Parker Healthcare Management Organization, Inc.

4030 N. Beltline Rd Irving, TX 75038
972.906.0603 972.255.9712 (fax)

Notice of Independent Review Decision

DATE OF REVIEW: JUNE 18, 2009

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

Medical necessity of proposed chronic pain management program 5 X week X 2 weeks (97799)

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION

This case was reviewed by a clinician with a Ph.D. in clinical Psychology and who is licensed in the State of Texas. The reviewer specializes in general psychology and behavioral pain management and is engaged in full time practice.

REVIEW OUTCOME

Upon independent review the reviewer finds that the previous adverse determination/adverse determinations should be:

XX Upheld (Agree)

☐Overturned (Disagree)

☐Partially Overturned (Agree in part/Disagree in part)

Primary Diagnosis	Service being Denied	Billing Modifier	Type of Review	Units	Date(s) of Service	Amount Billed	Date of Injury	DWC Claim#	IRO Decision
847.2	97799		Prosp	10					Upheld

INFORMATION PROVIDED TO THE IRO FOR REVIEW

TDI-HWCN-Request for an IRO-21 pages

Respondent records- a total of 56 pages of records received to include but not limited to: Medical records 3.21.09-5.13.09; Medical note 4.13.09; DWC form 73; FCE 4.16.09

Requestor records- a total of 38 pages of records received to include but not limited to:

Medical notes 4.13.09- 5.7.09; DWC form 73; _ Medical records 3.21.09-5.13.09; FCE 4.16.09

PATIENT CLINICAL HISTORY [SUMMARY]:

The claimant is a female who was injured on xx/xx/xx performing her regular job duties . The initial diagnostic screening report states that the patient was injured when the door she was standing behind was opened into her, hitting her back and causing her to fall to the floor. As a result of the accident, report states claimant injured her neck, back, and right shoulder. There is no history regarding initial treatment, and report doesn't say whether patient went back to work or has never returned.

Since the injury, patient has been given diagnostics and interventions to include: cervical and lumbar MRI's, EMG's, FCE, individual therapy, physical therapy, steroid injection, and medication management. Per the peer review, current medications include Lortab, Skelaxin, Lyrica, and Lidoderm patches. Diagnoses are lumbar sprain, neck sprain, and thoracic sprain. FCE placed the patient at a sedentary level, able to lift/carry 10 pounds on an occasional basis. Job requirement is Light PDL. Patient has been referred by her treating doctor, Dr. for a chronic pain management program which is the subject of this review.

Current treatment appears to be steroid injection which patient did not respond to, and medications. Patient was approved for IT sessions, but only one note is available for review. Current initial and team treatment reports relate patient reporting difficulty with walking more than 15 minutes, standing more than 2 minutes, sitting more than 60 minutes, sleep disturbance with average 4-6 hours sleep per night, medication dependency, and pain related symptoms of nervousness, agitation, stomach cramps, and headaches. Psychometric testing shows severe depression and anxiety (BDI of 42 and BAI of 41), moderately high disability complaints (ODI of 56), perception of pain as being 8/10 VAS, sleep interference, significant fear-avoidance beliefs, and reduced physical capabilities. Patient is diagnosed with Axis I Pain Disorder and Axis II deferred. The current request is for initial trial of 10 days of a chronic pain management program. goals for the program include: weaning of medications by 50%, reduce anxious/depressed symptomotology by 80%, improve overall mobility and functioning, and reduce pain score by 50%. Vocational goal is to return to the workforce.

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION. IF THERE WAS ANY DIVERGENCE FROM DWC'S POLICIES/GUIDLEINES OR THE NETWORK'S TREATMENT GUIDELINES, THEN INDICATE BELOW WITH EXPLANATION.

Goals for the program are vague and generalized, and not really individualized for this particular patient. Initial behavioral report does not include a cohesive history, does not include a mental status exam, and team treatment report has only one signature on it. ODG states that an adequate and thorough evaluation has to have been made. Baseline functional testing was done, but there is no cohesive plan flowing from this testing. Additionally, there is no H&P or physician's notes, no specific titration schedule with regard to her narcotic medications, and no specific vocational plan or information about whether previous job is even still an option. An FCE was administered, but no PT or other such eval in order to make specific physical conditioning recommendations for this patient. It is unclear how many IPT sessions patient was approved for, whether she was compliant in attending these, and what benefit, if any, she received. A stepped-care approach to treatment is recommended by ODG, and has yet to be accomplished. Explanation regarding why Axis II was deferred is also not elucidated in the report or in the

individual therapy note. Given the above mentioned contraindications, the current request cannot be considered reasonable or medically necessary.

