Consultant's Corner

Practical Answers To Your Everyday Questions

Screening for Colon Cancer

1. Before thinking of a colonoscopy, what tests would be helpful in our office to rule out colon cancer carcinoembryonic antigen ([CEA], stool blood)?

Question submitted by:
Dr. Guy Frenette
Cap-Santé, Quebec

For patients at average risk for developing colon cancer, annual or biennial screening with fecal occult blood testing (FOBT) can be carried out by the primary care physician in their office. FOBT reduces the incidence and mortality rate from colorectal cancer as well. However, it has a high false positive rate and only 2% of patients with a positive test have cancer. Thus, for every patient with cancer, about 50 patients are subjected to anxiety. FOBT is not designed for the detection of polyps since polyps usually do not bleed.

CEA has been associated with colon cancer. However, it has a poor diagnostic ability to detect primary colon cancer due to significant overlap with benign disease and a low sensitivity for early disease and polyps. It is not recommended for routine office-based screening.

Answered by:
Dr. Jerry McGrath

Once Daily Insulin for Diabetics

2. Which diabetics are more suitably treated with once daily newer insulin?

Question submitted by:
Dr. Sankar Vaidyanathan
Toronto, Ontario

The main advantage of the newer long-acting basal insulin analogs, such as insulin glargine and insulin detemir over NPH insulin is that they produce less hypoglycemia, particularly nocturnal hypoglycemia. As hypoglycemia is the most common and feared side-effect with insulin treatment, using the newer analogs allows for more aggressive management of diabetes without necessarily the accompanying side-effects. Both insulin glargine and insulin detemir also have a longer duration of action and therefore can be used once daily in a large number of patients. They, however, do not provide postprandial coverage and therefore need to be combined with rapid-acting insulin administered with meals for most patients. They also appear to have less weight gain when compared to the older basal insulins. These attributes therefore make them a good choice for any patient with diabetes requiring basal insulin. They are, however, more expensive than the older insulins and thus if cost is a concern, they are best suited for patients experiencing hypoglycemia on their current basal insulin.

Answered by:
Dr. Hasnain Khandwala

Breast Exams

3. What is the current recommendation for clinical breast exam (CBE) vs. breast self-exam (BSE) in women in their 20's?

Question submitted by:
Dr. Melanie Murphy
Jasper, Alberta

CBE and BSE are used to screen for breast cancer. Most lesions detected by BSE and CBE in women from 20- to 29-years-of-age are benign because the incidence of breast cancer in this age group is very low at two per 100, 000. Most guidelines do not comment on CBE for women in their 20's, although a few American guidelines suggest performing a CBE at least every three years. The Canadian Task Force on Preventive Health Care and other groups do not encourage CBE and BSE in women 40- to 69-years-old due to high false positive findings and potential harm. There is no comment regarding women in their 20's. Thus, CBE and BSE in well women in their 20's is not generally advised.

Answered by:

Dr. Cathy Popadiuk

Hearing Loss

4. What percentage of hearing loss cases are hereditary?

Question submitted by:
Dr. David Hawkins
West Bank, British Columbia

Hearing loss is a common congenital anomaly, affecting one to two/1,000 newborns. Fifty to sixty per cent are due to genetic factors.

Hereditary hearing losses cover the entire range from mild hearing loss to profound or total loss. Fifty per cent of moderate to profound deafness has a genetic etiology. The majority of the cases are recessive (80%). Rarely it is autosomal dominant, X-linked or mitochondrial. Genetic causes can be syndromic (associated with other anomalies) or non-syndromic (isolated). Examples of syndromes associated with deafness include:

- Major chromosomal anomalies (Down syndrome)
- Ocular (Usher syndrome)
- Craniofacial (Crouzon, Apert, Goldenhar syndromes)
- Nervous system (neurofibromatosis syndromes)
- Integumentary (Wäärdenburg syndrome)
- Musculoskeletal (Marfan syndrome)
- Urogenital (Branchio-oto-renal syndrome)
- Metabolic and endocrine (Pendred syndrome)

Other causes of congenital deafness (environmental) are: intrauterine infections, maternal drug use, low Apgar score, prematurity, *etc*.

Answered by:

Dr. Ted Tewfik

Stopping Warfarin Before Dental Work

5.

Should warfarin be stopped among patients at high-risk of thrombosis before major dental work?

Question submitted by:
Dr. Bing Gore
Vancouver, British Columbia

The guidelines for the management of patients on oral anticoagulants published by the British Committee for Standards in Haematology[1] recommended the following:

1) The risk of significant bleeding in patients on oral anticoagulants and with a stable INR in the therapeutic range two to four is low. The risk of thrombosis if anticoagulants are discontinued may be increased. Oral anticoagulants should not be discontinued in the majority of patients requiring outpatient dental treatment. An appreciation of the surgical skills of primary care dentists and the difficulty of surgery, particularly when INR levels approach four, is also important when assessing the risk of bleeding. Individuals, in whom the INR is unstable, should be discussed with their anticoagulant management team
2) For patients who are stably anticoagulated on warfarin, a check of INR is recommended 72 hours prior to dental surgery
3) Patients taking warfarin should not be prescribed non-selective NSAIDs and COX-2 inhibitors as analgesia following dental surgery

Reference
1. Perry DJ, Noakes TJ, Helliwell PS, et al: Guidelines For The Management of Patients on Oral Anticoagulants Requiring Dental Surgery. Br Dent J 2007; 203(7): 389-93.

