



## 1. Comorbid Conditions in Psychiatry



**I have a patient with features of OCD and ADHD. Is there an easy way to distinguish between the two disorders, or could they have both? If so, which should be treated first?**

Submitted by: **Marni Goodman, MD**, New Minas, Nova Scotia

It is uncommon to have both obsessive compulsive disorder (OCD) and attention deficit hyperactivity disorder (ADHD) at the same time, in the same patient. OCD is manifested by persistent recurrent obsessive thoughts and/or compulsive rituals to relieve anxiety; OCD patients tend to pay close attention to details and have difficulty shifting their attention away from the subject of their obsession. On the other hand, ADHD is manifested by impulsivity, inattention and inability to pay close attention to small details.

If the two disorders happen to co-exist in the same patient, I would suggest treating the disorder that is causing the most discomfort for the patient first. OCD usually responds favourably to a selective-serotonin reuptake inhibitor, such as fluoxetine or a serotonin-norepinephrine reuptake inhibitor, such as venlafaxine. ADHD usually responds well to psychostimulants, such as methylphenidate or to the antidepressant bupropion.

Answered by: **Dr. Hany Bissada**

## 2. Hypothyroidism Vs. Post-Partum Hypothyroidism



**At what point-in-time during post-partum do you separate post-partum hypothyroidism from unrelated hypothyroidism? Four to six months? Does it really matter?**

Submitted by: **C. Cunningham, MD**, Vernon, British Columbia

Yes, it definitely matters. Most women with post-partum thyroiditis will recover completely and not require life-long thyroid hormone replacement therapy.

It is estimated that about 3% to 15% of women will have post-partum thyroiditis after delivery or even after a spontaneous or therapeutic abortion.

Post-partum thyroiditis can present with hyperthyroidism, hypothyroidism or both. Initially, hyperthyroidism presents first, followed by hypothyroidism and eventual

recovery. Typically, if hyperthyroidism occurs, it is within the first six months. If hypothyroidism develops, it does so three to 12 months post-partum. Most, but not all patients with hypothyroidism will recover and monitoring of thyroid function tests will be necessary.

Post-partum thyroiditis will likely recur with future pregnancies and the future risk of permanent hypothyroidism is also increased.

Answered by: **Dr. Vincent Woo**

### 3. Causes of Hypotension

? **When does hypotension become problematic? What are the causes of symptomatic hypotension in the community?**

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

Hypotension is problematic if the patient has symptoms of lightheadedness, falls, syncope, fatigue or cerebral hypoperfusion (e.g., confusion). This usually occurs with a systolic pressure of < 90 mmHg (although many patients are asymptomatic with this BP).

The major causes of hypotension in the community include:

- Decreased intravascular volume, as may occur with diuretics, hyperglycemia, hemorrhage, vomiting, diarrhea
- Drug effects, especially antidepressants (tricyclics, phenothiazine) and

antihypertensive agents, particularly vasodilators, including calcium channel blockers and nitrates. Other drugs that may cause orthostatic hypotension include opiates and bromocriptine

- Primary autonomic insufficiency or failure (including Shy-Drager syndrome, Parkinson's disease and others)
- Secondary autonomic insufficiency (e.g., diabetes mellitus and amyloidosis)
- Alcohol consumption (impairs vasoconstriction)

Answered by: Dr. Bibiana Cujec

### 4. Inflammatory Bowel Disease and Osteoporosis

? **Should all patients with inflammatory bowel disease (IBD) be screened for osteoporosis (OP)?**

Submitted by: M. I. Ravalia, MD, Twillingate, Newfoundland

Osteopenia and OP are relatively common in IBD and are estimated to be found in 15% to 30% of patients. It may be more common in Crohn's disease (CD) than in ulcerative colitis.

The risk of OP in this population may be related to several factors, including calcium and vitamin D deficiency, glucocorticoid use, decreased gonadal function and disease-related inflammation. However, the actual fracture risk is uncertain, but is likely

greatest in women with severe CD who are on prolonged corticosteroid therapy.

Regarding BMD screening, it is not routinely recommended for all patients with IBD and should be selectively ordered based on a careful risk factor assessment. Older patients and those with high disease activity (especially if on corticosteroids) may be at highest risk.

All patients should receive adequate calcium and vitamin D and should be encouraged towards regular exercise and smoking cessation.

Answered by: Dr. Michael Starr

A **CONVENIENT**  
REMINDER  
TO SEE  
PAGE **33**



## 5. Eosinophilic Esophagitis: Treatment and Follow-Up



### How should eosinophilic esophagitis be treated and/or followed-up?

Submitted by: Ewan Mackenzie, MD, Kingston, Ontario

Eosinophilic esophagitis is a newly-recognized disorder that is characterized by an eosinophilic infiltrate in the esophageal mucosa. It should be considered as a diagnosis particularly in young adults with a history of atopy who present with dysphagia. Biopsies of the esophagus should be taken in every patient with dysphagia. An eosinophil count > 20 per hpf suggests this diagnosis.