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:

XX MEDICAL JUDGEMENT, CLINICAL EXPERIENCE AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS

XX ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES

Psychological treatment: Recommended for appropriately identified patients during treatment for chronic pain. Psychological intervention for chronic pain includes setting goals, determining appropriateness of treatment, conceptualizing a patient's pain beliefs and coping styles, assessing psychological and cognitive function, and addressing co-morbid mood disorders (such as depression, anxiety, panic disorder, and posttraumatic stress disorder). Cognitive behavioral therapy and self-regulatory treatments have been found to be particularly effective. Psychological treatment incorporated into pain treatment has been found to have a positive short-term effect on pain interference and long-term effect on return to work. The following "stepped-care" approach to pain management that involves psychological intervention has been suggested:
Step 1: Identify and address specific concerns about pain and enhance interventions that emphasize self-management. The role of the psychologist at this point includes education and training of pain care providers in how to screen for patients that may need early psychological intervention.
Step 2: Identify patients who continue to experience pain and disability after the usual time of recovery. At this point a consultation with a psychologist allows for screening, assessment of goals, and further treatment options, including brief individual or group therapy.
Step 3: Pain is sustained in spite of continued therapy (including the above psychological care). Intensive care may be required from mental health professions allowing for a multidisciplinary treatment approach. See also Multi-disciplinary pain programs. See also ODG Cognitive Behavioral Therapy (CBT) Guidelines for low back problems. (Otis, 2006) (Townsend, 2006) (Kerns, 2005) (Flor, 1992) (Morley, 1999) (Ostelo, 2005)

FRP's: Recommended, although research is still ongoing as to how to most appropriately screen for inclusion in these programs. Functional restoration programs (FRPs), a type of treatment included in the category of interdisciplinary pain programs (see Chronic pain programs), were originally developed by Mayer and Gatchel. FRPs were designed to use a medically directed, interdisciplinary pain management approach geared specifically to patients with chronic disabling occupational musculoskeletal disorders. These programs emphasize the importance of function over the elimination of pain. FRPs incorporate components of exercise progression with disability management and psychosocial intervention. Long-term evidence suggests that the benefit of these programs diminishes over time, but still remains positive when compared to cohorts that did not receive an intensive program. (Bendix, 1998) A Cochrane review suggests that there is strong evidence that intensive multidisciplinary rehabilitation with functional restoration reduces pain and improves function of patients with low back pain. The evidence is contradictory when evaluating the programs in terms of vocational outcomes. (Guzman 2001) It must be noted that all studies used for the Cochrane review excluded individuals with extensive radiculopathy, and several of the studies excluded patients who were receiving a pension, limiting the generalizability of the above results. Studies published after the Cochrane review also indicate that intensive programs show greater effectiveness, in particular in terms of return to work, than less intensive treatment. (Airaksinen, 2006) There appears to be little scientific evidence for the effectiveness of multidisciplinary biopsychosocial rehabilitation compared with other rehabilitation facilities for neck and shoulder pain, as opposed to low back pain and generalized pain syndromes. (Karjalainen, 2003) Treatment is not suggested for longer than 2 weeks without evidence of demonstrated efficacy as documented by subjective and objective gains. For general information see Chronic pain programs.

Chronic pain/Functional Restoration Programs: Recommended where there is access to programs with proven successful outcomes (i.e., decreased pain and medication use, improved function and return to work, decreased utilization of the health care system), for patients with conditions that have resulted in delayed recovery. There should be evidence that a complete diagnostic assessment has been made, with a detailed treatment plan of how to address physiologic, psychological and sociologic components that are considered components of the patient's pain. Patients should show evidence of motivation to improve and return to work, and meet the patient selection criteria outlined below. While these programs are recommended (see criteria below), the research remains ongoing as to (1) what is considered the "gold-standard" content for treatment; (2) the group of patients that benefit most from this treatment; (3) the ideal timing of when to initiate treatment; (4) the intensity necessary for effective treatment; and (5) cost-effectiveness. It has been suggested that interdisciplinary/multidisciplinary care models for treatment of chronic pain may be the most effective way to treat this condition. (Flor, 1992) (Gallagher, 1999) (Guzman, 2001) (Gross, 2005) (Sullivan, 2005) (Dysvik, 2005) (Airaksinen, 2006) (Schonstein, 2003) (Sanders, 2005) (Patrick, 2004) (Buchner, 2006) These treatment modalities are based on the biopsychosocial model, one that views pain and disability in terms of the interaction between physiological, psychological and social factors. (Gatchel, 2005) See Biopsychosocial model of chronic pain.