Answered by:

Dr. Chi-Ming Chow

Diagnosing Alopecia in Young Adults

6.

How do you diagnose and treat alopecia in young adults?

Question submitted by:
Dr. I. D'Souza
Willowdale, Ontario

The main diagnostic catagories are divided into scarring processes such as:

- lupus,
- lichen planus and
- dissecting cellulitis.

The non-scarring processes include:

- telogen effluvium,
- alopecia areata and
- androgenetic alopecia.

Also, inflammatory skin conditions such as fungal infections, psoriasis, allergic contact dermatitis need to be considered. Treatment and advice depend totally on making the proper diagnosis. Therefore, if the cause is not clear then referral to a specialist is mandatory. If the alopecia is scarring—follicles are lost—then the referral should be arranged on an urgent basis.

Answered by:

Dr. Scott Murray

Flu Vaccine Side-Effects

7.

What is the incidence of side-effects to the flu vaccine?

Question submitted by:
Dr. Mary Taylor
Ottawa, Ontario

Influenza vaccine is generally very well tolerated in adults. Rates of mild local soreness after administration of inactivated influenza vaccine are around 70%. Local side-effects are slightly more common in women than in men. Systemic reactions, including malaise, flu-like illnesses and fever, are relatively uncommon. Rates have varied from 2% to 10%—these rates are only marginally increased above the rates in placebo recipients. Fever occurs in approximately 8% to 11% of vaccinated children and may be associated with other systemic symptoms such as myalgia, arthralgia, headache and malaise. Anaphylaxis has been reported and appears to be linked to severe allergies after eating eggs. Those without such a history can be safely vaccinated. The incidence of Guillain-Barré syndrome, which occurred at a rate of about one in 100,000 after vaccination for the "swine flu" of 1976, has not been clearly linked to influenza vaccination in other years, with estimates being at most one case per million doses.

Answered by:

Dr. Michael Libman

Identifying Gastroesophageal Reflux in Infants

8.

How do you identify gastroesophageal reflux in infants? What are the treatment options?

Question submitted by:
Dr. Brian Leong-Poi
Etobicoke, Ontario

This is an interesting and difficult to address question. While oesophageal pH monitoring is a validated technique for diagnosing reflux, this procedure is often not routinely available for studies in infants. Endoscopy can also be used, but again may not be available for infants. Many clinicians approach this problem by using a therapeutic trial. While historically a trial of H2-receptor agonist such as ranitidine was the most common approach, many pediatric gastroenterologists now start with a trial of PPIs. If the therapeutic results are not satisfactory, then consideration should be made for use of a motility modifier such as erythromycin. As well, consideration should be given to the hypothesis that the symptoms that brought the infant to your attention may, in fact, not be related to reflux. In this event, it would be prudent to consider referral of the infant to a specialist in pediatric gastroenterology.

Answered by:

Dr. Michael Rieder

9. Pap Smear for Endocervical Stenosis

What is the current testing recommendation for Pap smear of a woman who has endocervical stenosis (ECS)?

Question submitted by:
Dr. Chantal Belanger
Saint-Augustin, Quebec

There is no difference in recommendations for Pap smear screening in a woman with ECS than from a woman with an unobstructed cervix. ECS may preclude obtaining endocervical cells (ECC) on the Pap smear but a Pap smear can still be interpreted as satisfactory without ECC. There is a theoretical concern, however, that a lesion within the EC canal may be missed. This is more likely where a woman has had an excisional procedure on the cervix to remove dysplasia and the margins or EC curette sample were positive. In this instance, the woman would be followed with colposcopy until the gynecologist is confident to refer her back to routine screening. If the woman still menstruates, then EC cells would have the potential to be shed regularly. In a postmenopausal woman who also suffers from vaginal atrophy, this is not the case. The cytobrush apparatus is more likely to access the EC canal than the spatula. The various tools for liquid-based cytology are also structured to attempt to gain access to the endocervix.

Answered by:

Dr. Cathy Popadiuk

10. Monitoring Electrolytes in Heart Failure Patients

Among New York Heart Association (NYHA) Class III-IV congestive heart failure patients who are on ACE inhibitors/ spironolactone combination, how often should electrolytes be monitored?

Question submitted by:
Dr. M. I. Ravalia
Twillingate, Newfoundland

Careful monitoring is critical to prevent potentially life-threatening hyperkalemia while taking ACE inhibitors and aldosterone antagonist (*e.g.*, spironolactone). Patients with renal disease, diabetes mellitus, advanced heart failure, or advanced age and those taking certain concurrent medications have the highest risk of developing hyperkalemia. Increased vigilance in monitoring for and patient education regarding hyperkalemic symptoms is necessary in these patients. Renal function and potassium level should be checked:

1) Before starting treatment (aldosterone antagonist should be withheld if baseline K > 5.0 mmol/L or creatinine clearance < 30 mL/min).
2) After five to seven days, with drug initiation and subsequent dose increase
3) Every five to seven days until potassium concentration is stable
4) Thereafter, at regular intervals during chronic treatment, from one to two times a year and up to every four to eight weeks depending on risk factors (elderly, renal or cardiac dysfunction)

Answered by:

Dr. Chi-Ming Chow

Diabetic Control for a Type 2 Diabetic on Metformin

11.

