OHTAC Ontario Health Technology Advisory Committee

Seeking the best in health technologies for Ontario

E-Bulletin **November 2005, Issue #6**

The OHTAC E-bulletin is issued on a regular basis to provide you with updates on the latest committee 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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HYPERBARIC OXYGEN THERAPY FOR NON-HEALING ULCERS IN DIABETES MELLITUS

Issue

About 10% to 15% of people with Diabetes Mellitus (DM) develop a foot wound in their lifetimes because of underlying peripheral neuropathy and peripheral vascular disease. This equals between 70,000 and 105,000 people in Ontario, based on the DM prevalence estimate of 700,000 people. Without early treatment, a foot ulcer may fester until it becomes infected and chronic.

Hyperbaric oxygen therapy (HBOT) is thought to aid wound healing by supplying oxygen to the wound. Noted complications are rare but may include claustrophobia; ear, sinus, or lung damage due to pressure; temporary worsening of short sightedness; and oxygen poisoning.

Although HBOT is an insured service in Ontario, the evidence suggesting that HBOT is beneficial for persons with diabetic wounds is uncertain and therefore, a well-conducted field evaluation with wound healing and amputation as the primary end-points is needed before this technology can be widely encouraged among patients with diabetic foot wounds.

Key Findings

- The quality of the evidence assessing the effectiveness of HBOT as an adjunct to standard therapy for people with non-healing diabetic foot ulcers is low, and the results are inconsistent.

OHTAC Recommendations

- Efforts be made to prevent chronic diabetic foot ulcers through diabetic care and education;
- Existing Ontario clinical guidelines on the prevention and management of diabetic foot ulcers be disseminated;
- A well designed, adequately powered, clinical trial be undertaken to provide evidence on which to make a definitive decision on the effectiveness of HBOT in the treatment of non-healing diabetic foot ulcers.
- Access to HBOT as an insured service be maintained until the results of a trial are available. Further expansion of this service for the treatment of non-healing diabetic foot ulcers should be predicated on better quality evidence of effectiveness. This does not apply to access to HBOT for other indications.

Implications

Future well-conducted studies may change the currently published estimates of effectiveness for wound healing and prevention of amputation for HBOT in the treatment of non-healing diabetic foot ulcers.

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/rec_hypox_081105.pdf. The full downloadable version of the **health technology and policy assessment (HTPA) report** by the Medical Advisory Secretariat can be found at: http://www.health.gov.on.ca/english/providers/program/mas/reviews/rev_hypox_081105.html

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INTRATHECAL PUMPS FOR BACLOFEN INFUSION FOR SPASTICITY

Issue

Spasticity is a motor disorder characterized by tight or stiff muscles that reduces mobility and independence and interferes with activities of daily living, continence and sleep patterns. Spasticity may also be associated with significant pain or discomfort. It is a problem for many patients with multiple sclerosis (MS), spinal cord injury (SCI), cerebral palsy (CP), and acquired brain injury (ABI).

Baclofen is the oral drug most frequently prescribed for spasticity in cases of SCI and MS. The main adverse effects of oral baclofen include sedation, excessive weakness, dizziness, and mental confusion. The incidence of adverse effects is reported to range from 10% to 75%, with approximately 25-30% of SCI and MS patients failing to respond to oral baclofen.

Advantages of intrathecal baclofen infusion include:

- Direct drug administration to the cerebral spinal fluid, minimizing drowsiness or confusion.
- Adjustable/programmable continuous infusion
- Reversible (versus surgery)

Key Findings

- There is evidence of effectiveness of intrathecal baclofen infusion for the short-term and long-term reduction of severe spasticity in patients who are unresponsive or cannot tolerate oral baclofen.
- There is some qualitative evidence of functional improvement for patients who are unresponsive or cannot tolerate oral baclofen.
- Intrathecal pumps for baclofen infusion appear to be cost effective with costs which may or may not be avoided in the Ontario health system.
- The true functional use of intrathecal baclofen remains to be determined.

OHTAC Recommendations

That access to intrathecal pumps for baclofen infusion be increased for patients with severe spasticity (available evidence is mainly for patients suffering from multiple sclerosis and spinal cord injuries) who are resistant to oral antispasticity drugs or cannot tolerate the side effects.

A network of comprehensive care to permit continuity of care from childhood to adult encompassing acute care, rehabilitation, home and long-term care, for caring for these individuals, should be ensured.

Implications

Based on an estimated prevalence of spasticity appropriate for the pump of 1,500-2,400, there is a potential backlog for procedures in this range. Based on the rate of pump insertion in the United States, we estimate that if Ontario were to adopt similar utilization levels for this technology there would be approximately 300 pump insertions per year at an annual cost of $8.2 -$8.4 million, until the backlog was eliminated.