Types of programs: There is no one universal definition of what comprises interdisciplinary/multidisciplinary treatment. These pain rehabilitation programs (as described below) combine multiple treatments, and at the least, include psychological care along with physical and/or occupational therapy (including an active exercise component as opposed to passive modalities). The most commonly referenced programs have been defined in the following general ways (Stanos, 2006):

(1) Multidisciplinary programs: Involves one or two specialists directing the services of a number of team members, with these specialists often having independent goals. These programs can be further subdivided into four levels of pain programs:

(a) Multidisciplinary pain centers (generally associated with academic centers and include research as part of their focus)

(b) Multidisciplinary pain clinics

(c) Pain clinics

(d) Modality-oriented clinics

(2) Interdisciplinary pain programs: Involves a team approach that is outcome focused and coordinated and offers goal-oriented interdisciplinary services. Communication on a minimum of a weekly basis is emphasized. The most intensive of these programs is referred to as a Functional Restoration Program, with a major emphasis on maximizing function versus minimizing pain. See Functional restoration programs.

Types of treatment: Components suggested for interdisciplinary care include the following services delivered in an integrated fashion: (a) physical treatment; (b) medical care and supervision; (c) psychological and behavioral care; (d) psychosocial care; (e) vocational rehabilitation and training; and (f) education.

Outcomes measured: Studies have generally evaluated variables such as pain relief, function and return to work. More recent research has begun to investigate the role of comorbid psychiatric and substance abuse problems in relation to treatment with pain programs. Recent literature has begun to suggest that an outcome of chronic pain programs may be to "demedicalize" treatment of a patient, and encourage them to take a more active role in their recovery. These studies use outcomes such as use of the medical care system post-treatment. The role of the increasing use of opioids and other medications (using data collected over the past decade) on outcomes of functional restoration is in the early stages, and it is not clear how changes in medication management have affected outcomes, if at all. (See Opioids for chronic pain.)

Outcomes (in terms of body parts)

Neck and Shoulder: There are limited studies about the efficacy of chronic pain programs for neck, shoulder, or upper extremity musculoskeletal disorders. (Karjalainen, 2003) This may be because rates of cervical claims are only 20-25% of the rates of lumbar claims. In addition, little is know as to chronicity of outcomes. Researchers using PRIDE Program (Progressive Rehabilitation Institute of Dallas for Ergonomics) data compared a cohort of patients with cervical spine disorders to those with lumbar spine disorders from 1990-1995 and found that they had similar outcomes. Cervical patients were statistically less likely to have undergone pre-rehabilitative surgery. (Wright, 1999)

Multidisciplinary back training: (involvement of psychologists, physiotherapists, occupational therapists, and/or medical specialists). The training program is partly based on physical training and partly on behavioral cognitive training. Physical training is performed according to the "graded activity" principle.

The main goal is to restore daily function. A recent review of randomized controlled studies of at least a year's duration found that this treatment modality produced a positive effect on work participation and possibly on quality of life. There was no long-term effect on experienced pain or functional status (this result may be secondary to the instrument used for outcome measure). Intensity of training had no substantial influence on the effectiveness of the treatment. (van Geen, 2007) (Bendix, 1997) (Bendix, 1998) (Bendix2, 1998) (Bendix, 2000) (Frost, 1998) (Harkapaa, 1990) (Skouen, 2002) (Mellin, 1990) (Haldorsen, 2002)

Intensive multidisciplinary rehabilitation of chronic low back pain: The most recent Cochrane study was withdrawn from the Cochrane (3/06) as the last literature search was performed in 1998. Studies selected included a physical dimension treatment and at least one other treatment dimension (psychological, social, or occupational). Back schools were not included unless they included the above criteria. There was strong evidence that intensive multidisciplinary biopsychosocial rehabilitation with functional restoration improved function when compared to inpatient or outpatient nonmultidisciplinary rehabilitation. Intensive (> 100 hours), daily interdisciplinary rehabilitation was moderately superior to noninterdisciplinary rehabilitation or usual care for short- and long-term functional status (standardized mean differences, -0.40 to -0.90 at 3 to 4 months, and -0.56 to -1.07 at 60 months). There was moderate evidence of pain reduction. There was contradictory evidence regarding vocational outcome. Less intensive programs did not show improvements in pain, function, or vocational outcomes. It was suggested that patients should not be referred to multidisciplinary biopsychosocial rehabilitation without knowing the actual content of the program. (Guzman, 2001) (Guzman-*Cochrane*, 2002) (van Geen, 2007) (Bendix, 1997) (Bendix, 1998) (Bendix2, 1998) (Bendix, 2000) (Frost, 1998) (Harkapaa, 1990) (Skouen, 2002) (Mellin, 1990) (Haldorsen, 2002)

Multidisciplinary biopsychosocial rehabilitation for subacute low back pain among working age adults: The programs described had to include a physical component plus ether a psychological, social and/or vocational intervention. There was moderate evidence of positive effectiveness for multidisciplinary rehabilitation for subacute low back pain and that a workplace visit increases effectiveness. The trials included had methodological shortcomings, and further research was suggested. (Karjalainen, 2003)

Role of opioid use: See Chronic pain programs, opioids.

