Consultant's Corner

Practical Answers To Your Everyday Questions

1. Preventing Recurrent Deep Vein Thrombosis

How long would you keep someone on warfarin after an isolated bout of Deep vein thrombosis (DVT) (not related to trauma/surgery, first episode at age 70)?

Question submitted by:
Dr. Edwin J. Franczak
Scarborough, Ontario

The risk of recurrent DVT in individuals with unprovoked first episode is significantly higher in males than females, 30% vs. 6% in the first two years, when anticoagulation was administered for a mean of eight to nine months. Therefore, it is recommended that lifelong therapeutic anticoagulation be considered in men. In women, at least six months of anticoagulation are recommended. In this age group the possibility of occult neoplasm has to be considered as well.

Answered by:

Dr. Kamilia Rizkalla and Dr. Kang Howson-Jan

2. Antihistamines

Why do oral antihistamines not have any affect on allergic conjunctivitis? Most allergic patients require antihistamine eye drops in addition to antihistamines?

Question submitted by:
Dr. Roshan Dheda
Bradford, Ontario

Patients with allergic conjunctivitis typically complain of itchy, red, watery or scratchy eyes. Typical triggers of allergic conjunctivitis include pollens, molds and animal dander. Reducing exposure where possible is helpful in minimizing symptoms. In addition to environmental control measures, judicious use of medications is often helpful in controlling symptoms. Oral antihistamines help to reduce symptoms of allergic conjunctivitis, but often cause excessive dryness of the eyes. Topical antihistamines have the advantage of achieving higher local concentrations without the systemic side effects seen with older antihistamines, such as sedation, dry mouth and urinary retention.

Most effective are the "dual action" topical medications, such as olopatidine and ketotifen, which have antihistaminic activity that act mainly by stabilizing mast cells and preventing release of allergic mediators.

Answered by:

Dr. Peter Vadas

Effectiveness of Oral Antivirals for Herpes Simplex

3.

What is the effectiveness of oral antiviral in nasolabial (oral) herpes simplex?

Question submitted by:
Dr. J. V. Marmina
Toronto, Ontario

Oral antivirals (valacyclovir, acyclovir, famciclovir) have shown effectiveness in treating acute outbreaks of herpes labialis and shortening outbreaks by a day or two. If taken very early in a recurrance, attacks can be aborted. Suppressive therapy with daily dosing has also been used with success. Unfortunately, none of these therapies are useful in eradicating the virus and episodic treatment does not prevent the next outbreak. Therefore, the benefit/risk/cost issues for each patient has to be calculated to see if oral therapy is worth it in each individual case.

Answered by:

Dr. Scott Murray

Antiretroviral Therapy Impact on TB in HIV-Infected Patients

4.

What impact does antiretroviral therapy have on TB in HIV-infected patients?

Question submitted by:
Dr. Tim Tatzel
Thorold, Ontario

Successful antiretroviral therapy, in the sense of therapy that leads to immune system reconstitution as indicated by rising cluster of differentiation 4 (CD4) lymphocyte counts, is clearly correlated with prevention of disease by numerous opportunistic pathogens. *Pneumocystis* and *Mycobacterium avium* are examples of pathogens where this effect is well documented. TB however, occurs in individuals with apparently intact immune systems and documenting changing rates based on antiretroviral therapy would be difficult. Clearly, as CD4 counts go down, the chance of reactivating latent TB infection goes up. In addition, the ability to contain infection after exposure is compromised. It appears intuitive, although not documented, that these effects can be mitigated by antiretroviral therapy. Most importantly, on the individual patient level, TB (initial infection or reactivation) can never be ruled out based on a good response to anti-HIV therapy.

Answered by:

Dr. Michael Libman

Risk of Osteoarthritis from Running

5.

Does running increase the risk of osteoarthritis (OA) in the feet, ankles, knees and hips?

