Answers to your questions from our medical experts

1. Osteoporosis: Should bisphosphonates be used?

? A 42-year-old premenopausal woman with a strong family history of osteoporosis has DXA which shows severe osteoporosis spine and hip (T-score -3). Should she be started on a bisphosphonate at this time or should she only be taking calcium/vitamin D?

Submitted by:
Marianne Willis, MD, MB, ChB
Vanderhoof, British Columbia

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When faced with a diagnosis of osteoporosis in premenopausal women, it is important to screen carefully for secondary causes prior to initiating treatment. Although this case may be idiopathic osteoporosis (IOP), other causes (in particular endocrine disease, malabsorption, anorexia, medications and other inflammatory diseases) should be considered possible contributing factors.

This patient should be advised to take adequate calcium, 1,000 mg/day to 1,500 mg/day, and vitamin D, 800 μ/day to 1,000 μ/day. If there is established osteoporosis and a positive family history, bisphosphonate therapy should be strongly considered.

Note that the safety and efficacy of bisphosphonates in premenopausal women has only been studied in clinical trials for the treatment and prevention of glucocorticoid-induced osteoporosis and not for other causes.

Answered by:
Michael Starr, MD, FRCPC
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Montreal, Quebec

This month's topics:

1. Osteoporosis: Should bisphosphonates be used?
2. Testing for Bell's palsy
3. Does hepatitis B immunization last?
4. New chemo options for esophageal and pancreatic cancers?
5. Screening for ovarian cancer
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9. Are specific tests necessary before recommending Atkins?
10. What's the link between post-menopausal bleeding and myomas?

Introducing this month

reflections of ancient and modern sages calculated to inspire a philosophic mode of life...

2. Testing for Bell's palsy

? How is Bell's palsy investigated?

Submitted by:
Danielle Fisch, MD, CCFP
North Hatley, Quebec

There are a number of more sinister conditions that may present as Bell's palsy. These include, Lyme disease, diabetes mellitus, hypertension, HIV infection, Ramsay Hunt syndrome, sarcoidosis, Sjorgren's syndrome, parotid-nerve tumours, eclampsia and amyloidosis.

Fortunately, the diagnosis can usually be made with a good history and in-office clinical exam.

If a patient shows facial twitching or spasms preceding the palsy, there is need for further investigation, as this suggests facial nerve irritation secondary to a tumour.

Bell's comes on quickly, thus, slow onset and progressive symptoms are concerning.

Factors in the history that suggest poor prognosis for recovery include older age, hypertension, taste impairment or pain other than in the ear.

The first step in the exam is to determine if the forehead and eyelids are involved. Sparing of these muscles represents an upper motor neuron lesion, which excludes Bell's palsy. Having decided the lesion is peripheral, a careful search for other cranial nerve involvement will indicate if the disease is more widespread.

Ear, nose and throat exam should include tuning fork tests, otoscopy and exam of the oropharynx and parotid glands. A thorough search for masses in the head and neck should be carried out. Don't forget to check the skin for rashes or vesicles.

Apart from Lyme disease serology in endemic areas, lab testing has no clinical use and is rarely indicated. Magnetic resonance imaging is only recommended in cases where tumours are suspected.

Answered by:
Sam G. Campbell, MB BCh, CCFP(EM)
Assistant professor of emergency medicine
Dalhousie University
ED physician, Queen Elizabeth II Health Sciences Centre
Halifax, Nova Scotia

3. Does hepatitis B immunization last?

What is the current recommendation for testing hepatitis B immunity 10 years after vaccination?

Submitted by:
Thomas Martin, MD
Delta, British Columbia

On reading the hepatitis B vial insert, it does recommend doing an antibody test at 10 years. High-risk individuals (*e.g.*, health-care professionals and those with high-risk behaviours) would be wise to recheck and reimmunize after 10 years if antibodies are no longer detected.

Answered by:
Stephen Coyle, MD, MBBS, LMCC, CMO
Assistant lecturer, department of family medicine
University of Manitoba
Winnipeg, Manitoba

Memorable Quote

"To be what we are and to become what we are capable of becoming is the only end of life."

Baruch Spinoza

4. New chemo options for esophageal and pancreatic cancers?

? Are there any new chemotherapy treatments for esophageal or pancreatic cancers?

