

# Matutech, Inc

881 Rock Street  
New Braunfels, TX 78130  
Phone: 800-929-9078  
Fax: 800-570-9544

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## Notice of Independent Review Decision

**Date: August 22, 2013**

**IRO CASE #:**

**DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:**

Chronic pain management program (CPMP) 80 hours for left knee.

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

Diplomate, American Board of Physical Medicine and Rehabilitation and Pain Medicine

**REVIEW OUTCOME:**

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

Upheld (Agree)

Medical documentation **does not support** the medical necessity of the health care services in dispute.

**INFORMATION PROVIDED TO THE IRO FOR REVIEW:**

- Utilization reviews (05/31/13, 06/20/13)
- Office visits (12/07/11 - 06/06/13)
- Therapy (04/11/13)
- Utilization reviews (05/31/13, 06/20/13)
- Diagnostic (06/27/13)
- Office visits (12/07/11 – 06/06/13)
- Therapy (12/10/12 – 01/02/13, 04/11/13)
- Procedure (06/01/12)
- Utilization reviews (05/31/13, 06/20/13)
- Diagnostic (06/27/13)

**ODG criteria have been utilized for the denials.**

## **PATIENT CLINICAL HISTORY [SUMMARY]:**

The patient is a male who on xx/xx/xx fell onto dirt landing on his left knee. The fall was approximately five to six feet.

On December 7, 2011, evaluated the patient for a behavioral medicine consultation under the directive of his treating doctor to assess his emotional status and to determine the relationship to the work accident. It was noted that after the injury, the patient continued to work that afternoon and went the next day. He underwent x-rays. He went back to work for three weeks and then returned when the pain did not subside. The physician ordered a magnetic resonance imaging (MRI) and he was sent for physical therapy (PT). The patient had had 11 sessions of PT prior to surgery and had 12 sessions of PT after surgery at. The pain level was 8 without medication and 1 with medication. His pain was a burning in his anterior and posterior left knee which would become worse with movement. He fell in the shower recently due to the instability in his left knee. He reported that electrical stimulation, ice and heat were helpful with his burning sensation. His ankle (both posterior and anterior) ached with movement since the surgery to his left knee. Per report, the patient was off work as he had been placed on restrictions and his job could not accommodate him. His current level of overall functioning was 75 to 85%. He scored 4 on the Beck Depression Inventory-II (BDI-II) indicating minimal depression and 5 on the Beck Anxiety Inventory (BAI) reflecting minimal anxiety. The responses on the Fear Avoidance Beliefs Questionnaire (FABQ) showed significant fear avoidance of work as well as significant fear avoidance of physical activity in general. Diagnosis was pain disorder associated with both psychological factors and a general medical condition. The patient reported that the injury and pain were significantly impeding his ability to return to work and perform other activities of normal daily living. A formalized battery of psychological tests including the Minnesota Multiphasic Personality inventory-II (MMPI-II-RF) and Battery for Health Improvement-2 (BHI-II) were requested. This information would aid in the development of a realistic treatment plan for behavioral health intervention.

On January 2, 2012 evaluated the patient for a behavioral medicine consultation to assess his emotional status and to determine the relationship to the work accident. It was noted that the patient had undergone surgery on August 27, 2011, and he had completed 21 sessions of post-surgical rehabilitation to the left knee. The patient's clinical profile was within normal limits for Minnesota Multiphasic Personality Inventory-2-Restructured Form (MMPI-II-RF) interpretations. On BHI-II interpretations, the patient did not endorse any of the validity items. He reported a severe peak pain which he perceived as disabling and intolerable. Diagnosis was pain disorder associated with psychological factors and a general medical condition. determined that the work accident, pain and ensuing functional limitations had caused this patient's disruption in lifestyle. The patient should receive immediate authorization for participation in a low level care of individual psychotherapy for a minimum of four weeks.