The endoscopic appearance of the esophagus may be normal; however, multiple rings, linear furrowing and ulceration can be seen.<sup>1</sup>

Esophageal perforation or severe pain, after dilation of a stricture, can also occur in patients with this disorder.

*Eosinophilic Esophagitis is a newly-recognized disorder that is characterized by an eosinophilic infiltrate in the esophageal mucosa.*

The optimal treatment of eosinophilic esophagitis is still unknown. Swallowed fluticasone has been the recommended treatment and has improved symptoms and histology in many patients.<sup>2</sup> One puff of a 220 ug inhaler, without a spacer, should be swallowed rather than inhaled, twice per day for six weeks. Improvement often occurs

within several days; however, recurrence of symptoms is common and requires additional courses of fluticasone. There are no trials in adults comparing systemic steroids, such as prednisone to fluticasone, but due to the frequent need for retreatment, topical steroids are preferred.

Studies in children with eosinophilic esophagitis support a role for food allergy in the pathogenesis of this disease.<sup>3</sup> There are no recommendations for food allergy testing in adults; even if allergens are identified, adults are less likely than children to respond to elimination of this food from their diet.

Follow-up for eosinophilic esophagitis remains unclear and, as a result, should be based upon symptoms. If symptoms do not improve, or if they worsen, the patient should be referred to a gastroenterologist who may consider a repeat endoscopy and possibly esophageal dilation. It is also unknown whether patients should undergo surveillance endoscopy.

An increased incidence of malignancy has not been seen in eosinophilic esophagitis, though follow-up has been short.

#### References

1. Croese J, Fairley SK, Masson JW, et al: Clinical and Endoscopic Features of Eosinophilic Esophagitis in Adults. *Gastrointest Endosc* 2003; 58(4):516-22.
2. Arora AS, Perrault J, Smyrk TC: Topical Corticosteroid Treatment of Dysphagia Due to Eosinophilic Esophagitis in Adults. *Mayo Clin Proc* 2003; 78(7):830-5.
3. Sampson HA, Sicherer SH, Birnbaum A: AGA Technical Review on the Evaluation of Food Allergy in Gastrointestinal Disorders. American Gastroenterological Association. *Gastroenterology* 2001; 120(4):1026-40.

Answered by: **Dr. Robert Bailey; and Dr. Melissa Johnson**

## 6. Treating Idiopathic Priapism

### ? What is the best way to treat idiopathic priapism?

Submitted by: [Michael Pilgrim, MD](#), Dawson Creek, British Columbia

Priapism is classified as either high- or low-flow. High-flow or arterial priapism is caused by an arteriovenous fistula, often secondary to a genital trauma. Low-flow priapism is related to venous stasis of various etiologies. Idiopathic priapism is low-flow most of the time and therefore, ischemic. In general, since ischemic priapism, irrespective of etiology, implies a compartment syndrome, decompression of the corpora cavernosa is recommended for counteracting the ischemic effects, including pain. This should be done within six hours of pain onset.

Thus, aspiration may be performed after the insertion of a 19- or 21-gauge needle directly into the corpus cavernosum.

First-line treatment consists of evacuation of blood and irrigation of the corpora cavernosa, sometimes followed by the intracavernous injection of an adrenergic sympathomimetic agent (e.g., phenylephrine). Repeated aspirations or irrigations and sympathomimetic injections over several hours may be necessary and should be performed before the initiation of surgical intervention.

Answered by: [Dr. Hugues Widmer](#)

## 7. A Surgeon's Decision

### ? Recently, a post-menopausal woman (whose mother died of ovarian cancer) had endometriosis on her appendix. She wished to have her ovaries removed at the same time of appendectomy, but the surgeon refused. Any thoughts?

Submitted by: [Paul Stephan, MD](#), Thornhill, Ontario

Decision-making regarding risk-reduction or prophylactic surgery in an otherwise healthy individual is complex. It requires an appreciation for:

- the associated risks,
- the natural history of the disease,
- the potential benefit of prophylactic surgery,
- the long-term consequences of surgical intervention and
- the patient's perception of risk and benefit.

When a hereditary cancer syndrome is suspected, patients should be evaluated by a hereditary cancer program. Consideration

of prophylactic surgery in the absence of genetic testing is strongly discouraged. While limited information is provided with this case, the hereditary syndrome one most commonly associates with ovarian cancer is the breast cancer (BRCA) syndrome. Referral for genetic counselling may be considered if the patient is felt to be at high-risk based upon a personal or family history of multiple cases of breast and/or ovarian cancer.