Question submitted by:
Dr. Gerald McFetridge
Quesnel, British Columbia

The etiopathogenesis of OA involves a complex interplay of mechanical factors, local inflammation, genetic predisposition and cellular processes. Trauma and previous injury have been associated with earlier development of OA, possibly by affecting biomechanics. Studies of the effect of various sporting activities on the development of OA have been limited by the lack of an appropriate control group. However, two small longitudinal studies of runners have been conducted:

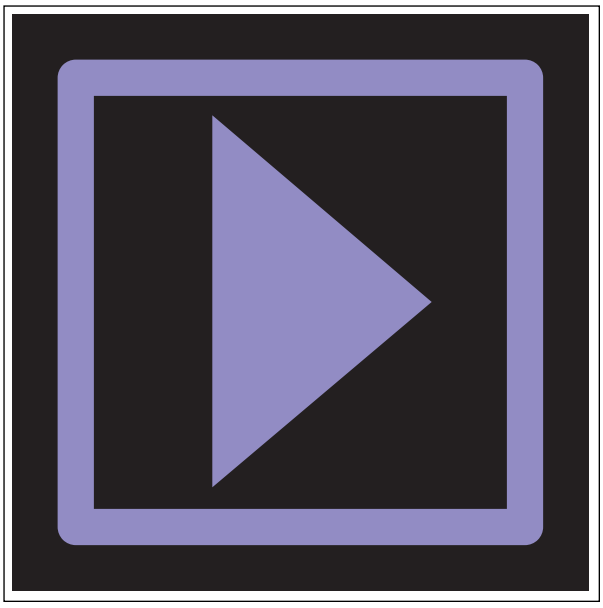
- In the first, 18 male runners (running an average of about 44 km per week) and 18 closely matched non-runners were followed for 12 years. The investigators found no significant difference in pain or swelling of the weight bearing joints. Similarly, they found that there was no significant difference in x-ray changes over time. They concluded that the development of arthritis was unrelated to running exercise
- In a second eight year follow-up study of 30 runners and controls, both groups showed progression of their OA, but the clinical and radiographic acceleration of disease was attributable to greater weight and age and not to running

In my opinion, the benefits of running likely counteract the added stress to the joints. Given the overall health benefits, I do not think patients should be discouraged from pursuing this sport.

Resource

1. Panush RS; Schmidt C; Caldwell JR, et al: Is Running Associated with Degenerative Joint Disease? JAMA 1986; 255(9):1152-4.

Answered by:
Dr. Elizabeth Hazel



ASA for Prophylaxis

6. Is there any evidence for using ASA for prophylaxis in a person who had idiopathic Deep vein thrombosis(DVT)?

Question submitted by:
Dr. Janna Bentley
Kelowna, British Columbia

The role of ASA in venous thrombosis has been reviewed recently.[1] There has been no clear benefit demonstrated in patients with previous unprovoked DVT. However, the authors of the above review indicate that there are two prospective, randomized trials that are ongoing which should provide an answer when they have been completed.

Reference
1. Hovens MM, Snoep JD, Tamsma JT, et al: Aspirin in the Prevention and Treatment of Venous Thromboembolism. J Thromb Haemost 2006; 4(7):1470-5.

Answered by:

Dr. Kamilia Rizkalla and Dr. Kang Howson-Jan

Oral Allergy Syndrome

7. Oral allergy syndrome is a clinical diagnosis in general and skin testings is generally not helpful or indicated. It seldom leads to full-blown anaphylactic reaction. Is there any recent thought or study to suggest otherwise?

Question submitted by:
Dr. John T. Yang
Rothesay, New Brunswick

Patients with seasonal allergic rhinitis to tree and ragweed pollens may react to foods that contain cross-reactive proteins. For example, patients with allergy to birch pollen may experience symptoms when eating foods such as apple, pear, kiwi, carrot, celery, peach, plum or tree nuts. These foods contain a protein that is structurally homologous to the major allergen in birch pollen. Ingestion of these foods may cause contact reactions leading to itching in the mouth and throat, mild lip swelling and itching in the ear canals. The cross-reactive protein is heat-labile and denatured by microwaving or cooking. The raw foods are allergenic whereas the cooked foods are not.

Skin testing with the fresh fruit or vegetable will confirm allergy to the relevant food and related pollen. In most cases, symptoms and manifestations of oral allergy syndrome are restricted to the oropharynx, but in a small proportion of cases (about 2.1%), the condition may intensify resulting in multisystem involvement.

