Answers to your questions from our medical experts

1. Are contraceptive patches effective?

How effective and safe are the new transdermal contraceptive patches?

Submitted by:
Paul Stephan, MD
Scarborough, Ontario

The new contraceptive patch releases 150 µg of norelgestromin and 20 µg of ethinyl estradiol over a 24-hour period.

For women weighing up to 90 kg (198 lbs), the patch is as effective as the combined oral contraceptive pill (OCP). The patch may be less effective in women weighing more than 90 kg.

The patch should be placed on the abdomen, buttocks, upper outer arm, or upper torso (not the breast) for seven days. A new patch is then applied in an alternate location for a total of three weeks, followed by a one-week break. The effectiveness of the patch is not altered by exercise or exposure to sauna, whirlpool, or cold water.

Any woman who can use the combined OCP can use the patch with the same contraindications and precautions. The only additional precaution is a potential sensitivity to the adhesive in the patch.

Answered by:
Jacqueline Hurst, BSc, MD
Clinical instructor, University of British Columbia
Vancouver, British Columbia

This month's topics:

2. Recommended tests for patients with hypertension

What is now recommended as the basic investigation for asymptomatic patients with high blood pressure, but without any clinical risk factors. Is the echocardiogram still valuable?

Submitted by:
Michel Brouillet, MD
Montreal, Quebec

The 2004 Canadian Hypertension Education Program Task Force recommends the following routine lab tests for the investigation of patients with hypertension:

- urinalysis,
- complete blood count,
- electrolytes and creatinine,
- fasting glucose,
- lipid profile, and
- electrocardiogram.

The echocardiogram is not recommended as a routine test in hypertensive patients. It can provide information about left ventricular hypertrophy, systolic and diastolic function, and may be useful in selected cases.

The full reference is available in the *Canadian Journal of Cardiology* 2004; 20:31-59.

Answered by:
Keith J.C. Finnie, MB ChB
Professor of medicine, University of Western Ontario
London, Ontario

3. Does soaking help wounds?

Infections on digits are commonly treated via soaking, but what is the best liquid to use?

Submitted by:
Alexandra Tcheremenska, MD, CCFP
Montreal, Quebec

Soaking a wound is something we all do, but it doesn't really have a valid role in wound care. Soaking does remove adherent dirt and scabs from the surface of old wounds, but it can be detrimental. Prolonged soaking can actually soften the surrounding skin, rendering it less able to hold a suture. As well, many of the solutions commonly used for soaking, such as povidone iodine, hydrogen peroxide, or alcohol, are actually toxic to the already damaged tissues. If a wound needs soaking to remove an old dressing, just use sterile saline.

Gentle scrubbing of the skin surface around a wound (not the wound itself) with a soft sponge is much more effective for wound preparation. The method of choice for cleansing the wound is high-pressure irrigation with sterile saline. The device of choice is a 20-mL syringe with a 19-gauge needle attached and a strong forearm, which generates about 10 to 12 pounds-per-square inch of irrigation pressure. Because this procedure can be quite messy, commercial devices should be used to guard against splash.

Answered by:
Anthony Herd, BSc, MD, CFPC, CFPC(EM)
Professor, University of Manitoba
Winnipeg, Manitoba

4. Surgery after radiation therapy

Is surgery still an option for prostate cancer after radiation?

Submitted by:
Roshan Dheda, MB BCh, LMCC, CCFP
Bradford, Ontario

In men who fail radiation therapy, local treatment with salvage radical prostatectomy (RP) is not appropriate in certain situations. These situations include suspicion of disease spread beyond the prostate, suboptimal patient performance status, and life expectancy of < 10 years.

However, even in healthy men with local recurrence alone, salvage RP has traditionally been considered a poor option because of the significant morbidity associated with this procedure. Reported complications include:

- urinary incontinence (50%),
- rectal injury (10%),
- impotence (100%), and
- bladder neck contracture (20%).

Furthermore, cure rates are limited, with about 50% of patients remaining free of prostate-specific antigen recurrence at five years. Thus, even in younger, healthy men with localized disease, concern regarding side-effects has traditionally outweighed the chance for cure.

Usually, other strategies are used. The most commonly used surgical modality is cryotherapy, although this also carries a significant risk of side-effects and limited curative potential. Another option is hormonal therapy.

More recent data suggest the morbidity of salvage RP may now be considerably lower. Since a proportion of patients is cured with salvage RP, there has been some renewed enthusiasm for this option.

Ultimately, patients who are candidates for these procedures must be carefully selected and made aware of the risks.