Resource

1. Guillem JG, Wood WC, Moley J, et al: ASCO/SSO Review of Current Role of Risk-Reducing Surgery in Common Hereditary Cancer Syndromes. *Ann Surg Oncol* 2006; 13(10):1296-321.

Answered by: [Dr. Sharlene Gill](#)

## 8.

## Latest Research on Skin Reactions/Diseases



### What is the latest research on erythema multiforme (EM) (Stevens-Johnson syndrome [SJS])?

Submitted by: **W. R. Milligan, MD**, Tottenham, Ontario

Controversy and lack of specific effective therapy still pervades the current literature on EM.

With regards to using systemic corticosteroids in EM, they can decrease symptoms and slow the spread of lesions, but they do not accelerate healing and might induce serious complications, such as GI bleeding and infection. One measure that has reduced the recurrence rate of herpes-related EM is oral acyclovir.<sup>1</sup>

The treatment of SJS also continues to remain controversial. In some cases, the use of corticosteroids has been associated with delayed recovery, whereas in other studies, they have been found to be of benefit. A survey of major textbooks in medicine, pediatrics and dermatology reported that many authors advocated the use of corticosteroids in patients with SJS if the disease severity or evolution justified their implementation.<sup>2</sup> However, according to many authors, systemic corticosteroids are of unproven benefit in early forms and are clearly deleterious in advanced forms of toxic epidermal necrolysis/SJS. In a retrospective comparative study, cyclosporine was shown to be safe and was associated with a more rapid re-epithelialization rate and a lower mortality rate (0:11 vs. 3:6) than treatment with cyclophosphamide and corticosteroids.<sup>3</sup> In 2002, Forman, *et al* published a 10-year review of 61 pediatric patients with a discharge diagnosis of EM, SJS or toxic epidermal necrolysis. Only one patient died as a result of their skin condition.

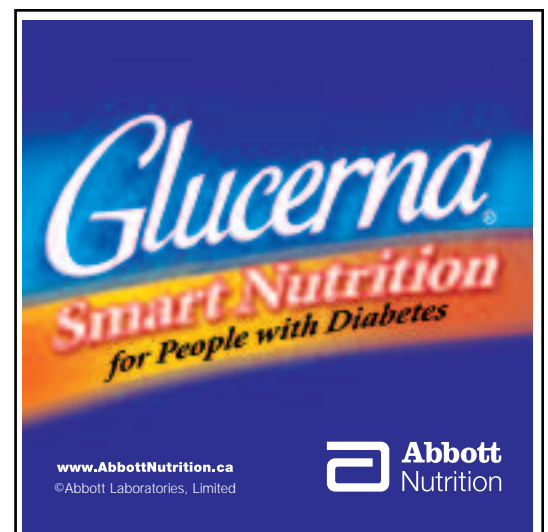
Corticosteroids were used in 18% of cases; 95% of whom had a discharge diagnosis of SJS or toxic epidermal necrolysis.<sup>4</sup>

In conclusion, the weight of the evidence suggests that no specific treatment has been proven to be beneficial for EM or SJS, which are both self-limited diseases. For most authors, to date, the best management is timely and aggressive supportive care alone.

#### References

1. Huff JC: Erythema Multiforme and Latent Herpes Simplex Infection. *Semin Dermatol* 1992; 11(3):207-10.
2. Patterson R, Dykewicz MS, Gonzales A, et al: Erythema Multiforme and Stevens-Johnson Syndrome: Descriptive and Therapeutic Controversy. *Chest* 1990; 98(2):331-6.
3. Arevalo JM: Treatment of Toxic Epidermal Necrolysis with Cyclosporin A. *J Trauma* 2000; 48(3):473-8.
4. Forman R, Koren G, Shear NH: Erythema Multiforme, Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis in Children: A Review of 10 Years' Experience. *Drug Saf* 2002; 25(3):965-72.

Answered by: **Dr. Tom Gerstner**



## 9. Uses of the Intrauterine Device

### ? Do hormone-impregnated intrauterine devices avoid the complications of oral hormone therapy?

Submitted by: **Robert Saunders, MD**, Fort Langley, British Columbia

Multi-year randomized studies have shown that levonorgestrel intrauterine devices (IUDs) provide effective, reversible contraception with low-risk. Systemic absorption of levonorgestrel does occur but at levels which do not induce significant hormonal side-effects. Infrequent oily skin, mood disturbance and acne have been described. Breakthrough bleeding may occur in the short-term. Unlike inert or copper-bearing IUDs, there is a profound reduction in the duration and quantity of menstrual bleeding, atrophic changes in estradiol-induced endometrial proliferation and dysmenorrhea.