It is extremely important to distinguish oral allergy syndrome from a primary food allergy. Oral allergy syndrome typically causes mild local reactions with little risk of anaphylaxis, whereas a primary food allergy carries a much higher risk of a potentially life-threatening allergic reaction.

Answered by:

Dr. Peter Vadas

8. Recommended Dose of Prednisone when Treating Polymyalgia Rheumatica

What is the recommended dose of prednisone when treating Polymyalgia Rheumatica (PMR)?

Question submitted by:
Dr. Peter Brooks
Stratford, Ontario

The initial therapy for PMR is usually between 7.5 mg and 20 mg q.d. of prednisone. Patients usually experience improvement after the first or second dose. Once the aching and stiffness have resolved, an effective steroid dose should be maintained for about four weeks. After that time gradual steroid tapering may be initiated. The total dose should be reduced about every four weeks by approximately 10%. The dose should be titrated to the lowest dose needed to maintain suppression of symptoms. Often, the tapering can proceed no faster than 1 mg per month. Patients should expect a steroid treatment course of at least one year.

Answered by:
Dr. Elizabeth Hazel

9. Mildly Elevated γ-glutamyl Transferase

Any significance to a mildly elevated (two-to-three times) γ-glutamyl transferase (GGT) in a healthy 46-year-old, with no past medical history and on no medications? Test elevated for several years (smoker only).

Question submitted by:
Dr.Bonnie Bergman
Laval, Quebec

GGT is an enzyme present in cell membranes in many tissues such as the liver, kidneys, pancreas, spleen, heart, brain and seminal vesicles. Elevated serum activity is found in diseases of the liver, biliary tract and pancreas. It is elevated in those with cholestatic hepatobiliary disease in a similar fashion to alkaline phosphatase. However, an elevation in serum GGT is not specific for cholestatic liver disease.

Solitary elevation of serum GGT values are found in patients who ingest alcohol or secondary to medications such as barbiturates or phenytoin. Thus, an isolated elevation in serum GGT may be an indicator of alcohol abuse or alcoholic liver disease. Serum GGT has no advantage over aminotransferases and alkaline phosphatase in evaluating for liver disease other than conferring liver specificity to an elevated alkaline phosphatase or identifying patients with alcohol abuse.

Answered by:
Dr. Jerry McGrath

Peanut Allergy

10. Do children outgrow peanut allergy and is there a way to test for this?

Question submitted by:
Dr. Bernhard Toews
Port Coquitlam,
British Columbia

The prevalence of peanut allergy is about 1.5% in the North American population. Peanut allergy typically begins in early childhood, coinciding with early exposure to peanut. There seems to be a trend towards earlier onset of allergy to peanut than in previous years. Although the majority of children appear to react to peanut on their first apparent exposure, it is clear that prior occult exposures were required in order to cause sensitization to generate peanut-specific IgE. Once a child has become sensitized to peanut protein, the allergy is usually lifelong. Only about 15% to 22% of children will "outgrow" their allergy to peanut.

A positive skin test to peanut using standardized commercial diagnostic extract is about 60% predictive of clinically significant peanut allergy. *In vitro* testing using the ImmunoCAP assay provides further useful information on the probability of true allergy, with a 95% probability of a clinical reaction at levels of ≥ 15 kU/L . Both skin testing and ImmunoCAP testing are useful in determining whether a child's peanut allergy has remitted. A negative skin test to peanut using a standardized extract is almost 98% reliable. Cautious skin testing with fresh peanut butter in those children with negative skin tests using standardized extract will yield additional information. So too will a precipitous decline in peanut-specific IgE levels on ImmunoCAP testing. However, the gold standard remains by which to prove resolution of peanut allergy is the graded oral challenge. This must be undertaken in a supervised facility by experienced personnel with resuscitation equipment on hand.

Answered by:

Dr. Peter Vadas

Antioxidants for Patients with High Triglycerides

11.

In patients with high triglycerides, aside from changes in lifestyle (exercise and diet), should one prescribe an antioxidant and if so, at what dosage?

Question submitted by:
Dr. Diane Giroux
Montreal, Quebec

CV protection has been associated with diets high in antioxidants (from fruit and vegetables). Despite this, most randomized, controlled trials have not found antioxidant supplementation to be effective for the prevention of coronary heart disease.

