

E-Bulletin

June 2005, Issue #3

The OHTAC E-bulletin is issued on a regular basis to provide you with the latest update on the committee's recommendations. OHTAC has reviewed several health technologies and all its recommendations are available on the OHTAC Web site at http://www.health.gov.on.ca/english/providers/program/mas/ohtac_recommend.html.

Should you have additional information about any of these technologies, please submit it to the Medical Advisory Secretariat (MAS) at the contact information found at the end of this bulletin.

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SACRAL NERVE STIMULATION FOR THE MANAGEMENT OF URGE INCONTINENCE, URGENCY-FREQUENCY, URINARY RETENTION AND FECAL INCONTINENCE

Issue	Urinary urge incontinence, urgency-frequency, urinary retention, and fecal incontinence are prevalent, yet rarely discussed, conditions, as patients may be uncomfortable disclosing their symptoms to their health professional or may be unaware of the treatment options. About three-quarters of people affected may be successfully treated by behavioural and/or drug therapy. For those who do not respond to these therapies, the options are management with diapers or pads, surgery or sacral nerve stimulation. Sacral nerve stimulation (SNS) is a procedure where a small device attached to an electrode is implanted in the abdomen or buttock to stimulate the sacral nerves in an attempt to manage the condition. OHTAC was asked to conduct an evidence-based analysis of the effectiveness, safety and cost of SNS to treat urge incontinence, urgency-frequency, urinary retention, and fecal incontinence.
Key Findings	MAS conducted its standard systematic review and critical appraisal of the published literature and concluded that it consistently reports that SNS is an effective technology in managing the conditions at subject in patients who do not respond to drug or behavioural therapy. It also reports that there is a substantial complication profile associated with SNS. However, none of the assessments reported incidence of permanent injury or death associated with the device.
OHTAC Recommendations	As a result of its review, OHTAC recommended that hospitals with the relevant expertise increase access to SNS for people with urinary urge incontinence, urgency-frequency, urinary retention or fecal incontinence who have failed drug and behavioural therapy.
Implications	Guidelines for the use of SNS and patient selection should be developed. The guideline panel should be multi-disciplinary and include urologists, gastroenterologists and general practitioners.

The **OHTAC recommendation** for this technology can be found at the following link:
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_sns_030205.pdf

The full downloadable version of the **health technology and policy assessment (HTPA) report** by MAS can be found at: http://www.health.gov.on.ca/english/providers/program/mas/reviews/review_sns_0305.html

SPINAL CORD STIMULATION FOR THE MANAGEMENT OF NEUROPATHIC PAIN

Issue

Neuropathic pain begins or is caused by damage or dysfunction to the nervous system and can be difficult to manage. Although the actual number is unknown, a proportion of people with chronic neuropathic pain fail to obtain pain relief from pharmacological therapies despite adequate and reasonable efforts to use them. These people are said to have chronic intractable neuropathic pain and are the target population for spinal cord stimulation (SCS). The most common conditions include chronic intractable neuropathic pain due to failed back surgery syndrome, complex regional pain syndrome, or postherpetic neuralgia.

SCS is a reversible therapy that uses low-voltage electrical pulses to manage chronic intractable neuropathic pain of the trunk or limbs. It is considered as a pain management therapy only after conventional pain therapies, including pharmacological, nonpharmacological, and surgical treatments, if applicable, have been attempted and have failed.

OHTAC was asked to conduct an evidence-based analysis of the effectiveness, safety and cost of SCS for the management of chronic intractable neuropathic pain.

Key Findings

MAS conducted its standard systematic review and critical appraisal of the published literature and found high quality evidence that SCS decreases pain and that it improves functional status and quality of life in some people with neuropathic pain conditions. The rate of technical failures was approximately 11%, which included electrode lead migration and/or malposition. Procedural complications included infection and dural puncture; each occurred at a rate of 1.2%.

OHTAC Recommendations

As a result of its review, OHTAC recommended that hospitals with the relevant expertise increase access to SCS for people with chronic intractable neuropathic pain.

Implications

Given that SCS is considered only after conventional pain therapies have failed, it should be offered within the context of a multi-disciplinary comprehensive pain management program.

The **OHTAC recommendation** for this technology can be found at the following link:

http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_scs_030205.pdf

The full downloadable version of the **health technology and policy assessment (HTPA) report** by MAS can be found at: http://www.health.gov.on.ca/english/providers/program/mas/reviews/review_scs_0305.html

DEEP BRAIN STIMULATION IN PARKINSON'S DISEASE AND OTHER MOVEMENT DISORDERS

Issue

Deep brain stimulation (DBS) is a surgical procedure indicated in the relief of motor function symptoms of neurodegenerative disorders such as Parkinson's disease, essential tremor and dystonia, which can no longer be adequately controlled with drug therapy. DBS is considered an adjunct to drug therapy.