This has led to the off-license or off-label use of IUDs for:

- abnormal uterine bleeding,
- endometriosis,
- dysmenorrhea and
- endometrial safety as part of hormone replacement therapy.

The risk of pelvic inflammatory disease is lower than with copper IUDs and varies with the likelihood of risky sexual behaviour. Sterile insertion is essential to avoid risk.

For resources, please contact [diagnosis@sta.ca](mailto:diagnosis@sta.ca).

Answered by: **Dr. David Cumming**

## 10. Vitamins for Prostate Cancer Prevention?

### ? Which vitamin-like products help to prevent prostate cancer? How much? When should they be started? What evidence supports their beneficial effect?

Submitted by: **Hossen Lokhat, MD**, Ottawa, Ontario

Many dietary supplements have been linked to prostate cancer prevention. Currently, there is no strong consensus regarding their regular administration for prostate cancer prevention. Vitamin E was studied in the SELEnium and vitamin E Cancer prevention Trial (SELECT). At 400 UI q.d., it may have a protective effect on prostate cancer. However, there is concern that vitamin E increases the risk of cardiovascular events. Selenium was also studied in this trial but case studies continue to accumulate the risk of hyperselenosis; therefore, preventing wide acceptance of its routine

administration. Lycopene, found in tomatoes, could also exert a protective effect. It is made more readily available in cooked tomatoes. Vitamin D has antioxidant properties and should be encouraged in diets. These supplements do not replace more general recommendations including the need for regular exercise to maintain a desirable weight, with a diet rich in fruits, vegetables and whole grain, moderate in calcium and low in saturated fats.

Answered by: **Dr. Hugues Widmer**

# 11. Hepatitis A and B Vaccination for Life-Long Immunity?



**Do three shots of the Hepatitis A and B vaccine give you life-long immunity?**

Submitted by: **Michael Manjos, MD**, Toronto, Ontario

A combined Hepatitis A and Hepatitis B vaccine contains 720 ELISA units of Hepatitis A antigen and 20 mcg of recombinant Hepatitis B surface antigen protein. After three doses of this combination vaccine, antibody responses to both antigens are equivalent to responses seen after single-antigen vaccines are administered separately. In 2004, Petersen showed that in children receiving Hepatitis B vaccine at birth, anti-Hepatitis Bs disappeared by five-years-of-age and one-third of children failed to show an amnestic response to a booster dose.<sup>1</sup> A 15-year follow-up of Alaska Natives immunized at six-months-of-age or older revealed that most retained adequate protection, although those vaccinated at six-months to four-years-of-age had the lowest level of antibody at 15 years time.<sup>2</sup> Not surprisingly, Lu, *et al* found that one or more booster immunizations are needed in most patients after 15 years following neonatal immunization with the Hepatitis B vaccine.<sup>3</sup>

With regards to the Hepatitis A and B combination vaccine specifically, in 2001, results of an international follow-up study in adults ages 17 to 60 years showed sustained immunity over a six-year period.

Overall, there is evidence of long-term protection, shown by the rapid (five to seven days) development of anamnestic antibody responses among vaccinees who no longer have detectable anti-Hepatitis antibodies. Anamnestic responses correlate with lymphoproliferative T-cell responses following challenge with the Hepatitis B vaccine.<sup>4</sup>

*One or more booster immunizations are needed in most patients after 15 years following neonatal immunization with the Hepatitis B vaccine.*

On an interesting sidenote, there are an increasing number of studies which indicate that the findings for Hepatitis B vaccines are also applicable to Hepatitis A vaccines. The accumulated data from a large number of studies indicate that despite antibody decline or loss, immune memory exhibits long-term persistence. Therefore, at least in non-neonates, based on current data and field experience there is, in general, no necessity for booster doses for fully vaccinated immunocompetent individuals.

#### References

1. Petersen KM, Bulkow LR, McMahon BJ, et al: Duration of Hepatitis B Immunity in Low-Risk Children Receiving Hepatitis Blood Vaccinations from Birth. *Pediatr Infect Dis J* 2004; 23(7):650-5.
2. McMachon BJ, Bruden DL, Petersen KM, et al: Antibody Levels and Protection After Hepatitis B Vaccination: Results of a 15 Year Follow-Up. *Ann Intern Med* 2005; 142(5):333-41.
3. Lu CY, Chiang BL, Chi WK, et al: Waning Immunity to Plasma-Derived Hepatitis B Vaccine and the Need for Boosters 15 Years After Neonatal Vaccination. *Hepatology* 2004; 40(6):1415-20.
4. Van Damme P, Van Herck K: A Review of the Long-Term Protection After Hepatitis A and Blood Vaccination. *Travel Med Infect Dis* 2007; 5(2):79-84.