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_pump_081605.pdf

The full downloadable version of the **health technology and policy assessment (HTPA) report** by the Medical Advisory Secretariat can be found at: http://www.health.gov.on.ca/english/providers/program/mas/reviews/rev_pump_081605.html

TECHNOLOGIES CURRENTLY UNDER REVIEW

Name of technology	Expected dates of web posting
Intra-articular injection of Hylan G-F 20 for osteoarthritis of the knee	Fall 2005
Arthroscopic lavage, debridement, and/or meniscectomy for osteoarthritis of the knee	Fall 2005
Cardiac positron emission tomography	Late Fall 2005
Endovascular repair for thoracic aortic aneurysm	Winter 2006
Air filtration systems for infection control	Winter 2006
Electroanatomic cardiac mapping and ablative techniques	Winter 2006
Vascular ultrasound screening for abdominal aortic aneurysm	Winter 2006
Automatic external defibrillator	Winter 2006
Intravascular coronary ultrasound	Spring 2006
Integrated HTPAs	**Expected dates of web posting**
Cardiac imaging technologies	Winter 2006
Osteoarthritis	Late Fall 2005
Heart failure	Winter 2006
Updated HTPAs	**Expected dates of web posting**
Implantable cardioverter defibrillator	Fall 2005
Cardiac resynchronization therapy	Fall 2005
Artificial discs—application to cervical and lumbar spinal surgery for degenerative disc disease	Winter 2006
Enhanced external counterpulsation	Winter 2006
Brachytherapy	Winter 2006
Repetitive transcranial magnetic stimulation	Spring 2006
Field Evaluations	**Expected dates of web posting**
Drug eluting stent	Interim report: Fall 2005 Final report: Summer 2006
Autologous bone marrow grafting	Tbd
64-slice CT angiography	Final Report::Late 2006/Early 2007
Primary angioplasty	Tbd
Endovascular repair of abdominal aortic aneurysms	Final report: Late 2006
Usability Lab Studies	**Expected dates of web posting**
Increased use of 64-Slice CT Scanners: Radiation Dose Issues	Winter 2006
Magnetic Resonance Imaging Suites: Patient and Staff Safety	Winter 2006

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PREVIOUS OHTAC RECOMMENDATIONS

- Interim Report on Endovascular Repair of Abdominal Aortic Aneurysm (EVAR) — May 2005
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/ohtac_report_evar_051705.pdf
- Osteogenic Protein-1 — April 2005
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/ohtac_rec_op1_051705.pdf
- Multi-detector Computed Tomography Angiography for Coronary Artery Disease — April 2005
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_multi_050805.pdf
- Spinal Cord Stimulation for Neuropathic Pain — March 2005
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/scs_0305.pdf
- Sacral Nerve Stimulation for Urinary Incontinence, Urgency-Frequency, Urinary Retention, and Fecal Incontinence — March 2005
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/sns_0305.pdf
- Deep Brain Stimulation in Parkinson's Disease and Other Movement Disorders — March 2005
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/dbs_0305.pdf
- Bariatric Surgery — January 2005
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_baria_012105.pdf
- Vacuum Assisted Closure Therapy for Chronic Wounds — December 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_vac_121604.pdf
- Balloon Kyphoplasty — December 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_kypho_121604.pdf
- Thermal Balloon Endometrial Ablation for Dysfunctional Uterine Bleeding — October 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_tbea_091504.pdf
- Primary Angioplasty — September 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_pri_angio_110804.pdf
- Bispectral Index Monitor — August 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_bis_081304.pdf
- Radio Frequency Ablation for Primary Liver Cancer — June 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_rfa_061704.pdf
- Repetitive Transcranial Magnetic Stimulation for Major Depressive Disorder — June 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_rtms_061704.pdf
- Coil Embolization For Intracranial Aneurysms — March 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_ece_0304.pdf
- Pyrocarbon Finger Joint Implant — March 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_pyrocarb_0304.pdf
- Video Laryngoscopy for Tracheal Intubation — March 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_vic_laryng_0304.pdf
- Bone Morphogenetic Proteins and Spinal Surgery for Degenerative Disc Disease — March 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_bmp_ddd_0304.pdf
- Artificial Discs for Cervical and Lumbar Spinal Surgery for Degenerative Disease — March 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_bmp_ddd_0304.pdf
- Computer-Assisted Hip and Knee Arthroplasty: Navigation and Robotic Systems — March 2004
  Http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_arthro_0304.pdf
- Computer-Assisted Surgery Using Telemanipulators — March 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_teleman_0304.pdf
- Tension-free Vaginal Tape for Stress Urinary Incontinence — February 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_tvt_050204.pdf
- Patient Monitoring System for MRI — February 2004
  http://www.health.gov.on.ca/english/providers/program/mas/reviews/docs/recommend_pmri_050204.pdf

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

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