The DBS system is a pacemaker-like device with a lead (inserted into specific target sites of the brain), an extension (which connects the lead to the neurostimulator), and a neurostimulator (which produces electric impulses). Following the surgery, the device is programmed by the physician, and the patient is supplied with a hand-held component with which they can regulate the stimulation, within parameters pre-set by their physician.

OHTAC was asked to conduct an evidence-based analysis of the effectiveness, safety and cost of DBS. A literature review identified idiopathic Parkinson's disease, essential tremor and primary dystonia as the most common conditions for which DBS may be indicated.

Key Findings

MAS conducted its standard systematic review and critical appraisal of the published literature and found that there is evidence that:

- bilateral DBS of the subthalamic nucleus is effective in the short-term control of advanced parkinsonian symptoms, and that the effect is sustained for at least 5 years.
- DBS of the thalamus is effective in the control of tremor in patients with essential tremor and Parkinson's disease for at least 6 years.
- bilateral DBS of the globus pallidus is effective in the control of symptoms of primary dystonia for at least 1 year.

Expert consultation suggests that the complication rate associated with DBS may be as high as 8% for severe outcomes, but as low as 4% when the procedure is conducted in a multi-disciplinary expert centre.

OHTAC Recommendations

As a result of its review, OHTAC recommended that hospitals with the relevant multi-disciplinary expertise increase access to DBS for people with movement disorders refractory to conventional treatment.

Implications

DBS requires the careful selection of patients eligible for this surgery. This selection must be made in consultation with several experts, which may include a neurosurgeon, neurologist, neurophysiologist, psychologist or psychiatrist, and other specialty areas in cases of underlying conditions.

The **OHTAC recommendation** for this technology can be found at the following link:

http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_dbs_030205.pdf

The full downloadable version of the **health technology and policy assessment (HTPA) report** by MAS can be found at: http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/dbs_0305.pdf

Upcoming Reviews

- Osteogenic protein-1
- Multi-slice CT scanning
- Intrathecal pumps
- Hylan G-F 20
- Arthroscopic lavage, meniscectomy and/or debridement for osteoarthritis of the knee
- Multidisciplinary rehabilitation interventions for joint replacement for arthropathies
- Total knee replacement
- Cardiac resynchronization therapy
- Cardiac PET
- Imaging techniques for ischemic heart disease
- Endovascular repair of thoracic aneurysms using endografts

Previous OHTAC Recommendations

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|---|----------------|
| • Bariatric Surgery
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_baria_012105.pdf | January 2005 |
| • Vacuum Assisted Closure Therapy for Chronic Wounds
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_vac_121604.pdf | December 2004 |
| • Balloon Kyphoplasty
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_kypho_121604.pdf | December 2004 |
| • Thermal Balloon Endometrial Ablation for Dysfunctional Uterine Bleeding
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_tbea_091504.pdf | October 2004 |
| • Primary Angioplasty
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_pri_angio_110804.pdf | September 2004 |
| • Bispectral Index Monitor
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_bis_081304.pdf | August 2004 |
| • Radio Frequency Ablation for Primary Liver Cancer
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_rfa_061704.pdf | June 2004 |
| • Repetitive Transcranial Magnetic Stimulation for Major Depressive Disorder
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_rtms_061704.pdf | June 2004 |
| • Coil Embolization For Intracranial Aneurysms
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_ece_0304.pdf | March 2004 |
| • Pyrocarbon Finger Joint Implant
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_pyrocarb_0304.pdf | March 2004 |
| • Video Laryngoscopy for Tracheal Intubation
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_vic_laryng_0304.pdf | March 2004 |
| • Bone Morphogenetic Proteins and Spinal Surgery for Degenerative Disc Disease
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_bmp_ddd_0304.pdf | March 2004 |
| • Artificial Discs for Cervical and Lumbar Spinal Surgery for Degenerative Disease
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_bmp_ddd_0304.pdf | March 2004 |
| • Computer-Assisted Hip and Knee Arthroplasty: Navigation and Robotic Systems
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_arthro_0304.pdf | March 2004 |
| • Computer-Assisted Surgery Using Telem manipulators
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_teleman_0304.pdf | March 2004 |
| • Tension-free Vaginal Tape for Stress Urinary Incontinence
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_tv_t_050204.pdf | February 2004 |
| • Patient Monitoring System for MRI
http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_pmri_050204.pdf | February 2004 |

For any comments related to this E-bulletin, please contact the Medical Advisory Secretariat at:

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Web: http://www.health.gov.on.ca/english/providers/program/mas/mas_mn.html

OHTAC is envisaged as the first step in creating a single portal for providing advice to the Ministry of Health and Long-Term Care regarding the uptake, diffusion, and distribution for new health technologies. Find more about OHTAC, its application process, and its recommendations at the following Web site:

http://www.health.gov.on.ca/english/providers/program/mas/ohtac_about.html.