Answered by: **Dr. Tom Gerstner**

## 12. Screening for Abdominal Aortic Aneurysm



### Should we screen for abdominal aortic aneurysm (AAA) in elderly men?

Submitted by: **Ingrid Kovitch, MD**, Montreal, Quebec

While there is good evidence that screening for AAA with ultrasound in men > 65-years-of-age is of benefit in reducing morbidity and mortality in the screened group, there are few cardiovascular guidelines which have specific recommendations for such screening. With the advent of endovascular grafts and guidelines for when to intervene in patients who have an AAA, there has been a decline in morbidity and mortality in the treatment of AAA. In 2005, the US Preventative Services Task Force recommended such screening in male smokers or ex-smokers between the ages of 65 and 74 years. There is no benefit demonstrated in screening women as the incidence of AAA in this group is very low.

An abdominal exam may detect an AAA at periodical health exams. However, an abdominal ultrasound should be used for screening men in the 65 to 74 year range, who are smokers or ex-smokers and clinical judgment should be used for other men at high-risk or with documented cardiovascular diseases, such as hypertension, peripheral vascular disease and dyslipidemia.

Resource:

1. Ashton HA, Buxton MJ, Day NE, et al: The Multicentre Aneurysm Screening Study (MASS) Into the Effect of Abdominal Aortic Aneurysm Screening on Mortality in Men: A Randomised Controlled Trial. *Lancet* 2002; 360(9345):1531-9.

Answered by: **Dr. Paul Coolican**

## 13. Laser Therapy for Smoking Cessation?



### Is laser therapy effective for smoking cessation?

Submitted by: **Kenneth Hahlweg, MD**, Winnipeg, Manitoba

Laser therapy for smoke cessation is based on the same theory as acupuncture, but laser beams are used instead of needles. Proponents of the treatment claim that laser beams relieve symptoms of physical craving for nicotine by triggering a release of the brain's natural opiates or endorphins.

According to the Health Canada Website, laser therapy is a relatively new technique in Canada; thus, there is no scientific validation for the high success rates attributed to it. Health Canada approves three types of medications for smoking cessation. These include nicotine chewing pieces (gum),

the nicotine patch and the antidepressant bupropion.

In the US, the Food and Drug Administration has not approved laser therapy for smoking cessation. Dr. Sidney Wolfe, Health Research Group Director of the Public Citizen, an American nonprofit consumer advocacy group, told *ConsumerAffairs.com* that "Medical evidence, in the form of properly conducted clinical trials, demonstrates that [laser therapy's] effectiveness is indistinguishable from that of a placebo."

Answered by: **Dr. Hany Bissada**

# 14. Safe, Alternative Therapies for Osteoporosis



**What is the gold standard of care for osteoporosis prevention in Canada for someone taking long-term oral steroids? What would be the next best two alternatives and how would they compare to the gold standard?**

Submitted by: **Adrian Gili, MD**, Calgary, Alberta

The 2002 Canadian Osteoporosis (OP) Guidelines<sup>1</sup> recommend that patients receiving 7.5 mg of prednisone (or equivalent) q.d. for more than three months should be assessed for the initiation of a bone-sparing therapy and patients receiving > 2.5 mg of prednisone q.d. should be regarded as being at increased risk of fragility fractures and require further assessment (at least BMD measurement). This population should also receive calcium and vitamin D supplementation.

Bisphosphonates are the first-line therapy for the prevention and treatment of glucocorticoid-induced OP in patients requiring prolonged glucocorticoid therapy.

With regards to alternative therapy for OP, the two best studied therapies with the best safety profiles are calcitonin and teriparatide.

In prevention studies, calcitonin reduced bone loss caused by glucocorticoids but did not lead to a net gain in BMD. In osteoporotic patients or those on long-term glucocorticoids, calcitonin produced a net gain in BMD. Calcitonin also reduces vertebral pain

caused by fractures. There is no evidence that calcitonin reduces fracture risk.

There is only one study of teriparatide in women with long-term glucocorticoid-induced OP (after 12 to 15 years of use).<sup>2</sup> This study resulted in a significant gain (11.1%) in BMD in the lumbar spine in patients treated with teriparatide. All of these women were on concomitant estrogen therapy and had a high-risk of vertebral fracture at baseline. Although this trial was not powered to detect fracture risk, few fractures were observed in the year following the initiation of treatment.

References

1. Brown, JP, Josse RG: 2002 Clinical Practice Guidelines for the Diagnosis and Management of Osteoporosis in Canada. *CMAJ* 2002; 167(10 Suppl):S1-34.
2. Lane NE, Sanchez S, Modin GW, et al: Parathyroid Hormone Treatment Can Reverse Corticosteroid-Induced Osteoporosis. Results of a Randomized Controlled Clinical Trial. *J Clin Invest* 1998; 102(8):1627-33.