United States Preventive Services Task Force (USPSTF) found insufficient evidence to recommend for or against supplements of vitamins A, C, E or antioxidant combinations for the prevention of CVD. β-carotene supplementation may be dangerous and should be discouraged. Similarly, the American Heart Association (AHA) concluded that current data do not justify the use of antioxidant supplements for the prevention or treatment of CVD risk.

Answered by:

Dr. Chi-Ming Chow

Aphthous Ulcers

12.

Are aphthous ulcers more common in pregnancy?

Question submitted by:
Dr. Janna Bentley
Kelowna, British Colombia

The exact etiology of aphthous ulcers is not known, but they are likely multifactorial with an immunological component. Hormonal fluctuations may be one trigger. Although there are reports of fluctuations with pregnancy, this has not been proven in large studies.

Answered by:

Dr. Kimberly Liu

Foods to be Introduced to Infants at Six Months

13.

What foods should be introduced at six months following exclusive formula/ breast milk?

Question submitted by:
Dr. Anne Sorensen
Oshawa, Ontario

The first solid foods to be introduced to infants should be cereals, starting with rice and oatmeal cereal. Following cereal, many experts then recommend introducing fruits followed by vegetables. I have tended to recommend the converse (*i.e.* introduce vegetables first and then fruits, on the premise that there is the occasional infant who might benefit from having foods that are less sweet introduced before one that is more sweet).

In this case, it would be prudent to introduce green vegetables such as peas and beans before orange vegetables such as carrots. After fruits and vegetables are introduced, meats should be introduced, with white meats being introduced before red meats.

New foods should be introduced one at a time and two to four days should be allowed before introducing the next new food. It is conventional to avoid introducing eggs and nuts before 12-months-of-age.

Answered by:

Dr. Michael Rieder

Treatment for Generalized Anxiety Disorder

14.

What is the best treatment for generalized anxiety disorder (GAD)?

Question submitted by:
Dr. Gerry Bally
Carp, Ontario

There are a couple of treatment options that can be employed from a non-pharmacotherapy and pharmacotherapy perspective for GAD. Cognitive behavioural therapy can address education, monitoring and behavioural strategies to name a few of the facets that are looked at. Finding out the root of the GAD using root cause analysis may be beneficial to then use pharmacotherapy options.

In getting the right drug to the right person at the right time with minimum conditions and addressing their Axis 3 comorbidities is essential. Options include benzodiazepines, antidepressants and buspirone:

- Benzodiazepines and most antidepressants, except bupropion and fluoxetine, are associated with discontinuation syndrome if patients stop the medications too quickly
- Antidepressants may be useful (example paroxetine) but it is essential to tell the patient that it may take six to ten weeks for full therapeutic benefit to be derived
- Buspirone is similar to the benzodiazepines with less to no tachyphylaxis and no addictive risk

Answered by:

Prof. Joel Lamoure

Dysfunctional Eustachian Tube

15. In an otherwise healthy patient (middle-aged), how long should one wait before investigating unilateral, persistent (*i.e.*, more than two weeks) eustachian tube dysfunction?

Question submitted by:
Dr. Katherine Allen
Belleville, Ontario

The eustachian tube's (ET) purpose is to equalize middle ear pressure with environmental pressure—this is why your ear "pops" on a high-speed elevator or in an airplane—because the ET has opened and equalized pressure. If the ET does not equalize pressure, this may involve pain or ear fullness.

Allergies are common causes of ET dysfunction (ETD). ET function may be poor for several weeks after a bout of otitis media. It may be a particular problem when flying, ascending tall buildings, or diving. In many cases, however, this may be alleviated by use of special ear plugs. Another variant of ETD is when the ET tube is chronically open, also called a "Patulous" ET tube. This causes autophony (hearing of one's own voice in the head).

Tympanometry can prove that the ET opens or not. It is done as part of an audiological assessment after three to four weeks from the start of the symptoms. Treatment of ETD is not very effective.

For the usual type of ETD, medications for allergy such as decongestants, systemic or local antihistamines and nasal topical steroids are commonly tried. Antihistamic nasal sprays, as well as kits used to irrigate the nose with salt water may be useful. Occasionally, a ventilation (tympanostomy) tube is placed for severe cases. This relieves the symptoms of ETD but creates a perforation in the eardrum which may reduce hearing to a small extent.

