Answers to your questions from our medical experts

1. Informing Patients About Borderline Personality Disorder

Once borderline personality disorder is diagnosed, is it good to tell the patient about the diagnosis?

Submitted by: Jamie Karagianis, MD, Toronto, Ontario

Patients with borderline personality disorder are known to experience unpredictable severe mood swings with labile affect and urges to self harm. Once the mood disorder is properly controlled, usually with antidepressant medication and the potential for self harm is substantially reduced, then the patient may be psychologically insightful and receptive to understand and work on controlling his/her labile affect. At this point, the patient may be made aware of the diagnosis and offered a referral for psychological treatment either individually or, preferably, in group therapy. Cognitive-behavioural therapy (CBT) has been tried with some success. Recently, dialectical-behavioural therapy (DBT) has shown superiority to CBT in reducing core symptoms and improving the social adjustment of borderline patients, thus reducing their vulnerability to mood disorders. DBT is a psychological therapy based on the theory that borderline symptoms primarily reflect dysfunction of the patient's emotion-regulation system.

Answered by: Dr. Hany Bissada

2. Left Anterior Fascicular Block

What is the significance of left anterior fascicular block in an asymptomatic patient?

Submitted by: Samen Hasswani, MD, Montreal, Quebec

You can recognize left anterior fascicular block (LAFB) by the presence of left axis deviation (QRS axis of -30° to -90°), small Q waves in lead I and deep S waves in lead III. Sometimes LAFB may be misinterpreted as an old inferior MI because the R waves in the inferior leads may be tiny and the QRS complexes are negative in the inferior leads. The left anterior fascicle is part of the left bundle and receives blood supply from both the right coronary artery and the left anterior descending artery. Causes of LAFB include coronary artery disease, hypertension, aortic stenosis, aortic valve surgery, congenital heart disease and cardiomyopathies.

However, most commonly, LAFB is a benign finding without any underlying heart disease and does not warrant any further cardiac investigations. In large population studies, there was no excess mortality related to LAFB and the risk of developing complete heart block was not increased. LAFB becomes increasingly common with advanced age.

Answered by: Dr. Bibiana Cujec

3. Hair Loss After Pregnancy

What is the usual time frame regarding hair loss after pregnancy?

Submitted by: Laura-Lea Mckay, MD, Fredricton, New Brunswick

At any one time, approximately 10% of hair follicles enter a resting phase, falling out two to three months later allowing new hair to grow. During pregnancy, increased numbers of hair follicles enter the resting phase due to hormonal changes, therefore preventing normal hair loss. Once hormones return to normal, in the perperium, hair falls out and returns to the normal cycle. Excess shedding of hair following pregnancy, called Telogen effluvium, occurs from one to five months post-partum and most commonly around three months. This condition is not serious enough to cause bald spots or permanent hair loss and should diminish within three to four months.

Resource
1. Mayo Clinic Guide To A Healthy Pregnancy Harms, Roger W, et al. Chapter 15. American Academy of Dermatology, http://www.aad.org.

Answered by: Dr. Victoria Davis

4. The Best Treatment for Facial Psoriasis

What is the best treatment for persistent facial psoriasis?

Submitted by: Alok Sood, MD, Ontario

There is no "best treatment" for facial psoriasis. Therapeutic options include mild topical corticosteroids such as 1% hydrocortisone cream twice a day, calcineurin inhibitors, topical calcipotriol and UVB both natural, as well as narrowband UVB given in a phototherapy unit.

Stronger topical corticosteroids could be used for short periods (several weeks) but are best avoided on the face because of the risk of atrophy, production of telangiectasiae and steroid induced acne/perioral dermatitis/rosacea as well as the potential to induce cataracts and glaucoma when used for long periods of time around the eyes.

For persistent facial psoriasis, the topical calcineurin inhibitors tacrolimus 0.1% ointment or pimecrolimus 1% cream used twice a day would be very good choices as they do not cause the side-effects of stronger topical corticosteroids and can be safely used on the face indefinitely.

As plaques of psoriasis on the face are usually less thick than psoriasis on the body, these calcineurin inhibitors penetrate better and are therefore much more efficacious than when these agents are used for psoriatic plaques on the body.

Answered by: Dr. Richard Haber

5. Inhaled Corticosteroids and Respiratory Infections

Should inhaled corticosteroids (ICS) be contraindicated in mild and moderate chronic obstructive pulmonary disease (COPD), since there is evidence of increased incidents of lower respiratory infections with ICS use?