Role of comorbid psych illness: Comorbid conditions, including psychopathology, should be recognized as they can affect the course of chronic pain treatment. In a recent analysis, patients with panic disorder, antisocial personality disorder and dependent personality disorder were > 2 times more likely to not complete an interdisciplinary program. Personality disorders in particular appear to hamper the ability to successfully complete treatment. Patients diagnosed with post-traumatic stress disorder were 4.2 times more likely to have additional surgeries to the original site of injury. (Dersh, 2007) The prevalence of depression and anxiety in patients with chronic pain is similar. Cohort studies indicate that the added morbidity of depression and anxiety with chronic pain is more strongly associated with severe pain and greater disability. (Poleshuck, 2009) (Bair, 2008)

Predictors of success and failure: As noted, one of the criticisms of interdisciplinary/multidisciplinary rehabilitation programs is the lack of an appropriate screening tool to help to determine who will most benefit from this treatment. Retrospective research has examined decreased rates of completion of functional restoration programs, and there is ongoing research to evaluate screening tools prior to entry. (Gatchel, 2006) There is need for research in terms of necessity and/or effectiveness of counseling for patients considered to be "at-risk" for post-discharge problems. (Proctor, 2004) The following variables have been found to be negative predictors of efficacy of treatment with the programs as well as negative predictors of completion of the programs: (1) a negative relationship with the employer/supervisor; (2) poor work adjustment and satisfaction; (3) a negative outlook about future employment; (4) high levels of psychosocial distress (higher pretreatment levels of depression, pain and disability); (5) involvement in financial disability disputes; (6) greater rates of smoking; (7) increased duration of pre-referral disability time; (8) higher prevalence of opioid use; and (9) elevated pre-treatment levels of pain. (Linton, 2001) (Bendix, 1998) (McGeary, 2006) (McGeary, 2004) (Gatchel2, 2005) (Dersh, 2007)

Role of duration of disability: There is little research as to the success of return to work with functional restoration programs in long-term disabled patients (> 24 months).

Studies supporting programs for patients with long-term disability: Long-term disabled patients (at least 18 months) vs. short-term disabled (4 to 8 months) were evaluated using Pride data (1990-1993). No control was given for patients that did not undergo a program. During the time studied program dropouts averaged 8% to 12%. (It does appear that at the time of this study, participants in the program were detoxified from

opioids prior to beginning.) The long-term disabled group was more likely to have undergone spinal surgery, with this likelihood increasing with time. Return to work was statistically different between the short-term disabled (93%) and the long-term disabled-18 months (80%). The long-term disabled-24 months group had a 75% return to work. Long-term disabled-18 month patients were statistically more likely to visit new health providers than short-term disabled patients (34% and 25% respectively). Work retention at one year in groups up to 24 months duration of disability was 80%. This dropped to 66% in the group that had been disabled for > 24 months. The percentage of recurrent lost time injury claims increased from around 1% in the groups disabled for < 35 months to 8.3% in the groups disabled for > 36 months. A main criterion for success appeared to be the decision of the patient to actively participate in the program rehabilitation goals. (Jordan, 1998)

Studies suggesting limited results in patients with long-term disability: While early studies have suggested that time out-of-work is a predictor of success for occupational outcomes, these studies have flaws when an attempt is made to apply them to chronic pain programs. (Gallagher, 1989) (Beals, 1972) (Krause, 1994) Washington State studied the role of duration of work injury on outcome using a statistical model that allowed for a comparison of patients that participated in a multidisciplinary pain program (using data from 1991-1993) vs. those that were evaluated and not treated. This was not an actual study of time of disability, but of duration of injury (mean years from injury to evaluation of 2.6 years for the treated group and 4.0 years for the evaluated only group). The original statistical analysis allowed for a patient to be included in a "treated group" for those individuals that both completed and did not complete the program. Data was collected from 10 sites. Each of the centers was CARF approved and included Pysch/behavioral treatment, vocation counseling and physical therapy. A sub-study evaluated a comparison of patients that were treatment completers vs. those that did not participate (78.6%, N-=963). No information was given in terms of surgical procedures or medications. The primary outcome was time loss status of subjects 2 years after they had undergone the index pain center evaluation. In the 2001 study, if chronicity of duration of injury was controlled for, there was no significant benefit produced in terms of patients that were receiving time-loss benefits at 2-years post treatment between the two groups. Approximately 60% of both groups were not receiving benefits at the two-year period. As noted, the "treated patient" was only guaranteed to have started a program. A repeat analysis of only the patients who completed the study did not significantly change the results of the study. In a 2004 survey follow-up no significant difference was found between treated and untreated groups, although the treated group had better response. The survey response was 50%, and the treatment responders were more likely to be disabled at the time of the survey. The authors suggest that the results indicated early intervention was a key to response of the programs, and that modest goals (improvement, not cure) be introduced. (Robinson, 2004) (Robinson, 2001) [The authors also concluded that there was no evidence that pain center treatment affects either disability status or clinical status of injured workers.]

