L. Analysis of Medical and Indemnity Benefit Payments, Medical Treatment and Pharmaceutical Cost Trends in the California Workers' Compensation System. CWCI, June 2013.

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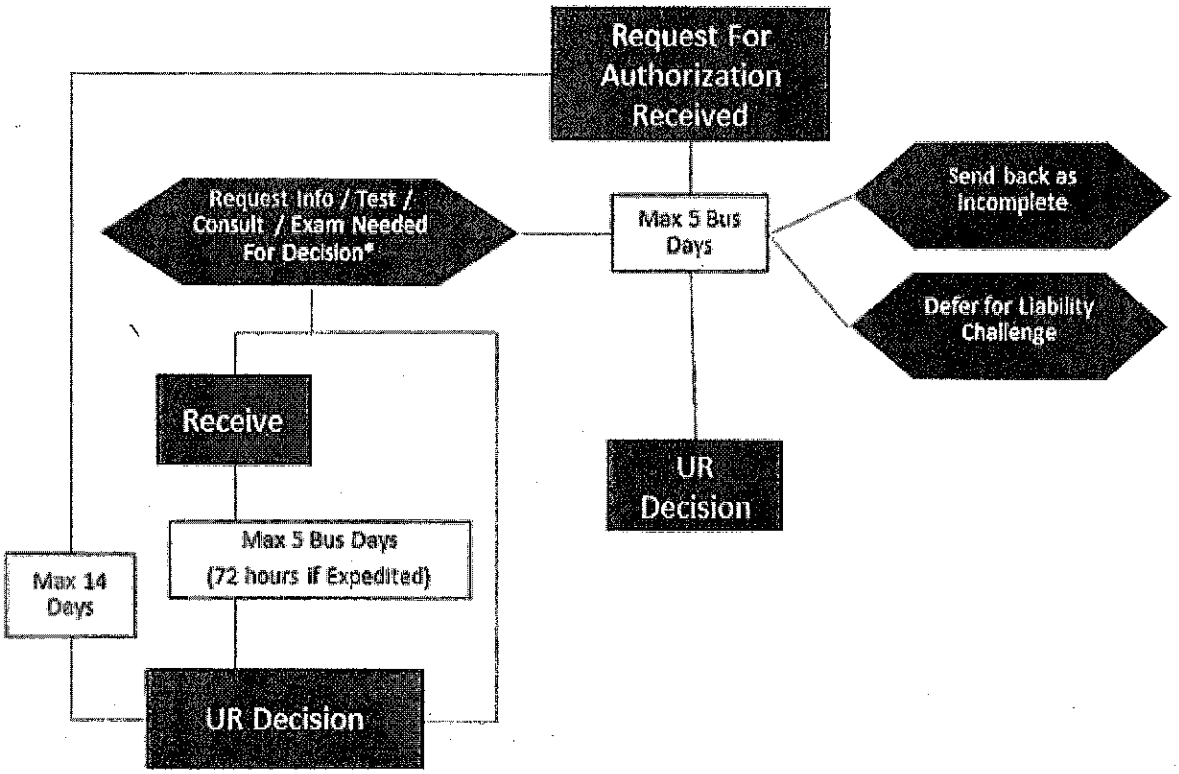
Appendix A. Concurrent/ Prospective Utilization Review



*If No Info Received: Statute says to immediately Delay or Deny.

