Consultant's Corner

Practical Answers To Your Everyday Questions

Treating Genital Warts with Imiquimod

1.

What is the evidence that treating HPV (genital) warts with imiquimod works?

Question submitted by:
Dr. Micheal De Roode
Burk's Falls, Ontario

Treatment of HPV is generally complicated by weak and confusing evidence. There is a dearth of direct comparative studies for most treatments. For various common warts there is one open label study with application of the imiquimod 5% cream q.d., five times per week, for up to 16 weeks, with complete response but with limited follow-up. For anogenital warts, it was used three times weekly for eight weeks. The response rate was only about 50%, with about 15% relapse rate in the largest study. This is similar to most other common treatments. Women had a better response than men. The main advantage is self-application by the patient, rather than repeated visits to a health provider. Local side-effects might be a bit less than ablative therapies. Cost is a significant disadvantage.

Answered by:

Dr. Michael Libman

Nocturnal Enuresis

2.

Is there a role of using combined pharmacotherapy in treating resistant nocturnal enuresis?

Question submitted by:
Dr. John Braganza
Red Deer, Alberta

While polytherapy can be used, polypharmacy is not often needed. The most effective therapy for nocturnal enuresis are alarm systems, which have the highest response rate but have a high rate of drop-outs. Desmopressin or imipramine can also be used, both drugs having good response rates but high relapse rates once therapy is stopped. A careful history can help to determine which is more likely to be a useful first approach. Children who are wet most nights and urinate very frequently during the day are likely to have a small bladder capacity and an alarm system will be most effective for them. Children who have infrequent urination during the day and are wet only one or two nights a week are more likely to benefit from desmopressin. If one therapy does not work, another is likely to and it would be more usual to change therapy than to add on a therapy to one that is not working.

Answered by:

Dr. Michael Rieder

3. Hemorrhoidal Bleeding

Are asymptomatic bleeding hemorrhoids of any medical importance, assuming more ominous cancers of rectal bleeding have been ruled out?

Question submitted by:
Dr. Bill Taylor
Medicine Hat, Alberta

Hemorrhoids are normal vascular structures in the anal canal. They can be the source of a variety of problems including bleeding, anal pruritus, prolapse and pain due to thrombosis. Hemorrhoids arise from a cushion of dilated veins arising from the superior and inferior hemorrhoidal veins. They are external or internal based on whether they are below or above the dentate line.

Hemorrhoidal bleeding is usually painless and associated with a bowel movement. The blood is bright red and typically coats the stool after defecation or drips into the toilet bowl. Bleeding associated with painful defecation is almost never from hemorrhoids. Pain should alert the physician to look for another cause, commonly anal fissures.

Although hemorrhoids can be diagnosed with a history and physical, confirmation by flexible sigmoidoscopy or colonoscopy should be performed in patients who present with bleeding. Colonoscopy is generally recommended in older patients to exclude a malignancy.

Answered by:

Dr. Jerry McGrath

4. Treating Gout with Allopurinol

When I have a patient with recurrent gout and whose creatinine clearance is normal, what dose of allopurinol should I use?

Question submitted by:
Dr. Gordon Milne
Thunder Bay, Ontario

The most commonly used dose of allopurinol is 300 mg q.d. However, many patients are undertreated. The dosing should always be titrated to a uric acid level of < 350 µmol/L. To achieve this level, there is considerable variability in the dose of allopurinol needed (100 mg to 800 mg q.d.). Serum urate levels begin to fall within two days of starting allopurinol. Therefore, the dose can be started at 100 mg to 200 mg q.d. and adjusted to the appropriate dose over the ensuing weeks.

Answered by:

Dr. Elizabeth Hazel

Home Monitoring of Blood Glucose vs. HbA1c

5.

Should Type 2 diabetics test blood sugars daily or can we rely on HbA1c alone?

