1. TG guidelines

What are the current guidelines for the pharmacologic management of hypertriglyceridemia?

Submitted by:
Mohamed Ravalia, LRCP(Ed), CCFP, FCFP
Twillingate, Newfoundland

The current Canadian Working Group on Dyslipidemia guidelines does not state discrete targets for the serum triglyceride (TG) level.

High TG levels (*e.g.,* > 10 mmol/L) should be treated pharmacologically without too much delay to reduce th

are no firm recommendations for lower TG levels, but addressing the total-cholesterol:high-density lipoprotein-cholesterol ratio associated with high TGs is usually the clinical approach.

The optimal serum TG level is likely < 1.7 mmol/L by epidemiologic evidence.[1]

Recommended reading
1. Genest J, Frohlich J, Fodor G, et al: The Working Group on Hypercholesterolemia and Other Dyslipidemias. CMAJ 2003; 169(9):921-4. Also see full text: www.cmaj.ca/cgi/content/full/169/9/921/DC1.

Answered by:
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This month's topics:

2. Stickin' it to the common wart

Can duct tape be used to treat the common wart?

Submitted by:
Nathalie Augen, MD
Town of Mont Royale,
Québec

Duct tape occlusion therapy is a therapeutic option because it is safe and not painful, despite a lack of high-quality studies providing knowledge in this area.

Stimulation of the patient's immune system through local irritation has been speculated to be the therapeutic mechanism of action.

A randomized, controlled trial studied 26 patients treated with duct tape and 25 patients with cryotherapy.[1] The cryotherapy group had application of liquid nitrogen to the wart for 10 seconds every two to three weeks for a maximum of six treatments. The duct tape group had a piece of duct tape applied to the wart for six days, after which the tape was removed and the wart soaked in water and debrided. The tape was not applied at night and was reapplied the following morning. Treatment was continued for a maximum of two months.

Twenty-two patients (85%) in the duct tape group versus 15 patients (60%) in the cryotherapy group had complete resolution. The study was classified by the Cochrane reviewers as medium-quality. The study has been criticized for its small sample size, because the nurses were not truly blinded, the application of liquid nitrogen should be longer than 10 seconds, an unspecified number of outcome measures were conducted over the phone and it is not specified how long after the treatment period the phone interview was conducted.

Reference
1. Focht DR III, Spicer C, Fairchok MP: The efficacy of duct tape vs. cryotherapy in the treatment of verruca vulgaris (the common wart). Arch Pediatr Adolesc Med 2002;156(10):971-4.

Answered by:
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3. Stripping down strep throat

What are the most recent age-related recommendations for treating group A streptococcal throat infection?

Submitted by:
Ed Witten, MD
Cranbrook, British Columbia

Regardless of age, penicillin V is still the drug of choice for treating streptococcal pharyngitis, unless the patient is allergic to penicillin. Antibiotic resistance to *Streptococcus pyogenes* [Group A streptococcus (GAS)] has not been reported for penicillin. Ampicillin or amoxicillin have no advantage over penicillin other than the dosing schedule.

The dose of penicillin V is 250 mg, two to three times daily, for children under 27 kg, and 500 mg, two to three times daily, for children more than 27 kg, adolescents and adults. Treatment duration is 10 days. For patients allergic to penicillin, a macrolide, or a narrow-spectrum, first-generation cephalosporin or other cephalosporin with gram-positive coverage may be used. If clinical improvement occurs, there is no need to repeat a throat culture at the end of the therapy, since asymptomatic carriage may occur. A throat culture is necessary to diagnose a GAS pharyngitis because clinical diagnosis is inaccurate and leads to antibiotic over-use.

Answered by:
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4. Can the VZV vaccine reduce herpes zoster incidence?

Is there any evidence that the varicella vaccine will reduce the incidence of herpes zoster?

Submitted by:
Karen Edstrom, MD
Hamilton, Ontario

Varicella vaccination may reduce the likelihood of subsequent wild-type varicella zoster by preventing the acquisition of wild-type varicella infection. Zoster incidence was significantly lower in leukemic children who received the live attenuated varicella vaccine compared to similar children with prior natural varicella infection.[1] Varicella vaccination of elderly adults may also boost their immunity against zoster reactivation.[2] In one study, the frequency of varicella-zoster virus (VZV)-specific proliferating T cells in healthy adults older than age 55 was increased from one in 68,000 to one in 40,000, which is similar to the proportion of these T cells in adults aged 35 to 40 years.[2]

Zoster may occur from the vaccine itself. However, in children, the reported rate of zoster in vaccine recipients has not exceeded that previously determined in a population-based study of healthy children with previous wild-type infection. Mass vaccination of children may decrease natural varicella transmission in the population and decrease immunity boosting against zoster in previously infected individuals. Mathematical modelling suggests that this lack of virus exposure may increase zoster incidence in individuals with previous wild-type infection. This effect would only be seen in the generation who had not been vaccinated and might be reduced by adult vaccination of these susceptible individuals.

