



Best of 2010

*Answers to your questions
from our medical experts*

1. Continuation of Clopidogrel

? How long does one continue prescribing clopidogrel after acute coronary syndromes (ACS) and cardiac interventional treatments (stents)?

Submitted by: **Brandon Thorpe, MD**, Moose Jaw, Saskatchewan

The guidelines for the management of ACS (unstable angina and non-ST elevation MI) and the use of coronary stents are constantly evolving. I urge all physicians to inform themselves on a regular basis by examining the guideline updates that are frequently published. At this time, in patients with ACS, clopidogrel is usually started in the ER in patients with high-risk features (*i.e.*, abnormal cardiac enzymes and electrocardiograms). Clopidogrel is generally continued after the patient is discharged, assuming no allergies, intolerance, or adverse reactions. In a patient who has a coronary stent placed, clopidogrel is continued for at least one month, but ideally for at least 12 months (in the case of non-drug-eluting stents), and for a minimum of 12 months (in the case of drug-eluting stents). In patients who do not receive a coronary stent, therapy with clopidogrel should be continued, ideally, for at least 12 months. The prolonged use of clopidogrel in patients with drug-eluting stents is to prevent the potential, although rare, complication of late stent thrombosis.

Answered by: **Dr. Richard Sheppard**

2. Canadian Recommendations for Mammography

? What are the current Canadian recommendations for mammography in women 40 to 49-years-old?

Submitted by: **David Dannenbaum, MD**, Montreal, Quebec

Current Canadian guidelines suggest that women between 40 and 49-years-old should get a clinical breast exam by a healthcare provider every two years. Women 40 to 49-years-old, especially selective populations (*i.e.*, women with a first-degree family history of breast cancer), should have the opportunity to access mammography. However, women should be counselled about the risks (increased false positive, more biopsies), as there is controversy regarding the degree of benefit in screening asymptomatic women without a positive family history in this age group. Breast cancer screening through mammography has been shown to have less sensitivity, due to denser breast tissue, in this age group compared to older women. Tumour growth may be more rapid in younger women (40 to 49-years-old); therefore, in women choosing to participate in mammographic screening, the recommended interval is one year.

Resource

1. Ringash J. Canadian Task Force on Preventive Health Care: Preventive Health Care, 2001 Update: Screening Mammography Among Women Aged 40-49 Years at Average Risk of Breast Cancer. *CMAJ* 2001; 164(4):469-76.

Answered by: **Dr. Victoria Davis**

3. Common Causes of Low Platelets



What are the most common causes of low platelets in an otherwise healthy adult?

Submitted by: [Stan Fink, MD](#), Etobicoke, Ontario

There are several causes of a low platelet count, or thrombocytopenia. By definition, thrombocytopenia is present when a platelet count falls below the typical reference range for most laboratories of 150 to $450 \times 10^9/L$. This represents two standard deviations from the population mean platelet count, and as such 2.5% of the population will have platelet counts less than this value. The presence of platelet clumping should be ruled out as this suggests pseudothrombocytopenia, a phenomenon that occurs in approximately 0.1% of the population when peripheral blood is collected using

standard ethylenediaminetetraacetic acid (EDTA) as the anticoagulant. True causes of thrombocytopenia can then be classified into problems with marrow production, increased peripheral destruction or sequestration. Common causes may differ slightly depending on the age of the patient. Typically, drugs and immune thrombocytopenic purpura are the main causes. In elderly patients, >50 to 60-years-old, myelodysplastic syndromes should also be considered.

Answered by: [Dr. Cyrus Hsia](#) and [Dr. Leonard Minuk](#)



4. Blood Tests When Prescribing Antidepressants

What blood tests should I routinely order when I prescribe antidepressants or antipsychotics?

Submitted by: [Leo Murphy, MD](#), Toronto, Ontario

When prescribing antidepressant medications for healthy patients, a standard laboratory evaluation is performed, which includes a complete blood count (CBC), serum electrolytes, glucose, and liver, renal and thyroid functions. One also may consider a pregnancy test in women, if indicated.

Since one of the most serious adverse events associated with atypical antipsychotic therapy is the development of glucose intolerance, diabetes and/or hypertriglyceridemia,

fasting blood glucose and a metabolic screen, including cholesterol and triglycerides, are ordered in addition to the laboratory investigations mentioned above, when prescribing antipsychotic medication. Antipsychotic treatment can usually begin before the results of laboratory tests are known. An exception is clozapine treatment, which should only begin after the patient is known to have a normal CBC.