Submitted by: B. L. Chandrarajan, MD, Kingston, Ontario

The role of ICS in COPD has evolved in recent years. The current Canadian Thoracic Society Guidelines indicate that in order to maximize their clinical efficacy (*i.e.*, improved lung function, reduced dyspnea, improved exercise tolerance, improved health-related quality of life and reduced rate of acute exacerbations), ICS should only be used in combination with an inhaled long-acting ß-agonist (LABA), ideally in a single inhaler (*e.g.*, fluticasone/salmeterol or budesonide/formoterol).[1] Combination ICS/LABA are recommended for use in moderate to severe COPD in patients in two settings:

1. In patients with frequent severe acute exacerbations along with a long-acting anticholinergic (*i.e.*, tiotropium) and as needed short-acting ß-agonist
2. In patients without frequent severe acute exacerbations who continue to experience persistent dyspnea despite the use of a LABA, long-acting anticholinergic and as needed short-acting ß-agonist

ICS are not currently recommended by the Canadian Thoracic Society in mild COPD.

Concern has recently been raised about the increased rate of lower respiratory tract infections (LRTI) reported in clinical trials in patients with COPD taking ICS/ LABA combination.[2] However, the risk of LRTI is seemingly offset by a much greater benefit related to a reduction in acute exacerbations. Further studies are necessary to address this potential side-effect of ICS/LABA. For now, the balance of evidence supports the limited role of ICS/LABA combination in moderate to severe COPD as described above.

References
1. O'Donnell D, Hernandez P, Kaplan A, et al: Canadian Thoracic Society Recommendations for Management of Chronic Obstructive Pulmonary Disease—2008 Update for Primary Care. Can Respir J 2008;15(Suppl A):1A-8A.
2. Nannini L, Cates CJ, Lasserson TJ, et al: Cochrane Database Syst Rev 2007; (4):CD006829.

Answered by: Dr. Paul Hernandez

6. Rashes Related to Lamotrigine Use

What kind of rash should one be concerned about in a patient taking lamotrigine?

Submitted by: Stephen Sibalis, MD, Toronto, Ontario

As with other anticonvulsants, lamotrigine is associated with the hypersensitivity syndrome (HSS). The classic triad of HSS includes skin eruption with fever and internal organ involvement. The incidence in association with anticonvulsants ranges from 0.01% to 0.1% and is independent of dose. There is often a strong family history of similar reactions to medications.

Symptoms usually begin within two to six weeks of starting the drug or within a day if the patient has taken the drug in the past. Most commonly, it presents as fever with pharyngitis and cervical lymphadenopathy. Nearly 90% of patients have skin manifestations that are most commonly a widespread, exanthematous eruption. In more serious cases, skin can exfoliate and there may be conjunctivitis and angioedema. It is important to screen for liver and kidney involvement. Check for lung, thyroid and central nervous system involvement as needed. Eosinophilia is common.

Treatment involves cessation of the offending medication and consideration of oral steroids (*e.g.*, prednisone 1 mg/kg to 2 mg/kg) until symptoms resolve. Topical steroids and antihistamines can be helpful in alleviating skin symptoms.

Other serious cutaneous adverse reactions to lamotrigine include Stevens-Johnson Syndrome and toxic epidermal necrolysis (TEN). These are rare, potentially deadly blistering reactions on a clinical spectrum with TEN being more extensive. As patients can slough off vast areas of skin, they are at high risk of sepsis and are managed in ICU and specialized burn units. An early clue includes a positive Nikolsky's sign: pressing and twisting a pencil eraser on apparently normal skin induces blister formation or epidermal detachment. If any suspicion exists, patients should be immediately referred to hospital for investigations and aggressive management with supportive care.

As a general rule regarding adverse cutaneous reactions to medication, any rash in combination with a fever should be taken very seriously.

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

7. Tongue-Tie in a Newborn

Please discuss the management of tongue-tie in a newborn.

Submitted by: Michael Manjos, MD, Jordan Station, Ontario

Tongue-tie, also known as ankyloglossia or anchored tongue, is a congenital condition in which the sub-lingual frenulum, a fold of mucosa connecting the midline of the inferior surface of the tongue to the floor of the mouth, is unusually thick, tight, or short. Tongue-tie occurs in 3% to 4% of babies, with a male predominance and manifests itself in many variations and differing degrees of severity.

Symptoms attributed to tongue-tie include nipple pain and trauma, difficulty in the baby attaching to the breast, frequent feeding, uncoordinated sucking and speech defects.

The condition can be easily demonstrated on physical examination. The tongue mobility may be limited and sticking out the tongue can result in a v-shaped notch at the tip.