References
1. Hardy I, Gershon AA, Steinberg SP, et al: The incidence of zoster after immunization with live attenuated varicella vaccine: A study in children with leukemia. Varicella Vaccine Collaborative Study Group. N Engl J Med 1991; 325(22):1545-50.
2. Levin MJ, Murray M, Rotbart HA, et al: Immune response of elderly individuals to a live attenuated varicella vaccine. J Infect Dis 1992; 166(2):253-9.

Answered by:
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Clinic Physician
Boyle McCauley Health Centre
Infectious Disease and Wound Care Consultant
Misericordia Community Hospital
Edmonton, Alberta

5. What are the WHI results of the estrogen-only arm?

How do the results of the estrogen-only arm of WHI differ from the combined arm?

Submitted by:
Diane Zatelny, MD
Barrie, Ontario

The National Heart, Lung and Blood Institute, which runs the Women's Health Initiative (WHI), concluded, in March 2004, after completing an average of nearly seven years of followups, that estrogen alone does not appear to affect heart disease.

The increased risk of stroke in the estrogen-only arm is similar to that of estrogen plus progestin. The Federal Drug Administration emphasizes that topical application for relief of postmenopausal symptoms, such as hot flashes, in moderate to severe cases is appropriate.

Answered by:
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University of Saskatchewan
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Memorable Quote

"There is no better surgeon than one with many scars."

Spanish proverb

6. Initial atypical antipsychotics in severely depressed patients?

Is there clear indication for the use of atypical antipsychotics in the initial treatment of severely depressed patients?

Submitted by:
Marie Hayes, MD, CCFP
Sherbrooke, Québec

In addition to their antipsychotic effect, the new atypical antipsychotics have remarkable anti-anxiety and anti-obsession effects. Most importantly, some of them, such as olanzapine, have a mood-stabilizing effect that is useful in bipolar disorders.

Severely depressed patients should be started on an adequate dose of antidepressant medication. If there is any evidence for psychosis, such as psychotic depression, combining atypical antipsychotic medication with an antidepressant is strongly indicated. If the depression does not have any psychotic features, adding an atypical antipsychotic would be indicated in the case of severe agitation, severe morbid obsessions or serious suicidal ruminations.

However, when considering weight gain and hyperglycemia as possible side-effects of some atypical antipsychotic medications, prescribing them to patients who are struggling with obesity and/or who are prone to diabetes should be done with caution (*i.e.,* only on a short-term basis).

Answered by:
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Memorable Quote

> *"It is often easier to fight for a principle than to live up to it."*
>
> Adlai Stevenson

7. Can kids use cholesterol-lowering agents?

Should young children with obesity and Type 2 diabetes be treated with cholesterol-lowering agents?

Submitted by:
Wayne Dong, MD
Valemont, British Columbia

Children with obesity and Type 2 diabetes do not commonly have simple hypercholesterolemia. They may demonstrate the dyslipidemia of insulin resistance, namely low high-density lipoprotein cholesterol and hypertriglyceridemia, which is identified using a fasting lipid profile. The optimum therapy is intensive, non-pharmacologic lifestyle intervention for weight reduction. There is no long-term evidence for using statin therapy in this age group. The 2003 Canadian Diabetes Association guidelines recommends judicious treatment after age 10 with consideration of the approaches used in adults. Atorvastatin is the only statin drug approved by Health Canada for use in males and postmenarchal females aged 10 to 17 with heterozygous familial hypercholesterolemia.

Recommended reading
1. Belay B, Belamarich P, Racine AD: Pediatric Precursors of Adult Atherosclerosis. Pediatr Rev 2004; 25(1):4-14.
2. McCrindle B: Lipid abnormalities in Children with Metabolic Syndrome. Can J of Diabetes 2004; 28(3):226-37.
3. American Academy of Pediatrics. Committee on Nutrition: Cholesterol in Children. Pediatrics 1998; 101(1 Pt 1):141-7.
4. Canadian Diabetes Association 2003 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada: Type 2 diabetes in Children and Adolescents. Can J Diabetes 2003; 27:S91-S93.