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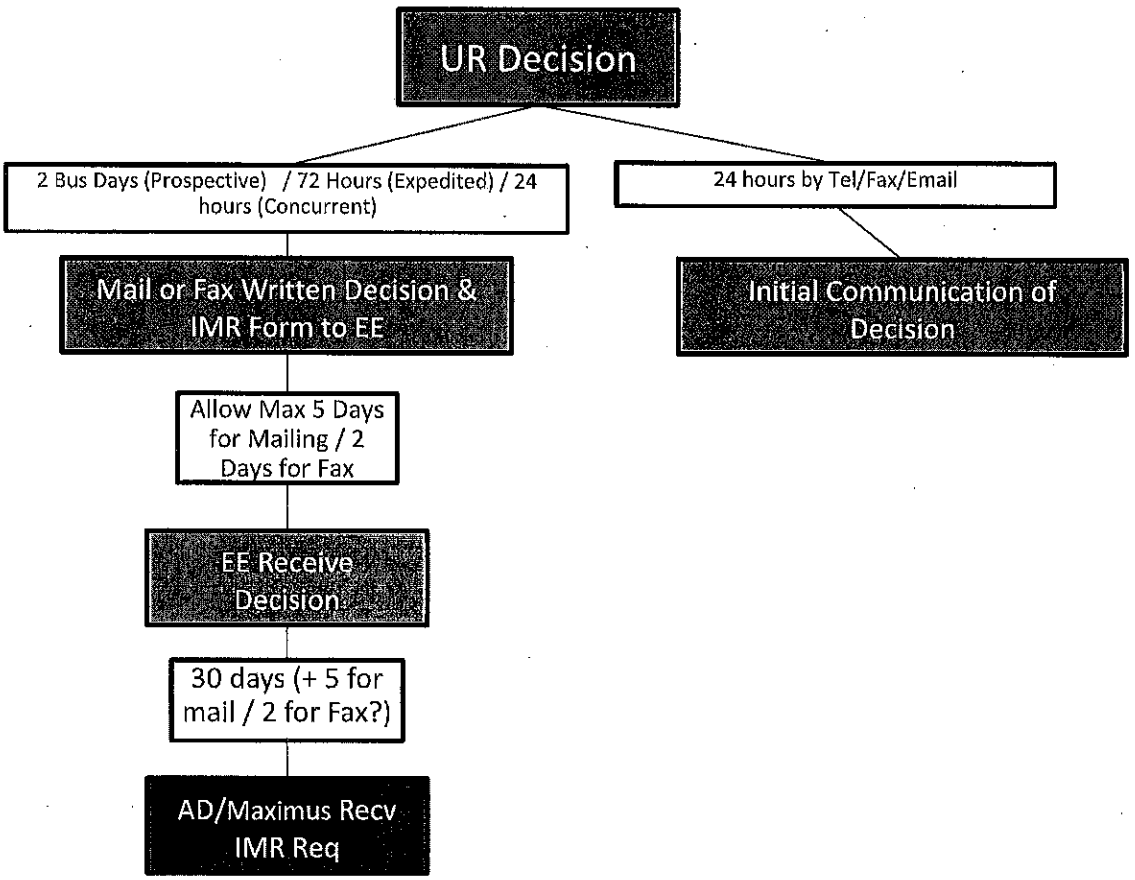
Appendix B. UR to IMR Workflow**



**Applies except for DOIs prior to 1/1/13 where UR Decision was communicated prior to 7/1/13.

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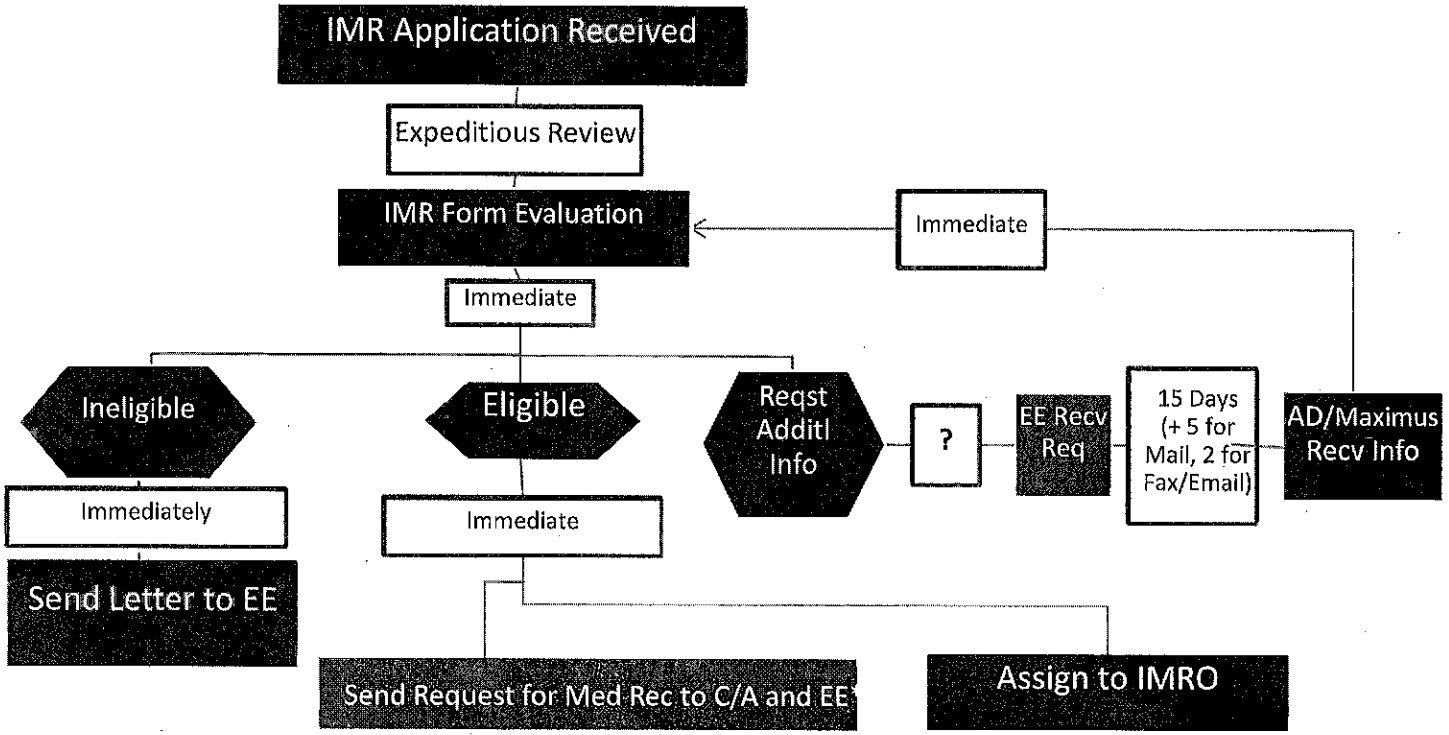
Appendix C. IMR Workflow**