The decision on whether surgery is an appropriate treatment has been the subject of many debates. Dividing the frenulum in the newborn is a low-risk, minor procedure. The procedure is carried out as an outpatient. It can be performed without anesthetic. The presence of the deep lingual vein just lateral to the midline means that significant venous bleeding could occur if the technique is not done meticulously; however, no reports of serious adverse events were found. In older children, the procedure is done under short, general anesthesia, usually with electrocautery or laser, which carries some risk of scarring. Surgery is justified only if it is likely to lead to significant improvement in the comfort and continuation of breastfeeding or if there is significant dysfunction due to tongue tethering.

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

8. Early Signs of Celiac Disease

What are early signs of celiac disease?

Submitted by: Vincent Luykenaar, MD, Coaldale, Alberta

The signs and symptoms of celiac disease vary tremendously from patient to patient. The symptoms of celiac disease depend on the severity of the involvement of the small bowel. The classic symptoms of celiac include diarrhea, weight loss and failure to thrive. With severe involvement of the small bowel, the patient may develop steatorrhea and organ dysfunction as a result of extensive malabsorption. Fortunately, the majority of patients may only present mild symptoms such as anemia or osteopenia as a result of poor absorption of iron, folate and calcium. The natural history of celiac disease is not fully established and it is suspected that most celiac patients may be asymptomatic with only some degree of gluten insensitivities.

Answered by: Dr. Richmond Sy

9. Thrombolysing Elderly Patients

Should elderly patients be thrombolysed for an acute MI?

Submitted by: Hart Bueckert, MD, Guelph, Ontario

Elderly patients have often been excluded from many trials examining reperfusion strategies in acute STEMI (percutaneous coronary intervention [PCI] or thrombolytic therapy). Thrombolytics, specifically the fibrin-specific agents, are associated with an increased risk of intracranial hemorrhage with advancing age. Despite this, these agents are associated with decreasing mortality in the elderly.[1,2] When examining recent clinical trials, rates of major bleeding vary between 8% and 15% while rates of intracranial hemorrhage vary between 1% and 3%. Considering these risks, most cardiologists would recommend rapid initiation of thrombolysis (when the patients meet appropriate criteria) in elderly patients in whom timely transfer to a site capable of performing PCI is not feasible. However, physicians should avoid a time delay in the transfer of patients for PCI that would counterbalance the time-sensitive benefits of reperfusion with thrombolytics.

References
1. Fibrinolytic Therapy Trialists' (FTT) Collaborative Group, Indications for Fibrinolytic Therapy in Suspected Acute Myocardial Infarction: Collaborative Overview of Early Mortality and Major Morbidity Results From All Randomized Trials of More Than 1,000 Patients. Lancet 1994; 343(8893):311-22.
2. Mehta RH, Granger CB, Alexander KP, et al: Reperfusion Strategies for Acute Myocardial Infarction in the Elderly: Benefits and Risks. J Am Coll Cardiol 2005; 45(4):471-8.

Answered by: Dr. Richard Sheppard

10. Low Dose OC and Pregnancy Risk

Is there a concern with low dose OC (20 mcg) and higher risk of pregnancy?

Submitted by: Martin Dufour, MD, St. Sauveur, Quebec

The definition of a low dose combined OC pill (COCP) is ≤ 50 mcg of estrogen. There is no proof, to date, that lower estrogen content in the low dose definition is safer than another. The concern around unintended pregnancy with 20 mcg COCPs is mostly associated with poor quality of use (*i.e.*, missed pills), especially around the hormone free interval, the placebo pills. The 20 mcg pills do not suppress the hypothalamic pituitary ovarian (HPO) axis to the same extent as other pills; therefore, the HPO can recover in a shorter length of time compared to the other COCPs, with ovulation and the potential for pregnancy. In an individual who cannot commit to a dedicated regimen, or may have other factors that increase the metabolism of the 20 mcg (*i.e.*, anti-seizure medication), the 20 mcg COCP may not be the best choice. A full knowledge of the contraceptive choices available is key to meeting the needs of a specific individual and reducing unintended pregnancy.

Answered by: Dr. Victoria Davis

11. Treating Intra-Abdominal Infections

Can moxifloxacin be used in the treatment of intra-abdominal infection or diverticulitis?

Submitted by: David Hawkins, MD, Westburn, British Columbia

Diverticulitis is defined as inflammation, infection, or both, associated with diverticula. About 10% to 25% of patients with diverticula are affected. It is generally believed to be the result of perforation of a single diverticulum.