Answered by:
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Department of Pediatrics
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8. What's the deal with the Adacel™ vaccine?

When do we use the new Adacel™ vaccine?

Submitted by:
Leonard Sadinsky, MD
Etobicoke, Ontario

The adolescent/adult formulation of the acellular pertussis vaccine (Adacel™/dTap), which also contains vaccines against tetanus and diphtheria, was approved in 1999 for use in people 12 to 54 years of age.

The National Advisory Committee on Immunization (NACI) recommends all pre-adolescents and adolescents who have not received a dose of acellular vaccine to receive a single dose of the adolescent/adult formulation of acellular pertussis vaccine.

At a minimum, dTap should replace tetanus and diphtheria (Td) for the regular adolescent booster dose program.

For adults who have not previously received a dose of acellular pertussis vaccine, it is recommended that a single Td booster dose be replaced by the dTap vaccine.

There are currently no data to base a recommendation for the optimal interval for administering subsequent booster doses.

Recommended readings
1. Prevention of Pertussis in Adolescents and Adults. Canada Commun Dis Rep 2003; 29, ACS-5.
2. National Consensus Conference on Pertussis, Toronto. Can Commun Dis Rep 2003; 29(S3):1-36.

Answered by:
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9. Managing healthy patients at risk for CV

How should this patient be managed?

A 64-year-old female of ideal weight, follows a proper diet and exercises regularly. She has no personal history of CAD, but her father had CAD at age 60.

Her lipid profile—
- **Total cholesterol: 7.08 mmol/L**
- **LDL: 4.49 mmol/L**
- **HDL: 2.10 mmol/L**
- **Triglycerides: 1.08 mmol/L**
- **Ratio: 3:4.**

Submitted by:
Ron Dlin, MD
Edmonton, Alberta

This case depicts a woman in the postmenopausal stage who is taking several precautions to maintain a healthy lifestyle to prevent untoward cardiovascular (CV) events. The various risk factors for cardiovascular disorders (diabetes mellitus, hypertension, smoking and abdominal obesity) are lacking in this patient. She does, however, have a strong family history of premature CV disease.

Her personal lipid profile shows an elevated total cholestrol and an elevated low-density lipoprotein (LDL). The high-density lipoprotein cholesterol (HDL) ratio is no doubt less than 5 (3:4); the overall parameters place her in the medium-risk category. Her 10-year risk of developing coronary artery disease (CAD) is between 11% and 19%.

I think we need to lower her LDL to less than 3.5 mmol/L. Furthermore, any propensity towards diabetes should be watched carefully. Her fasting blood sugar should not exceed 7 mmol/L.

Management of this patient includes continuation of all the steps already taken (weight control, a well-balanced diet, reduced alcohol intake, regular exercise and avoidance of primary or secondary smoking). She needs to have her blood pressure measured regularly and ensure that it stays in target range (130 mmHg to 135 mmHg systolic and 80 mmHg to 85 mmHg diastolic).

I am inclined to place her on one of the statins. The aggressive monotherapy will help in lowering the LDL level satisfactorily to below 3.5 mmol/L and it should further improve the total cholestrol to HDL ratio. As her triglycerides are not abnormal, the lowering of LDL should prevent any likelihood of the triglycerides rising.

Answered by:
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Saint John, New Brunswick

10. How's pimecrolimus for seborrheic dermatitis?

Is pimecrolimus cream as effective for seborrheic dermatitis as it is for eczema?

Submitted by:
Larry Bobyn, MD
Kelowna, British Columbia

Presently, there is no objective data on the use of pimecrolimus for seborrhic dermatitis. However, based on the information regarding the use of pimecrolimus for atopic dermatitis, it is reasonable to assume that it would be effective and safe.

The potential problems associated with its use include a transient burning sensation and possible increased risk of infection. Since most cases of seborrheic dermatitis respond to very low-potency steroids or a combination of antifungal and corticosteroid (*i.e.,* 1% hydrocortisone in ketoconazole cream), and given the increased cost and possible discomfort associated with pimecrolimus, it is probably best used as an alternative treatment for patients who do not respond to, or do not tolerate, the conventional treatments. Dx

Answered by:
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Senior Dermatology Staff
Montreal General Hospital

Memorable Quote

"Most good resolutions start too late and end too soon."

Arnold Glasow