Submitted by:
Gregory Karaguesian, MD
Haliburton, Ontario

Unfortunately, more than 80% of patients diagnosed with esophageal or pancreatic cancer will ultimately die of their disease.

Chemotherapy for the management of these cancers remains largely limited to the palliative treatment of patients with incurable, advanced disease. For advanced pancreatic cancer, the first-line treatment of choice remains single-agent weekly gemcitabine, which has been associated with clinical benefits in symptom and pain control, improved quality of life and a very modest improvement in survival.

Several recent studies have attempted to identify superior combination regimens, including gemcitabine/cisplatin, gemcitabine/oxaliplatin, gemcitabine/5-fluorouracil and gemcitabine/pemetrexed. While these combinations have been associated with improved response rates, no survival benefit has been demonstrated.

The use of chemotherapy in the post-operative or adjuvant setting for patients with resected pancreatic cancer is controversial. Recent data has emerged suggesting a potential benefit in overall survival with the use of adjuvant 5-fluorouracil-based chemotherapy. Consultation with a medical oncologist is warranted in such cases.

For esophageal cancers, there is no proven benefit to post-operative or adjuvant chemotherapy. The exception is for patients with cancers of the gastroesophageal junction who may benefit from post-operative chemotherapy and radiation. Increasingly, patients with resectable esophageal cancers are now offered preoperative or neoadjuvant chemotherapy and radiation, although data supporting its use has been conflicting.

For the palliative management of advanced esophageal cancers, cisplatin and 5-fluorouracil-based combinations are widely used and have been shown to prolong survival. Newer cytotoxic agents with promising activity include irinotecan and the taxanes (paclitaxel and docetaxel). Novel targeted therapies are an active area of research and, when available, patients should be offered the opportunity to participate in clinical trials.

Answered by:
Sharlene Gill, MD, MPH, FRCPC
Assistant professor of medicine
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Vancouver, British Columbia

5. Screening for ovarian cancer

What screening technique can be used successfully when patients are asymptomatic, but concerned about ovarian cancer?

Submitted by:
Anne S. MacCara, MD
Pictou, Nova Scotia

Unfortunately, there is no effective screening test for ovarian cancer at the present time. Patients who are concerned about ovarian cancer should become familiar with the early symptoms and signs and have regular physical exams, including a pelvic exam.

Information products about ovarian cancer have been developed by the National Ovarian Cancer Association (www.ovariancanada.org).

Concerned patients should be aware of the hereditary aspects of the disease and share their family history with their health-care provider to determine if they meet the criteria for genetic testing for BRCA1 and BRCA2 mutations. These gene mutations are associated with an increased risk of ovarian cancer and carriers of these abnormal genes can take advantage of surveillance programs and interventions that may reduce the likelihood of developing ovarian cancer.

Through research, scientists and clinicians are trying to develop a reliable method for early detection among asymptomatic women.

Answered by:
David R. Popkin, MDCM, FRCS, FSOGC
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6. Choosing an ED drug

? We currently have three ED drugs to choose from. Aside from tadalafil's longer half-life, are all three pretty much the same?

Submitted by:
Mona Lee, MD, CCFP
Vancouver, British Columbia

The three currently available phosphodiesterase-5 inhibitors, sildenafil, tadalafil and vardenafil, work in a similar fashion in men with erectile dysfunction (ED).

In randomized clinical trials, all three drugs have been shown to be significantly better than placebo in men with ED from many etiologies, including diabetes, hypertension, depression, neurologic disease and after radical prostatectomy.

All three agents have also proven to be safe in men with stable cardiovascular disease and they are all contraindicated with the administration of nitrates and nitric oxide donors.

Differences are seen in the pharmacokinetic profiles and side-effects. The times to maximum serum concentration are in the same range (about one hour with sildenafil and vardenafil and about two hours with tadalafil). Sildenafil and vardenafil have a serum half-life of about four hours, whereas tadalafil's serum half-life is 17 hours. This means sildenafil and vardenafil are most effective within the first six hours, but tadalafil may be effective for 24 hours or longer.

Sildenafil is best taken on an empty stomach, whereas vardenafil and tadalfil can be taken with food. The side-effects are similar with the exception of the "blue haze" for sildenafil and back pain for tadalafil.