Patients with acute diverticulitis present with lower abdominal pain most commonly to the left side. The pain can be intermittent or constant and frequently is associated with a change in bowel habit, either diarrhea or constipation. Dysuria and urinary frequency can result from bladder irritation. The diagnosis usually is based on clinical presentation; however, initial plain x-ray of the abdomen and CT scan is usually needed to rule out other causes of acute abdomen and to confirm the diagnosis. Contrast enema and ultrasonography might be done in selected cases.

Patients with mild diverticulitis who can be selected for outpatient management with close observation should be treated with clear fluid and oral antibiotics. Reasonable choices to cover usual gram-negative rods and anaerobes include a quinolone such as ciprofloxacin with metronidazole. Amoxicillin-clavulanate or sulfamethoxazole-trimethoprim with metronidazole can be used also. Patients with complicated diverticulitis need hospitalization and empiric broad-spectrum IV antibiotics directed principally at colonic anaerobic and gram-negatives until culture results are available. Metronidazole with a third generation cephalosporin or flouroquinolone are reasonable choices.

Moxifloxacin is a synthetic flouroquinolone agent with broad-spectrum coverage and a strong peritoneal penetration in cases of peritoneal infection. It is not used widely as a first option for peritonitis or diverticulitis. The main indication is to treat pneumonia in in-hospital patients.

Answered by: Dr. Robert Bailey; and Dr. Ahmed A. Mohamed

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12. Deep Brain Stimulation

What is deep brain stimulation?

Submitted by: Lianne Lacroix, MD, Kelowna, British Columbia

Deep brain stimulation (DBS) is a relatively new technique where electrodes are implanted in certain specific nuclei deep in the brain, usually in the basal ganglia or thalamus.

DBS is most frequently used to treat movement disorders. When DBS is used to treat Parkinson's disease, there is a significant improvement of contralateral parkinsonian symptoms, such as tremour and ridgidity. Similarly, DBS is now being used for patients with severe essential tremor. The target area is different, but there is similar reduction in contralateral tremor. Also, there are areas of electrode placement that are starting to be used for forms of dystonia and Tourette's syndrome.

DBS is starting to be used in psychiatry as well. Some cases of refractory depression and refractory obsessive compulsive disorder have been successfully treated with DBS. Implantation for chronic central neuropathic pain has also had some success.

Overall, DBS is a treatment that is gaining wider use, and with that, wider success.

Resource
1. Kern DS, Kumar R: Deep Brain Stimulation. The Neurologist 2007; 13(5):237-52.

Answered by: Dr. Inge Loy-English

13. The Predictive Value of Sputum

Patients are often keen to describe or show me the colour of their sputum and nasal secretions. Is there any real predictive value to these findings, if they are not producing blood or pus?

Submitted by: Ben Addleman, MD, Calgary, Alberta

The description of colour/consistency of one's sputum when describing an upper respiratory tract infection (URTI)/sinusitis has no predictive value. The acuity and duration of all symptoms are more often used as predictors.

Answered by: Dr. Jonathan Irish; and Dr. Iman Naseri

14. The Role of Incretins

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

Submitted by: Steve Coyle, MD, Winnipeg, Manitoba

Incretins are gut peptides which include the hormones glucagon-like peptide-1 (GLP-1) and glucose-dependent insulinotropic polypeptide (GIP). They are secreted from the gut in response to food ingestion and account for about 60% of the insulin response in healthy subjects. The incretin response is diminished in Type 2 diabetes. GLP-1 has other physiological functions including inhibiting gastric emptying and inhibiting glucagon secretion and has a positive effect on ß-cell growth and survival.

There are currently two classes of medications that enhance the incretin response. Dipeptidyl peptidase-4 (DPP-4) inhibitors are oral medications that inhibit the enzyme that metabolizes GLP-1 and this is the mechanism of action of its glucose lowering. Sitagliptin is currently released in Canada and others are likely to be released including vildagliptin and saxagliptin. DPP-4 inhibitors are considered to be weight neutral and have an excellent side-effect profile.

The other class of medications are GLP-1 analogues which are injections given subcutaneously and include exenatide and liraglutide. GLP-1 inhibitors are associated with moderate weight loss and are associated with some nausea that improves as the medications is used. This class of medications is not yet released in Canada.

Answered by: Dr. Vincent Woo

15. Grapefruit and Statins

Should grapefruit be totally avoided with all statins?

