

Evidence Based Intervention

Spinal Cord Stimulation

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Policy: Spinal Cord Stimulation

Spinal cord stimulation is recommended as a treatment option for adults with chronic pain of neuropathic origin who:

- Continue to experience chronic pain (measuring at least 50mm on a 0-100mm visual analogue scale) for at least 6 months despite appropriate conventional medical management, and
- Is under the care of a specialist multidisciplinary pain team who have recommended referral for spinal cord stimulation treatment, and
- Have had a successful trial of stimulation as part of the assessment by a multidisciplinary team experienced in chronic pain assessment and management of people with spinal cord stimulation devices, including experience in the provision on-going monitoring and support of the person assessed.

Patients with chronic pain of ischaemic origin are excluded from spinal cord stimulation except in the context of research as part of a clinical trial. Such research should be designed to generate robust evidence about the benefits of spinal cord stimulation (including pain relief, functional outcomes, and quality of life) compared with standard care.

The spinal cord stimulation must be provided at a centre which meets the following criteria and make the following assessments:

- A multidisciplinary pain management team experienced in chronic pain assessment and management of people with spinal cord stimulation devices, including experience in the provision of on-going monitoring and support of the person assessed.

Patients scheduled for spinal cord stimulation should be screened for methicillin-resistant *Staphylococcus aureus* less than four weeks before the procedure to allow rational choice of antibiotic prophylaxis at the time of surgery.

- When assessing the severity of pain and the trial of stimulation, the multidisciplinary team should be aware of the need to ensure equality of access to treatment with spinal cord stimulation. Tests to assess pain and response to spinal cord stimulation should take into account a person's disabilities (such as physical or sensory disabilities), or linguistic or other communication difficulties, and may need to be adapted.
- If different spinal cord stimulation systems are considered to be equally suitable for a person, the least costly should be used. Assessment of cost should consider acquisition costs, the anticipated longevity of the system, the stimulation requirements of the person with chronic pain and the support package offered.
- People who are currently using spinal cord stimulation for the treatment of chronic pain of ischaemic origin should have the option to continue treatment until they or their clinicians consider it appropriate to stop.
- Implanting centres should audit their spinal cord stimulation activity and provide patients with information on outcomes and complications.
- Implanting centres should report specific devices used and demonstrate clinical effectiveness, cost effectiveness and quality of their choice.



Clinical need

Pain that persists for more than several months, or beyond the normal course of a disease or expected time of healing, is often defined as chronic. This pain becomes a significant medical condition in itself rather than being a symptom. Chronic pain can affect people of all ages, although in general, its prevalence increases with age. Estimates of the prevalence of this condition in the UK vary from less than 10% to greater than 30% depending on the specific definition of chronic pain used. Chronic pain is accompanied by physiological and psychological changes such as sleep disturbances, irritability, medication dependence and frequent absence from work. Emotional withdrawal and depression are also common, which can strain family and social interactions.

Standard Treatment:

The goal of treatment for chronic pain is to make pain tolerable and to improve functionality and quality of life. It may be possible to treat the cause of the pain, but usually pain pathways are modulated by a multidisciplinary approach (described as conventional medical management (CMM) in this document). This may include pharmacological interventions such as non-steroidal anti-inflammatory drugs, tricyclic antidepressants, anticonvulsants, analgesics and opioids. Non-pharmacological interventions, such as physiotherapy, acupuncture, transcutaneous electrical nerve stimulation and psychological therapies, can also be a part of CMM. For some chronic pain conditions there may also be condition specific treatments; for example, people with Failed Back Surgery Syndrome (FBSS) may have a repeat operation. People with chronic pain may continue to experience pain despite CMM, AND complete relief is rarely achieved.

The technology:

Spinal cord stimulation (SCS) is a treatment for chronic pain that is usually considered after standard treatments (such as those listed above) have failed. SCS modifies the perception of neuropathic and ischaemic pain by stimulating the dorsal column of the spinal cord. SCS is minimally invasive and reversible. A typical SCS system has four components.

- A neurostimulator that generates an electrical pulse (or receives radio frequency pulses) – that is surgically implanted under the skin in the abdomen or in the buttock area.
- An electrode(s) implanted near the spinal cord either surgically or percutaneously (the latter via puncture, rather than through an open surgical incision, of the skin).
- A lead that connects the electrode(s) to the neurostimulator.
- A remote controller that is used to turn the neurostimulator on or off and to adjust the level of stimulation.

Rationale:

Spinal cord stimulation was recommended for funding using the guidance outlines above in NICE TA 159¹. The Department of Health has directed that the NHS should provide funding for NICE TA recommended medicines and treatments within three months, unless instructed by the Secretary of State.

New evidence was reviewed by the NICE General Executive in November 2013, and it was found that the new evidence supported the recommendations in TA159². The guidance has been transferred to the static guidance list, until such time when new evidence is made available.

REFERENCES:

1. NICE TA 159 October 2008
2. NICE TA 159 review decision February 2014

Patients who are not eligible for treatment under this policy may be considered on an individual basis where their GP or consultant believes exceptional circumstances exist that



warrant deviation from the rule of this policy. Individual cases will be reviewed as per the ICB policy.

Change History:

Version	Date	Reviewer(s)	Revision Description

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