There have not been any trials published that directly compare the three drugs. The choice should be individualized for each patient.

Answered by:
Sender Herschorn, MD, FRCSC
Professor and chairman
Division of urology
University of Toronto
Toronto, Ontario

7. Replacing warfarin

Will there be an alternative to warfarin for anticoagulation any time soon?

Submitted by:
Gregory Karaguesian, MD
Haliburton, Ontario

A new alternative drug, ximelagatran, is expected in 2005. Ximelagatran is an oral thrombin inhibitor that requires no titration in dose and no blood tests to follow the anticoagulant effect. However, in clinical trials there were some patients who developed an elevation of liver enzymes, most of which apparently resolved with continuation of the drug. Therefore, patients will require monitoring of liver enzymes monthly for the first six months or so. It has been said that warfarin will eventually become obsolete.

Answered by:
Ellen Burgess, MD, FACP, FRCPC
Professor of medicine
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Memorable Quote

"I can't do it" never yet accomplished anything; "I will try" has performed wonders.

George P. Burnham

8. Following-up with patients taking immune modulators

How often do patients on immune modulators need followup blood work?

Submitted by:
Leonard Sadinsky, MD
Etobicoke, Ontario

Immunosuppressive medications may be associated with a variety of side-effects, such as bone marrow suppression with low blood counts, diabetes, infection and malignancy. It is important to note that most patients do not experience serious complications. Nevertheless, because of the potential for complications, regular blood work is essential.

The frequency of blood work will vary with the specific drug, the indication and the time following the initiation of immunosuppressive medications. In general, higher drug doses may be required in the early phase with lower doses in the later phase.

Blood work frequency is often reduced when lower doses, as opposed to higher doses, are used. As well, in the initial phase it is often uncertain how well patients will tolerate individual doses and combinations. Thus, more frequent monitoring is required. Furthermore, unstable patients clearly require more frequent blood work than stable ones.

Answered by:
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9. Are specific tests necessary before recommending Atkins?

? I have many patients trying the Atkins diet. Recommendations state patients should consult their doctor before starting the diet. What should I be looking for on history and medical exam? What baseline lab tests, if any, should I be ordering? How do I monitor these patients during diet?

Submitted by:
Laura Philips, MD
Gold River, British Columbia

The biggest concern when looking at a high-protein, low-carbohydrate diet is how this macronutrient distribution affects kidney function, bone loss and cardiovascular risk. When carrying out a medical history and physical exam, patients should have tests to monitor their kidney, bone and cardiovascular status.

Although medical investigations are warranted, there is little literature in the area of appropriate medical management of patients on Atkins-type diets. Physicians are urged to use their discretion with regards to which tests to use and how extensive their investigations should be. If a patient has a pre-existing condition in one of the aforementioned areas, this diet should be approached with a greater degree of caution, as it may exacerbate the underlying disease.

Answered by:
Naomi Ross, RD, BSc
Registered dietitian
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Toronto, Ontario

Memorable Quote

"It's amazing what ordinary people can do if they set out without preconceived notions."

Charles F. Kettering

10. What's the link between post-menopausal bleeding and myomas?

? What is the correlation between post-menopausal bleeding and uterine myomas?

Submitted by:
Alexander Voros, MD
Port Laprairie, Manitoba

Post-menopausal bleeding correlates poorly with uterine myomas. Myomas (fibroids) are extremely common, affecting 20% to 30% of the female population. They tend to be estrogen receptor-positive with proliferation during hyperestrogenic states, such as pregnancy or estrogen use. Post-menopausally, myomas regress and rarely result in bleeding.

The etiology of post-menopausal bleeding may be benign, however cancer within the vagina, cervix or endometrium must be ruled out. Endometrial cancers are easily diagnosed with an office endometrial biopsy. The biopsies are well-tolerated, require little skill and are highly sensitive and cost-effective compared to a dilatation and curettage under local or general anesthesia.

Cancers of the cervix or vagina are also easily diagnosed with a thorough speculum exam and biopsy if necessary.

In summary, one must never assume post-menopausal bleeding is related to myomas. Post-menopausal bleeding is cancer until proven otherwise. Dx

Answered by:
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