Submitted by: Roland Genge, MD, Baddeck, Nova Scotia

In patients who are using statin medications for the treatment of hyperlipidemia, there is a potential risk to develop a myopathy, with elevation in the creatine kinase (CK) levels and the presence of significant myalgias. Certain medications, alcohol and consumption of grapefruit juice may potentiate the possibility of such a myopathy. Currently, it is recommended to avoid drinking > 1 qt (approximately 1 L) of grapefruit juice per day in order to avoid the potential risk of myopathy associated with statin therapy. In the event that a patient has evidence of myopathy or myositis with < 1 L of grapefruit juice, it may be reasonable to avoid the juice or try an alternative medication which does not have the same drug interaction.

Answered by: Dr. Richard Sheppard

16. Psychotropic Medications for Depression and Tinnitus

A patient has depression and tinnitus. What psychotropic medications are best to treat both conditions?

Submitted by: Janice VanKampen, MD, Toronto, Ontario

Tinnitus is not always a manifestation of a depression or an anxiety attack. A host of medical conditions are associated with tinnitus which include Menière disease, diabetes, thyroid disorders, as well as a possible drug effect with ASA and some antibiotics. The appropriate medical assessment should be carried to first rule out a possible organic etiology to the tinnitus. The medical assessment is required whether or not there is an associated depression.

Among tinnitus sufferers, there is both a high premorbid past history of depression as well as a high comorbid incidence of depression, with a lifetime prevalence of major depression as high as 78%. Antidepressants are indicated in tinnitus sufferers with associated depression. Although the tinnitus may not be eliminated by antidepressant treatment, the degree of disability and perceived suffering by the patient can be markedly reduced as the depression is improving. A selective serotonin reuptake inhibitor (SSRI) such as fluoxetine or a selective serotonin-noradrenaline reuptake inhibitor (SNRI) such as venlafaxine hydrochloride could be prescribed; however, close monitoring is required to detect the possible aggravation of the tinnitus which could occur as a side-effect to the antidepressant. In such a case, a switch to a different family of antidepressants would be appropriate, including a trial on a tricyclic antidepressant.

Answered by: Dr. Hany Bissada

17. Treating Esophageal Spasms

What are some current treatment options for esophageal spasms?

Submitted by: C. Cunningham, MD, Vernon, British Columbia

Esophageal spasms are a spectrum of disorders of the esophagus with the common features of hypermotility. These spastic disorders can range from minor manometric deviations to extreme derangements of esophageal motility. The classic esophageal spasm syndrome would be nutcracker esophagus, characterized by marked increase in contraction amplitude on esophageal manometry study. The predominant symptom is chest pain but dysphagia and heartburn can also be present in esophageal spasm. The management of esophageal spasm is challenging. Alternative diagnosis such as cardiac disease and gastroesophageal reflux should be ruled out. The principle treatment of pain caused by esophageal hypermotility is with pharmacotherapy associated with smooth muscle relaxants. A therapeutic trial of isosorbide dinitrates 5 mg to 10 mg sublingually can be tried. Calcium channel blockers like nifedipine have also played a role in treating esophageal spasms. Other treatments include Botox injections of the lower esophageal sphincter, antidepressants, pneumatic dilation and surgical esophageal myotomy have also been tried with variable success.

Answered by: Dr. Richmond Sy

18. Risks of Oral Allergy Syndrome

What is the risk for patients with oral allergy syndrome?

Submitted by: Grant Kirk, MD, Stellarton, Nova Scotia

The term "oral allergy syndrome" (OAS) defines symptoms induced by exposure of the oral and pharyngeal mucosa to food allergens. Syndrome can vary in intensity, from mild itching of the lips, mouth and throat, lip and tongue swelling, to severe angioedema of the pharyngeal mucosa. Originally, this entity was described in association with known plant foods that were related to pollen sensitization (*e.g.*, birch tree pollen and apple OAS). However, some authors have expanded this to include some animal derived allergens[1] and some have included triggering foods with no known relationship to pollen sensitization.[2] In this case, symptoms can be local, or in association with systemic cutaneous/respiratory symptoms, including anaphylaxis.[3] OAS may also be the first manifestation of food allergy in the natural course of disease toward more severe reactions.[3] Some feel that OAS should be limited to what may be defined as the food pollinosis syndrome. The offending (fresh) plant derived allergens cross reacted with various pollens and upon ingestion by the sensitized individual, the rapidly degradable allergens cause contact oral mucosal symptoms. Further examples include fresh tomato and grass pollen allergy, melons and ragweed allergy. These patients are at minimal risk for systemic symptoms. Ingestion of cooked/processed versions of culprit fruit and vegetables in these patients is not a problem, due to the pre-ingestion alteration of the highly modifiable allergens. The most important factor in determining risk is the history of the reaction (severity) and an epinephrine autoinjector should be prescribed in patients where more than just mild oral symptoms are reported. Consultation with an allergist would be useful to help define these risks and through testing, identify the relevant food and aeroallergen relationships.

