Experts on Call

Answers to your questions from our medical experts

1. Garlic and Cardiac Health

Does supplemental garlic have any proven role in cardiac health?

Submitted by: Anonymous

It is a popular misconception that garlic lowers LDL-C and prevents heart disease. A recent well designed study randomized 192 patients with moderate hypercholesterolemia (LDL-C 3.36 mmol/L to 4.9 mmol/L) to placebo or three different garlic preparations (raw, powdered, aged extract) equivalent to one clove of garlic daily. Garlic did not lower LDL-C after six months. Garlic cannot be recommended for treatment of hypercholesterolemia and prevention of coronary artery disease.

Resource
1. Gardner CD, Lawson LD, Block E, et al: Effect Of Raw Garlic Vs Commercial Garlic Supplements On Plasma Lipid Concentrations In Adults With Moderate Hypercholesterolemia: A Randomized Clinical Trial. Arch Intern Med 2007; 167(4):346-53.

Answered by: Dr. Bibiana Cujec

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2. Effective Medication for Fibromyalgia

What is the most effective medication for fibromyalgia?

Submitted by: David Smith, MD, Hay River, Northwest Territories

Optimal treatment for fibromyalgia requires a multidisciplinary approach with a combination of non-pharmacological and pharmacological treatment modalities tailored according to the needs of the individual patient.

Regarding medication choices, patients are usually tried initially on either a low dose of a tricyclic medication (such as amitriptyline 10 mg to 50 mg) or cyclobenzaprine (10 mg) at night and use simple analgesics as needed during the day. Anticonvulsants like pregabalin and gabapentin can provide effective pain relief when used in optimal doses. Pregabalin recently received approval as a treatment for fibromyalgia by the FDA and Health Canada.

Dual reuptake inhibitors like duloxetine (FDA approved for fibromyalgia) and milnacipran have also been shown to be effective alternative medication choices. Selective serotonin reuptake inhibitors may be useful in some cases. Generally, NSAIDs have a limited role and chronic opioid use should be avoided if possible.

Experience has shown that most medications for fibromyalgia should be initiated at low doses and increased according to patient tolerability.

Resource
1. Carville SF, Arendt-Nielsen S, Bliddal H, et al: EULAR Evidence-Based Recommendations For The Management Of Fibromyalgia Syndrome. Ann Rheum Dis 2008; 67(4):536-41.

Answered by: Dr. Michael Starr; and Dr. Ahmad Al-Enizi

3. Treadmill Testing

How frequently would you recommend treadmill testing in the asymptomatic patient with documented coronary artery disease (CAD) on all treatments (*i.e.*, statins, ACE inhibitors, ASA, *etc.*)

Submitted by: Andrew Kiellerman, MD, Victoria, British Columbia

Patients with documented coronary disease who are on optimal medical therapy and who are currently asymptomatic do not require regular, routine exercise treadmill testing (ETT). The use of ETT is generally limited to assess for functional capacity, particularly in patients who exercise regularly or perform certain high-risk jobs (such as a pilot or a bus driver). Most therapies in chronic CAD are modified based on blood tests, clinical assessment during an office visit (such as measuring BP and heart rate), or the development of symptoms. There is no prospective data today that suggests optimally treated patients with asymptomatic CAD benefit from a routine exercise testing strategy.

Answered by: Dr. Richard Sheppard

4. Celiac Disease

If a patient has Celiac disease and has been on a gluten-free diet for > 20 years, will his bowel biopsy still be positive for Celiac?

Submitted by: Julia Bihun, MD, Kanata, Ontario

Patients with Celiac disease have abnormal small bowel biopsies which have been described by Marsh. This includes increase intraepithelial lymphocytes (Marsh 0), followed by infiltration of the lamina propria (Marsh 1), development of crypt hyperplasia (Marsh 2) and then villous atrophy (Marsh 3). Finally, with total mucosal atrophy (Marsh 4), there is complete loss of villi, increased apoptosis and crypt hyperplasia.

With a strict gluten-free diet, most patients find clinical improvement within a few weeks. The return of histological improvement lags behind that of clinical improvement. It may take two or three months before the return of villous architecture and in some it may take up to two years to see improvement.

Resource
1. Sleisenger and Fordtan's Gastrointestinal and Liver Disease 8th Edition.

Answered by: Dr. Richmond Sy

5. Tardive Dyskinesia

Is there any treatment for tardive dyskinesia?