Answered by:
Sharon Sharir MD, MPH, FRCSC
Assistant professor, division of urology, department of surgery
University of Toronto
Uro-oncologist, Sunnybrook and Women's College Health Sciences Centre
Toronto, Ontario

5. How to stop your patients from biting their nails

? I recently saw an 11-year-old boy with a one-year history of nail biting. It seems to occur during boredom or sedentary activities. He has already had one episode of nail fold infection. His mother has tried "Stop 'N Grow" and uses iodine for the open skin. How can we help him stop biting?

Submitted by:
Laura Phillips, MD
Gold River, British Columbia

Chronic onychophagia (nail biting) is a problem for about 6% of 10-year-olds, 45% of puberty-aged children, 25% of college students, and 10% of adults.

Consequences can include yeast infections (from chronic wetting), dental problems (*e.g.*, gingivitis), and increased risk for infectious diseases.

Today, nail biting is understood as a conditioned response to anxiety or boredom. Physicians are advised to avoid quests for "deep emotional problems". Exploratory therapies are 30% effective, at best.

Aversion therapy (about 50% effective) has been largely replaced by Azrin and Nunn's "habit reversal training (HRT)" (90% effective), a behavioural intervention also proven useful for hair pulling, thumb sucking, and motor tics. Central in HRT is the "competing response". Parents should coach the child as follows:

1. Enhance motivation by listing the annoyances of the habit and benefits of being habit-free.
2. Increase awareness of the habit and keep a record of each episode (starting before HRT).
3. Learn and practise a competing reaction (*e.g.*, making the hand into a fist) every time the urge is felt.
4. Mentally rehearse dealing with the habit in different situations, always integrating the competing response.

Answered by:
Greg Dubord, MD
Director, Toronto Centre for Cognitive Therapy
Director, Advanced Cognitive Therapy Course, University of Toronto
Fellow, Beck Institute for Cognitive Therapy and Research
Toronto, Ontario

6. Osteoporosis in men

If a middle-aged man presents with osteoporosis on a bone scan and a subsequent blood test shows low testosterone, should I start him on hormone replacement therapy or simply try bisphosphonates and repeat bone scan in one year?

Submitted by:
Adam Kayumi, MD, CCFP
Mississauga, Ontario

Although there is little doubt androgen deficiency is an important cause of osteoporosis in men, I am not aware of any published studies that specifically compare the benefits of testosterone replacement versus bisphosphonates in men with osteoporosis. Moreover, anti-fracture efficacy has been difficult to demonstrate with most therapeutic interventions in men with osteoporosis.

Testosterone replacement improves bone density in men with osteoporosis, although the reported studies are small. Because androgen replacement may improve quality of life in men with hypogonadism, it should be considered for reasons other than maintenance of bone density. A prostate-specific antigen, prostate exam, lipid profile, and hematocrit should be carried out on a regular basis.

There are good data demonstrating that bisphosphonates improve bone density in men with osteoporosis. In addition, these drugs should be offered as first-line therapy in men with glucocorticoid-related bone loss.

Would combined therapy with testosterone and bisphosphonate be more effective than either treatment alone? We don't know. If there were a prior history of insufficiency fracture, I would certainly use a bisphosphonate and consider androgen supplementation as well. If the patient's clinical risk for fracture seems to be low, I would treat with testosterone, repeat the bone mineral density test in 12 to 18 months, and add a bisphosphonate if there is no improvement.

Answered by:
Lisanne Laurier, MD, FRCPC
Rockwood Clinic PS
Spokane, WA, USA

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7. How do you measure blood pressure at the ankles?

Measuring blood pressure at the ankles is being recommended as a screening test for peripheral vascular disease. How is this done?

Submitted by:
Robert Dickson, MD, CCFP
Hamilton, Ontario

Not only is measuring blood pressure at the ankles being recommended as a screening test for peripheral vascular disease, the 2003 Update of the Recommendations for the Management of Dyslipidemia and the Prevention of Cardiovascular Disease recommends using the ankle-brachial index (ABI) as a means of detecting atherosclerosis and for the confirmation of the diagnosis of cardiovascular disease.

Calculation of the ABI is performed by measuring the systolic blood pressure in the brachial, posterior tibial, and dorsalis pedis arteries. Doppler methods must be used, as auscultation of blood pressure using the ankle pulses is not feasible, and palpation of systolic pressure at the ankle is not accurate. Therefore, these tests are usually done in a vascular lab.

The highest of the four measurements in the ankles and feet is divided by the higher of the two brachial measurements to calculate the ABI.

A normal ABI is 1.0 to 1.3, as the pressure is higher in the ankle than in the arm. Values > 1.3 suggest a non-compressible, calcified vessel.