On June 1, 2012, performed left knee arthroscopic anterior cruciate ligament (ACL) repair using amniotic membrane allograft, posterior cruciate ligament (PCL) repair using amniotic membrane allograft , partial medial and lateral meniscectomy, complete synovectomy and removal of adhesions.

On July 5, 2012, evaluated the patient for stiffness of the left knee. Examination showed trace effusion, diffuse soft tissue swelling, a diffuse medial and lateral tenderness and limited range of motion (ROM) due to pain. Diagnosis was a tear of medial and lateral meniscus of the knee. recommended PT.

On November 16, 2012, evaluated the patient for pain and swelling of the left knee. Examination showed trace effusion, diffuse soft tissue swelling, diffuse medial and lateral tenderness, positive McMurray's and essentially painless ROM with mild crepitus on motion. Diagnosis was sprain of knee, NOS. administered injection of Depo-Medrol and lidocaine and recommended continuing PT.

From December 10, 2012, through January 2, 2013, the patient attended 12 sessions of PT consisting of therapeutic activities, therapeutic exercises, electrical stimulation, moist heat/cold pack, ultrasound and manual therapy.

On March 14, 2013, M.D. noted that the patient had a repair and was supposed to get an MRI postsurgical because his surgeon told him he had some laxity in his left knee. He was seen about a month ago by the surgeon but the MRI never happened. The patient was not sure if he had been cleared by the surgeon for PT or not. He had a follow-up appointment and after reviewing his MRI, the patient was cleared for participating in the chronic pain management program (CPMP). The patient was utilizing hydrocodone/acetaminophen and tramadol. He wore a brace on the left knee. Impression was pain persisting beyond three to four months post incident, depression, disuse (physical deconditioning often with inhibition of function or fear avoidance). recommended a functional capacity evaluation (FCE) and a CPMP.

On April 6, 2013, internal medicine, evaluated the patient for left knee pain. It was noted that the patient had completed his entire postoperative PT. He failed 10 days of the work hardening program (WHP) prior to his surgery. He had received left knee injection. A CPMP was recommended as the patient continued to have pain and disability issues. The patient wore a brace on his left knee and reported that the left knee was swelling. He had a lot of pain under the kneecap. He reported that his knee was loose. wanted to order another MRI. Examination of the left knee revealed inferior medial tenderness and a moderate swelling, medial joint line tenderness, painful flexion and extension and positive McMurray's test. Diagnosis was medial meniscal tear and ACL tear status post repair. The patient was not doing well. He was still having a lot of issues with pain, laxity and swelling. He was a good candidate for a pain program and he was still dependent on narcotics. prescribed and requested a pain management program.

On April 11, 2013, the patient underwent physical performance evaluation (PPE). The report is illegible.

On April 25, 2013, saw the patient for evaluation screening for participation in CPMP that was recommended by the treating physical. Diagnosis was pain disorder associated with psychological factor and general medical condition. concurred recommendation that the patient participate in the CPMP after exhausting conservative treatment. The patient would require an interdisciplinary CPMP in order to reduce his pain and fear avoidance behaviors while improving his physical capabilities and functioning in order to propel this patient towards a safe return to work and facilitate medical case closure.

On April 26, 2013, noted that the patient was slowly getting worse. He complained of pain and swelling medially. Examination of the left knee showed a diffuse soft tissue swelling, trace effusion, medial and lateral joint line tenderness and limited ROM due to pain. recommended an MR arthrogram and a cream for pain and inflammation.