Submitted by: Francois Perrault, MD, Sainte-Anne-de-Bellevue, Quebec

With the increased use of second-generation antipsychotic medications, fewer episodes and less severe symptoms of tardive dyskinesia are seen. For this reason, patients on first generation antipsychotics are generally switched to the second generation atypical neuroleptics such as olanzapine, risperidone or clozapine.

Other strategies to address the problem include a gradual reduction of dosage and eventual discontinuation of the neuroleptic prescribed to patients in whom the clinical need for long-term antipsychotic medication has not been clearly established (*e.g.*, a psychotically depressed patient after apparent full recovery).

In addition to dose reduction or discontinuation of a first-generation neuroleptic and a switch to a second-generation antipsychotic medication, some adjunctive agents may be of limited value to reduce tardive dyskinesia symptoms, such as vitamin E, vitamin B6, a cholinergic agent such as donepezil, or a 5-HT histamine antagonist such as cyproheptadine.

Answered by: Dr. Hany Bissada

6. Recurrent Aphthous Stomatitis

What is the current treatment for recurrent canker sores of the mouth?

Submitted by: Alfred Ernst, MD, Rosetown, Saskatchewan

Recurrent canker sores are more properly termed recurrent aphthous stomatitis (RAS). RAS is a common painful idiopathic inflammatory condition of the nonkeratinized mucosa of the mouth. The term RAS should be reserved for recurrent ulcers of the mouth seen in the absence of systemic disease. The differential diagnosis includes mouth ulcers associated with Behcet's syndrome, gluten-sensitive enteropathy, inflammatory bowel disease (especially Crohn's), HIV and cyclic neutropenia.

The treatment for RAS can be divided into:

- Pain relief and enhanced resolution of established ulcers
- Preventative therapy and can be topical or systemic

There are very few randomized controlled studies for RAS involving small numbers of patients and it is very difficult to draw conclusions from these few studies.

Topically, pain relief can be achieved using topical anesthetic preparations containing lidocaine and benzydamine hydrochloride. Benzocaine containing preparations should be avoided because of their potential to cause allergic sensitization.

Topical agents that may work via antimicrobial or anti-inflammatory mechanisms and reduce lesion size, duration and pain include chlorhexidine mouthwashes and tetracycline mouthwashes (for adults and non-pregnant women). Tetracycline mouthwashes are prepared by dissolving the capsule contents of one 250 mg capsule in 30 cc of water and swished in the mouth for five to 10 minutes and then expectorated three to four times daily.

The most common topical steroid used is Oracort™ dental paste (containing triamcinolone acetonide 0.1% in orabase). This is applied to affected lesions two to three times daily. The orabase is necessary to keep the steroid in place so that it is not washed away by saliva in the mouth.

Systemic agents that have been tried for severe RAS to resolve outbreaks or to prevent relapses include oral steroids, colchicine, dapsone, pentoxifylline, azathioprine and thalidomide. All of these agents have potential side-effects.

In cases of severe RAS, these patients are best referred to a dermatologist, oral surgeon or otolaryngologist with experience in using these drugs.

Resource

1. Scully C: Clinical Practice. Aphthous Ulceration. N Engl J Med 2006; 355(2):165-72.

Answered by: Dr. Richard Haber

7. Managing Acute Thyroiditis in Pregnancy

What is the best management of acute thyroiditis in pregnancy?

Submitted by: Anonymous

Acute (subacute) thyroiditis is common during pregnancy, presenting with a tender goiter during or after a respiratory infection. Transient, symptomatic hyperthyroidism with elevated T4 can occur, often resulting in misdiagnosis as Graves' disease. Usually, treatment is unnecessary. However, thyrotoxicosis (hyperthyroidism) during pregnancy, most often due to Graves' disease, presents a challenge for diagnosis and treatment because of unique fetal and maternal considerations. The risk of miscarriage and stillbirth is increased if thyrotoxicosis goes untreated. The diagnosis is suggested by signs such as prominent eyes, enlarged thyroid gland and exaggerated reflexes and is confirmed by markedly elevated serum thyroid hormone levels. Radioactive iodine thyroid scanning, for diagnosis, as well as radioiodine treatment should never be used in pregnant women. The treatment of choice for thyrotoxicosis in pregnancy is antithyroid medication, preferably propylthiouracil since it does not cross the placenta—an alternative is methimazole. The initial goal is to control the hyperthyroidism and then use the lowest dose possible to maintain the serum thyroid hormone levels in the high normal range. Lower doses confer little risk to the baby. If a mild allergy to one of these medications develops, the other medication may be substituted. If there is a problem with taking pills or severe drug allergy, then an operation may be performed to remove most of the thyroid gland. This is usually done in the middle part of the pregnancy. Fortunately, it is rarely necessary.

