

SENT VIA EMAIL OR FAX ON  
Dec/22/2009

## Pure Resolutions Inc.

An Independent Review Organization

835 E. Lamar Blvd. #394

Arlington, TX 76011

Phone: (817) 349-6420

Fax: (512) 597-0650

Email: manager@pureresolutions.com

### NOTICE OF INDEPENDENT REVIEW DECISION

**DATE OF REVIEW:**

Dec/22/2009

**IRO CASE #:**

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

Therapeutic Pool

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

Board Certified in Physical Medicine and Rehabilitation

Subspecialty Board Certified in Pain Management

Subspecialty Board Certified in Electrodiagnostic Medicine

Residency Training PMR and ORTHOPAEDIC SURGERY

**REVIEW OUTCOME:**

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

Upheld (Agree)

Overturned (Disagree)

Partially Overturned (Agree in part/Disagree in part)

**INFORMATION PROVIDED TO THE IRO FOR REVIEW**

OD Guidelines

Downs & Stanford 12/7/09

Denial Letter 10/2/09 and 11/13/09

Letter from Dr. 9/13/07, 11/20/08, 12/1/09

Medical Records and/or Letters from Dr. 9/18/08 thru 12/9/09

Letter from Dr. 4/14/09

DD Report Dr. 10/5/07

RME Report 8/20/04

Letter from 11/9/09, 11/10/09

Medical Record Dr. 10/15/08, 12/15/08

Cost Estimates for a pool 4/14/09

Peer Review Dr.

Rehab Specialties letter 10/21/09

Alamo Mobility estimate for van conversion 11/10/09

Peer review Dr. for a powered wheelchair 9/16/09

Record Review Dr. 1/17/06

Administrative Law Judge ruling 2003

Medical Records from Carrier 647 pages from 1994 thru 2009

## PATIENT CLINICAL HISTORY SUMMARY

This is a long and complex history. This man had a c3-5 fusion in 1994. He subsequently had more neck and back problems. It appears that these were all determined to be related to the xxxx injury. He underwent a C5-7 discectomy and fusion in 1999, a L2-Sacrum discectomy and fusion followed by treatment of a T11 and L2 compression fracture attributed to osteoporosis. He had a T11 vertebroplasty in 2004. He has a morphine pump inserted. He developed esophageal problems with what sounds like a stricture from Fosamax. He is currently a functional quadriplegic per Dr., or paraplegic from Dr.. He had good upper and lower extremity strength per Dr., but was confined to a wheelchair. He is dependent in self care ADLS. He does not walk. He is confined to a bed or a wheelchair. There were legal issues involved and an Administrative Court judge ruled in 2003 that an in ground pool was not medically necessary. Dr. and Dr. feel he needs a pool for aquatic therapy. Dr. wrote that "Pool therapy has helped significantly in the past and he does have some associated stiffness." Ms xxxxx noted that he needs the pool since the heat would control his pain and reduce his blood pressure. She blames a doctor's decision in 2002 stopping aquatic therapy as the reason why he "broke his back." Dr. described (4/14/09) his sense of vulnerability and isolation.

## ANALYSIS AND EXPLANATION OF THE DECISION INCLUDING CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION

There is no doubt from the records that this man suffers from his back and neck. He is a functional quadriplegic. He was previously in a pool program 7 years ago. Most of the ODG addresses more of the acute or subacute issues of exercise and aquatic therapy for the neck and low back. The ODG states that "While a home exercise program is of course recommended, more elaborate personal care where outcomes are not monitored by a health professional, such as gym memberships or advanced home exercise equipment, may not be covered under this guideline..." This would apply. Exercise without a therapist present in a home pool would be in this category. Since the exercise would not be covered, then the construction of the pool would also not be covered.

