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Review Outcome

Description of the service or services in dispute:

97799 Functional restoration program x 80 hours.

Description of the qualifications for each physician or other health care provider who reviewed the decision:

Board Certified Anesthesiology

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

- ☐ Overturned (Disagree)
- ☑ Upheld (Agree)
- ☐ Partially Overturned (Agree in part / Disagree in part)

Patient Clinical History (Summary)

XX who was diagnosed with displaced fracture of head of the right radius. On XXXX, XX was injured while XX. XX reported XX was on a XX when XX injuring XX elbow. In XXXX, XX underwent a right radial head resection and an unknown surgery in XX, performed by XX.

On XXXX, XX evaluated XX for postoperative fracture and postoperative right elbow pain, which was radiating proximally and distally (with carrier accepting “right elbow fracture.”) XX had a severe fracture of the right elbow in XX and had XX prior surgeries and was contemplating a new surgery due to persistent pain and mobility and strength deficits. XX would like to improve function, get back to a more regular and higher paying work, and reach a more reasonable physical demand level (PDL) consistent with demands of XX home life and recreation. On examination, right elbow showed severe muscle guarding and tenderness over both the epicondyles and absent proximal radius, with flexor weakness and atrophy from the medial epicondyle. On XX physical testing, XX had difficulty in performing the activities of daily living due to postoperative elbow pain. XX demonstrated moderate mobility, but extreme strength deficits, particularly in the flexors distally. The “weak link” led to severe lifting capacity deficits with low aerobic fitness. XX performance level was only in the sedentary physical demand level for material handling, demonstrating a maximum of only 8 to 13 pounds of occasional lifting and carrying. XX had failed to meet the positional for reaching overhead and forward, gripping, twisting and keyboarding, while XX had difficulty with repetitive light lifting with XX right arm. Mental status examination revealed severe depressive symptoms with moderate fear avoidance and moderate disability. Other psychological issues of concern included anxiety / agitation symptoms, mood symptoms, sleep disturbance, overuse of potentially habit-forming medication, maladaptive illness and disability belief, behavior related to pain, fear and / or avoidance possibly undermining therapeutic environment. Other factors affecting full-duty work return and maximal work capacity include inhibition of physical function, job demands require repetitive motion and / or static positioning, extended period of disability, financial stressors and transportation problems.

A Quantitative Functional Capacity Evaluation was completed on XXXX by XX for the purpose of quantification of safe functional abilities and guidance for intervention and treatment. Right elbow range of motion was moderately deficient and strength was extremely deficient. Biodex lift revealed extremely deficient strength and piles revealed severely deficient strength. Right elbow was tender over the muscle origin of the extensors and flexors at the elbow extending to the medial and lateral epicondyles. There was mild numbness in the ulnar distribution. XX experienced moderate difficulty with the assessments and required minimal rest breaks throughout the assessment. The evaluation revealed that XX did not meet the lifting / carrying requirement of XX job. XX did not meet XX/XX/XX / XX. XX ongoing physical demand level was sedentary only. XX was able to lift from floor to waist of 13 pounds occasionally and waist to shoulder of 8 pounds and carry occasionally up to 10 pounds. XX further commented it was critical that XX

had improved right elbow active range of motion (AROM) and strength for maximum job performance. Isolated tests for range of motion and / or strength identified deficits, which would make it difficult or unsafe for XX to perform any lifting, carrying or climbing.

A Mental Health Evaluation was completed by XX on XXXX, indicating that XX had met the DSM-IV diagnostic criteria for somatic symptom disorder. XX had experienced distressing somatic symptoms, which had resulted in significant disruption of functioning and excessive as well as disproportionate thoughts, feelings and behaviors regarding the symptoms for a period of at XX. XX had met the Official Disability Guidelines (ODG) criteria for chronic pain syndrome, with the evidence of at last three to six symptoms of loss of function for at XX. XX had met the XX criteria for chronic pain syndrome, with the evidence of at least two of eight symptoms for at XX. The Patient Health Questionnaire (PHQ) score was 11, indicating that XX had a moderately-depressed mood. The diagnoses were somatic symptoms disorder, major depressive disorder and posttraumatic stress disorder. XX had sufficient critical issues to meet the criteria to benefit from an interdisciplinary rehabilitation program based on a functional restoration treatment approach to chronic pain and disability.

A utilization review decision letter dated XXXX, completed by XX indicated that the requested service for functional restoration program x80 hours was denied. Rationale: “Based on the clinical information submitted for this review and using the evidence-based, peer-reviewed guidelines, the request is non-certified. The documentation provided and information and peer discussion do not clearly establish necessity and criteria for a functional restoration program at this time.”

XX wrote a letter on XXXX, regarding the denial of the requested service. XX had corrected some of the initial information which XX had provided with the medical records. XX XXXX surgery was actually a Biomet radial head replacement and in XXXX, XX had a manipulation under anesthesia (MUA). XX had an MRI of the elbow in XXXX, which revealed severe trochlear osteoarthropathy with tendinosis of the flexor origin.

A utilization review decision letter dated XXXX was completed by XX indicating that the requested service was denied. Rationale: “Based on the clinical information submitted for the review and using the evidence-based, peer-reviewed guidelines referenced, this request is non-certified. During peer conversation, it was stated the patient has worked “most of the time” through their injury. The program was requested to help the patient get back to full-time work, and right now is only 15 hours of work. The patient has trouble reaching overhead and reaching forward and is that at a sedentary level for that, and the job requires a medium demand level. The goal is to also get the patient off XX. The patient is also on XX, XX and XX. The patient had XX of therapy, and had four different surgeries, with the last in XXXX. The patient does not fully qualify as per ODG guidelines. The patient is greater than XX out from their initial injury. They have been on chronic pain medications and has multiple therapy sessions in the past and has not been able to progress past a sedentary level for what sounds like XX. The usefulness and potential for increasing their physical demand level, is highly unlikely at this stage. Therefore, all above requests are not medically necessary.”

