



Answers to your questions  
from our medical experts

## 1. Flu shot for those on chemotherapy?

**Is a flu shot or pneumonia inoculation indicated for a patient on chemotherapy?**

Submitted by:  
**Jacob Nirahn, MD**  
Newmarket, Ontario

Certain preventive immunizations can be helpful. An influenza vaccination should be given annually to patients with active malignancy and/or who are on chemotherapy. The influenza vaccine should be given at least two weeks before starting chemotherapy, or between chemotherapy cycles. It can be given six months after a bone marrow or stem cell transplant. In the case of pneumococcal vaccine, it may be administered at the time of diagnosis (pretreatment), or six months after treatment and then every five years.

Answered by:  
**Dr. Sharlene Gill**

## 2. The importance of serum PSA levels

**How accurate or inaccurate are the PSA levels in a younger male with a nodule in the prostate?**

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

Serum prostate-specific antigen (PSA) is an important predictor of prostate cancer (PCa) on needle biopsy in young men with suspicious digital rectal examination (DRE) findings and should not be ignored. In a contemporary cohort of 130 men, aged 60 years or younger, diagnosed with 10 or more core biopsies, PSA added 3% ( $p < 0.001$ ) to the ability to predict the probability of finding cancer. This is an important contribution, which is equivalent or exceeds the contribution of several novel biomarkers. The improvement in the ability to predict PCa on needle biopsy, even in the presence of suspicious DRE indicates that the predictive ability of several informative markers (e.g., PSA, per cent-free PSA), virtually always exceeds that of a single marker (e.g., DRE).

Answered by:  
**Dr. Claudio Jeldres; Dr. Andrea Gallina; and Dr. Pierre Karakiewicz**

### 3. Treating allergic conjunctivitis in toddlers



#### What is the treatment for allergic conjunctivitis in children under two years of age?

Submitted by:  
**S. Sundar, MD**  
 Mississauga, Ontario

First and foremost, an attempt should be made to ensure the correct diagnosis, as allergic conjunctivitis with or without the presence of allergic rhinitis is rare in this age group. Therefore, one must consider:

- infectious and irritant (especially tobacco smoke) agents,
- foreign body/corneal abrasion,
- chemical irritation,
- lacrimal duct obstruction,
- congenital glaucoma, as well as
- blepharitis and
- uveitis.

If the diagnosis is still suspected, then an attempt should be made to identify the underlying allergens. Common culprit allergens in young children most commonly include perennial allergens, such as:

- dust mite,
- mould spores and
- various animal dander.

Despite popular misconception, young children can undergo epicutaneous allergy testing when the clinical picture is suggestive. Removal of the identified allergen should be the goal. Although it is one of the most well-studied antihistamines in children, cetirizine is not approved for children < two years of age. For intermittent use, a combination of brompheniramine and phenylpropanolamine (Dimetapp®) oral infant drops may offer some relief. Topical antiallergens such as sodium cromoglycate and levocabastine are also not recommended in this age group. Cold compresses and refrigerated artificial tears for their soothing and dilutional effects against any potential irritants or allergens in the conjunctiva may be used safely in all age groups.

Answered by:  
**Dr. Tom Gerstner**

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*Despite popular misconception, young children can undergo epicutaneous allergy testing when the clinical picture is suggestive. Removal of the identified allergen should be the goal.*

## 4. Dealing with white-coat hypertension

**?** In addition to verifying home BP readings and 24-hour ambulatory BP monitoring, how do you confirm and manage so-called white-coat hypertension?

Submitted by:  
**Stefania Argentin, MD**  
Brossard, Quebec

The condition of white-coat hypertension is confirmed by persistently elevated BP office readings, with persistently normal out-of-the-office-readings. The importance of this condition relates to its recognition, not to its management. Purely white-coat hypertension is reported in 20% to 30% of patients and is often suspected in patients with high BP office readings in the absence of any organ damage. The lack of recognition of this condition results in:

- overdiagnosis,
- overmedication,
- increased cost and
- issues regarding insurance coverage.

Answered by:  
**Dr. Igal A. Sebag**

## 5. Managing a Baker cyst in the knee

**?** What is the best management of a Baker cyst in the knee?

Submitted by:  
**Francis Fontaine, MD**  
Laval, Quebec

A Baker cyst is a distension of the gastrocnemius-semimembranosus bursa also known as a popliteal cyst. A popliteal cyst may serve as a protective mechanism for the knee joint. The knee effusion is displaced into the Baker cyst, thus reducing potentially destructive pressure in the joint space.

