

Notice of Independent Review Decision

June 18, 2014

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

Left carpal tunnel release repeat possible extended incision 64721 to be completed by 07/25/14

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

The physician performing this review is Board Certified, American Board of Orthopedic Surgery. The physician has been in practice since 1998 and is licensed in Texas, Oklahoma, Minnesota and South Dakota.

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)

Provide a description of the review outcome that clearly states whether medical necessity exists for each of the health care services in dispute.

Upon independent review, the physician finds that the previous adverse determination should be upheld

INFORMATION PROVIDED TO THE IRO FOR REVIEW:

PATIENT CLINICAL HISTORY [SUMMARY]:

The claimant is a male with bilateral hand pain and history of previous bilateral carpal tunnel release. The claimant had partial, temporary relief of his symptoms following surgery. However, the symptoms ultimately returned. He has been treated with stellate ganglion blocks, physical therapy, wrist splinting, and local corticosteroid injections. None has given more than temporary relief. Nerve conduction studies and physical examination findings are consistent with carpal tunnel symptoms.

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

ODG guidelines require two of the following indications for carpal tunnel release surgery in patients without severe carpal tunnel syndrome: (1) abnormal Katz hand diagram scores; (2) nocturnal symptoms; (3) flick sign (shaking hand). None of these is indicated in the medical records.

ODG -TWC

ODG Treatment

Integrated Treatment/Disability Duration Guidelines

Carpal Tunnel Syndrome (Acute & Chronic)

Carpal tunnel release surgery (CTR)	<p>Recommended after an accurate diagnosis of moderate or severe CTS. Surgery is not generally initially indicated for mild CTS, unless symptoms persist after conservative treatment. See Severity definitions. Carpal tunnel release is well supported, both open and endoscopic (with proper surgeon training), assuming the diagnosis of CTS is correct. (Unfortunately, many CTR surgeries are performed on patients without a correct diagnosis of CTS, and these surgeries do not have successful outcomes.) Outcomes in workers' comp cases may not be as good as outcomes overall, but studies still support the benefits from surgery. Carpal tunnel syndrome may be treated initially with education, activity modification, medications and night splints before injection is considered, except in the case of severe CTS (thenar muscle atrophy and constant paresthesias in the median innervated digits), but outcomes from carpal tunnel surgery justify prompt referral for surgery in moderate to severe cases. Nevertheless, surgery should not be performed until the diagnosis of CTS is made by history, physical examination and possible electrodiagnostic studies. Symptomatic relief from a cortisone/anesthetic injection will facilitate the diagnosis, however the benefit from these injections although good is short-lived. Surgical decompression of the median nerve usually has a high rate of long-term success in relieving symptoms, with many studies showing success in over 90% of patients where the diagnosis of CTS has been confirmed by electrodiagnostic testing. (Patients with the mildest symptoms display the poorest post-surgery results, but in patients with moderate or severe CTS, the outcomes from surgery are better than splinting.) Carpal tunnel syndrome should be confirmed by positive findings on clinical examination and may be supported by nerve conduction tests before surgery is undertaken. Mild CTS with normal electrodiagnostic studies (EDS) exists, but moderate or severe CTS with normal EDS is very rare. Positive EDS in asymptomatic individuals is not CTS. Any contributions to symptoms by cervical radiculopathy (double crush syndrome) will not be relieved by the surgery. (Various references listed under "Surgical Considerations") (Chung, 1998) (Verdugo, 2002) (Shin, 2000) (AHRQ, 2003) (Lyll, 2002) (Gerritsen-JAMA, 2002) (Verdugo-Cochrane, 2003) (Hui, 2004) (Hui, 2005) (Bilic, 2006) (Atroshi, 2006) (Ucan, 2006) Being depressed and a workers' compensation claimant predicts being out of work after carpal tunnel release surgery. This highlights the importance of psychosocial management of musculoskeletal disorders. (Amick, 2004) (Karjalainen-Cochrane, 2002) (Crossman, 2001) (Denniston, 2001) (Feuerstein, 1999) Older age should not be a contraindication to CTR. (Weber, 2005) (Hobby2, 2005) In a sample of patients aged 70 years and older, patient satisfaction was 93 percent after surgical treatment versus 54 percent after nonsurgical treatment. (Ettema, 2006) Mini palm technique</p>
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may be as good or better than endoscopic or open release. ([Melhorn, 1994](#)) ([Cellocco, 2005](#)) Steroid injections and wrist splinting may be effective for relief of CTS symptoms but the benefit decreases over time. Symptom duration of less than 3 months and absence of sensory impairment at presentation are predictive of an improved response to conservative treatment. Selected patients presenting with mild to moderate carpal tunnel syndrome (i.e., with no thenar wasting or obvious underlying cause) may receive either a steroid injection or wear a wrist night splint for 3 weeks. This will allow identification of the patients who respond well to conservative therapy and do not need surgery. ([Graham, 2004](#)) ([Ly-Pen, 2005](#)) See [Injections](#). While diabetes is a risk factor for CTS, patients with diabetes have the same probability of positive surgical outcome as patients with idiopathic CTS. ([Mondelli, 2004](#)) Statistical evaluation identified five factors which were important in predicting lack of response to conservative treatment versus surgery: (1) age over 50 years; (2) duration over ten months; (3) constant paresthesia; (4) stenosing flexor tenosynovitis; & (5) a Phalen's test positive in less than 30 seconds. When none of these factors was present, 66% of patients were improved by medical therapy, 40% were improved with one factor, 17% were improved with two factors, and 7% were improved with three factors, and no patient with four or five factors present was cured by medical management. ([Kaplan, 1990](#)) Operative treatment was undertaken for 31% of new presentations of carpal tunnel syndrome in 2000. ([Latinovic, 2006](#)) In the treatment of carpal tunnel syndrome, decompression surgery produces a better long-term outcome than local corticosteroid injections, according to data presented at the American College of Rheumatology meeting. At 1 year, the results showed that local corticosteroid injection was as effective as decompression surgery; however, at 7 years, the estimated accumulated incidence of therapeutic failure in the corticosteroid group was 41.8% compared with 11.6% in the surgery group, because the effects of corticosteroid injections fade with time. ([Ly-Pen, 2007](#)) This RCT concluded that patients with CTS who do not have satisfactory improvement with nonsurgical treatment should be offered surgery. Symptoms in both groups improved, but surgical treatment led to better outcome than did non-surgical treatment. However, the clinical relevance of this difference was modest. ([Jarvik, 2009](#)) This systematic review found that the recent literature demonstrates a trend toward recommending early surgery for CTS cases with or without median nerve denervation. ([Bernardino, 2011](#)) Despite the fact that symptoms are impaired in diabetic patients with CTS compared with non-diabetic patients with CTS, diabetic patients experience similar symptomatic and functional benefits from carpal tunnel release as do non-diabetic patients. ([Thomsen, 2010](#)) In this meta-analysis, there were no statistically significant differences between surgical release and conservative management at 3 months, but there was a benefit in favor of surgery in terms of function (0.35) and symptom relief (0.37) at 12 months, and at 6 months. The RR of normal nerve conduction studies after surgery was 2.3 compared to conservative treatment, while the RR was 2.03 for complications. The authors concluded that the evidence supports surgical release for severe symptoms, and a short trial of conservative management with surgical release recommended for persistent symptoms after the trial. ([Shi, 2011](#))