References

1. Sicherer SH, Muñoz-Furlong A, Sampson HA: Prevalence of Seafood Allergy in the US Determined by a Random Telephone Survey. J Allergy Clin Immunol 2004; 114(1):159-65.
2. Ma S, Sicherer SH, Nowak-Wegrzyn A: A Survey on the Management of Pollen-Food Allergysyndrome in Allergy Practices. J Allergy Clin Immunol 2003; 112(4):784-8.
3. Pastorello, Ortolani: Oral allergy syndrome. In: Metcalfe, Sampson, Simon, (ed): *Food Allergy: Adverse Reactions to Food and Food Additives*. Cambridge: Blackwell Science; 1997, pp.221-34.

Answered by: Dr. Tom Gerstner

19. Contraindications to Lithium Use Post-MI

? Are there any contraindications to using lithium after MI? The patient is obese and has hypertension.

Submitted by: Colin Leech-Porter, MD, Vancouver, British Columbia

Lithium is a very effective drug for control of manic depressive disorders. It is eliminated by the kidneys and has a narrow therapeutic range. Lithium acts like sodium in the proximal renal tubule. Any condition that leads to decreased circulating volume and increased proximal renal tubule reabsorption of sodium such as heart failure, hypotension and volume depletion may lead to lithium toxicity. In addition to the neuromuscular manifestations of lithium toxicity, permanent renal damage may result from high serum levels of lithium.

Lithium causes sinus bradycardia and the patient may need a lower dose of ß-blocker following MI. I would also be very cautious and monitor lithium levels if a diuretic is used for treatment of hypertension or heart failure. If the patient is hypotensive, lithium should not be given until the patient stabilizes. Lithium should be used cautiously in patients with renal dysfunction.

With awareness of these issues and monitoring of lithium serum levels as necessary, I believe that lithium can be safely used after MI. The product monograph states that contraindications to the use of lithium include hypersensitivity to lithium or any component of the formulation; and its use should be avoided in patients with severe CV or renal disease, or with severe debilitation, dehydration, or sodium depletion; as well as during pregnancy.

Answered by: Dr. Bibiana Cujec

Any condition that leads to decreased circulating volume and increased proximal renal tubule reabsorption of sodium such as heart failure, hypotension and volume depletion may lead to lithium toxicity.

20. Lack of Pneumonia Symptoms

Can you please explain why some patients with pneumonia do not have cough, sputum or fever?

Submitted by: Maury O'Neil, MD, Collingwood, Ontario

Pneumonia relates to inflammation of one or both lungs that is frequently, but not always, due to infection. Patients may have few respiratory symptoms early in the course of pneumonia when a diagnosis can be made on the basis of other symptoms and an abnormal chest radiograph. Not all infectious pneumonias are associated with a systemic inflammatory response (*e.g.*, fever, increased white blood cell count), particularly in the elderly or in patients taking systemic corticosteroids. Fever may also be masked by the use of antipyretic medications. Sputum production is not always present, particularly in atypical pneumonia syndromes involving infections with mycoplasma, chlamydia, rickettsia, other bacteria, viruses, or fungi. Sputum production may also be absent in patients who are severely dehydrated or too weak to mount an effective cough.

Answered by: Dr. Paul Hernandez

21. Topical Antifungal Agents

Is topical antifungal applied to toenails as good as oral agents, for all ages and stages of infection?

Submitted by: John Crawford, MD, Victoria, British Columbia

The only topical antifungal agent approved for treating onychomycosis in Canada is ciclopirox, which in a nail lacquer containing 8% ciclopirox olamine. It is approved for treating onychomycosis with mild to moderate nail involvement with no lunular (matrix) involvement and is usually used if only a few nails are involved.

This agent is much less effective in producing mycologic and clinical cure of toenail onychomycosis than oral antifungal agents. It also requires 48 weeks of daily application vs. three months for oral terbinafine for toenail onychomycosis. A trial of topical ciclopirox would be best in cases with < 50% involvement of the nail plates (with no lunular involvement), in superficial white onychomycosis (where the dermatophyte is only in the nail plate), in younger patients such as children where nail growth is more rapid and in cases where use of oral antifungal agents put the patient at risk for drug interactions.

Answered by: Dr. Richard Haber

22. Screening for Cerebral Aneurysm

What are the indications for screening of cerebral aneurysm?