Answered by: [Dr. Hany Bissada](#)

5. Vascular Dementia and Alzheimer's Disease

? Vascular dementia vs. Alzheimer's: Are there any tips to differentiate? Is one treatment medication better than another?

Submitted by: [Gayle Garber, MD](#), Conception Bay South, Newfoundland

Vascular dementia is the second leading cause of dementia after Alzheimer's disease. It can be caused by ischemic stroke, cerebral hemorrhage or anoxic/ischemic injury. It usually has abrupt onset and a fluctuating course, in contrast to Alzheimer's disease which has gradual onset and a slowly progressing course. There is usually a history of stroke with focal neurological signs and symptoms or multiple lacunar infarcts, and the deterioration may be step-wise. Nocturnal confusion, depression, emotional incontinence, hypertension, atherosclerosis and somatic complaints may be seen. Personality is usually more preserved as compared to Alzheimer's disease. There is prominent frontal and executive dysfunction with less language impairment as compared to Alzheimer's disease. Vascular dementia affects men more often than women. There may be some overlap of symptoms of vascular

dementia with those of Alzheimer's disease. A significant number of patients may have coexisting vascular dementia and Alzheimer's disease, called mixed dementia.

The treatment of vascular dementia is focused on preventing further worsening of symptoms, by treating the underlying conditions such as hypertension, hyperlipidemia, CVD and diabetes mellitus. Antiplatelet agents may be used. Patients may also benefit from physiotherapy, occupational therapy and speech therapy if required. Treatment of depression, if it is present, is also useful. No cholinesterase inhibitors are currently approved for the treatment of vascular dementia. Prevention should be aimed at controlling vascular risk factors, exercising, not smoking and maintaining a healthy body weight and diet.

Answered by: [Dr. Abdul Qayyum Rana](#)

6. HPV Testing for Men

? Is there human papilloma virus (HPV) testing for a high risk male?

Submitted by: [George Linn, MD](#), Kingston, Ontario

The HPV test currently available is only used as part of a screening program for cervical cancer. A specific test does not exist for males and females to check their HPV infection status. Clearly if a verrucous lesion appears on the penis or in the perianal area, a biopsy would be warranted to minimize the chances of being "high risk." Condoms should always be used during sex. While condoms do not completely eliminate the

risk of infection, they can certainly minimize the risk of acquisition and subsequent transmission of HPV. At this time, HPV vaccines are not approved for males but are currently being evaluated in this population. Additional information about HPV can be found at:

http://www.cdc.gov/condomeffectiveness/docs/Condoms_and_STDS.pdf

Answered by: [Dr. John Embil](#)

7. Ciclopirox to Treat Onychomycosis



How effective is ciclopirox in treating onychomycosis?

Submitted by: [Danaze Chambers, MD](#), Banff, Alberta

Ciclopirox olamine is an antifungal agent that is active against dermatophytes and yeasts. Ciclopirox olamine 8% nail lacquer, the only topical agent approved for treating onychomycosis, is applied nightly for one week, then removed with alcohol weekly and repeated. Treatment requires prolonged daily use for nine to 12 months. The long treatment period is due to minimal penetration of the drug into the nail and the slow growth of toenails. It is generally well-tolerated and extremely safe. Only rarely is there local burning or itch during application. With meticulous, prolonged use, cure rates are roughly 30%.

Systemic antifungal agents (e.g., terbinafine, itraconazole) are much more effective, with cure rates from 60% to 80% with only three to four months of treatment. However, systemic antifungals require careful use. Some are contraindicated in patients with heart, liver and kidney disease, require close monitoring with regular blood tests and have a multitude of potentially serious drug interactions. Topical ciclopirox nail lacquer is particularly useful in patients that wish to minimize the possible side-effects of systemic treatments.

Answered by: [Dr. John Kraft](#) and [Dr. Charles Lynde](#)

8. Describing Incretins



What are incretins? Are they blood sugar or weight controllers?

Submitted by: [Steve Coyle, MD](#), Winnipeg, Manitoba

The incretins are the new kids on the block for treatment of Type 2 diabetes mellitus. There are two classes:

- The dipeptidyl peptidase (DPP) inhibitors that inhibit an enzyme (DPP-4), which in turn increases the levels of glucagon-like peptide-1 (GLP-1) that is normally produced by the large bowel
- GLP-1 analogues/agonists

In Type 2 diabetes mellitus, the levels are lower than in non-diabetes mellitus. The average A1c reduction is roughly 1.0%, but there is a greater reduction if the baseline A1c is higher. They reduce glucose without causing hypoglycemia.