On May 16, 2013, performed a health and behavioral re-assessment and psychological testing to assess the patient's emotional status and to determine the relationship to the work accident. It was noted that the patient had attended 24 sessions of postsurgical PT and had completed 10 days of WHP. had recommended assessing the patient for some level of behavioral healthcare and participation in the CPMP. The patient scored 9 on the BDI-II indicating minimal depression and 26 on the BAI reflecting severe anxiety. His responses on the FABQ showed significant fear avoidance of work as well as significant fear avoidance of physical activity in general. In the MMPI-II interpretation, the patient's response pattern suggested that he might have answered items in the latter part for the test, possibility invalidating that portion of the test. For BHI-2 interpretations, the patient did not endorse any of the validity items, which reduced the risk that this profile was produced by random responding. Additionally, the patient endorsed 7 out of 9 DSM-IV-TR symptoms for major depressive episodes as present for greater than two weeks. Diagnoses were major depressive disorder, single episode, moderate, and pain disorder associated with both psychological factors and a medical condition. The evaluator recommended that the patient would require interdisciplinary chronic pain program in order to reduce his pain and fear avoidance behavior while improving his physical capabilities and functioning in order to propel this patient towards a safe return to work and facilitate medical case closure.

Per report dated May 28, 2013, a request was made of 80 hours of an interdisciplinary CPMP. It was noted that the patient had participated in four sessions of individual psychotherapy and three hours of physiological testing. The patient continued to report marked pain and unresolved functional problems that were associated with reliance on significant others to completed ADLs and unemployment. The PPE dated April 11, 2013, revealed that the patient was currently at a medium physical demand level (PDL). had prescribed CPM treatment as warranted and medically necessary. It was stated that the patient would be an excellent candidate for interdisciplinary care to increase his functional tolerance for safe/successful return to work while reducing perceived disability.

Authorization for 80 hours in a CPMP appeared reasonable and medically necessary. It was emphasized that the patient should have access to a multidisciplinary pain program.

Per utilization review dated May 31, 2013, the request of 80 hours of CPMP for left knee was denied with the following rationale: *“According to the Chronic Pain Management Program dated May 28, 2013, the patient complained of continued marked pain and unresolved functional problems that were associated with reliance on significant others to complete activities of daily living and unemployment. The patient had endorsed minimal depression (5) on the Beck Depression Inventory (BDI-II) and had fear-avoidance of activities at home and at work. Fear Avoidance Beliefs Questionnaire-Physical Activity (FABQ-PA) score of 20 and FABQ-Work score of 36. The patient had minimal disabled self-identity, as noted on the Oswestry Disability Index (20 percent). Pain rate of 4-8/10, depending on the level of activity. The Physical Performance Evaluation dated April 11, 2013, showed that the patient was currently at medium (20-35 pounds), the required was medium (25-50 pounds). The patient was diagnosed with unspecified fracture of ankle, closed and sprains and strains of unspecified site of knee and leg. Criteria used in analysis: It does not appear that the patient has significant objective functional deficits occurring at this point to support the need for a multidisciplinary CPMP as he is already functioning at a medium physical demand level (PDL) with a job requirement level of medium and only some minimal depression occurring. Therefore, this request is not medically reasonable or necessary. Based on the clinical information submitted for this review and using the evidence-based, peer-reviewed guidelines referenced above, this request for chronic pain management 80 hours for the left knee is not certified.”*

On June 6, 2013 submitted a reconsideration request for authorization to participate in an initial trial of CPMP.

Per reconsideration review dated June 20, 2013, the request for 80 hours of CPMP for left knee was denied with the following rationale: *“The patient has already met his PDL through a work hardening program. states he need to increase PDL a few more pounds. This low incremental increase does not warrant an 80 hr CPM. Additionally, the patient is on low frequency, low dose opioids. The weaning of these opioids can be done on an outpatient basis through the managing physician. ODG does not recommend repeating a tertiary program, he has already completed a work hardening program and as such the request for CPM 80 hours is noncertified.”*

On June 27, 2013, the patient underwent left knee arthrogram and MRI of the left knee. MRI showed the following findings: (1) Intact anterior cruciate ligament (ACL) reconstruction graft. (2) Abnormal signal in the posterior horn of the medial meniscus with no extension to the superior or inferior articular surface. (3) Mild abnormal signal and irregularity of the anterior root of the lateral meniscus; however, the anterior root was intact. Posterior root of the lateral meniscus was additionally intact.