Answered by:

Dr. Ted Tewfik

Recommended Vitamin D Supplements

16. What is the current recommendation regarding vitamin D supplementation?

Question submitted by:
Dr. Charles Lynde
Markham, Ontario

A number of studies have documented the existence of significant vitamin D insufficiency/deficiency in patients, particularly in patients living in colder areas such as Canada and Northern US.

In general, a minimum of 1000 IU/q.d. of vitamin D is recommended for the prevention and treatment of osteoporosis. Patients with vitamin D insufficiency/deficiency may need a much higher dose. It would be reasonable to measure 25-vitamin D levels and titrate the dose of vitamin D accordingly. In patients with significant vitamin insufficiency/deficiency, doses up to 50,000 IU/week may be required.

Answered by:

Dr. Hasnain Khandwala

17. Antibiotics for Cat Bites

What is the most appropriate first line antibiotic for the Rx of cat bites?

Question submitted by:
Dr. Mohamed Ravalia
Twillingate, Newfoundland

The most common cause of serious infection after a cat bite is Pasteurella multocida. This organism is typically resistant to first generation cephalosporins such as cephalexin. Thus, the most common regimens for skin and soft tissue infections are inappropriate for cat (or dog) bites.

Penicillin is generally very effective. In order to cover for possible superinfection with *Staphylococcus*, and to deal with rare penicillin resistant Pasteurella, amoxicillin-clavulanate has often been used. In the case of β-lactam intolerance, a later generation quinolone, such as moxifloxacin can be used as a broad spectrum agent.

Often, due to the deep puncture wounds caused by cat bites, bacteria are innoculated into tendon sheaths and other deep structures. Surgical debridement is often needed in these cases to prevent permanent tendon damage and functional limitations, regardless of antimicrobial susceptibility.

Answered by:

Dr. Michael Libman

18. Vaccines for Patients with Egg Allergies

What vaccines should I avoid in a patient with egg allergies?

Question submitted by:
Dr. Steve Choi
Oakville, Ontario

Some vaccines are prepared in cultures from eggs or with egg fibroblasts, in which there may be contamination with microscopic quantities of egg protein. This is germane for the measles-mumps-rubella (MMR) and influenza vaccines.

In the case of both of these vaccines, the vaccine has been administered safely to patients with egg allergies, notably in the case of the MMR vaccine. It has been suggested by the American College of Allergy, Asthma and Immunology that egg-allergic patients should have a skin test to the "flu vaccine" and if negative the vaccine can be administered safely. If the skin test is positive, the vaccine should be administered in a setting where expert evaluation and access to emergency treatment is available.

In the case of the MMR, several studies have clearly established that the vaccine can be administered to egg-allergic patients without an increase in risk for vaccine reactions. The only other vaccine prepared in egg culture is the yellow fever vaccine, which is only administered to those travelling to areas where yellow fever is endemic.

Answered by:

Dr. Michael Rieder

Framingham Score

19. When calculating CV risk using the Framingham model, how do you account for someone being an ex-smoker? What number of points do they get?

Question submitted by:
Dr. Gail Dangoor
Thornhill, Ontario

In the original and the modified version of Framingham/Adult Treatment Panel risk score lumps the non-smokers and the ex-smokers together into the same category.

The benefits of quitting cigarette smoking are firmly established. Among subjects without known CV heart disease (CHD), there is a 7% to 47% of reduction in cardiac event rate with smoking cessation. The cardiac risks associated with cigarette smoking diminish relatively soon after smoking cessation and continue to fall with increasing length of time since quitting. Similar benefits have been noted in patients with CHD.

Using the current Framingham score, the CV risk of ex-smokers may be underestimated. Further studies are needed to quantify the risk reduction associated with smoking cessation in the risk score assessment.