**Applies except for DOIs prior to 1/1/13 where UR Decision was communicated prior to 7/1/13.
? Timeframe unspecified.

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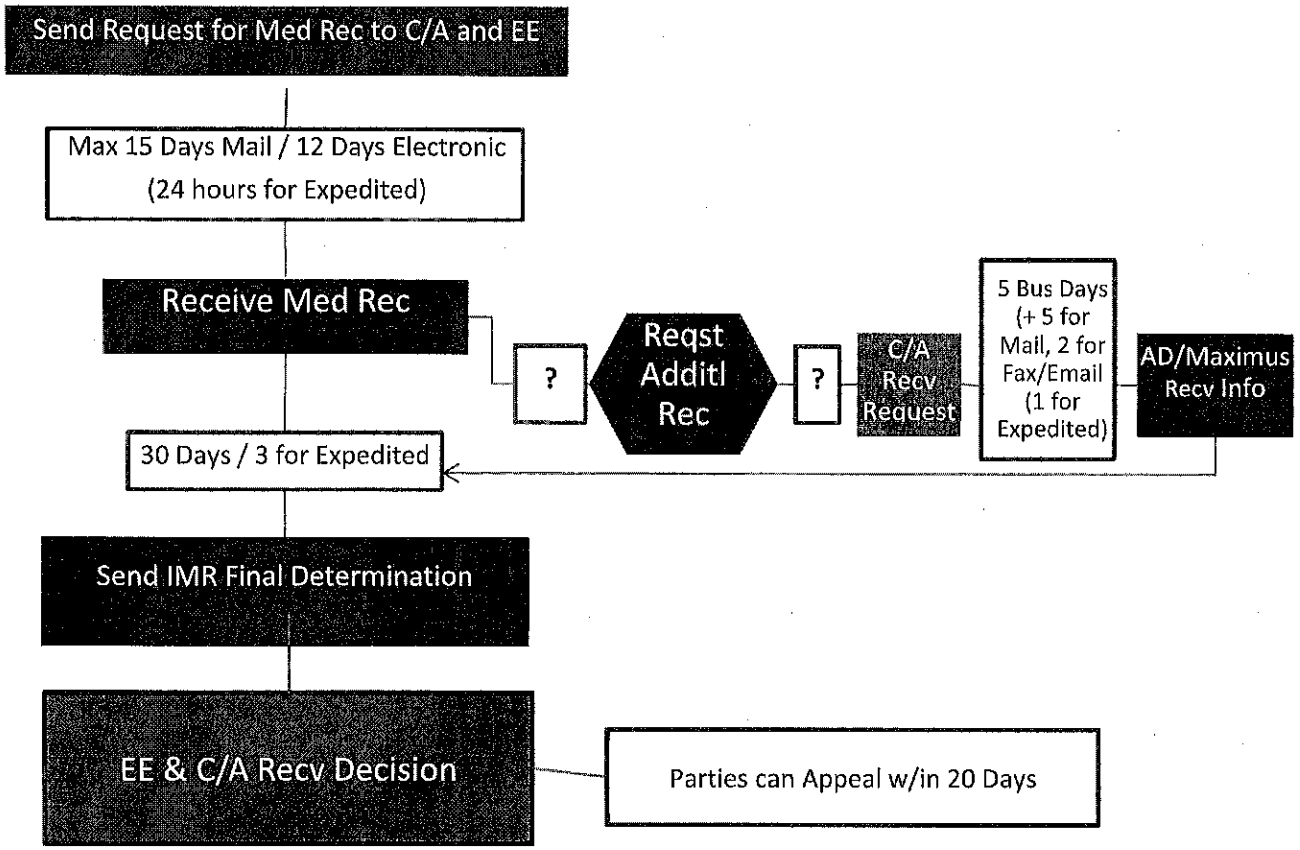
Appendix C2. IMR Workflow** (cont)



**Applies except for DOIs prior to 1/1/13 where UR Decision was communicated prior to 7/1/13.
? Timeframe unspecified.

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About the Authors
Rena David, Senior Vice President, oversees operations and research at the California Workers' Compensation Institute.

Brenda Ramirez, Director of Claims and Medical Care, is responsible for research and commentary on Regulatory Activities as well as CWCI's Claims and Medical Care Committees.

Alex Swedlow is President of CWCI.

About CWCI
The California Workers' Compensation Institute, incorporated in 1964, is a private, non-profit organization of insurers and self-insured employers conducting and communicating research and analyses to improve the California workers' compensation system.

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