### Exercise (neck section)

Recommended. Low stress aerobic activities and stretching exercises can be initiated at home and supported by a physical therapy provider, to avoid debilitation and further restriction of motion, and further benefits are available when combined with strength training. ([Rosenfeld, 2000](#)) ([Bigos, 1999](#)) ([Ylinen-JAMA, 2003](#)) ([de Jager, 2004](#)) In this recent RCT, both strength and endurance training, including a 12-month home exercise program, substantially decreased perceived neck pain and disability, and there was a clear dose-response relationship, with declines in neck pain and disability correlating positively with the amount of specific training. ([Nikander, 2006](#)) For mechanical disorders of the neck, therapeutic exercises have demonstrated clinically significant benefits in terms of pain, functional restoration, and patient global assessment scales. If exercise is prescribed a therapeutic tool, some documentation of progress should be expected. **While a home exercise program is of course recommended, more elaborate personal care where outcomes are not monitored by a health professional, such as gym memberships or advanced home exercise equipment, may not be covered under this guideline.** ([Philadelphia, 2001](#)) ([Colorado, 2001](#)) ([Bronfort, 2001](#)) ([Ernst, 2003](#)) ([Schonstein, 2003](#)) ([Schonstein-Cochrane, 2003](#)) ([Ylinen, 2003](#)) ([Ferrari, 2004](#)) ([Seferiadis, 2004](#)) ([Rodriguez, 2004](#)) ([Chiu, 2005](#)) ([Jensen, 2007](#)) There was consistent evidence that exercises may be effective in preventing neck and back pain. ([Linton, 2001](#)) A recent Cochrane Review concluded that there was strong evidence of benefit favoring care with exercise combined with mobilization and/or manipulation. The evidence did not favor manipulation and/or mobilization done alone without exercise. ([Gross-Cochrane, 2004](#)) There is limited evidence for the effectiveness of manual therapy as an add-on treatment to exercises. ([Verhagen, 2006](#)) This RCT concluded that subjects with chronic neck pain should be treated by health professionals trained to

teach both exercises and the appropriate use of a neck support pillow during sleep; either strategy alone did not give the desired clinical benefit. ([Helewa, 2007](#)) Supervised qigong or exercise therapy are effective methods to reduce long-term, nonspecific neck pain, according to the results of a randomized, controlled, multicenter trial reported in the 10/15/07 issue of *Spine*. A maximum of 12 treatments were given over a period of 3 months, and improvement was significant (> 50%) in both groups immediately after treatment, and this was maintained at 6- and 12-month follow-ups. ([Lansinger, 2007](#)) Specific neck muscle strength training is associated with a marked decrease in neck muscle pain during training and with a lasting effect after the training has ended, whereas general fitness training leads to only transient acute relief of pain. ([Andersen, 2008](#)) Randomized controlled intervention studies have found positive effects on neck/shoulder pain regarding specific neck/shoulder muscle strengthening exercises, whereas exercise interventions without such specificity failed to reduce such pain conditions. A 1-yr randomized controlled intervention trial was done with three groups: specific resistance training (SRT), all-round physical exercise (APE), and reference intervention (REF) with general health counseling and ergonomic interventions. Compliance was highest in SRT. SRT and APE caused increased shoulder elevation strength, were more effective than REF to decrease neck pain among those with symptoms at baseline, and prevent development of shoulder pain in those without symptoms at baseline. ([Andersen2, 2008](#)) A recent RCT concluded that adding specific neck stabilization exercises (using a maximum of 4 treatment sessions) to a general neck advice and exercise program did not provide significantly better clinical outcome overall in the physical therapy treatment of chronic neck pain, but participants in the specific exercise group were less likely to be taking pain medication at 6-week followup. The mean 6-week reduction in the Neck Pain and Disability Scale score was 20.2 for the specific exercise program and 15.7 for the general exercise program. ([Griffiths, 2009](#)) The best evidence synthesis suggests that therapies involving manual therapy and exercise are more effective than alternative strategies for patients with neck pain. ([Hurwitz, 2009](#)) See also [Cervical strengthening exercises](#); [Qigong](#).

#### Aquatic therapy (Low back)

Recommended as an optional form of exercise therapy, where available, as an alternative to land-based physical therapy. Aquatic therapy (including swimming) can minimize the effects of gravity, so it is specifically recommended where reduced weight bearing is desirable, for example extreme obesity. There may be advantages to weightless running in back pain recovery. ([Ariyoshi, 1999](#)) ([Burns, 2001](#)) This RCT concluded that water-based exercises produced better improvement in disability and quality of life of patients with CLBP than land-based exercise, but in both groups, statistically significant improvements were detected in all outcome measures. The aquatic exercise program consisted of 20 sessions, 5 x per week for 4 weeks in a swimming pool, and the land-based exercise was a home-based program demonstrated by a physical therapist on one occasion and then given written advice. ([Dundar, 2009](#)) For recommendations on the number of supervised visits, see [Physical therapy](#).