Answered by: **Dr. Sabrina Fallavollita**; and **Dr. Michael Starr**

*With regards to alternative therapy for OP, the two best studied therapies with the best safety profiles are calcitonin and teriparatide.*

## 15. Treating Croup with Glucocorticoid Medications



**What are the current recommendations for the use of dexamethasone in patients seen in an outpatient setting with croup?**

Submitted by: **Norman Mah, MD**, Georgetown, Ontario

Croup is a common, acute respiratory problem seen in preschool-age children. It is usually thought to be related to an upper respiratory tract viral infection and manifests clinically as hoarseness, a barking cough, noisy breathing and varying degrees of respiratory distress.

Management with humidified air is often advocated, particularly as home treatment, despite the lack of convincing evidence for benefit.<sup>1</sup> By contrast, numerous clinical trials have been conducted that have demonstrated the benefits of glucocorticoid medication for treating mild, moderate and severe croup.<sup>2</sup> Reported benefits include the rapid

relief of symptoms, less the requirement for epinephrine, fewer return visits and hospitalizations and a reduced length of stay in hospital. Most studies suggest that there is little difference in clinical outcomes related to various glucocorticoid medications, particularly dexamethasone and budesonide, or to the route of administration (*i.e.*, oral vs. intramuscular). Nebulized epinephrine is usually considered for salvage therapy in those who fail to respond to glucocorticoid therapy.

For references, please contact [diagnosis@sta.ca](mailto:diagnosis@sta.ca).

Answered by: **Dr. Paul Hernandez**

## 16. The Role of Digoxin in Coronary Heart Failure



**Please comment on the role of digoxin in coronary heart failure (CHF) and atrial fibrillation.**

Submitted by: **Trevor Gin, MD**, Delta, British Columbia

In CHF (due to systolic dysfunction), digitalis (digoxin) has been shown to significantly reduce recurrent hospitalizations; the trend toward a decrease in deaths assigned to a progressive pump failure etiology was balanced by an increase in sudden and other non-pump failure deaths.

Once a clinician has optimized medications for CHF (Class I to III) with  $\beta$ -blockers and/or ACE inhibitors, digitalis may be started for these patients, particularly for patients with recurrent or persistent CHF symptoms.

With regards to atrial fibrillation, digitalis provides further rate control with the

advantage of not having any negative inotropic effect. In view of its vagally-mediated mechanism of action, rate control will mostly occur when patients are at rest, much less so during exercise.

One should be careful in maintaining "low" digitalis through levels between 0.5 ng/ml and 1.0 ng/ml and avoiding any toxicity by carefully adjusting the dosage according to renal function, as well as educating the patient regarding drug interactions.

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

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## Experts on Call

### 17. Virtual Colonoscopy to Detect Colon Cancer



**What is the current state-of-the-art method for virtual colonoscopy to detect colon cancer?**

Submitted by: **W. P. Taylor, MD**, Medicine Hat, Ontario

Virtual colonoscopy uses conventional CT imaging to provide a computer-simulated endoluminal evaluation of the cleansed and insufflated colon. The role and clinical utility of virtual colonoscopy is still being evaluated. Significant local expertise is required for virtual colonoscopy to be interpreted accurately. It is an option in situations where (optical) colonoscopy cannot be performed either for:

- technical reasons,
- patient intolerance, or
- other associated risks.

While virtual colonoscopy has a potential role for colon cancer detection, optical colonoscopy remains the preferred gold standard at the present time.

Answered by: **Dr. Sharlene Gill**

*Virtual colonoscopy is an option in situations where (optical) colonoscopy cannot be performed either for technical reasons, patient intolerance, or for other associated risks.*

## 18. Has Rofecoxib Come Back on the Market?



**Has rofecoxib made a comeback?**

Submitted by: **Sanjay Gupta, MD**, Mississauga, Ontario

Rofecoxib was a COX-2 selective anti-inflammatory that was removed from the market due to evidence of serious cardiovascular (CV) toxicity. In fact, all NSAIDs are now thought to possibly increase cardiac risk. Rofecoxib has not been put back on the market. However, another COX-2 agent, lumiracoxib, has recently been approved for the treatment of osteoarthritis based on a study of > 18,000 patients who showed no increased CV risk over that of comparator NSAIDs.<sup>1</sup>

*Rofecoxib was a COX-2 selective anti-inflammatory that was removed from the market due to evidence of serious CV toxicity.*

Celecoxib, another COX-2 agent, was never removed from the market and remains a popular medication for some patients.