Submitted by: J. Shasswan, MD, Montreal, Quebec

Screening for cerebral aneurysms is recommended in the following situations:

1. Any patient who has potential symptoms of an aneurysm or of aneurismal leak
2. In patients who have a family history of ruptured aneurysm in two or more first degree relatives screening is reasonable, but it should be decided on a case-by-case basis. It was not found to be beneficial to screen for aneurysms in patients who have only one affected first degree relative
3. In patients with rare diseases that are associated with aneurysms, such as polycystic kidney disease, screening should be considered. Whether screening should be done is dependent on the patient's general health
4. Patients who have had a previous subarachnoid hemorrhage should also be screened for development of new aneurysms, which will develop at a rate of 1% to 2 % per year

Screening should be done with MR angiography, if possible. If not possible, then digital subtraction angiography is the other option. If there is a question, then referral to a neurosurgeon is appropriate.

Resource
1. Vega C, Kwoon JV, Lavine SD: Intracranial Aneurysms: Current Evidence and Clinical Practice. Am Fam Physician 2002; 66(4):601-8.

Answered by: Dr. Inge Loy-English

23. Asymptomatic Pauses on Holter Monitors

Asymptomatic pauses are frequently reported on Holter. How long is too long?

Submitted by: Laura McConnell, MD, Mississauga, Ontario

Holter monitors are often requested to determine if there are any significant bradyarrhythmias. This generally includes pauses that occur in the context of second or third degree heart block, in addition to sinus node dysfunction (SND). SND includes sinus bradycardia, sinus arrest, sinoatrial block and paroxysmal supraventricular tachyarrhythmias alternating with periods of bradycardia ("tachy-brady syndrome"). Patients who are awake, in sinus rhythm and have asymptomatic pauses of > 3.0 seconds should be evaluated for a permanent pacemaker. In awake patients with atrial fibrillation or atrial arrhythmias, an asymptomatic pause of ≥ 5.0 seconds necessitates evaluation for possible permanent pacemaker.[1]

Reference
1. Epstein AE, DiMarco JP, Ellenbogen KA, et al: ACC/AHA/HRS 2008 Guidelines for Device-Based Therapy of Cardiac Rhythm Abnormalities: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Writing Committee to Revise the ACC/AHA/NASPE 2002 Guideline Update for Implantation of Cardiac Pacemakers and Antiarrhythmia Devices). J Am Coll Cardiol 2008; 51(21):e1–62.

Answered by: Dr. Richard Sheppard

24. Treating Opioid-Induced Constipation

What (bowel) cocktail do you recommend for people on opioids long-term, for non-cancer pain to prevent constipation?

Submitted by: Nathalie Leroux, MD, Fenwick, Ontario

The treatment of opioid-induced constipation is quite often challenging. The easiest solution is to avoid using opioids. If that is not possible, anticipation of constipation and prevention is the best approach. Minimizing the use of opioids, a trial of increasing fluids or dietary fiber and increasing physical activity may all help manage opioid-induced constipation. If this is ineffective, a scheduled regimen of laxatives are often required starting with a stool softener and an osmotic laxative (polyethylene glycol, lactulose or magnesium hydroxide). Stimulant laxatives such as bisacodyl or senna are often used to counteract the lack of propulsive activity of the colon induced by opioids. More recently, trials evaluating opioid-receptor antagonists have been conducted. Methylnaltrexone is a selective antagonist that does not cross the blood brain barrier and therefore may have the advantage of reversing the opioid effects in the GI tract, but without precipitating withdrawal of the analgesic effects. A recent trial suggests that methylnaltrexone is effective in treating opioid-induced constipation. Currently, there are clinical trials underway that are evaluating other pharmaceutical agents for the management of opioid-induced constipation.

Resource
1. Thomas J, Karver S, Cooney GA, et al: Methylnaltrexone for Opioid-Induced Constipation in Advanced Illness. N Engl J Med 2008; 358(22):2332-43.

Answered by: Dr. Richmond Sy

25. The Best OC Pills for Acne

Which birth control pills are best for acne?

Submitted by: Sheri Samuels, MD, Edmonton, Alberta

For female patients with moderate to severe acne, hormonal therapies are effective second-line therapies regardless of any underlying hormonal abnormalities. Estrogen-containing OCs can be helpful and they are considered equally effective. Anti-androgen therapy such as ethinylestradiol 35 ug with 2 mg cyproterone acetate is also effective. Spironolactone, 50 mg to 200 mg q.d., is another form of anti-androgen therapy that has been shown to be helpful for acne.

However, hormonal manipulation is successful as monotherapy in less than half of female patients. Also, there may be a recurrence when stopped. Topical agents such as retinoids and antibiotics with or without benzoyl peroxide should be considered as well.