On July 10, 2013, noted that the patient had popping, clicking, locking and giving out of the knee. The patient had PT and cortisone injection without relief. reviewed the MRI arthrogram which showed no tears and intact ACL graft. Examination of the left knee showed trace effusion, diffuse soft tissue swelling, medial and lateral joint line tenderness and limited ROM with pain. stated that the patient had left knee derangement status post ACL reconstruction. He had tried and failed conservative treatment consisting of PT and cortisone injection. recommended diagnostic arthroscopy.

**ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS, AND CONCLUSIONS USED TO SUPPORT THE DECISION:**

The ODG literature does not support the request for a Chronic Pain Program for the patient at this time, due to the fact that the patient already has met significant functional criteria for return to work (medium activity level). See below references from ODG.

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

**ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**

<p>Chronic pain programs (functional restoration programs)</p>	<p>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 <a href="#">“Delayed recovery.”</a> 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. (<a href="#">Flor, 1992</a>) (<a href="#">Gallagher, 1999</a>) (<a href="#">Guzman, 2001</a>) (<a href="#">Gross, 2005</a>) (<a href="#">Sullivan, 2005</a>) (<a href="#">Dysvik, 2005</a>) (<a href="#">Airaksinen, 2006</a>) (<a href="#">Schonstein, 2003</a>) (<a href="#">Sanders, 2005</a>) (<a href="#">Patrick, 2004</a>) (<a href="#">Buchner, 2006</a>) 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. (<a href="#">Gatchel, 2005</a>) See <a href="#">Biopsychosocial model of chronic pain.</a></p> <p><b>Types of programs:</b> 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 (<a href="#">Stanos, 2006</a>):</p> <p>(1) <b>Multidisciplinary programs:</b> 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:</p> <p>(a) Multidisciplinary pain centers (generally associated with academic centers and include research as part of their focus)</p>
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(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)**

Shoulder (and other upper extremity disorders): This large cohort study concluded that an interdisciplinary functional restoration program (FRP) is equally effective for patients with chronic upper extremity disorders, including the elbow, shoulder and wrist/hand, as for patients with lumbar spine disorders, regardless of the injury type, site in the upper extremity, or the disparity in injury-specific and psychosocial factors identified before treatment. ([Howard, 2012](#))

Neck (and cervical spine): There are limited studies about the efficacy of chronic pain programs for neck 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 known 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

	<p>nonmultidisciplinary rehabilitation. Intensive (&gt; 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. (<a href="#">Guzman, 2001</a>) (<a href="#">Guzman-Cochrane, 2002</a>) (<a href="#">van Geen, 2007</a>) (<a href="#">Bendix, 1997</a>) (<a href="#">Bendix, 1998</a>) (<a href="#">Bendix2, 1998</a>) (<a href="#">Bendix, 2000</a>) (<a href="#">Frost, 1998</a>) (<a href="#">Harkapaa, 1990</a>) (<a href="#">Skouen, 2002</a>) (<a href="#">Mellin, 1990</a>) (<a href="#">Haldorsen, 2002</a>)</p> <p><i>Multidisciplinary biopsychosocial rehabilitation for subacute low back pain among working age adults:</i> The programs described had to include a physical component plus either 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. (<a href="#">Karjalainen, 2003</a>)</p> <p><i>Role of opioid use:</i> See <a href="#">Chronic pain programs, opioids</a>.</p> <p><i>Role of comorbid psych illness:</i> 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 &gt; 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. (<a href="#">Dersh, 2007</a>) 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. (<a href="#">Poleshuck, 2009</a>) (<a href="#">Bair, 2008</a>)</p> <p><i>Predictors of success and failure:</i> 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. (<a href="#">Gatchel, 2006</a>) 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. (<a href="#">Proctor, 2004</a>) 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. (<a href="#">Linton, 2001</a>) (<a href="#">Bendix, 1998</a>) (<a href="#">McGeary, 2006</a>) (<a href="#">McGeary, 2004</a>) (<a href="#">Gatchel2, 2005</a>) (<a href="#">Dersh, 2007</a>)</p> <p><i>Role of duration of disability:</i> There is little research as to the success of return to work with functional restoration programs in long-term disabled patients (&gt; 24 months).</p> <p><i>Studies supporting programs for patients with long-term disability:</i> 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</p>
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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) The latest AHRQ Comparative Effectiveness Research supports the ODG recommendations. (AHRQ, 2011)