Question submitted by:
Dr. Werner Oberholzer
Radville, Saskatchewan

Both home monitoring of blood glucose as well as HbA1c measurements are helpful in managing patients with Type 2 diabetes. HbA1c gives a sense of the average glycemic levels over the preceding three months and we aim to keep the HbA1c < 7%. However, it does not give an indication of the glycemic variability, which is also important in making treatment decisions. Patients may have an HbA1c of 7% if their glucose ranges between 5 mmol/L to 9 mmol/L; however, patients with significant glycemic variability who fluctuate between severe hypo- and hyperglycemic episodes may also average out to an HbA1c of 7%. The management and prognosis of this patient is obviously much different than that of the first. Home monitoring also helps in choosing the most appropriate hypoglycemic agents. If the primary abnormality is postprandial hyperglycemia, then agents such as repaglinide, acarbose, dipeptidyl peptidase 4 inhibitors, would be of greater benefit. Lastly, HbA1c measurements can be falsely high or low if there is coexisting hemoglobinopathy. Thus, both home readings as well as HbA1c are valuable.

Answered by:

Dr. Hasnain Khandwala

Managing a Patient with High Ferritin

6.

How do you manage a patient with high ferritin? When is phlebotomy warranted? What are the complications if left untreated?

Question submitted by:
Dr. Denise Belisle
Montreal, Quebec

If the diagnosis for the high ferritin is iron overload from hemochromatosis or chronic blood transfusions, then appropriate therapies to reduce the iron overload should be undertaken. Untreated iron overload may lead to severe organ dysfunction where iron is deposited. This may include diabetes mellitus, hepatic cirrhosis and cardiomyopathy. In hemochromatosis, regular phlebotomy is effective. Iron chelation therapy should be considered for transfusion-induced iron overload. Ferritin may increase in a number of other disease processes, such as liver disease and inflammatory disorders. Since the high ferritin does not reflect iron overload in this scenario, the primary disease should be targeted as appropriate.

Answered by:

Dr. Kamilia Rizkalla and
Dr. Kang Howson-Jan

Drug-Eluting Stents vs. Bare-Metal Stents

7.

Would you recommend drug-eluting stents (DES) during an angioplasty vs. bare-metal stents (BMS) and why?

Question submitted by:
Dr. Andrew Dichsun
Barrie, Ontario

Late lumen loss after stenting is due solely to in-stent neointimal hyperplasia. The restenosis benefit of DES compared to BMS results from inhibition of in-stent neointimal hyperplasia. The US FDA approved both the sirolimus-eluting and paclitaxel-eluting stents for stable patients without serious comorbidities who have newly diagnosed (previously untreated) lesions < 28 mm to 30 mm in length. Based upon the marked reductions in restenosis and target lesion revascularization, DES are frequently used for off-label indications, which include patients with complex anatomy (*e.g.*, multilesion percutaneous coronary intervention [PCI], small vessels, long lesions, ostial lesions and bifurcation lesions) and less often patients with acute MI or saphenous vein graft stenosis.

Patients with DES may have an increased risk of late stent thrombosis compared to those with BMS, particularly if clopidogrel therapy is stopped prematurely. Among patients receiving DES, the risk of stent thrombosis is increased with off-label use.

When deciding on using DES vs. BMS in PCIs, the interventional cardiologists have to weigh the relative risks and benefits of restenosis protection, late stent thrombosis, prolonged clopidogrel therapy and alternative treatments of medical therapy and coronary bypass graft surgery.

Answered by:

Dr. Chi-Ming Chow

Length of Use of Medroxyprogesterone Acetate

8.

How long should medroxyprogesterone acetate be used as contraception in a healthy woman?

Question submitted by:
Dr. William Mackie
Kelowna, British Columbia

Depot medroxyprogesterone acetate (DMPA) is an effective method of contraception which can be given every three months. Side-effects include menstrual irregularities and hormonal changes. DMPA can also be associated with a delayed return of menses and therefore delayed fertility. The biggest concern about long-term use has been the effects on BMD. Use of DMPA for more than two years has been associated with a decrease in BMD. Recovery of BMD has been seen starting at six months after discontinuation. Although studies suggest that the loss of BMD appears to be reversible and unlikely to affect osteoporosis and long-term fracture risk, further long-term studies are needed.