Adjunctive procedures: The 2008 AAOS CTS clinical treatment guidelines concluded that surgeons not routinely use the following procedures when performing carpal tunnel release: Skin nerve preservation; & Epineurotomy. The following procedures had no recommendation for or against their use: Flexor retinaculum lengthening; Internal neurolysis; Tenosynovectomy; & Ulnar bursa preservation. ([Keith, 2010](#))

ODG Indications for Surgery™ -- Carpal Tunnel Release:

I. Severe CTS, requiring ALL of the following:

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A. Symptoms/findings of severe CTS, requiring ALL of the following:

1. Muscle atrophy, severe weakness of thenar muscles
2. 2-point discrimination test > 6 mm

B. Positive electrodiagnostic testing

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II. Not severe CTS, requiring ALL of the following:

A. Symptoms (pain/numbness/paresthesia/impaired dexterity), requiring TWO of the following:

1. Abnormal Katz hand diagram scores
2. Nocturnal symptoms
3. Flick sign (shaking hand)

B. Findings by physical exam, requiring TWO of the following:

1. Compression test
2. Semmes-Weinstein monofilament test
3. Phalen sign
4. Tinel's sign
5. Decreased 2-point discrimination
6. Mild thenar weakness (thumb abduction)

C. Comorbidities: no current pregnancy

D. Initial conservative treatment, requiring THREE of the following:

1. Activity modification \geq 1 month
2. Night wrist splint \geq 1 month
3. Nonprescription analgesia (i.e., acetaminophen)
4. Home exercise training (provided by physician, healthcare provider or therapist)

5. Successful initial outcome from corticosteroid injection trial (optional).

See [Injections](#). [Initial relief of symptoms can assist in confirmation of diagnosis and can be a good indicator for success of surgery if electrodiagnostic testing is not readily available.]

E. Positive electrodiagnostic testing [note that successful outcomes from injection trial or conservative treatment may affect test results] ([Hagebeuk, 2004](#))

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

- ACOEM- AMERICAN 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)