#### Exercise (low back)

Recommended for treatment and for prevention. There is strong evidence that exercise reduces disability duration in employees with low back pain. In acute back pain, exercise therapy may be effective, whereas in subacute back pain, exercises with a graded activity program, and in chronic back pain, intensive exercising, should be recommended. Exercise programs aimed at improving general endurance (aerobic

fitness) and muscular strength (especially of the back and abdomen) have been shown to benefit patients with acute low back problems. So far, it appears that the key to success in the treatment of LBP is physical activity in any form, rather than through any specific activity. One of the problems with exercise, however, is that it is seldom defined in various research studies and its efficacy is seldom reported in any change in status, other than subjective complaints. If exercise is prescribed a therapeutic tool, some documentation of progress should be expected. **While a home exercise program is of course recommended, more elaborate personal care where outcomes are not monitored by a health professional, such as gym memberships or advanced home exercise equipment, may not be covered under this guideline**, although temporary transitional exercise programs may be appropriate for patients who need more supervision. ([Kraus, 1983](#)) ([van Tulder-Cochrane, 2000](#)) ([van Tulder, 2000](#)) ([McLain, 1999](#)) ([Philadelphia Panel, 2001](#)) ([Mannion, 2001](#)) ([Burns, 2001](#)) ([Linton, 2001](#)) ([Pengel, 2002](#)) ([Schonstein, 2003](#)) ([Storheim, 2003](#)) ([Keller, 2004](#)) ([Staal, 2004](#)) ([Tveito, 2004](#)) ([Kool, 2004](#)) ([Liddle, 2004](#)) ([Oleske, 2004](#)) ([Rainville, 2004](#)) ([van Poppel, 2004](#)) ([Maher, 2004](#)) ([Koes, 2004](#)) ([Hurwitz, 2005](#)) ([Bruce, 2005](#)) ([Wright, 2005](#)) ([Mayer, 2005](#)) A recent meta-analysis concluded that exercise therapy which consists of individually designed programs, including stretching and strengthening, and delivered with supervision, improves pain and function in chronic nonspecific low back pain. The study found improved pain scores for individually designed programs (5.4 points), supervised home exercise (6.1 points), group (4.8 points), and individually supervised programs (5.9 points) compared with home exercises only. High-dose exercise programs fared better than low-dose exercise programs (1.8 points). Interventions that included additional conservative care were better (5.1 points). A model including these most effective intervention characteristics would be expected to demonstrate important improvement in pain (18.1 points compared with no treatment and 13.0 points compared with other conservative treatment) and small improvement in function (5.5 points compared with no treatment and 2.7 points compared with other conservative treatment). ([Hayden, 2005](#)) ([Hayden2, 2005](#)) One recent trial found that the best exercise program required that patients continue therapeutic activities even if their pain increased, as opposed to stopping activities due to pain, which supports the hypothesis that fear of pain may be more disabling than pain itself. When pain intensity is used to determine the intensity of the exercises, it may lead to restrictive recommendations regarding activity and work, and it seems to increase behaviors such as taking pain-killers, seeking health care, stopping work, limping, guarding, and talking about pain. ([Kool, 2005](#)) Multiple studies have shown that patients with a high level of fear-avoidance do much better in a supervised exercise program, and patients with low fear-avoidance do better following a self-directed exercise program. When using the Fear-Avoidance Beliefs Questionnaire ([FABQ](#)), scores greater than 34 predicted success with supervised exercise. ([Fritz, 2001](#)) ([Fritz, 2002](#)) ([George, 2003](#)) ([Klaber, 2004](#)) ([Hicks, 2005](#)) A spinal stabilization program (exercises that emphasize strengthening of various muscles supporting the spine) is more effective than standard physical therapy sessions in which no exercises are prescribed. Manual therapy may be appropriate as a pain reducing modality, but it should not be used as an isolated modality because it does not reduce disability. (The only abnormality that is present in all back problems is lumbar extensor weakness.) ([Goldby-Spine, 2006](#)) A recent trial concluded that active physical treatment, cognitive-behavioral treatment, and the two combined each resulted in equally significant improvement, much better compared to no treatment. (The cognitive treatment focused on encouraging increased physical activity.) ([Smeets, 2006](#)) A recently published well respected international guideline, the "European Guidelines," recommend supervised exercise therapy as a first-line treatment in the management of chronic low back pain. The use of a cognitive-behavioural approach, in which

graded exercises are performed, using exercise quotas, is advised. Group exercise is an attractive option for treating large numbers of patients at low cost. They do not give recommendations on the specific type of exercise to be undertaken (strengthening/muscle conditioning, aerobic, McKenzie, flexion exercises, etc.) because that may be best determined by the exercise-preferences of both the patient and therapist. Better symptom relief is achieved with directional preference exercise. ([Long, 2004](#)) This study found no effect of *nonspecific* physical exercise on recovery from LBP in men and women, but the exercises measured were not specific back strengthening or stretching exercises. ([Mortimer, 2006](#)) See also related topics: [Aerobic exercise](#); [Aquatic therapy](#); [Lumbar extension exercise equipment](#); [McKenzie method](#); [Physical therapy \(PT\)](#); [Return to work](#); [Stretching](#); & [Yoga](#).