Resource

1. Lazarus JH: Thyroid Disorders Associated With Pregnancy: Etiology, Diagnosis, And Management. Treat Endocrinol 2005; 4(1):31-41.

Answered by: Dr. Victoria Davis

8. Symptoms of Pancoast Tumours

What are the symptoms of pancoast tumour?

Submitted by: Anonymous

Pancoast tumours or superior sulcus tumours are neoplasms (typically non-small cell lung cancers) located at the apex of either lung.[1] Symptoms result from extension of the tumour into adjacent nerves (*e.g.*, lower brachial plexus nerve roots, paravertebral sympathetic chain and stellate ganglion), pleura and chest wall. Pancoast tumours may result in upper extremity/chest pain (in the distribution of the C8-T2 dermatomes), weakness and atrophy of the muscles of the hand and Horner's syndrome (ipsilateral ptosis, miosis, enophthalmos and anhidrosis). Respiratory symptoms are less common in these peripheral tumours.

Reference
1. Prager D, et al: *Bronchogenic Carcinoma*. Chapter 46. Textbook of Respiratory Medicine, Third Edition. Murray JF, Nadel JA (eds). W. B. Saunders Company, Philadelphia, 2000.

Answered by: Dr. Paul Hernandez

9. Measuring Alcohol Intake with GGT

Can γ-glutamyltransferase (GGT) be used to measure alcohol intake? How sensitive is it to acute vs. chronic alcohol consumption?

Submitted by: Laurie Litwinson, MD, Edmonton, Alberta

GGT is a membrane bound liver enzyme involved in the transfer of amino acids across cellular membranes. It may rise with almost any hepatocellular or cholistatic liver injury or disease. It is an easily obtainable test that physicians may use to aid in diagnosis of liver abnormalities.

GGT may be elevated in a number of non-alcoholic related processes such as obesity, diabetes, pancreatitis, hyperlipidemia, cardiac insufficiency, severe trauma and nephrotic syndrome. As well, various medications such as barbiturates, antiepileptic medications and anticoagulants can raise GGT.

GGT, aspartate aminotransferase and mean corpuscular volume are the most commonly used markers of alcohol intake. Out of these, GGT is the most sensitive. GGT is induced by alcohol consumption and levels rise in response to hepatocellular damage.

The World Health Organization/International Society on Biomedical Research on Alcoholism (WHO/ISBRA) collaborative study found that GGT was more sensitive for detecting high-risk alcohol use in men (67%) than in women (44%). It also found that it showed minimal correlation among those < 20-years-of-age and in general increased levels were seen with increasing age.

Therefore, due to its lack of specificity (ability to rule in), GGT is a poor choice in screening for alcoholic liver disease. In alcoholics it may help to differentiate between those with liver disease and those without especially if levels continue to be elevated after abstinence.

Resources
1. Das SK, Dhanya L, Vasudevan DM: Biomarkers Of Alcoholism: An Updated Review. Scand J Clin Lab Invest 2008; 68(2):81-92.
2. Conigrave KM, Degenhardt LJ, Whitfield JB, et al: CDT, GGT, and AST as Markers of Alcohol Use: The WHO/ISBRA Collaborative Project. Alcohol Clin Exp Res 2002; 26(3):332-9.

Answered by: Dr. Robert J. Bailey; and Dr. Daniel Kopac

10. Severe Otitis Externa

How do you manage a severe otitis externa using a wick? Is it appropriate for a FP to do it in office?

Submitted by: Laura McConnell, MD, Mississauga, Ontario

Otitis externa is an inflammation of the external ear canal, usually of infectious origin but sometimes eczematous in nature. It is a common problem in otolaryngology practice and is usually managed in a straightforward fashion with aural toilet, analgesics and topical antibiotic, steroid or acidifying drops. Most otitis externa is mild to moderate in severity with some erythema and edema of the canal skin and moist debris within the canal lumen. In such cases, once aural toilet has been performed it is usually possible to visualize the tympanic membrane. Therapy with topical drops can be instituted since there will be free penetration along the entire length of the ear canal. In severe otitis externa, however, the edema is such that the patency of the external canal is threatened and in these cases a wick will be of benefit in order to facilitate the delivery of medications.