An ABI < 0.9 is very sensitive and specific for detecting angiographically proven peripheral vascular disease and is usually associated with a > 50% stenosis in one or more major vessels.

An ABI of 0.40 to 0.90 is often associated with symptomatic peripheral vascular disease (claudication). Values < 0.4 represent severe ischemia.

In patients whose symptoms are strongly suggestive of claudication, but ABIs are normal, pressures obtained before and after exercise on a treadmill may unmask peripheral vascular disease.

Answered by:
Bruce Josephson, MD, FRCPC
Associate professor, division of cardiology
Dalhousie University
Halifax, Nova Scotia

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8. SSRIs for Social Anxiety Disorder

What is the usual duration of treatment with a SSRI when used to treat social phobia?

Submitted by:
Ernest McCrank, MD, FRCPC
Calgary, Alberta

Social phobia, referred to more commonly as social anxiety disorder (SAD), is the third most common psychiatric disorder in the community. The disorder frequently begins in childhood and peaks during adolescence. It impedes the affected individual's progress in life and carries with it very high rates of educational and vocational impairment. It is, therefore, important to diagnose this illness at an early stage and treat it aggressively.

The treatment of SAD includes a selective serotonin reuptake inhibitor (SSRI) or a serotonin/norepinephrine reuptake inhibitor and cognitive behavioural therapy (CBT). Adjunctive agents commonly used in SAD include high-potency benzodiazepines and beta blockers.

There is very little useful outcome data available on the duration of treatment required. There is clear recognition, however, that SAD is a chronic disorder, often resistant to treatment. More than 50% of patients are prone to relapse after two years of treatment.

Progress made in CBT is more sustained than gains achieved with pharmacotherapy. It is recommended that active treatment be continued for one to two years, followed by slow taper.

Patients should be observed closely for signs of relapse during the tapering process. Treatment should be resumed at the first sign of relapse and continued for at least one year before consideration is given to stopping it.

The key to prevent relapse is to ensure strategies learned through CBT are maximized during the tapering process.

Answered by:
Praful Chandarana, MBChB, ABPN, FRCPC
Associate professor, University of Western Ontario
London, Ontario

9. Diagnosing celiac disease

How reliable is anti-tTG testing in diagnosing celiac disease?

Submitted by:
Deirdre A. Ashton, MB, BS, MRCS, LRCP
Edmonton, Alberta

Antiendomysial antibody is the gold standard serologic marker for the diagnosis of celiac disease. It has a positive and negative predictive value of approximately 100%.

Tissue transglutaminase (tTG) is the major autoantigen recognized by the antiendomysial antibody. Immunoglubulin A (IgA) antibody deficiency is prevalent among 2% to 3% of celiac patients.

Anti-tTG, an IgA antibody, is cheaper, easier to perform, and more sensitive, but less specific than antiendomysial antibody. Anti-tTG can be used as a first-line test for the investigation and screening of suspected celiac patients. By using human recombinant tTG, instead of ginea pig liver antigen, the specificity of the test may approach that of antiendomysial antibody.

In patients who are negative and in whom there is a high degree of suspicion for celiac disease, a small bowel biopsy should be performed.

Answered by:
Flavio Habal, MD, PhD, FRCP
Associate professor of medicine
University of Toronto
Toronto, Ontario

10. What to do for emergency allergic reactions

What drug should I keep handy as emergency first aid for people with food allergies?

Submitted by:
Irene D'Souza, MD
Willowdale, Ontario

Antihistamines, such as diphenhydramine syrup, loratadine syrup, or cetirizine syrup are fast-acting and effective in treating mild symptoms of an allergic reaction. These mild symptoms include itching, hives, rhinorrhea, nasal congestion, or sneezing.

However, more severe manifestations, especially those that may become life-threatening, do not respond to antihistamines. Severe manifestations may include upper airway obstruction (*i.e.*, throat constriction, dysphagia, dysphonia, inspiratory stridor), lower airway obstruction (*i.e.*, wheezing, cough, chest tightness, dyspnea), or hypotension (*i.e.*, dizziness, lightheadedness, loss of consciousness).

Epinephrine is the treatment of choice for these severe manifestations or for rapidly progressing allergic reactions. The dose in children is 0.01 mg/kg body weight of 1:1000 solution to a maximum of 0.3 cc given intramuscularly (or an EpiPen®Jr. device). The dose in adults is 0.3 cc to 0.5 cc of 1:1000 solution given intramuscularly (or an adult EpiPen device). Dx

Answered by:
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