See also [Chronic pain programs, intensity](#); [Chronic pain programs, opioids](#); [Functional restoration programs](#); [Chronic pain programs, early intervention](#); [Progressive goal attainment program](#) (PGAP™).

**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 (80 hours) 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 trial may help to

	<p>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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(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. This cautionary statement should not preclude patients off work for over two years from being admitted to a multidisciplinary pain management program with demonstrated positive outcomes in this population.</p> <p>(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.</p> <p>(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.</p> <p>(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). (<a href="#">Sanders, 2005</a>) 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).</p> <p>(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.</p> <p>(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.</p> <p>(15) Post-treatment medication management is particularly important. Patients that</p>
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	<p>have been identified as having substance abuse issues generally require some sort of continued addiction follow-up to avoid relapse.</p> <p><u>Inpatient</u> 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. (<a href="#">Keel, 1998</a>) (<a href="#">Kool, 2005</a>) (<a href="#">Buchner, 2006</a>) (<a href="#">Kool, 2007</a>) 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 <a href="#">Chronic pain programs, opioids</a>; <a href="#">Functional restoration programs</a>.</p>
<p>Chronic pain programs, early intervention</p>	<p>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. (<a href="#">Robinson, 2004</a>) (<a href="#">Gatchel, 2003</a>) (<a href="#">Jordan, 1998</a>) 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. (<a href="#">Mayer, 2003</a>)</p> <p><i>Recommendations for identification of patients that may benefit from early intervention via a multidisciplinary approach:</i></p> <ul style="list-style-type: none"> <li>(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.</li> <li>(b) The patient exhibits excessive pain behavior and/or complaints compared to that expected from the diagnosis.</li> <li>(c) Risk factors are identified with available screening tools or there is a previous medical history of <a href="#">delayed recovery</a>.</li> <li>(d) The patient is not a candidate where surgery or other treatments would clearly be warranted.</li> <li>(e) Inadequate employer support or evidence of work organizational factors limiting return to work without interventions.</li> <li>(f) Evidence of psychosocial barriers that make return to work unlikely.</li> <li>(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. (<a href="#">Mayer, 2003</a>) (<a href="#">Gatchel, 2003</a>) For general information see <a href="#">Chronic pain programs</a>.</li> </ul>
<p>Chronic pain programs, intensity</p>	<p>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 <a href="#">Chronic pain programs, early intervention</a>). 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,</p>

	<p>and these results remained significant at 12, 18 and 24 months. (<a href="#">Skouen, 2002</a>) 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. (<a href="#">Haldorsen, 2002</a>) For general information see <a href="#">Chronic pain programs</a>.</p>
<p>Chronic pain programs, opioids</p>	<p>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. (<a href="#">Dersh, 2008</a>) 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.</p> <p><b><i>Programs that include detoxification as part of their protocol</i></b></p> <p><b><i>PRIDE Program:</i></b> In 2008 the PRIDE program (Progressive Rehabilitation Institute of Dallas for Ergonomics) (<a href="#">Dersh 2008</a>) 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.</p> <p><b><i>Results of program completers:</i></b> 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. (<a href="#">Dersh, 2007</a>)</p> <p><b><i>Detoxification and referral to an addiction specialist in this program:</i></b> 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</p>

current or lifetime substance-abuse disorders, patients with known or easily apparent psychiatric disturbance, and/or patients who did not 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-square=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 (chisq=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%. Benzodiazepine 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 (chisq= 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](#).