The management of a Baker cyst consists of treating the underlying condition. In general, the treatment is conservative, including:

- non-steroidal anti-inflammatory agents,
- ice and
- assisted weight bearing.

If the knee effusion is caused by an inflammatory process such as rheumatoid arthritis, or crystal-induced arthritis, fluid aspiration with a corticosteroid injection may be the optimal therapy. If there is a mechanical cause, such as a cartilage tear, referral to an orthopedic surgeon for therapeutic arthroscopy may be the best treatment option.

Answered by:  
**Dr. Elizabeth Hazel and Dr. Michael Starr**

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## 6. Acute dystonia, an antipsychotic side-effect?



### Is acute dystonia a possible side-effect of new antipsychotics (including quetiapine)?

Submitted by:  
**Marie-Andree  
 Beauchemin, MD**  
 Terrebonne, Quebec

New or atypical antipsychotic medications include:

- clozapine,
- risperidone,
- olanzapine and
- quetiapine.

Clozapine is associated with the least risk of developing acute dystonia or any of the other extrapyramidal symptoms, including akathisia and parkinsonism. However, its use is limited to refractory cases of schizophrenia because of its other serious side-effects, including agranulocytosis.

Both risperidone and olanzapine have a low-risk of developing acute dystonia compared to conventional antipsychotics. But that risk is dose-related and becomes a possible concern for some patients at doses at or > 10 mg q.d. for either drug.

Finally, quetiapine has an extremely low-risk of developing acute dystonia and studies have suggested that this risk may not be dose-related.

#### Resource

1. Joseph M. Pierre: Extrapyramidal symptoms with atypical antipsychotics: Incidence, prevention and management. *Drug Safety* 2005; 28(3):191-208.

Answered by:  
**Dr. Hany Bissada**

## 7. Tiotropium and prostate cancer



### Can tiotropium be used in a patient with prostate cancer?

Submitted by:  
**S. Budhoo, MD**  
 Yarmouth, Nova Scotia

Tiotropium bromide is an antimuscarinic-anticholinergic inhaled agent for the treatment of chronic obstructive pulmonary disease. There is no absolute contraindication to the use of tiotropium in a patient with prostate cancer. Per the product monograph, urinary retention or difficulty has been reported with tiotropium therapy. Tiotropium may worsen symptoms and signs associated with prostatic hyperplasia or bladder neck obstruction and hence, should be avoided in a patient with these active symptoms.

Answered by:  
**Dr. Sharlene Gill**

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## 8. Following impaired glucose tolerance



### What to do and how to follow the patient with impaired glucose tolerance and not yet diabetes?

Submitted by:  
**Terry Cooligan, MD**  
 York, Ontario

These patients are at high risk for Type 2 diabetes, as well as cardiovascular disease. Options should be discussed individually. At the least, these individuals should be screened annually. Studies have shown that Type 2 diabetes can be prevented by various means. There are two main studies assessing lifestyle for the prevention of Type 2 diabetes in individuals with impaired glucose tolerance. The two studies are the US Diabetes Prevention Program and the Finnish Diabetes Prevention study. These studies typically had lifestyle changes that entailed dietary modification with reduced calorie and fat intake, as well as at least 150 minutes of exercise per week, targeting a 5% weight loss of initial body weight. These two studies reduced the risk of progressing to Type 2 diabetes by 58% at four years time.

Pharmacological studies have also been performed. The recent Diabetes REduction Approaches with ramipril and rosiglitazone Medications (DREAM) study showed that 8 mg of rosiglitazone decreased the progression to Type 2 diabetes by 62% at three years time. Metformin, 850 mg b.i.d., in another arm of the Diabetes Prevention Program decreased the progression to Type 2 diabetes by 31% at 2.8 years time and 100 mg of acarbose t.i.d. decreased Type 2 diabetes by 30% at 3.3 years time in the Study to Prevent Non-Insulin-Dependent Diabetes Mellitus (STOP-NIDDM) trial.

As previously mentioned, each individual should be assessed carefully and potentially offered some of the interventions listed above.