Timing of use: Intervention as early as 3 to 6 months post-injury may be recommended depending on identification of patients that may benefit from a multidisciplinary approach (from programs with documented positive outcomes). See Chronic pain programs, early intervention.

Role of post-treatment care (as an outcome): Three variables are usually examined; (1) New surgery at the involved anatomic site or area; (2) Percentage of patients seeking care from a new provider; (3) Number of visits to the new provider over and above visits with the health-care professional overseeing treatment. It is suggested that a "new provider" is more likely to reorder diagnostic tests, provide invasive procedures, and start long-term analgesics. In a study to determine the relationship between post-treatment healthcare-seeking behaviors and poorer outcomes (using prospectively analyzed PRIDE data on patients with work-related musculoskeletal injuries), patients were compared that accessed healthcare with a new provider following functional restoration program completion (approximately 25%) to those that did not. The former group was significantly more likely to have an attorney involved with their case (22.7% vs. 17.1%, respectively), and to have had pre-rehabilitation surgery (20.7% vs. 12.1%, respectively). Return to work was higher in the group that did not access a new provider (90% vs. 77.6% in the group that did access). The group that did not access new providers also was more likely to be working at one year (88% vs. 62.2% in the group that accessed new providers). It should be noted that 18% of the patients that entered the program dropped out or were asked to leave. The authors suggested monitoring of additional access of healthcare over and above that suggested at the end of the program, with intervention if needed. (Proctor, 2004)

See also Chronic pain programs, intensity; Chronic pain programs, opioids; Functional restoration programs; & Chronic pain programs, early intervention.

Criteria for the general use of multidisciplinary pain management programs:
Outpatient pain rehabilitation programs may be considered medically necessary in the following circumstances:
(1) The patient has a chronic pain syndrome, with evidence of loss of function that persists beyond three months and has evidence of three or more of the following: (a) Excessive dependence on health-care providers, spouse, or family; (b) Secondary physical deconditioning due to disuse and/or fear-avoidance of physical activity due to pain; (c) Withdrawal from social activities or normal contact with others, including work, recreation, or other social contacts; (d) Failure to restore preinjury function after a period of disability such that the physical capacity is insufficient to pursue work, family, or recreational needs; (e) Development of psychosocial sequelae that limits function or recovery after the initial incident, including anxiety, fear-avoidance, depression, sleep disorders, or nonorganic illness behaviors (with a reasonable probability to respond to treatment intervention); (f) The diagnosis is not primarily a personality disorder or psychological condition without a physical component; (g) There is evidence of continued use of prescription pain medications (particularly those that may result in tolerance, dependence or abuse) without evidence of improvement in pain or function.
(2) Previous methods of treating chronic pain have been unsuccessful and there is an absence of other options likely to result in significant clinical improvement.
(3) An adequate and thorough multidisciplinary evaluation has been made. This should include pertinent validated diagnostic testing that addresses the following: (a) A physical exam that rules out conditions that require treatment prior to initiating the program. All diagnostic procedures necessary to rule out treatable pathology, including imaging studies and invasive injections (used for diagnosis), should be completed prior to considering a patient a candidate for a program. The exception is diagnostic procedures that were repeatedly requested and not authorized. Although the primary emphasis is on the work-related injury, underlying non-work related pathology that contributes to pain and decreased function may need to be addressed and treated by a primary care physician prior to or coincident to starting treatment; (b) Evidence of a screening evaluation should be provided when addiction is present or strongly suspected; (c) Psychological testing using a validated instrument to identify pertinent areas that need to be addressed in the program (including but not limited to mood disorder, sleep disorder, relationship dysfunction, distorted beliefs about pain and disability, coping skills and/or locus of control regarding pain and medical care) or diagnoses that would better be addressed using other treatment should be performed; (d) An evaluation of social and vocational issues that require assessment.
(4) If a goal of treatment is to prevent or avoid controversial or optional surgery, a trial of 10 visits may be implemented to assess whether surgery may be avoided.
(5) If a primary reason for treatment in the program is addressing possible substance use issues, an evaluation with an addiction clinician may be indicated upon entering the program to establish the most appropriate treatment approach (pain program vs. substance dependence program). This must address evaluation of drug abuse or diversion (and prescribing drugs in a non-therapeutic manner). In this particular case, once drug abuse or diversion issues are addressed, a 10-day trail may help to establish a diagnosis, and determine if the patient is not better suited for treatment in a substance dependence program. Addiction consultation can be incorporated into a pain program. If there is indication that substance dependence may be a problem, there should be evidence that the program has the capability to address this type of pathology prior to approval.
(6) Once the evaluation is completed, a treatment plan should be presented with specifics for treatment of identified problems, and outcomes that will be followed.
(7) There should be documentation that the patient has motivation to change, and is willing to change their medication regimen (including decreasing or actually weaning substances known for dependence). There should also be some documentation that the patient is aware that successful treatment may change compensation and/or other secondary gains. In questionable cases, an opportunity for a brief treatment trial may improve assessment of patient motivation and/or willingness to decrease habituating medications.
(8) Negative predictors of success (as outlined above) should be identified, and if present, the pre-program goals should indicate how these will be addressed.
(9) If a program is planned for a patient that has been continuously disabled for greater than 24 months, the outcomes for the necessity of use should be clearly identified, as there is conflicting evidence that chronic pain programs provide return-to-work beyond this period. These other desirable types of outcomes include decreasing post-treatment care including medications, injections and surgery.
(10) Treatment is not suggested for longer than 2 weeks without evidence of compliance and significant