Their mechanism of action is very interesting; they increase insulin secretion, suppress glucagon secretion, inhibit gastric emptying, increase satiety and may preserve β -cell function. At present, they are indicated in Type 2 diabetes mellitus as second-line agents. In Canada, only the DPP-4 inhibitors are available (sitagliptin and saxagliptin). The GLP-1 analogues/agonists (exenatide and liraglutide) are not yet on the market in Canada. They are only approved for controlling blood sugar, but studies are ongoing for a potential weight loss indication.

Answered by: [Dr. Ally Prebtani](#)

9. Coenzyme Q10 and Heart Failure

? Is coenzyme Q10 useful in heart failure?

Submitted by: **Bob Fredrickson, MD**, Halifax, Nova Scotia

Coenzyme Q10 (also known as ubiquinone) is a fat-soluble antioxidant found in high concentrations in the mitochondria of the heart, liver and kidney where it is involved in ATP generation, the primary source of energy for cells. Coenzyme Q10 has been reported to be beneficial in a wide variety of conditions including breast cancer, diabetes, Alzheimer's disease, renal failure, myopathies and cardiovascular diseases.

There is depletion of coenzyme Q10 in the myocardium of patients with heart failure, however, randomized, controlled studies have not shown any benefit of coenzyme Q10 200 mg q.d. for up to six months on left ventricular

ejection fraction (LVEF) or exercise capacity.¹ Studies were too small to assess for any survival benefit.

Therefore, coenzyme Q10 can not be recommended as a therapy for heart failure. Potential adverse effects include increased bleeding risk, abdominal discomfort, headache, nausea and vomiting.

Reference

1. Khatta M, Alexander BS, Krichten CM, et al. The Effect of Coenzyme Q10 in Patients with Congestive Heart Failure. *Ann Intern Med* 2000;132(8):636-40.

Answered by: **Dr. Bibiana Cujec**

10. Work-up Before Starting Bisphosphonate

? Is there any work-up needed before starting a bisphosphonate?

Submitted by: **Gilbert Blanchard, MD**, Bas-Caraquet, New Brunswick

The primary concern in using bisphosphonates is hypocalcemia. This complication is more likely to occur in patients with decreased renal function and low vitamin D levels. Before starting treatment, serum calcium levels and renal function should be measured and if calcium is low, further investigations such as vitamin D levels can be undertaken. Another complication of use is osteonecrosis of the jaw, particularly in cancer patients being treated with bisphosphonates. This complication, although

uncommon, often occurs after a dental procedure. Hence, it is reasonable to recommend that higher risk patients see a dentist, so that any necessary procedures can be carried out before starting bisphosphonate treatment.

Resource

1. Vahtsevanos K, Kyrgidis A, Verrou E, et al. Longitudinal Cohort Study of Risk Factors in Cancer Patients of Bisphosphonate-Related Osteonecrosis of the Jaw. *J Clin Oncol* 2009; 27(32):5356-62.

Answered by: **Dr. Michael Starr and Dr. Emil Nashi**

11. Lymphangioma Circumscriptum




What is lymphangioma circumscriptum? What causes it? What is the best treatment?

Submitted by: [Michael Pilgrim, MD](#), Pouce Coupe, British Columbia

Lymphangioma circumscriptum is a type of superficial lymphangioma that represents a hamartomatous malformation of the lymphatics, which affects the skin and subcutaneous tissue. These lesions are benign and have no malignant potential.

Lymphangioma circumscriptum presents clinically as groups of translucent, clear vesicles that have been likened to “frogspawn.” These vesicles correspond to dilations of lymphatic vessels in the upper dermis, which push the overlying epidermis upward. Although these vesicles are typically clear, it is not uncommon for some to have bleeding into them, giving them a hemorrhagic appearance.

The best treatment for lymphangioma circumscriptum is complete surgical excision. However, there is a high rate of local recurrence, as there is often a deep component of lymphatic dilatations (cisterns) in the subcutaneous tissue that is missed if the excision is too superficial. Other potential treatments reported in the literature include cryotherapy, sclerotherapy, electrodesiccation and carbon dioxide laser vaporization. 

Answered by: [Dr. Richard Haber](#)