These agents still have an important role in arthritis management; however, it should be noted that COX-2 inhibitors were originally developed to decrease the GI risk of NSAIDs. Therefore, these agents should be selected particularly for patients at high-risk for GI complications from NSAIDs and who have relatively low cardiac risk factors.

Reference

1. Farkouh ME, Kirshner H, Harrington RA, et al: Comparison of Lumiracoxib with Naproxen and Ibuprofen in the Therapeutic Arthritis Research and Gastrointestinal Event Trial (TARGET), Cardiovascular Outcomes: Randomised Controlled Trial. *Lancet* 2004; 364(9435):675-84.

Answered by: **Dr. Michael Starr**

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Reference: 1. IMS Health Canada, IMS MIDAS™, January 2007.

# 19. Lack of Sexual Interest in Older Women



## What is needed for menopausal women on hormone replacement therapy who lack sexual interest?

Submitted by: [W. K. Chang, MD](#), Whitby, Ontario

Lack of sexual interest in older women is multifactorial and often difficult to resolve. Physiologically appropriate androgen and estrogen replacement for women (lacking in bio-available oral or transdermal testosterone and/or estrogen) frequently helps but other questions need to be asked and answered:

- Is the relationship with the partner good?
- Is the partner's sexual ability up to par?  
Would treatment for androgen deficiency in the aging male or erectile dysfunction be of benefit?
- Is the woman depressed? Would antidepressants help?
- Is there a health problem or fears of a consequence (e.g., incontinence during sex) with either partner which makes sex difficult?
- Are there social circumstances which prevent intimacy?
- Does sex hurt and if so, can this problem be resolved with lubricants or local estrogen?
- Is intercourse itself enjoyable?
- Is there a neurological problem impairing sensation?

- Is sex just plain boring and, if so, can it be made more interesting?
- Is the present problem just a continuation of a life-long decreased libido?

Many of the problems can be resolved in the FP's office but referral for sex therapy may be needed if the medical or social circumstances cannot be changed. Beyond the obvious physical, mood and relationship problems, the management and even the classification of hypoactive sexual desire in older women remains difficult.

Resource

1. Goldstein I: Current Management Strategies of the Post-Menopausal Patient with Sexual Health Problems. *J Sex Med* 2007; 4(Suppl 3):235-53.

Answered by: [Dr. David Cumming](#)

*Beyond the obvious physical, mood and relationship problems, the management and even the classification of hypoactive sexual desire in older women remains difficult.*

## 20. ACE Inhibitors and ARBs for Microalbuminuria



**Please comment on the use of both (combination) ACE inhibitors and ARBs for microalbuminuria in diabetics.**

Submitted by: **M. Rajora, MD**, Port Coquitlam, British Columbia

There are a number of large randomized trials being conducted. The ONgoing Telmisartan Alone and in combination with Ramipril Global Endpoint Trial (ONTARGET) is one of the largest trials including a large number of individuals with diabetes. This is a prospective, randomized, double blind, multicentre trial involving > 20,000 patients using telmisartan plus ramipril, or either medication alone. The primary composite endpoints are cardiovascular outcomes.

The 2000 Candesartan And Lisinopril Microalbuminuria (CALM) study showed that there was a greater reduction in albuminuria with a combination of an ARB, candasartan and an ACE inhibitor (lisinopril) than either medication alone. The Combination

treatment of ARB and ACE inhibitor in non-diabetic renal disease (COOPERATE) study performed in individuals with non-diabetic renal disease showed that the combination of the ARB losarten and the ACE inhibitor trandolapril reduced albuminuria better than either alone.

If this combination is used, it must be emphasized that the serum potassium and creatinine levels should be checked in one to two weeks and again at four to six weeks time. Discontinue medications when there is a significant rise in the serum potassium levels and if the serum creatinine rises > 30%. As well, consider referral to a renal specialist.

Answered by: **Dr. Vincent Woo**

## 21. Statins and Grapefruit. What's the Deal?



**Are there any statins that can safely be consumed with grapefruit?**

Submitted by: **Roland Genge, MD**, Baddeck, Nova Scotia

Atorvastatin, lovastatin and simvastatin are metabolized by microsomal cytochrome P450 3A isoenzyme species CYP3A4. Grapefruit juice contains an irreversible competitive inhibitor of CYP3A4. This increases the systemic bioavailability of these statins. Patients who are on atorvastatin or simvastatin should avoid a high dietary intake of grapefruit juice to prevent excessively high serum levels of these drugs. There is a case report of simvastatin-induced rhabdomyolysis in a patient on 80 mg of simvastatin q.d.

following diet modification with a daily ingestion of one grapefruit.<sup>1</sup>

Rosuvastatin and pravastatin are minor substrates of cytochrome P450 and serum levels of these two statins should not be significantly affected by grapefruit ingestion.

