Answers to your questions from our medical experts

1. Antidepressants & pregnancy

Is it safe for a baby if its mother is taking SSRIs and/or SNRIs during pregnancy?

Submitted by:
Jean Lalonde, MD
Montreal, Quebec

Depression is common among women of childbearing age. Selective serotonin reuptake inhibitors (SSRIs)/nonselective serotonin reuptake inhibitors (NSRIs) are among the most commonly prescribed medications, given their efficacy and favourable side-effect profile.

When prescribing antidepressants during pregnancy, data are most reassuring for tricyclic antidepressants and fluoxetine, which have no demonstrated teratogenicity or adverse neurodevelopmental effects. Data on neonatal outcome following in-utero exposure to other SSRI/NSRIs are limited, although these agents do not appear to be teratogenic.

Women with minimal residual depressive symptoms who wish to conceive should be offered a trial of discontinuation of medication. Those at high risk of relapse may have the dose of medication reduced and/or may switch to a safer antidepressant.

Some patients respond better to certain SSRIs than to others and psychiatric advice may be needed to determine whether change to a safer antidepressant is indicated.

Answered by:
Paul Gibson, MD, FRCPC
Staff physician, department of internal medicine
Health Sciences Centre, University of Calgary
Calgary, Alberta

This month's topics:

2. Varicella vaccine

Who should receive varicella vaccine?

Submitted by:
A.J.B. Nazareth, MD, MB, BS, MCFP(EM)
Oakville, Ontario

Varicella (Chickenpox) is one of the most common childhood infections, affecting 50% of children by age five and 90% by age 12.

Infection can be complicated by secondary bacterial infections, such as cellulitis, bacteremia, septic arthritis and necrotizing fasciitis. The lifetime risk of reactivation of chickenpox to herpes zoster is about 20%.

There are two live, attenuated varicella vaccines currently available in Canada, Varivax® III and Varilrix™.

Varicella vaccine is recommended for all persons 12 months and older who are susceptible to varicella infection.

Healthy children can receive this vaccine in the infant immunization schedule at 12 to 18 months at the same time (in a different needle at another site) as the measles-mumps-rubella vaccine.

Several provinces have incorporated varicella vaccine into their infant immunization schedule. After 13 years, two doses are required and are given at least one month apart.

Because varicella vaccine contains a live virus, it should not be routinely given to persons with immunocompromising conditions.

Details on administration of the vaccine, dosage and other information is available in the Canadian Immunization Guide. Updated recommendations are available at **www.hc-sc.gc.ca/pphb-dgspsp/naci-ccni**.

References available—contact *The Canadian Journal of Diagnosis* at **diagnosis@sta.ca**.

Answered by:
Joanne M. Langley, MD, FRCPC
Associate professor
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Halifax, Nova Scotia

3. Pneumococcal vaccine & diabetes

Is there any role for pneumococcal vaccine in otherwise well patients with diabetes?

Submitted by:
Diane Zatelny, MD
Barrie, Ontario

Yes. Patients with diabetes are six times more likley to be hospitalized with a diagnosis of influenza compared to age and sex-matched controls.[1]

During influenza epidemics, a threefold increase in hospital admissions for acute metabolic complications of diabetes has been reported.[2]

Diabetes is one of the most common risk factors for pneumococcal bacteremia. It is believed persons with diabetes have abnormalities in cell-mediated immunity and decreased phagocyte function of monocytes, putting them at increased risk for both viral and bacterial infections.

Health Canada recommends persons with diabetes, even otherwise healthy persons with diabetes, receive influenza and pneumococcal vaccinations. Despite the potential complications of both influenza and pneumococcal disease, vaccination remains suboptimal in the general population and, in particular, in persons with diabetes.

References
1. Bouter KP, Diepersloot RA, van Romunde LK, et al: Effect of epidemic influenza on ketoacidosis, pneumonia and death and diabetes mellitus: A hospital register survey of 1976-1979 in the Netherlands. Diabetes Res Clin Pract 1991; 12(1): 61-8.
2. Watkins PJ, Soler NG, Fitzgerald MG, et al: Diabetic ketoacidosis during the influenza epidemic. Br Med J 1970; 4(727):89-91.

Answered by:
John Embil, MD, FRCPC
Associate professor, University of Manitoba
Consultant, infectious diseases
Medical director, infection prevention and control program
Health Sciences Centre, Winnipeg Regional Health Authority
Winnipeg, Manitoba

4. Arthritis treatment options

What pain medication do you recommend for asthmatic patients who don't get relief of arthritic pain with acetaminophen, have allergies to codeine, and in whom NSAIDs are contraindicated?

Submitted by:
Janice Mason, MD
Galiano Island, British Columbia

The patient who does not respond to or cannot tolerate standard pain medication for arthritis presents a difficult, but not uncommon problem.