What are the best choices for a Type 2 diabetic on metformin who needs better diabetic control?

Question submitted by:
Dr. E. Gibbings
Regina, Saskatchewan

As per the 2008 Canadian Diabetes Association guidelines, the choice of a second-line agent after metformin failure should take into consideration the advantages as well as the side-effect profile of the agents in question. Sulfonylureas have the advantage of providing rapid reduction in blood glucose level and long-term safety data. However, hypoglycemia, weight gain, *etc.* are the limiting factors. Thiazolidinediones have the advantage of perhaps providing more durable glycemic control and improving insulin sensitivity, however, are associated with weight gain, increased incidence of heart failure and fractures. Dipeptidyl peptidase-4 (DPP-4) inhibitors such as sitagliptin are generally well-tolerated, cause no weight gain or hypoglycemia, but are relatively new and thus without long-term safety data. α glucose inhibitors such as acarbose are generally free of systemic side-effects, but cause a modest reduction in HbA1c and are associated with significant GI adverse affects. Insulin is effective and safe, however, potential limitations include the risk of hypoglycemia, weight gain and the mode of administration. Unfortunately, no good randomized control trial exists that can provide an evidence-based answer to the question and therefore the choice of the second agent will need to be individualized after reviewing the benefits and risks that each class of hypoglycemic agents offer.

Answered by:

Dr. Hasnain Khandwala

Axillary Adenopathy

12.

What do we have to do if we find an axillary adenopathy with normal pulmonary x-ray and normal mammography?

Question submitted by:
Dr. Claude Roberge
Sherbrooke, Quebec

A thorough history is essential in the overall work-up of lymphadenopathy. One must determine the time course and description of all enlarged lymph nodes. History should be directed at assessing underlying infectious causes, medication exposures, illicit drug usage, autoimmune diseases, vasculitis and malignancy at a minimum. Physical exam can augment this assessment. Basic laboratory investigations include complete blood count, chest x-ray and further work-up as directed by the history and physical exam. In nonspecific localized lymphadenopathy in an otherwise asymptomatic patient, a watch and wait approach may be taken for a few weeks to determine if spontaneous resolution occurs. However, if on the history and physical exam there are concerning features to suggest underlying malignancy, then a biopsy should be undertaken. Typically we advise against a fine needle aspirate but encourage an excisional lymph node biopsy.

Answered by:

Dr. Kang Howson-Jan and Dr. Cyrus Hsia

Early Indications of Dementia

13.

What are the earliest indications of dementia?

Question submitted by:
Dr. I. D'Souza
Willowdale, Ontario

One in 13 Canadians > 65-years-of-age has dementia and one in three Canadians > 85-years-of-age has dementia. These numbers also show that 50% of Canadians will know someone with dementia and almost a quarter of families will have a patient with dementia. Dementia may be stated to be a bio-psycho social disease. It has an impact on the patient's family, work, home and friends and basically every facet of their lives.

Mild cognitive impairments, memory changes (predominantly with recent memories and events) may be early clinical presentations in patients with dementia, at least in some cases. Neuropsychiatric symptoms may present as depression (20%), apathy (15%) and irritability (15%) having the highest prevalence as identified in the Journal of the American Medical Association paper by Lyketsos, *et al* in 2002. Forty three per cent of this study's patients had also demonstrated at least one mild cognitive impairment over the previous month. This paper went on to state that 29% of the patients found these disturbances to be significant and as such had an impact in their daily living and functioning.

Seventy-five per cent of dementia patients demonstrated cognitive impairment, where these were manifested as apathy (36%), depression (32%) and agitation/aggression (30%).

One other consideration, especially in the cognitive impairments aspect, is the degree of previous functioning that an individual displayed. A strong social history and collateral history will help a great deal here. In general, higher functioning individuals previous to the onset of symptoms have more depression and irritability, although the rule will not always hold true. A thorough family history may help identify dementia and also will help determine if depression (for example) has previously been identified or exists in their family. Does the depressive episode have a link to recent work or financial stressors, or a loss? These are reasons why a good history may help determine dementia vs. dementia-induced depression vs. new onset depressive episodes.

cme

Resources:

1. Canadian Study of Health and Aging: Study Methods and Prevalence Of Dementia. CMAJ 1994; 150(6):899-913.
2. The Aluminum Association Alzheimer's Disease Survey. Public Opinion Strategies, 1997.
3. Lyketsos CG, Lopez O, Jones B, et al: Prevalence of Neuropsychiatric Symptoms in Dementia and Mild Cognitive Impairment: Results From the Cardiovascular Health Study. JAMA 2002; 288(12):1475-83.

Answered by:

Prof. Joel Lamoure