Answered by:  
**Dr. Vincent Woo**

*Options should be discussed individually. At the least, these individuals should be screened annually.*

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## 9. Recycled paper allergies

**?** **Recycled paper used in newspapers seems to trigger allergic conjunctivitis and rhinitis in some people. Is it the chemicals used in the process, the paper itself, or the ink? What can be done to help these people?**

Submitted by:  
Paul Stephan, MD  
Scarborough, Ontario

Most commonly, it is the chemicals (such as formaldehydes) added during the paper production process that may elicit vasomotor and irritant reactions in some patients. This is not an allergic mechanism, but is triggered by noxious stimuli which in part via cholinergic pathways, increase serous mucous production in the nasal mucosa. Other examples of noxious stimuli include:

- hot and spicy foods,
- strong smells/fumes from various fragrances and chemicals and
- extreme cold air.

These patients often respond well to topical nasal anticholinergic therapy (*i.e.*, nasal ipratropium q.i.d. initially) which are best used just prior to exposure to known aggravating triggers.

Answered by:  
Dr. Tom Gerstner

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## 10. GOAL study recommendations



### What difficulties do you see in implementing the GOAL study recommendations in the management of asthma?

Submitted by:  
Herbert Sacks, MD  
Edmonton, Alberta

Asthma control remains suboptimal among Canadians with this chronic respiratory condition.<sup>1</sup> Asthma control has been defined in Canada by the Canadian Thoracic Society (CTS) asthma guidelines as:

- infrequent daytime symptoms and short-acting  $\beta_2$ -agonist use (< four days per week),
- absence of nighttime symptoms,
- no limitation in physical activity due to asthma,
- absence of exacerbations and
- no absenteeism from work or school due to asthma.<sup>2</sup>

The Gaining Optimal Asthma Control (GOAL) study was designed to determine whether “guideline-defined” asthma control could be achieved through a progressive escalation in medication, either fluticasone or fluticasone/salmeterol combination.<sup>3</sup> This study showed that the majority of subjects with asthma achieved guideline-defined asthma control regardless of their pre-study treatment dose of inhaled corticosteroid medication. A minority of study subjects were even able to achieve better than guideline-defined control, albeit at the cost of using higher doses of medications. However, at present, there is no evidence to recommend trying to exceed the CTS guidelines for asthma control.

The main message to take away from the GOAL study is that with appropriate management, improved asthma control can be achieved in the majority of patients. The challenge of implementing this aspect of the asthma guideline recommendations in Canada starts with the need to raise awareness among physicians and patients with asthma regarding the criteria for assessing asthma control. Only then can the causes of suboptimal asthma control be addressed through multifaceted intervention strategies.

#### References

1. Fitzgerald JM, Boulet L-P, McIvor RA, et al: Asthma control in Canada remains suboptimal: The reality of asthma control study. *Can Respir J* 2006; 13(5):253-9.
2. Lemiere C, Bai T, Balter M, et al: Adult asthma consensus guidelines update 2003. *Can Respir J* 2003; 11(Suppl A):9A-18A.
3. Bateman ED, Boushey HA, Bousquet J, et al: Can guideline-defined asthma control be achieved? The Gaining Optimal Asthma Control study. *Am J Respir Crit Care Med* 2004; 170(8):836-44.

Answered by:  
Dr. Paul Hernandez

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## 11. *H. pylori* in children



### How to treat children who are *H. pylori* positive?

Submitted by:  
**D. Baass, MD**  
 Toronto, Ontario

*Helicobacter pylori* (*H. pylori*) infection has been associated with a variety of pathology, such as:

- dyspepsia,
- gastritis,
- peptic ulcer disease,
- gastric cancer,
- mucosa-associated lymphoid tissue lymphomas and
- iron deficiency anemia.

Current recommended indications for testing and treating *H. pylori* in children include:

- confirmed *H.*-positive peptic ulcer disease,
- children from high-risk populations for gastric cancer (*i.e.*, Japan),
- family history of gastric cancer and
- refractory iron deficiency of an unknown cause.

Screening and treating asymptomatic children is not recommended. The most sensitive and specific non-invasive test for active infection is the urea breath test. Serologic testing for *H. pylori* does not differentiate current from previous infection and a positive test result should not be an indication for eradication. Children with persistent and severe upper abdominal pain of an unknown cause may be evaluated with upper endoscopy to search for the cause of the pain, but not to search solely for *H. pylori*. Children with dyspepsia or recurrent abdominal pain do not have a higher prevalence of *H. pylori* and do not benefit symptomatically from eradication. If *H. pylori* testing is indicated and the appropriate test is positive, then the first-line treatment is triple therapy with use of:

- a proton pump inhibitor b.i.d,
- clarithromycin and either
- amoxicillin, or
- metronidazole.