Answered by:

Dr. Chi-Ming Chow

Atrial Fibrillation after Cardiac Surgery

20. After aortic valve replacement, what percentage of patients develop AF and subsequently require anticoagulation?

Question submitted by:
Dr. Tom Echlin
Windsor, Ontario

AF and atrial flutter occur frequently after most types of cardiac surgery. AF has been reported in up to 15% to 40% of patients in the early postoperative period following coronary artery bypass graft (CABG) surgery, in 37% to 50% after valve surgery, in as many as 60% undergoing valve replacement plus CABG. A number of perioperative factors have been implicated in the development of AF post cardiac surgery which include: pericardial inflammation, atrial injury during direct cannulation, atrial infarction or ischemia, hyperadrenergic state, pulmonary complications and electrolytes abnormalities.

Various strategies have been used as prophylactic therapy: β blockers, sotalol, amiodarone and pacing. The 2004 ACCP Consensus Conference suggested that for patients with post-op AF that lasts > 48 hours, warfarin should be initiated if bleeding risk is acceptable. The target INR should be 2.5 (range 2.0 to 3.0). Warfarin should be given for a total of four weeks if the AF had reverted back to sinus and there is no preexisting AF prior to surgery.

Answered by:

Dr. Chi-Ming Chow

Treatment for Chronic Anal Fissures

21.

What is the treatment for chronic anal fissures which has not responded to hydrocortisone topical?

Question submitted by:
Dr. John Nazareth
Toronto, Ontario

An anal fissure is a superficial linear tear in the anoderm. A fissure is considered chronic if it persists longer than six weeks and has not responded to conservative treatment such as stool softeners.

It is often associated with hypertonicity in the internal anal sphincter. Multiple trials have shown that 0.2% or 0.4% nitroglycerin ointment can be effective at relaxing the internal sphincter.

Diltiazem ointment has also been shown to be effective. If these fail botulinum toxin injection into the internal anal sphincter may be successful. If this fails a surgical procedure such as a lateral internal sphincterotomy could be considered.

Answered by:

Dr. Jerry McGrath

When to repeat an INR

22.

When a patient's INR has been stable, how often do you advise repeating it?

Question submitted by:
Dr. Mark Krieger
Toronto, Ontario

In a patient whose weekly INR has been in the therapeutic range with no alteration of the warfarin dosing for at least one month, once monthly monitoring is reasonable. The physicians responsible for monitoring need to be alert about circumstances that may alter warfarin metabolism, such as starting new medications or stopping of medications that the patient had been taking when the stable dose of warfarin was established.

Answered by:

Dr. Kamilia Rizkalla,
Dr. Kang Howson-Jan and
Dr. Alejandro Lazo-Langner

Management of Recurrent Bacterial Vaginosis

23. How do you manage women with recurrent bacterial vaginosis?

Question submitted by:
Dr. Dominic So
Mississauga, Ontario

Recurrent bacterial vaginosis can be treated with a prolonged course (10 to 14 days) of oral or vaginal metronidazole or clindamycin. Patients with more than three episodes in one year could be offered maintenance therapy with metronidazole gel used two times a week for three to six months. There is some evidence that the use of condoms with intercourse may prevent recurrence.

Answered by:
Dr. Kimberly Liu

Raynaud's Phenomenon

24. What is the investigation and treatment in a male, Caucasian, middle-aged, who has Raynaud's phenomenon?

Question submitted by:
Dr. Claude Roberge
Sherbrooke, Quebec

Raynaud's phenomenon is common in the general population (about 5%). It is considered "Primary Raynaud's Phenomenon" if the symptoms occur without any evidence of an associated disorder. The current criteria for diagnosis of Primary Raynaud's includes the following:

- Symmetric episodic attacks
- No evidence of peripheral vascular disease
- No tissue gangrene, digital pitting, or tissue injury
- Negative nailfold capillary examination
- Negative antinuclear antibody test and normal erythrocyte sedimentation rate (ESR)

Raynaud's phenomenon is less common in men and less common after the age of 40. These factors increase the likelihood of an associated connective tissue disease. It would therefore be appropriate to refer your patient to a Rheumatologist for evaluation (even if he fits the above criteria for Primary Raynaud's).

The treatment of Primary Raynaud's includes avoiding drastic changes in ambient temperature, keeping the whole body warm, keeping the digits warm, avoiding smoking and teaching patients strategies to help terminate an attack. When conservative strategies are not sufficient, calcium channel blockers are sometimes helpful in diminishing the severity of attacks.

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Answered by:
Dr. Elizabeth Hazel