Insertion of a wick itself is a relatively straightforward procedure. Foam (Pope) or gauze (quarter-inch packing works well) wicks can be placed into the external ear canal. The foam wicks are highly compressed and expand with absorption of liquids. The gauze wick may be wound over the tip of a small metal probe and inserted into the canal. Medication drops are placed on the external end of the wick and carried into the recesses of the ear canal. As the edema decreases, usually over the course of a few days, the wick falls out or is removed. Most otitis externa is treated successfully by FPs and the process of wick insertion is not a challenging one. However, possible referral to the local otolaryngologist should be considered in cases where the potential for complications is heightened or the diagnosis is unclear. With a severe otitis externa in an immunocompromised or diabetic patient, discretion may be the better part of valor and certainly the patient should be closely monitored for improvement with a low threshold for referral. Similarly, in cases that appear refractory to treatment, there may be a particularly stubborn infectious agent or an underlying non-infectious cause requiring evaluation by a specialist. Once again, prompt referral would be advised.

Answered by: Dr. Jonathan Irish; Dr. Emma Barker; and Dr. Sanjay Verma

11. Latex Allergy

I am looking after an 18-year-old girl who has a severe latex allergy. Bananas in her environment can cause anaphylaxis. Would wearing a mask help to prevent this? She is very restricted as to where she can go.

Submitted by: David J. Buckley, MD, St. John's, Newfoundland

While delayed hypersensitivity reactions to latex-containing products are often traced to stabilizers used for their production, immediate reactions (IgE mediated) are closely associated with protein components of the natural rubber latex materials. *In vivo* and *in vitro* investigations have produced patterns of allergenic cross-reactivity (suggesting common antigenic components) among botanically-unrelated latex and certain foods. Banana sensitization is more common in patients with latex allergy, which can also cross-react with avocado, chestnut and to a lesser extent kiwi and some other fruit. Fortunately, banana allergen does not aerosolize and other than avoidance of direct contact and autoinjector precautions, wearing a mask is not required. However, airborne latex particles that adhere to the cornstarch used to powder gloves are a significant cause of respiratory symptoms and a source of sensitization. Once an individual has become sensitized, he or she may experience allergic symptoms when exposed to any product containing latex. Avoidance of all latex materials especially powdered gloves is all that is required to avoid reactions to aerosolized components; a mask is not required. It is also important to control the level of anxiety in these patients. Referral to an allergy centre is warranted to verify the relevant allergies in that individual and review the exposure/risk scenarios so that individuals can manage their allergy effectively.

Answered by: Dr. Tom Gerstner

12. Optimal TSH

Recent reports suggest that a revision in normal TSH is warranted between 0.5 and 2.5. Some suggest getting as close to 1.0 as symptoms will allow. Comments?

Submitted by: Andrew Brockway, MD, Woodstock, Ontario

There is significant controversy regarding the optimal TSH and if it differs for the elderly compared to younger individuals. There is also no consensus if subclinical hypothyroidism should be treated when the TSH is slightly elevated outside the normal range. Therefore, the goals of treatment would be to relieve symptoms and to normalize the TSH.

Answered by: Dr. Vincent Woo

13. New-Onset Dandruff

What is the differential diagnosis for new-onset dandruff?

Submitted by: Naushad Hirani, MD, Calgary, Alberta

Dandruff (pityriasis sicca, pityriasis simplex capillitii) refers to having scales falling from the scalp or beard area in the absence of inflammation. Seborrheic dermatitis (SD) of the scalp can cause dandruff in its mildest form and is a common presentation: diffuse, fine white/greasy scaling of scalp without erythema or irritation. SD of the scalp is characteristically diffuse within scalp margins, with white to yellow-greasy flakes, dandruff, as well as underlying erythema that is often itchy. It tends to be more diffuse than psoriasis, extending just beyond the hairline at the forehead and is sharply demarcated. Dandruff is also associated with constitutional dry skin and in patients with atopic dermatitis.

Answered by: Dr. Charles Lynde; and Dr. John Kraft

14. Pharmacy BP Readings

Are pharmacy BP readings ever useful (or reliable)?

Submitted by: Anonymous

BP can be classified into four categories:

- Normotensive (normal BP at all times)
- Office-induced ("white coat") hypertension
- Masked hypertension (normal office BP, elevated BP outside of the office)
- Hypertensive (at home and in the office)

While the prognosis for future CV events is similar between normotensive and office-induced hypertensive patients, masked hypertension portends an adverse outcome similar to that of overt hypertension and probably should be managed just as aggressively with lifestyle and pharmacotherapy.

Pharmacy BP readings are generally reliable and may be very useful in screening for hypertension as well as identifying office and masked hypertension. Discordant readings between home or pharmacy BP readings and office BP measurements should be clarified with a 24 hour ambulatory BP recording in order to guide appropriate management. Dx

Answered by: Dr. George Honos