XX wrote a letter on XXXX, indicating that the requested service had been “double denied.” XX had moderate postoperative right elbow muscle guarding and mobility deficits, with positive provocative tests for a lateral epicondyle problem. XX was on Admin Hold waiting for the possible rehabilitation assistance from XX. Meanwhile, XX would try to help XX with the medication management. XX, XX, XX, and XX were prescribed. XX was discontinued. XX had to return in XX for the progress, by which time XX would know about XX options under XX.

Treatment to date included surgical interventions (XXXX surgery was actually a Biomet radial head replacement that was unsuccessful), medications (XX, XX, XX, XX, and XX) and physical therapy. XX had some type of elbow arthroscopic procedure in XXXX by XX and another surgery which was unknown. XX also underwent elbow injections in XXXX and XXXX with some benefit.

A repeat EMG of the right upper extremity dated XXXX showed moderate-to-severe ulnar nerve entrapment.

Analysis and Explanation of the Decision include Clinical Basis, Findings and Conclusions used to support the decision.

I analyzed the utilization review decision letter dated XXXX, which denied the request for a functional restoration program. The review was accurate and demonstrated a knowledge of the patient’s history. The application of the ODG was relevant and pertinent. I also analyzed the utilization review decision letter dated XXXX, which also denied the request for functional

restoration services. This review was also accurate and relevant while citing key issues in the patient's medical chronology. So, I find both reviews to meet the standards of accuracy, objectivity, and compliance with the ODG.

The provider has completed a trenchant patient analysis, with functional capacity and mental health assessments. This patient has an injury dating back to XXXX. The patient is currently working part-time. There is mention of the patient possibly needing another surgery to the elbow. In reviewing the patient's record, it is apparent that the patient's condition or disability is "static." So, I do not see any evidence that requires going outside the ODG in evaluating the request for functional restoration services.

The provider has stated the patient's plan to initiate vocational rehabilitation once functional activities had been restored. However, this reviewer asks why vocational rehabilitation cannot be attempted first? Vocational rehabilitation is a process which enables persons with functional, psychological, developmental, cognitive and emotional impairments or health disabilities to overcome barriers to accessing, maintaining or returning to employment or other useful occupation. I do not see any evidence that vocational rehabilitation has been implemented for this patient since XXXX.

I agree with the prior adverse determinations not to approve the functional restoration program. With a "static" disability, now almost XX post-injury, functional restoration is not medically necessary.

A description and the source of the screening criteria or other clinical basis used to make the decision:

- ☐ ACOEM-America College of Occupational and Environmental Medicine um knowledgebase
- ☐ AHRQ-Agency for Healthcare Research and Quality Guidelines DWC-Division of Workers
- ☐ Compensation Policies and Guidelines European Guidelines for Management of Chronic Low Back
- ☐ Pain Interqual Criteria
- ☑ Medical Judgment, Clinical Experience, and expertise in accordance with accepted medical standards
- ☐ Mercy Center Consensus Conference Guidelines
- ☐ Milliman Care Guidelines
- ☑ ODG-Official Disability Guidelines and Treatment Guidelines

ODG -TWC ODG Treatment: Integrated Treatment/Disability Duration Guidelines. Pain (Chronic) (Updated 02/15/18)

Functional restoration programs (FRPs)

Recommended for selected patients with chronic disabling pain, although research is still ongoing as to how to most appropriately screen for inclusion in these programs. For general information see Chronic pain 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 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 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) Early rehabilitation is more likely to be a cost-effective compared to receiving functional restoration as a treatment of last resort. (Theodore, 2014) Treatment is not suggested for longer than 2 weeks without evidence of demonstrated efficacy as documented by subjective and objective gains.

Chronic pain programs (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.”

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 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. 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.

(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 4 weeks (20 full-days or 160 hours), or the equivalent in part-day sessions if required by part-time work, transportation, childcare, or comorbidities. (Sanders, 2005) If treatment duration more than 4 weeks is required, a clear rationale for the specified extension and reasonable goals to be achieved should be provided. 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.

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)

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)

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)

Knee (and other lower extremity disorders): This cohort study demonstrated that FRP was equally efficacious for patients with chronic lower extremity (LE) injuries (involving the hip, knee, ankle, and foot) and low back pain (LBP) injuries. Both patient groups significantly improved on measures of pain, disability, and depression after the FRP, and patients in both groups displayed similarly high return-to-work and work-retention rates one year later. (Mayer, 2013)

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) Interdisciplinary functional restoration programs (FRPs) are equally efficacious for treating both chronic occupational cervical and lumbar disorders, and FRPs are equally effective, irrespective of the compensable body part(s). (Hartzell, 2014)

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 non-multidisciplinary rehabilitation. Intensive (> 100 hours), daily interdisciplinary rehabilitation was moderately superior to non-interdisciplinary 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 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 visits 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 psychiatric 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 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) The latest AHRQ Comparative Effectiveness Research supports the ODG recommendations. (AHRQ, 2011)

- ☐ Pressley Reed, the Medical Disability Advisor
- ☐ Texas Guidelines for Chiropractic Quality Assurance and Practice Parameters
- ☐ Texas TACADA Guidelines
- ☐ TMF Screening Criteria Manual
- ☐ Peer Reviewed Nationally Accepted Medical Literature (Provide a description)
- ☐ Other evidence based, scientifically valid, outcome focused guidelines (Provide a description)