Answered by:

Dr. Kimberly Liu

9. Link Between Use of Spironolactone and Breast Cancer

Are there any studies showing a relationship between spironolactone use for acne and the development of breast cancer?

Question submitted by:
Dr. J. Jones

Spironolactone can be associated with breast enlargement—especially in men—and a link to breast cancer has been theorized on this basis. There is no strong relationship proven in the literature. It has been used for many years with no real association shown, so risk must, at best, be low. A recent study[1] adds to the good safety profile of this drug with regard to carcinogenesis.

Reference
1. Shaw JC, White LE: Long-Term Safety of Spironolactone in Acne: Results of an 8-Year Followup Study. J Cutan Med Surg 2002; 6(6):541-5.

Answered by:

Dr. Scott Murray

Maternal Hypothyroidism

10.

Are hypothyroid female patients at particular risk for pregnancy? Should they have special pre-pregnancy counselling and prenatal? Any particular advice?

Question submitted by:
Dr. Nathalie Leroux
Fenwick, Ontario

Untreated maternal hypothyroidism has adverse outcomes both for the mother and the fetus. Firstly, it would be difficult to conceive in the presence of severe untreated hypothyroidism. Once conception occurs, there is an increased risk of miscarriage, weight gain and obstetrical complications. More importantly however, the fetal thyroid unit is functional after the twelfth week of gestation and thus is dependent on maternal thyroid hormone supply before this time. Thus, severe maternal hypothyroidism can lead to fetal hypothyroidism, fetal goiter and cretinism. Maternal thyroid hormone requirements also can increase by up to 50% during pregnancy due to the effect on thyroxine-binding globulin, increased urinary iodine excretion, increased placental deiodinase activity, *etc*. Thus, patients with known hypothyroidism should be advised to be euthyroid before planning conception and should have their thyroid functions monitored at least every trimester. Recently, a study demonstrated that a preemptive 50% increase in the dose of maternal thyroid hormone as soon as pregnancy has been established may be a reasonable option.

A study published about 10 years ago suggested that patients born to mothers with subclinical hypothyroidism (elevated TSH and normal fT4 levels) had a slightly lower IQ score compared to children born to euthyroid mothers. As most patients with subclinical hypothyroidism are not symptomatic, a point could be made for routine TSH measurements pre-pregnancy to identify and treat these women. However, at this time there is no convincing evidence for or against screening all women pre-pregnancy for hypothyroidism.

Answered by:

Dr. Hasnain Khandwala

Untreated maternal hypothyroidism has adverse outcomes both for the mother and the fetus.

11. Relieving Ear Pressure

How do you go about a patient who has a feeling of water/pressure in their ears, especially following air travel?

Question submitted by:
Dr. Khalida Tariq
Edmonton, Alberta

Normally, the pressure in the middle ear is equal to the pressure outside of the ear. The Eustachian tube helps to regulate the pressure in the middle ear and equalize air pressure on either side of the eardrum. A relative negative middle ear pressure, as occurs in aircraft or scuba diving descent, leads to stagnation of secretions and effusion collects in the middle ear as "otitic barotrauma" evolves.

During take-offs and landings, the atmospheric pressure change in the airplane is too rapid for normal functioning and this can cause discomfort. Yawning or chewing gum activates the muscles around the Eustachian tube, allowing it to open, increasing saliva production and improve swallowing.

If you are planning to fly and know that you have a cold, taking a decongestant beforehand may help. Also, blowing hard against a closed mouth and pinched nostrils may help to equalize middle ear pressure. If the congestion is considerable, you might want to postpone your flight. After flying, the same instructions regarding decongestants are usually sufficient. If acute otitis media occurs, an antibiotic may be needed. In very rare cases, if the condition is recurrent and severe, a tympanostomy tube (pressure equalizing tube) may be necessary to alleviate this problem.

Answered by:

Dr. Ted Tewfik

Antibiotic Prophylaxis and Dental Routines

12. Should patients that require antibiotic prophylaxis for dental work be discouraged from flossing or should they be prophylaxed when they first start to floss?