Compliance may be better with the liquid forms of clarithromycin and amoxicillin. The duration should be 14 days in children. Confirmation of eradication can be done by a urea breath test after at least four weeks once off antibiotics and two weeks once off proton pump inhibitors.

Resource

1. Canadian Helicobacter Study Group Consensus Conference 2004. *Can J Gastro* 2005; 19(7):399-408.

Answered by:  
**Dr. Robert Bailey; and Dr. Justin Cheung**



**12.** Please be advised that in the October 2006 issue (Volume 23, Number 10) Dr. Aly Abdulla's answer to the following question was deemed out of date by our readers. Dr. Abdulla has kindly agreed to revise his answer, which is as follows:



**There is a lot of confusion on return to play guidelines following a concussion. Given the current state of knowledge, what are prudent practical guidelines to follow?**

Submitted by:  
**Greg Franklin, MD**  
Vancouver, British Columbia

In 1966, the Congress of Neurological Surgeons defined concussion as "a complex pathophysiological process affecting the brain and induced by traumatic biomechanical forces." A blow to the head, face, neck or elsewhere on the body may cause a concussion. This leads to a rapid onset of short-lived impairment of neurological function with or without loss of consciousness and functionality, rather than structural impairments. A concussion resolves spontaneously and is typically associated with grossly normal structural neuroimaging studies.

Since an International Conference on Concussion in Sports held in Prague, Czech Republic in 2004, the approach to concussion has moved away from the previously presented approach towards the following revised approach. The key point is that concussion does not necessarily involve either loss of consciousness or amnesia. Anyone who has experienced rapid acceleration-deceleration of the brain in the skull could get a concussion. Sports that can cause this include hockey, but also running into someone in the playground and falling down. This can be described as relative brain damage without obvious findings.

Concussion is separated into simple and complex. Simple concussion is one that resolves without complications within 10 days. This type is the most commonly dealt with in the primary practitioner's office and requires no further intervention, except logical return to play. Complex concussion involves:

- persistent symptoms (with exertion),
- sequelae (convulsions),
- prolonged loss of consciousness (> one minute), or
- cognitive impairments.

This group will include those with multiple concussions and should be dealt with by physicians with expertise in concussions.

## Return to play guidelines cont'd...

Any of the following signs and symptoms denotes concussion. They can include:


- cognitive features (e.g., amnesia, confusion),
- physical features (e.g., headache, dizziness, feeling “stunned,” decreased playing ability, nausea, vomiting, gait unsteadiness, inappropriate behaviour, slurring speech) and
- emotional features (e.g., depression, moodiness).

A player with any of these signs and symptoms must NOT be allowed to play. These injured athletes should be regularly monitored both physically and cognitively, as they can deteriorate. In children’s concussion, there should be some allowance for “cognitive rest.”

Return to play following concussion involves a step-wise process which includes:

1. No activity and complete rest
2. Light aerobic exercise
3. Sport-specific exercise
4. Non-contact drills
5. Full contact training
6. Game play

Each step requires the athlete to be symptom-free for at least 24 hours to 48 hours before progression and without medications.

Please refer to the Sport Concussion Assessment Tool for medical evaluation and return to play guidelines. 

#### Resources

1. <http://www.thinkfirst.ca/documents/concussion-questionnaire-nov-05.pdf>
2. <http://bjsm.bmj.com/cgi/content/full/39/4/196>
3. <http://www.thinkfirst.ca/documents/concussion-question-answer-physicians.pdf>
4. <http://www.athletictherapy.org/docs/PragueConcussionArticle.pdf>
5. [http://www.casm-acms.org/pg\\_Statements\\_en.php](http://www.casm-acms.org/pg_Statements_en.php)
6. <http://www.thinkfirst.ca/documents/SCAT-v13-2.pdf>

Answered by:  
**Dr. Aly Abdulla**



**Diovan** **Diovan HCT**  
VALSARTAN VALSARTAN / HYDROCHLOROTHIAZIDE

Angiotensin II AT<sub>1</sub> Receptor Blocker  
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