demonstrated efficacy as documented by subjective and objective gains. (Note: Patients may get worse before they get better. For example, objective gains may be moving joints that are stiff from lack of use, resulting in increased subjective pain.) However, it is also not suggested that a continuous course of treatment be interrupted at two weeks solely to document these gains, if there are preliminary indications that they are being made on a concurrent basis.
(11) Integrative summary reports that include treatment goals, compliance, progress assessment with objective measures and stage of treatment, must be made available upon request at least on a bi-weekly basis during the course of the treatment program.
(12) Total treatment duration should generally not exceed 20 full-day (160 hours) sessions (or the equivalent in part-day sessions if required by part-time work, transportation, childcare, or comorbidities). (Sanders, 2005) Treatment duration in excess of 160 hours requires a clear rationale for the specified extension and reasonable goals to be achieved. Longer durations require individualized care plans explaining why improvements cannot be achieved without an extension as well as evidence of documented improved outcomes from the facility (particularly in terms of the specific outcomes that are to be addressed).
(13) At the conclusion and subsequently, neither re-enrollment in repetition of the same or similar rehabilitation program (e.g. work hardening, work conditioning, out-patient medical rehabilitation) is medically warranted for the same condition or injury (with possible exception for a medically necessary organized detox program). Prior to entry into a program the evaluation should clearly indicate the necessity for the type of program required, and providers should determine upfront which program their patients would benefit more from. A chronic pain program should not be considered a "stepping stone" after less intensive programs, but prior participation in a work conditioning or work hardening program does not preclude an opportunity for entering a chronic pain program if otherwise indicated.
(14) Suggestions for treatment post-program should be well documented and provided to the referral physician. The patient may require time-limited, less intensive post-treatment with the program itself. Defined goals for these interventions and planned duration should be specified.
(15) Post-treatment medication management is particularly important. Patients that have been identified as having substance abuse issues generally require some sort of continued addiction follow-up to avoid relapse.
Inpatient pain rehabilitation programs: These programs typically consist of more intensive functional rehabilitation and medical care than their outpatient counterparts. They may be appropriate for patients who: (1) don't have the minimal functional capacity to participate effectively in an outpatient program; (2) have medical conditions that require more intensive oversight; (3) are receiving large amounts of medications necessitating medication weaning or detoxification; or (4) have complex medical or psychological diagnosis that benefit from more intensive observation and/or additional consultation during the rehabilitation process. (Keel, 1998) (Kool, 2005) (Buchner, 2006) (Kool, 2007) As with outpatient pain rehabilitation programs, the most effective programs combine intensive, daily biopsychosocial rehabilitation with a functional restoration approach. If a primary focus is drug treatment, the initial evaluation should attempt to identify the most appropriate treatment plan (a drug treatment /detoxification approach vs. a multidisciplinary/interdisciplinary treatment program). See Chronic pain programs, opioids; Functional restoration programs.

