To read all new materials from MAS and OHTAC, be sure to visit the "What's New" section of our websites. You can subscribe to the e-Bulletin and other OHTAC/MAS releases via our RSS feed. To find out more, click on the icon to the right or visit:

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

NEW REPORTS FROM MAS & OHTAC

The following recommendations and MAS reports have been completed recently, and are available for download at the **Ontario Health Technology Assessment Series** (OHTAS) website.

1. Varicose Veins

Varicose veins (VV) are tortuous, twisted, or elongated veins that can be caused by damaged valves in the veins that allow for reversed blood flow (reflux). Left untreated, the condition tends to be progressive leading to skin abnormalities including edema, eczema, hyperpigmentation and ulceration. These conditions are associated with a reduced quality of life particularly in relation to pain and mobility.

Varicose veins of lower limbs, which can be inherited, are common in adults and have been estimated to occur in 5% to 15% of men and 3% to 29% of women. Also, 1% of adults with VV have a leg ulcer at any one time and 4% are at risk of developing one. Leg ulcers are often lengthy medical problems that can last for several years and, despite effective compression therapy, are associated with high recurrence rates.

Varicose veins are initially managed with conservative therapy generally involving life style changes such as weight loss by dieting and regular exercise. Various drug therapies and herbal supplements are also used to treat VV symptoms. Sclerotherapy (the injection of a chemical irritant into the vein) and phlebectomy (the use of special hooks to remove veins through multiple incisions in the skin) are both common office procedures used to treat smaller veins known as spider veins. Surgery, commonly referred to as vein stripping, has been the main treatment for VV. However, vein stripping is performed in the operating room with general anaesthesia and requires several weeks for recovery. There can also be a high rate of recurrence of reflux and varicose veins.

Endovascular techniques such as radiofrequency ablation (RFA) and endovascular laser therapy (ELT) are image guided procedures within the vein that are increasingly being offered as alternatives to surgery for VV reflux. Rather than surgically removing the vein, ELT and RFA work by destroying or ablating the damaged vein segment using heat energy. These minimally invasive treatments for VV have been performed in outpatient clinics by various medical specialties including surgeons (vascular or general) and interventional radiologists. The review of the evidence found fewer complications, less pain and a quicker recovery after endovascular treatments compared with surgery. Endovascular treatment was also as effective as surgery in the short term although longer term follow-up is needed to assess recurrence. Patient satisfaction was higher for RFA and patient preference was for endovascular treatments.

MAS published a review of the evidence on **Endovascular Laser Treatment for Varicose Veins** in April 2010 and then undertook a review on **Endovascular Radiofrequency Ablation for Varicose Veins**. The RFA report of February 2011 is available at:
http://www.health.gov.on.ca/english/providers/program/mas/tech/ohtas_mn.html

In making a recommendation on RFA OHTAC took into account the: 1) high burden of venous disease, need and moderate evidence of effectiveness and safety; 2) consistency with expected societal and ethical values; 3) moderate uncertainty of cost-effectiveness due to similarities of treatment costs and effects and limited economic studies; and, 4) moderate uncertainty of feasibility of adoption into the health system.

OHTAC therefore made the following recommendation:

- Endovascular treatment of varicose veins is a less-invasive, safe and cost-effective alternative to vein stripping that should be made available to people with symptomatic varicose veins and saphenous venous reflux demonstrated on a full duplex ultrasound investigation, and when feasible, following a failed trial of conservative management.

- While there is an absolute medical necessity for a surgical approach by any method including RFA or ELT for treatment of varicose veins associated with venous ulcer, thrombophlebitis or bleeding - the decision to recommend a similar treatment approach based on other moderate to severe symptoms attributed to chronic venous reflux, such as leg pain, oedema, pigmentation, eczema, or lipodermatosclerosis, should be made on an individual basis and guided by established definitions of disease severity such as the Venous Clinical Severity Score.

- Mechanisms to ensure quality assurance for both the physicians performing endovascular treatments and the facility where the treatments are performed should be considered as part of any implementation plan.

2. Update to Screening Mammography for Women Aged 40 to 49 Years at Average Risk for Breast Cancer

In November 2010 OHTAC reviewed a recent publication of the Swedish study by Hellquist et al. entitled "Effectiveness of Population-Based Service Screening with Mammography for Women Ages 40 to 49 Years", (online publication only in *Cancer*, September 2010) with a view to update the OHTAC recommendation of January 2007. Following a review of this recent study, the OHTAC recommendation from January 2007 remains unchanged. It states:

- Screening mammography in Ontario cannot be recommended for 40 to 49 year old average risk women.
- Ontario should consider the addition of an identifier suffix to mammography in the Fee for Service Code, to determine the purposes for which mammography (i.e. diagnosis or screening) is being conducted for women 40 to 49 years of age.