Recent research: A multicenter randomized controlled trial with 1-year follow-up of 129 predominantly male soldiers compared: (1) a 10-week device-supported isolated lumbar extension training, twice a week; or (2) regular PT, mainly consisting of exercise therapy and aerobic activities; found that both groups showed favorable development over time and short-term improvements (after 10 weeks of treatment) remained stable or even slightly increased throughout the 12-month follow-up, but there were no significant differences between the 2 groups for any of the outcome measures, at any time. ([Helmhout, 2008](#)) A recent literature review of exercise and nonspecific low back pain concluded that exercise is effective in the primary and secondary prevention of low back pain. When used for treatment, exercise diminishes disability and pain severity while improving fitness and occupational status in patients who have subacute, recurrent, or chronic low back pain, but patients with acute low back pain are usually advised to continue their everyday activities to the greatest extent possible rather than to start an exercise program. Supervision is crucial to the efficacy of exercise programs. Whether general or specific exercises are preferable is unclear, and neither is there clear evidence that one-on-one sessions are superior to group sessions. ([Henchoz, 2008](#)) An educational technique known as the Alexander technique, along with exercise, is effective for long-term relief of low back pain, according to the results of a randomized trial reported in the *BMJ*. ([Little, 2008](#)) Employees who use weight training to ease low back pain are better off than those who choose other forms of exercise, according to a recent study, which found a 60% improvement in pain and function levels from a 16-week exercise program of resistance training using dumbbells, barbells, and other load-bearing exercise equipment, versus 12% from aerobic training, jogging, using a treadmill or an elliptical machine. ([Kell, 2009](#)) A recent RCT comparing active spinal stabilization exercises (using the GDS or Godelive Denys-Struyf method) with passive electrotherapy using TENS plus microwave treatment (considered conventional physical therapy in Spanish primary care), concluded that treatment of nonspecific LBP using the GDS method provides greater improvements in the midterm (6 months) in terms of pain, functional ability, and quality of life. ([Arribas, 2009](#))

Post-surgical (discectomy) rehab: A recent Cochrane review concluded that exercise programs starting 4-6 weeks post-surgery seem to lead to a faster decrease in pain and disability than no treatment; high intensity exercise programs seem to lead to a faster decrease in pain and disability than low intensity programs; home exercises are as good as supervised exercises; and active programs do not increase the re-operation rate. Although it is not harmful to return to activity after lumbar disc surgery, it is still unclear what exact components should be included in rehabilitation programs. High intensity programs seem to be more effective but they could also be more expensive. Another question is whether all patients should be treated post-surgery or is a minimal intervention with the message return to an active lifestyle sufficient, with only patients that still have symptoms 4 to 6 weeks post-surgery requiring rehabilitation programs. ([Ostelo, 2009](#)) After back surgery, there is strong evidence for intensive exercise programs for functional status and faster return to

work and there is no evidence they increase the re-operation rate. ([Ostelo-Cochrane, 2002](#))

*Prevention:* A systematic review on preventing episodes of back problems found strong, consistent evidence that exercise interventions are effective, and other interventions not effective, including stress management, shoe inserts, back supports, ergonomic/back education, and reduced lifting programs. ([Bigos, 2009](#)) Physical exercise is recommended in the prevention of LBP, for prevention of recurrence of LBP and for prevention of recurrence of sick leave due to LBP. There is insufficient evidence to recommend for or against any specific type or intensity of exercise. ([Airaksinen, 2006](#)) ([Kaapa, 2006](#)) In nurses with a history of back pain, a general exercise program (strengthening, stretching and home-training) was as good as a more extensive multimodal program (which also included psychological, ergonomic and workplace-specific aspects). ([Ewert, 2009](#))

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

ACOEM-AMERICA COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE

AHCPR-AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES

DWC-DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES

EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN

INTERQUAL CRITERIA

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

MERCY CENTER CONSENSUS CONFERENCE GUIDELINES

MILLIMAN CARE GUIDELINES

ODG-OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES

PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR

TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & 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)