Chronic pain programs, opioids , 2009: Recommended depending on identification of patients that may benefit from early intervention via a multidisciplinary approach, as indicated below. The likelihood of return to work diminishes significantly after approximately 3 months of sick leave. It is now being suggested that there is a place for interdisciplinary programs at a stage in treatment prior to the development of permanent disability, and this may be at a period of no later than 3 to 6 months after a disabling injury. (Robinson, 2004) (Gatchel, 2003) (Jordan, 1998) Some early intervention programs have been referred to as "secondary treatment," and differ from the more traditional, palliative care pain programs by not only the earlier onset of treatment, but by treatment intensity and level of medical supervision. (Mayer, 2003)
Recommendations for identification of patients that may benefit from early intervention via a multidisciplinary approach:
(a) The patient's response to treatment falls outside of the established norms for their specific diagnosis without a physical explanation to explain symptom severity.
(b) The patient exhibits excessive pain behavior and/or complaints compared to that expected from the

diagnosis.
(c) There is a previous medical history of delayed recovery.
(d) The patient is not a candidate where surgery or other treatments would clearly be warranted.
(e) Inadequate employer support or evidence of work organizational factors limiting return to work without interventions.
(f) Evidence of psychosocial barriers that make return to work unlikely.
(g) Loss of employment or evidence of partial disability involving ability to perform only "part-time" work or work with "light-duty" restrictions for greater than 4 months. (Mayer, 2003) (Gatchel, 2003) For general information see Chronic pain programs.

Recommend adjustment according to patient variables, as indicated below. Research is ongoing as to what treatments are most necessary as part of interdisciplinary treatment for patients with subacute and chronic pain, and how intense such delivery of care should be. The more traditional models of interdisciplinary pain management often provide what has been referred to as tertiary care; a more intensive, and often, more palliative treatment for chronic pain. Research as to the intensity of treatment that is required for earlier intervention remains ongoing ("secondary intervention" see Chronic pain programs, early intervention). Several examples show the difference in results based on intensity of treatment that occur based, in part, on variables such as gender, age, prognosis, diagnosis, and duration of pain. A recent study showed that for men with low back pain that had been "sick-listed" for an average of 3 months, there was no difference between extensive multidisciplinary treatment and usual care in terms of return to work. Significantly better results were found for men who received a "light treatment program" compared to usual care, and these results remained significant at 12, 18 and 24 months. (Skouen, 2002) On the other hand, an extensive program has been shown to be the most effective treatment modality for patients considered to be in categories of poor health, and poor prognosis who were "sick-listed" for the same period, although the effect tapers after one to two years. (Haldorsen, 2002) For general information see Chronic pain programs.

Recommend assessing the effects of interdisciplinary pain programs on patients who remain on opioids throughout treatment, and to determine whether opioid use should be a screening factor for admission to or continuation in a program. The limited research that is available indicates that daily opioid use, in low doses, does not decrease effectiveness of chronic pain programs, although outcomes may be less optimal for patients who continue to use opioids. (Dersh, 2008) Current research indicates that simultaneous dependency/addiction programs with pain programs are a viable option. Some patients will require treatment of addictive disease before pain management can be effectively addressed. Patients with opioid dependence may require additional, long-term follow-up after the rehabilitation program. Criteria for this follow-up are still under research.
Programs that include detoxification as part of their protocol
PRIDE Program: In 2008 the PRIDE program (Progressive Rehabilitation Institute of Dallas for Ergonomics) (Dersh 2008) evaluated the role of post-injury opioid-dependence disorder (ODD) to assess if prescription opioid dependence (assessed at the beginning of rehabilitation) affected treatment outcome in patients with chronic disabling occupational spinal disorders. All patients with opioid dependence exhibited a lack of improvement or worsening in psychological well-being and social and vocational functioning despite the clinician's best attempts at pain control. As noted, patients were required to taper off of all opioids early in treatment. Patients who had the following identified during initial treatment were referred to a facility psychiatrist (who had board certification in addiction): 1) evidence of use of high-dose/potency opioids or multiple opioids; 2) patients with a known history of current or lifetime substance-use disorders; 3) patients with known or easily apparent psychiatric disturbance; 4) patients that did not progress well in their detoxification under care of the attending physician. A diagnosis of substance dependence was made, in part, using the structured clinical interview for DSM-non-patient version (SCID-NP) and the SCID personality disorders (SCID-II). Prevalence of ODD was 15% on entering the program. ODD patients had greater length of disability (17 months for non-ODD vs. 29 months for ODD patients), were 2.5 times more likely to have had pretreatment surgery and 1.5 times more likely to be represented by an attorney. ODD patients were likely to have more axis I and II disorders (other than substance abuse disorders) than non-ODD patients. The odds ratio in ODD patients for current major depressive disorder was 1.7 and for current anxiety disorder was 1.7. ODD was significantly associated with preinjury substance-use disorders (O.R. 1.9). The substances identified included alcohol and drugs other than opioids. The axis II disorders associated with ODD were antisocial personality disorder and borderline personality disorder.
Results of program completers: Program completion was not significantly different between ODD and non-ODD patients. The primary reason for non-completion was non-compliance and treatment refusal and

failure to develop a work plan. Only 5% of patients did not complete the program due to continued substance abuse/dependence. After adjusting for demographics and comorbid psychiatric disorders, opioid-dependent patients were 1.7 times less likely to return to work (95% confidence interval of this result was 1.0, 2.7, indicating a trend only). The opioid dependent patients were 2 times less likely to retain work at the 1-year interview (95% CI; 1.3, 3.0), and 1.7 times more likely to engage in healthcare utilization with new providers (95% CI; 1.2, 2.5). These rates were even higher when adjustment for comorbid psych pathology was not made. (Dersh, 2007)