- In this case, first establish whether the patient had a true hypersensitivity reaction to codeine (and not just side-effects, which some patients report as "allergy"). If so, then opioids should be avoided.
- The fentanyl patch can be effective for chronic pain, but may cause respiratory depression and is not generally recommended unless the patient has already demonstrated a degree of tolerability to opioids.
- Another option might include gabapentin, which is particularly indicated for neuropathic pain.
- Occasionally, we resort to use of low-dose prednisone (5 mg to 10 mg), which can help chronic arthritis pain and, in this case, might also help the patient's asthma. Prophylactic osteoporosis therapy would need to be used in this instance.
- Intra-articular injections with corticosteroids or hyaluronate can be effective and practical if only a few joints are involved.
- Topical non-steroidal anti-inflammatory drugs or topical capsaicin may also provide some relief in this situation, with little risk of systemic side-effects.

Answered by:
Michael Starr, MD, FRCPC
Assistant professor of medicine
Division of rheumatology
McGill University
Montreal, Quebec

5. A case of Type 2 diabetes

I have an 80-year-old male patient with long-standing sicca syndrome. He was recently diagnosed with Type 2 diabetes and responded well to insulin. The dry mouth symptoms have resolved, but he still complains of dry eyes. Screening tests have revealed positive antinuclear antibody. He has no other symptoms suggestive of systemic lupus erythematosus. Is this finding related to sicca syndrome and/or Type 2 diabetes? Does this case warrant a rheumatology referral?

Submitted by:
Gayle Lee, MD
Atikokan, Ontario

Sjögren's syndrome is a chronic, autoimmune syndrome characterized by lymphocytic infiltration of lacrymal glands and salivary glands with consequent dry eyes and dry mouth.

When occurring without another autoimmune disorder, it is considered primary Sjögren's disease. Secondary Sjögren's syndrome occurs in patients with another autoimmune disease, most commonly rheumatoid arthritis and scleroderma.

What makes this case interesting is a recent hypothesis suggesting elements of the immune system, such as acute-phase reactants, contribute to the development of Type 2 diabetes. This, in turn, suggests Type 2 diabetes is a disease of the innate immune system.

Acute-phase reactants, such as C-reactive protein and sialic acid, may predict risk of developing Type 2 diabetes, as well as being markers of diabetes microvascular and macrovascular complications.

To respond to the last part of the question, consultation would stimulate an interesting discussion.

Answered by:
Monique Camerlain, MD, FRCPC
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Sherbrooke, Quebec

6. Can NT-proBNP rule out CHF?

I have recently come across an ad for NT-proBNP, a diagnostic test to help rule out CHF. Please comment on the test and its use in office settings. Is the test widely available and do patients have to pay for it?

Submitted by:
Monique Belanger, MD, CCFP
Sudbury, Ontario

Plasma levels of the N-terminal fragment of the prohormone of B-type natriuretic peptide (NT-proBNP) have been shown to be useful in the diagnosis and prognostic stratification in patients with congestive heart failure (CHF).

Measurement of NT-proBNP is most helpful in ruling out CHF (*i.e.*, a low level of NT-proBNP indicates a very low likelihood of CHF).

NT-proBNP is measured by an electrochemiluminescence immunoassay using a laboratory platform. The assay has been approved by the government for clinical use. Many hospital labs in Ontario that have installed the platform can potentially measure NT-proBNP. One private, out-of-hospital clinic also measures this assay. The service is currently not widely available for general clinical use.

In Ontario, there is no government reimbursement for the assay.

Answered by:
Gordon Moe, MD, FRCPC
Associate professor, University of Toronto
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7. Mesothelioma: A review

Discuss the diagnosis, investigation and treatment options for mesothelioma.

Submitted by:
Mark D. Brewer, MD, CCFP
Toronto, Ontario

Pleural mesothelioma is a rare and aggressive cancer, difficult to diagnose early in its evolution. Median survival from the time of diagnosis is said to be between six and eight months. Symptoms are often insidious and nonspecific. Dyspnea, secondary to a pleural effusion and/or thoracic discomfort are the most common presenting symptoms. Up to 80% will have a history of asbestos exposure in the past.

The chest X-ray and computed tomography scan will most often show a pleural effusion either associated or not associated with a thickened pleural rind, depending on the stage of the disease.

Thoracentesis and percutaneous pleural biopsy have a low yield for diagnosis. The optimal diagnostic procedure is a pleural biopsy by thoracoscopy (if the pleural space is not yet obliterated by tumour) or an open pleural biopsy. Specific immunohistochemical stains and electron microscopy will help the pathologist with this difficult diagnosis.

A few options are now available to help patients with mesothelioma, depending on their stage and general condition. An aggressive surgical option that can be offered to < 15% of patients is a pleurectomy/decortication or an extrapleural pneumonectomy with or without chemotherapy and radiation therapy.