This update is posted here:
http://www.health.gov.on.ca/english/providers/program/ohtac/tech/recommend/rec_mammo_010107.pdf

COMING SOON

1. Emerging Pharmacogenomic Tests

As part of the Provincial Expert Panel on Pharmacogenomics (PEPP), two subgroup committees were established to determine a preliminary list of emerging pharmacogenetic tests and to scan the pharmacogenetic horizon to recommend priorities for health technology assessment (HTA) from specialties outside of oncology.

PEPP concluded that genetic testing to determine response to Carbamazepine, Warfarin, Abacavir and Azathioprine were considered ready for HTA evaluation. Genetic tests for response to Isoniazid (INH), Codeine and Allopurinol were not deemed ready for examination at this time. Pharmacogenetic tests associated with clopidogrel and statins were identified as potential tests that could be examined when more evidence becomes available.

In terms of determining biomarkers which are considered emerging markers for pharmacogenetic testing, PEPP identified the following tests which will present a real pressure to the health care system in the next 12 months. These include:

1. Warfarin
2. Carbamazepine
3. Abacavir
4. Azathioprine
5. HER-2 /neu in Gastric Cancer
6. B-Raf mutations/B-Raf inhibitors in Melanoma
7. BRCA 1 and 2 in Ovarian Cancer
8. for ALK mutation/ ALK inhibitors in Lung Cancer and Neuroblastoma

Note: Tests 1-4 include paediatrics and Azathioprine includes paediatrics for Inflammatory Bowel Disease (IBD)

OHTAC supports the PEPP recommendation that there is a need in Ontario for a mechanism to be established to identify and determine which pharmacogenetic tests are emerging, and to ensure that these are assessed and prioritized for health technology assessment appropriately.

2. Diurnal Intraocular Pressure (IOP) Measurement for Assessing the Development or Progression of Glaucoma

Multiple intraocular pressure (IOP) measurements over the course of a day can be used to generate a diurnal curve and may have clinical importance in terms of diagnosis and management of patients with IOP-related conditions since a solitary reading in the office may not reveal the range of IOPs that a patient experiences.

The Medical Advisory Secretariat (MAS) conducted an evidence-based analysis to determine whether the use of a diurnal tension curve, defined as multiple intraocular pressure IOP measurements over a minimum 8 hour duration, is:

1. More effective than not using a diurnal tension curve (i.e. using single IOP measurements) to assess IOP fluctuation as a risk factor for the development or progression of glaucoma.
2. Beneficial for glaucoma suspects or patients with progressive glaucoma, despite normal single office IOP measurements, and leads to a more effective disease management strategy.

CURRENTLY UNDER REVIEW

The following topics are currently **under review**:

Remote Monitoring of Cardiovascular Implantable Electronic Devices (CIED) - This review will assess the effectiveness of internet-assisted, device-based remote monitoring systems (RMS) which provide physicians with data from implanted cardiac devices. *Anticipated Completion: Spring 2011*

Chronic Obstructive Pulmonary Disease (COPD) – COPD is a leading cause of mortality, morbidity and health care utilization. This mega analysis will synthesize the clinical and economic evidence around a variety of interventions to treat COPD in order to determine best evidence for improving patient outcomes. Interventions to be studied include: smoking cessation; multidisciplinary care; influenza and pneumococcal vaccinations; pulmonary rehabilitation, and maintenance programs following pulmonary rehabilitation; long-term oxygen therapy; telemonitoring; ventilation for acute and chronic respiratory failure; hospital-at-home care for acute exacerbations; and, palliative care. *Anticipated Completion of All Components: Spring 2011*

Continuous Glucose Monitoring - This review will examine the role of Continuous Glucose Monitors (CGM) in the management of diabetes. *Anticipated Completion: Spring 2011*

Genetic Testing for Dilated Cardiomyopathy (DCM) – This review will assess the effectiveness of genetic testing in the diagnosis of Dilated Cardiomyopathy. *Anticipated Completion: Spring 2011*

Intensive Constraint Induced Movement Therapy (CIMT) – This review will examine the clinical effectiveness of intensive CIMT for stroke survivors. *Anticipated Completion: Spring 2011*

Serologic Testing for Celiac Disease: Non-Gastro-Intestinal Indications and High Risk Asymptomatics – This review will review IgA tTG testing for possible non-gastrointestinal indications and for asymptomatic individuals at high risk for celiac disease. *Anticipated Completion: Spring 2011*

Study of Improving Multiple Infusion Line Safety - As requested by OHTAC, the Healthcare Human Factors Laboratories at the University Health Network is investigating the safety, effectiveness and usability of multiple line infusions. *Anticipated Completion: 2011*

OHTAC and MAS welcome your questions and comments. Please contact us at OHTACinfo.moh@ontario.ca