Detoxification and referral to an addiction specialist in this program: This program included detoxification from opioids early in the treatment program. Patients taking high-dose/potency opioids or multiple opioids, patients with a known history of current or lifetime substance-abuse disorders, patients with known or easily apparent psychiatric disturbance, and/or patients who did progress well with detoxification under care of the attending physician were referred to the facility psychiatrist (board certified in addiction). Patients that continued to use opioids were offered inpatient detoxification. If refused, they were discharged from the program. *Assessments utilized:* Structured clinical interview for DSM-non-patient versions (SCID-NP) to assess for axis I psychiatric disorders such as schizophrenia, depression and substance-use disorders and the SCID personality disorders (SCID-II) to assess for axis-II DSM personality disorders (Borderline, Antisocial, Paranoid).

Programs that allow some opioid use

Mayo Clinic Pain Rehabilitation Program: This program also incorporates simultaneous opioid withdrawal and pain rehabilitation. The original study by Rome et al. was designed to (1) evaluate the frequency of maintenance opioid therapy in the population admitted to the multidisciplinary program, (2) compare demographic characteristics, pain severity, emotional distress, and level of function of patients taking maintenance opioids at admission vs. those who were not, (3) compare outcomes of the two groups (pain severity, interference with pain, perceived life control, affective distress, general activity level, depression, and catastrophizing). Research (in an analysis of predominately female, non-workers' compensation patients), found that all patients that completed the program (regardless of opioid use on initial entry) showed decreased pain severity and catastrophizing, although those taking opioids had significantly higher scores at the three-week discharge for these variables. They also had higher scores for depression. Over one-half of patients took opioids at the time of admission (57.1%). The majority of patients completed the program (91%). At the completion of treatment 13.9% of patients were still taking opioids (mean oral morphine equivalents a day of 67.6 mg/day). Significant improvement was found for all outcome variables immediately after completion of the program and at 6-months post-treatment regardless of opioid status at admission. In this program, there was no difference between opioid and non-opioid groups upon discharge or at six-months of follow-up, post-treatment. The conclusion of the researchers was that opioid withdrawal did not prohibit rehabilitation gains. (Rome, 2004)

Specific Evaluation Studies: A specific assessment of the use of opioids on treatment outcomes was undertaken by Townsend et al. (Townsend 2008) On admission, patients taking low- and high-dose opioids reported significantly greater pain severity and depression than those patients that were not taking this class of medication. Regardless of opioid status on admission, significant improvement was found for all outcomes following treatment and at six-months post treatment (as listed above and as measured using the instruments listed below in "assessments utilized"). Crisostomo et al evaluated patients in terms of three specific groups based on history of spinal surgery: fusion; non-fusion; and no surgical procedure. They found that patients that had undergone surgery were more likely to be taking opioids on admission ($[chi]^2$ =8.92, P= 0.012, fusion 65.2%, nonfusion = 70%, no-surgery group = 48.4%). Pain severity and duration was highest in the fusion group. Patients that had undergone fusion were slightly more likely to drop out of the program ($[chi]^2$ =5.94, P=0.051; completers in the fusion group =78%, nonfusion group = 89%, and no-surgery group = 87%). Regardless of surgical status, patients showed significant and nearly equal improvement. In terms of medications the overall decrease in opioid use was 78.6%. Benzodiapezine decrease was 39.9%. The only significant difference in medication use at dismissal was for benzodiazepines, with more surgery patients using this class of drugs ($[chi]^2$ = 6.62, P = 0.037, fusion = 21.1%, nonfusion = 20.5%, no surgery = 9.6%). (Crisostomo 2008) Overall, successful opioid withdrawal and treatment completion was found for patients that had had lumbar spine surgery. *Assessments utilized:* Multi-dimensional Pain Inventory (MPI); SF-36; Center for Epidemiologic Studies-Depression Scale (CES-D); Pain catastrophizing scale (PCS).

Programs that do not emphasize opioid tapering

A more recent study of patient's receiving workers' compensation benefits in a program that did not stress

opioid withdrawal found that at 6 months, 72.1% of opioid users returned to work versus 75.8% of non-opioid users, a non-significant difference. The mean dose of daily morphine equivalents was 28.63 mg (range 0.53 mg to 150 mg), which may limit the generalizability of the study. (Maclaren, 2006)
For general information, see Chronic pain programs.