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

26. When to Treat an Elderly Patient with High BP

Would you treat a woman in her 80s with a BP of 140 to 150/75 mmHg who gets dizzy when she stands up quickly?

Submitted by: Hurst, Jacqueline, MD, Vancouver, British Columbia

The short answer is probably not. It would be important to measure her standing BP as she may have significant orthostatic hypotension. I definitely would not treat her if her standing systolic pressure is < 120 mmHg.

The Canadian Hypertension Education Program recommends treatment of systolic hypertension if the systolic pressure is > 160 mmHg in healthy elderly patients.[1] Evidence is less strong for a lower threshold (*i.e.*, treating if BP systolic > 140 mmHg) in patients with macrovascular target organ damage (cerebrovascular or coronary artery disease). In elderly patients with diabetes mellitus or chronic kidney disease, treatment is indicated if the systolic pressure is > 130 mmHg; however, the evidence is pretty thin as very few patients in the trials proving the benefits of stricter BP control were older than 80 years.

The HYpertension in the Very Elderly Trial (HYVET)[2] recently demonstrated the importance of treating systolic pressures of > 160 mmHg in patients over the age of 80 years. In this study, patients received indapamide 1.5 mg or placebo and, if necessary to achieve a target systolic pressure of < 150 mmHg, perindopril 2 mg or 4 mg or placebo was added. Treated patients had 20% to 30% reductions in stroke and death during a median follow-up of 1.8 years.

In the frail elderly, the benefits of hypertension treatment need to be balanced against adverse effects (*e.g.*, exacerbation of orthostatic hypotension and falls) before embarking on a strategy of aggressive BP lowering.

Regardless of age, as long as the patient appears to have a reasonable life expectancy, active therapy is probably appropriate if the systolic pressure is > 160 mmHg, with or without an elevated diastolic pressure. Recommended drugs for patients with systolic hypertension are thiazide diuretics, ARBs and long-acting dihydropyridine calcium channel blockers.

Resource

1. Canadian Hypertension Education Program: Management and Prevention of Hypertension in Canada. http://www.hypertension.ca/chep/docs/2007ScientificSummary.pdf
2. Beckett NS, Peters R, Fletcher AE, et al for the HYVET Study Group: Treatment of Hypertension in Patients 80 Years of Age or Older. N Engl J Med 2008; 358(18):1887-98.

Answered by: Dr. Bibiana Cujec

The Canadian Hypertension Education Program recommends treatment of systolic hypertension if the systolic pressure is > 160 mmHg in healthy elderly patients.

27. Sensorineural Hearing Loss

How do I investigate and diagnose severe high-tone or low-tone sensorineural hearing loss in a four-year-old? There is no family history.

Submitted by: J. Ruddy, MD, Kentville, Nova Scotia

First, a full history is needed including inquiry on previous head trauma, treatment with ototoxic medications and history of viral illness prior to the hearing loss.

Physical exam should include the status of external and middle ear with attention to possible cranial nerves deficits and craniofacial anomalies.

Audiometry aimed to answer the questions whether hearing loss is unilateral or bilateral, symmetrical or asymmetrical. If the reliability of hearing test is questionable then air and bone auditory brainstem response (ABR) under sedation should be done. The otoacoustic emission test (OAE) can add information; if it is normal, the possibility of auditory neuropathy should be considered.

Imaging techniques include MRI to rule out retro-cochlear pathology and CT scan for diagnosis of enlarged vestibular aqueduct.

If the hearing loss is symmetrical the value of imaging is unclear and it is possible to follow-up audiometrically without additional imaging. Additional testing should include genetic testing (GJB2 and Pendred syndrome).

Answered by: Dr. Jonathan Irish; and Dr. Arie Gordin

28. Treating Pretibial Myxedema

What is the possible treatment for a patient with pretibial myxedema?

Submitted by: Anonymous

Pretibial myxedema is a finding in thyroid dysfunction, especially Graves disease. Characteristic lesions show non-pitting edema with flesh-coloured to violaceous plaques or nodules.

Treatment is challenging. The condition rarely resolves on its own, despite treatment of the underlying thyroid disease. High potency topical steroids with or without occlusion should be tried for two to three months. Intralesional steroids are another option. Additional use of compression therapy is helpful. Oral steroids are reserved for severe cases, but side-effects, with questionable benefit, limit use. Other potential therapies include oral pentoxifylline, IV immunoglobulin, plasmapheresis and octreotide. Cytotoxic therapies (*e.g.*, melphalan) are probably more harmful than beneficial. Surgical options (*e.g.*, excision with or without grafting) are often complicated by recurrence. Dx

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