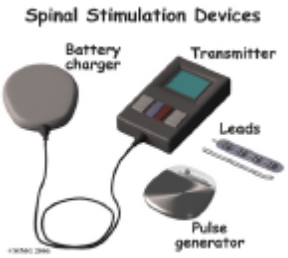
WCRA
WORKERS' COMPENSATION REINSURANCE ASSOCIATION

SPINAL CORD STIMULATION FOR CHRONIC PAIN: DOES IT REALLY WORK?

The theory of spinal cord stimulation (SCS) has been around since the late 1960s with the first spinal cord stimulator implantation occurring in 1971. Since its introduction, SCS therapy has become an accepted yet sometimes controversial approach to the treatment of certain types of chronic pain. The U.S. Food and Drug Administration (FDA) recognizes SCS as an aid in managing chronic intractable pain of the trunk or limbs, including unilateral or bilateral pain associated with "failed back surgery syndrome." In the United States, the most common use of SCS is when there is continued pain into the legs following failed back surgery.

Significant advances have been made in the surgical technique and technology of SCS. Despite these advancements, research shows that of all patients in whom a pre-implantation trial screening yields successful results, 25-50 percent report loss of benefit within 12 to 24 months of implantation. It is important to remember that SCS is not a cure for pain; it is only a part of an overall pain management plan.



In its simplest form, the spinal cord stimulator consists of stimulating electrodes that are implanted into the epidural space; an electrical pulse generator implanted in the lower abdominal area or gluteal region; conducting wires connecting the electrodes to the generator; and the generator remote control.
Spinal cord stimulators are designed to last for several years without replacement. The newer rechargeable spinal cord stimulators have an expected battery life of nine years
(http://professional.medtronic.com/pt/neuro/scs/edu/about/index.htm)

Per Official Disability Guidelines published by Work Loss Data Institute, the mean hospital charge for SCS implantation (permanent) is $68,730, and about 14 percent of patients receiving an SCS implantation are workers' compensation claimants.

WCRA Outcomes

WCRA conducted a retrospective review of 69 reported claims involving permanent SCS implantations between 1996 and 2010. Based on the information we received from our members, our review shows the following results as of December 2012.

- 41 percent of claimants were still using their SCS for pain management (n=28).
  Of these claimants:
  - 14 percent have documentation of return to work (n=4)
  - 64 percent are no longer taking any routinely scheduled opioids (n=18)
  - Average length of use for of the SCS = 5.75 years
- 48 percent of claimants received three or less years of benefit before stopping use of the SCS (n=33)
- 11 percent of claimants received greater than three years of benefit but ultimately stopped using SCS (n=8)

From this review, one may conclude that successful implantation of an SCS for pain management may lead to a reduction in the use of chronic opioids but not necessarily to a significantly increased chance of returning to work. We can also conclude that, with 48 percent of claimants having less than three years of benefit, maximizing rehabilitation opportunities during those years of improved pain management must be a priority. Based on this fairly small sampling, a general assumption could be reached that SCS implantation is a viable option for chronic pain management, but in most of the cases seen at the WCRA, the benefits are likely to last three years or less.

Claims Management

As we have learned with most major medical procedures, patient selection is almost always a KEY factor in predicting a successful outcome. So how do you influence patient selection to try to ensure the best possible outcome? Here are just a few tips to get you started in the right direction.

- Ensure you have adequate supporting documentation from the treating and/or specialty provider that clearly outlines the rationale, the comprehensive treatment plan, and the goal in recommending an SCS (improve function, reduce narcotics, manage pain, etc.).

- Apply the Minnesota Treatment Parameters 5221.6200 Subp. 6. C. This rule states SCSs (and intrathecal/morphine pumps) have very limited application and **require 1) a second opinion** that confirms that the treatment is indicated and within the parameters listed, and 2) a personality or psychosocial evaluation that indicates that the patient is likely to benefit from the treatment.

- Request that the psychosocial evaluation be performed by an independent psychologist or psychiatrist unaffiliated with the recommending physician to avoid bias (per Official Disability Guidelines recommendations). If indicated, allow brief cognitive and/or behavioral intervention prior to the SCS trial to address any psychological issues that may affect the outcome.

- Consider assigning a nurse case manager with experience in chronic pain conditions to advocate for and educate the patient, coordinate services or second opinions, obtain appropriate medical documentation both pre- and post-implantation, and assist the claims professional in developing a plan to address any questions or concerns.

- If you have significant concerns regarding the appropriateness of the SCS, an IME may be indicated.

Conclusion

Even though medical researchers are still investigating how SCS controls pain, we do know that, with proper patient selection, SCS can be an appropriate treatment modality for some patients living with chronic pain. Unless there is a very clear contraindication precluding the SCS implantation (substance abuse, severe cognitive impairment, spine instability at risk for progression, etc.), most SCSs are approved after satisfying the criteria outlined in the Minnesota Treatment Parameters. When utilized, spinal cord stimulation should be part of an overall rehabilitation treatment plan combining behavioral and physical medicine approaches to pain management. It is important for the patient and physician to have realistic expectations regarding treatment, with the goal being pain reduction and control rather than complete elimination.

Any questions? Contact the WCRA Claims Department, please email at claimservices@wcra.biz