Question submitted by:
Dr. Ian Watson
Ajax, Ontario

In 2007, the American Heart Association (AHA) and the American Dental Association (ADA) published the new guidelines on the prevention of infection endocarditis (IE).[1] The latest document shifted the emphasis away from a focus on a dental procedure and antibiotic prophylaxis toward a greater emphasis on improved access to dental care and oral health among patients who are at highest risk of adverse outcome from IE and those conditions that predispose to the acquisition of IE.

Patients at highest risk for IE included those who have prior IE, prosthetic heart valves, complex cyanotic congenital heart conditions and post-cardiac transplant valvulopathy.

It is impractical to recommend antibiotic prophylaxis for routine daily activities for those high-risk patients, such as chewing food, brushing, flossing, use of toothpicks and use of water irrigation devices, *etc*. The presence of dental disease may increase the risk of bacteremia associated with these routine activities. Therefore, it is even more important to recommend to these patients to have good dental hygiene by having routine dental check-ups, as well as good teeth brushing and flossing routines.

Reference

1. Wilson W, Taubert KA, Gewitz M, et al: Prevention of Infective Endocarditis: Guidelines From The American Heart Association: Rheumatic Fever, Endocarditis And Kawasaki Disease Committee, Council on Cardiovascular Disease in the Young and The Council on Clinical Cardiology, Council on Cardiovascular Surgery and Anesthesia and the Quality of Care and Outcomes Research Interdisciplinary Working Group. Circulation 2007; 116(15):1736-54.

Answered by:

Dr. Chi-Ming Chow

Psoriasis in Infants

13. Can psoriasis appear in infants under one-year-of-age?

Question submitted by:
Dr. Christine Plante
La Sarre, Quebec

Yes, though it can look a little different than in adults. The eruption can be generalized and look much like a widespread eczema. As well, there is a tendency for involvement of the intertriginous areas. Psoriasis can involve the groin, presenting as a diaper dermatitis but with intense scaling, often with a clear, geographic border ("napkin psoriasis"). The eyelids are a common area affected, unlike adults.

Answered by:

Dr. Scott Murray

Avian Flu Update

14. Could you give an update on avian flu?

Question submitted by:
Dr. Michel Bernier
Ste-Foy, Quebec

Influenza H5N1 virus, commonly called "avian flu," emerged as a cause of human disease in Hong Kong in 1997. Since then, there have been several hundred human cases, with high mortality rates, concentrated in Asia and Northern Africa. Similar viruses have been found in birds in much of the world, although not as yet in the Americas. So far, we have not seen the much feared evolution of the virus into a strain capable of efficient human-to-human spread. All cases so far have been associated with direct contact with poultry or, occasionally, close household contact. Increasing rates of resistance to antiviral agents such as oseltamivir have raised concerns that these drugs may not provide sufficient protection during an epidemic. Vaccine development is proceeding fitfully, but there is hope that an effective, easily-producible vaccine may become available if the virus grants us a few more years.

Answered by:

Dr. Michael Libman

Treatment of Hyperactivity

15. Could you provide an update on the treatment of hyperactivity?

Question submitted by:
Anonymous

The therapy of hyperactivity begins with accurate diagnosis, which needs to be done using validated instruments and by clinicians who are experts in the evaluation of children with suspected hyperactivity. When a diagnosis has been established, a variety of treatment options are available. While non-drug treatments provide a valuable skill set of learning tools that can extend beyond childhood, the mainstay of therapy remains medication. It is usual to establish if stimulants work with a trial of therapy, which often is done using conventional release or short-acting drugs. When an effective dose has been established, replacement of the short-acting stimulant with one of the newer extended-release agents is helpful in permitting once-daily therapy. Alternative therapies are available to children who do not respond to stimulants. Stimulant therapy must be carefully monitored. As part of this, it is important to have clear and realistic goals and to ensure that the treatment plan is revisited on a regular basis to determine if goals are being achieved.

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Answered by:

Dr. Michael Rieder