An effective palliative surgery is talc pleurodesis by thoracoscopy. Doses of radiation therapy are often limited by the underlying lung and the surrounding vital structures.

New chemotherapy agents are being developed and seem to be more effective than what we had to offer in the past. It gives us hope for the future.

Answered by:
Jocelyne Martin, MD, MSc, FRCSC
Assistant professor and thoracic surgeon
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Montreal, Quebec

8. Linking estrogen & VTE

Does estrogen on alternate days increase the risk of deep venous thrombosis?

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

Yes, but the risk is small. For example, in the Women's Health Initiative, 18 more venous thrombotic events (VTE) per 10,000 women per year occurred in the estrogen-treated group.

From the many case-control and randomized trials of hormone replacement therapy or oral contraceptives we can derive certain principles:

- the relative risk (RR) for VTE versus placebo with any estrogen is about 2.0;
- people with cardiovascular risk factors or previous VTE are at greater risk (RR=4.0);
- the risk is highest in the first year or two of therapy;
- the risk is dose-related (the higher the dose of estrogen, the greater the risk);
- topical estrogen therapy has a lower risk;
- there may be differences among oral estrogens (ethinyl estradiol has a greater risk than 17-b estradiol).

I could find little information on alternate-day therapy. My opinion is that if the "usual dose" were given every 48 hours, the risk of VTE would be lower than that with daily therapy. On the other hand, if a "double dose" were given every 48 hours, the risk might even increase.

Answered by:
Thomas W. Wilson, MD, MSc, FRCPC
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University of Saskatchewan
Saskatoon, Saskatchewan

9. Anticoagulation in the elderly

What is your opinion on anticoagulation in the elderly?

Submitted by:
Gertruda Vorosova, MD
Manitou, Manitoba

Anticoagulation in the elderly will reduce the incidence of stroke in those with atrial fibrillation. The number needed to treat is 28 over two years, meaning you must treat 28 such patients for two years (or seven patients for eight years) to prevent one stroke. The complication rate is < 1% in otherwise well elderly persons.

Answered by:
William Eaton, MD, CCFP, FCFP
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10. What to do about low HbA1c levels in diabetes patients

What should I do for a patient with diabetes whose HbA1c is in optimal range, but whose fasting blood sugar is high?

Submitted by:
Raphael Kwok, MD, CCFP
Richmond Hill, Ontario

There are a number of things that can cause a falsely low HbA1c, the most common of which is anemia of any cause.

Even if the person is not anemic, if there is a rapid turnover of blood due to blood loss, hemolysis or hypersplenism, the HbA1c will be falsely low. Some hemoglobinopathies can also cause a falsely low HbA1c, but these are fairly rare.

Drugs can occasionally cause a falsely low HbA1c by changing hemoglobin structure, but this is also rare.

If the abnormality causing the falsely low HbA1c remains constant, you just have to aim for even lower levels or rely mostly on home glucose monitoring to assess blood sugar control.

There are some other tests, such as glycosylated albumin levels, that can give you somewhat similar measures of overall blood sugar control, but they are not readily available.

Answered by:
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Professor of medicine, University of Western Ontario
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11. How long is mono contagious?

How long is a person with mononucleosis contagious to his/her partner?

Submitted by:
Christine Renz, MD, CCFP
Ottawa, Ontario

Humans are the only known source of Epstein-Barr virus (EBV) and transmission is thought to occur mostly via exposure to saliva.

Continuous excretion of the virus can occur for many months and asymptomatic shedding is common. Intermittent shedding is lifelong. Therefore, a person with mononucleosis is theoretically contagious to close contacts for the rest of his/her life.

In reality, most adults have had subclinical infection during childhood and are immune to re-infection. Therefore, the most common scenario for an adult is either to acquire EBV within weeks of beginning intimate contact with a new partner or to be immune to the disease.

If necessary, immunity can be documented using EBV-specific serologic tests.

Answered by:
Michael Libman, MD, FRCPC
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12. Gabapentin for pain

Why and how should gabapentin be used for chronic pain?

Submitted by:
Gaétan Lavoie, MD, CCFP, FCFP
Matane, Quebec

Gabapentin is now one of many commonly used antiepileptic drugs which help to relieve chronic pain by decreasing the abnormal spontaneous firing of sensory nerves.

The drug is particularly useful in conditions like post-herpetic neuralgia and diabetic neuropathy, as well as in trigeminal neuralgia.

Dosing should start at 300 mg daily, with titration up to 1,200 mg per day in divided doses over a period of five days. A test dose of 100 mg can be given at night initially to study any possible untoward side-effects, such as ataxia, sedation or dysarthria.

If tolerated well, the total dose can be titrated up to 3,600 mg daily. Therapeutic levels are usually reached within three weeks, but some patients are early responders and may have noticeable benefit within a few days, even at lower doses. Dx

Answered by:
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