#### Reference

1. Dreier JP, Endres M: Statin-Associated Rhabdomyolysis Triggered by Grapefruit Consumption. *Neurology* 2004; 62(4):670.

Answered by: **Dr. Bibiana Cujec**

## 22. Following-Up on Elevated Transaminase Levels



**How do you follow-up elevated transaminase (AST, ALT) levels four times the upper limit, in an otherwise healthy 30-year-old on no medications and with an unremarkable medical history?**

Submitted by: **Negin Liaghati, MD**, Richmond Hill, Ontario

Predominate elevations in serum transaminases reflect hepatocellular injury. Recent data from the third National Health and Nutrition Examination Study (NHANES III) showed that the prevalence of an elevated alanine aminotransferase (ALT)/aspartate aminotransferase (AST), or either ALT or AST alone are 8.9%, 4.8% and 9.8% respectively, in the US.<sup>1</sup> In North America, depending on the population studied, the most common reasons for an elevation in serum transaminases are:

- alcohol,
- Hepatitis B or C and
- non-alcoholic fatty liver disease (NAFLD).<sup>2-4</sup>

Other causes include:

- medication,
- autoimmune Hepatitis,
- hemochromatosis,
- Wilson's disease,
- $\alpha$ 1-antitrypsin deficiency and
- non-hepatic causes (*i.e.*, celiac sprue and muscle disease).<sup>5</sup>

In this case, serum transaminases are four times the upper limit of normal (ULN). While elevations in transaminases above eight times the ULN indicate only a few possible disease states (acute Hepatitis, ischemic Hepatitis, drug or toxin injury), elevations below this level can be caused by any of the aforementioned etiologies. Thus, initial work-up should include a thorough history, including:

- associated symptoms,

- use of any medications (prescription or otherwise) and
- family history.

A physical examination should look for signs of liver disease.

Initial laboratory tests should include liver enzymes, as one-third of the majority of patients with elevated serum transaminase levels will have an isolated "one time" elevation.<sup>6</sup>

The patient in this example should be tested for Hepatitis B (Hepatitis B surface antigen, Hepatitis B surface antibody) and Hepatitis C (Hepatitis C virus antibody) and also screened for hemochromatosis (ferritin, total iron binding capacity and iron saturation). Lastly, an abdominal ultrasound should be obtained to look for signs of NAFLD.

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2. Kundrotas LW, Clement DJ: Serum Alanine Aminotransferase (ALT) Elevation in Asymptomatic US Air Force Basic Trainee Blood Donors. *Dig Dis Sci* 1993; 38(12):2145-50.
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Answered by: **Philip J. B. Davis; and Dr. Robert Bailey**

## 23. The Risk of a GI Bleed with Acetylsalicylic Acid



**What is the risk of GI bleed with ASA? I advise my patients, as do their cardiologists, to take enteric coated ASA, 81 mg q.h.s. Should we screen these patients for *Helicobacter pylori* before starting treatment and treat the *Helicobacter pylori* first, or protect the patient with a proton pump inhibitor?**

Submitted by: Paul Stephan, MD, Thornhill, Ontario

The risk of GI bleeding with acetylsalicylic acid (ASA) is dose-dependent. Chronic low-dose ASA use is associated with a GI bleeding risk of 0.24% per year (vs. 0.12% in placebo). The number needed to harm is 883.<sup>1</sup> The risk is associated with local and systemic effects of ASA on prostaglandin production. Enteric-coated ASA has not been shown to reduce GI bleeding. Factors that may increase the risk of GI bleeding with ASA include:

- past history of ulcers or GI bleeding,
- corticosteroid use,
- anticoagulant therapy and
- use of NSAIDs.

*The risk of GI bleeding with ASA is dose-dependent. Chronic low-dose ASA use is associated with a GI bleeding risk of 0.24% per year (vs. 0.12% in placebo).*

Patients should be assessed if low-dose ASA is indicated for cardiovascular disease and this should be balanced with the risk of GI bleeding. If patients are at high-risk of GI bleeding, then prophylaxis with a proton pump inhibitor is reasonable.

Currently, there are no recommendations encouraging that one test and treat for *Helicobacter pylori* before ASA use, as:

- the effectiveness of eradication in preventing GI bleeding has not been documented,
- large numbers of patients would need eradication who would never have bled and
- there are risks of routine antibiotic use.



#### Reference

1. Laine L: Review Article: Gastrointestinal Bleeding With Low-Dose Aspirin. What's the Risk? *Aliment Pharmacol Ther* 2006; 24(6):897-908.

Answered by: Dr. Robert Bailey