Spinal cord stimulation: use in patients with complex regional pain syndrome

WCB Evidence Based Practice Group

Record Status
This is a bibliographic record of a published health technology assessment. No evaluation of the quality of this assessment has been made for the HTA database.

Citation

Authors' objectives
This study examines spinal cord stimulation and its use in patients with complex regional pain syndrome.

Authors' conclusions
MEDICAL EVIDENCE - CONCLUSIONS

1. Twenty-five workers have had spinal cord stimulation (SCS) implantation approved by the WCB up to October 17, 2002. Thirteen of these had complex regional pain syndrome (CRPS), while twelve workers had other diagnoses (radiculopathies).

2. Nineteen of those twenty-five workers actually had the SCS implantation. Only ten had a successful trial.

3. Of the ten successful SCS implantations, six were in CRPS patients and four were patients with radicular problems.

4. Of the ten workers who had SCS implantation, two have return to work (RTW).

5. Of the nine "unsuccessful" SCS implantation patients, one worker has RTW.

6. An independent, critical appraisal of the literature (July 2001) on SCS in patients with CRPS does not reveal any level I quality of evidence research.

7. No high quality research or systematic reviews since August 2001 (the date of the external consultant's review) are present in the literature that would change the conclusions reached in the WCB commissioned review on this subject.

8. The one randomized trial available in the world literature suggested there was a significant complication rate (20-75%) associated with use of the implantable spinal cord stimulator.

CORPORATE CONCLUSIONS

1. Most workers who had the SCS implanted, do not improve significantly in terms of function and RTW rates.

2. The associated health care and rehabilitation costs with SCS is significant.

3. Incorporating the lack of high level medical research on this subject, along with its significant potential adverse effect rate and poor compensation outcome measures when SCS are used, the WCB should continue with its present position of not authorizing its use in the injured worker population.

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Address for correspondence
6591 Westminster Highway, Richmond, BC, V7C 1C6 Canada. Tel: 604-231-8417; Fax: 604-279-7698 Email: kukuh.noertjojo@worksafebc.com.

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