



# The Renal Pharmacist

Volume 6, Issue 1

Winter 2004

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## View from the Chair ...

As I write my first "View from the Chair", the RPN is well into another eventful year. The SARS issues we were dealing with in the first half of 2003 settled although there is a heightened awareness now of how quickly our idea of "normal" can change both in the workplace and at home.

My first year as Chair started in September with a continuing education meeting featuring Dr. George Bailie as speaker. This presentation had in fact been delayed due to SARS in June but we were lucky that Dr. Bailie agreed to reschedule and present on Antibiotic Dosing in Automated Peritoneal Dialysis. The topic was quite thought provoking and we were glad to have a topic on PD as it has been a long time since this modality was addressed at one of our meetings.

CANNT 2003 (Canadian Association of Nephrology Nurses and Technologists Conference) followed at the end of October in Vancouver, B.C. This was a very exciting time for the RPN. With lots of help from hard working local Vancouver pharmacists, the RPN sponsored 8 speakers from across Canada. All of the talks overflowed with participants, demonstrating the huge demand to hear pharmacists present on timely topics. CANNT became an excellent opportunity to bring nephrology pharmacists together to discuss our common issues. It is somehow reassuring to discover that we all struggle with the same therapeutic issues as well as similar workload problems. It was also inspiring to hear of the research being presented by our colleagues. CANNT 2004 is scheduled to take place Nov. 18-21st, 2004, in Niagara Falls, Ontario. The abstract deadline is April 1, 2004 so there is still lots of time to contribute your research ideas and outcomes. Details are available at [www.cannt.ca](http://www.cannt.ca).

Finally, I want to thank all those who have worked hard to make everything the RPN does such a success. We continue to fulfill the mission stated in the first newsletter:

1. To foster the advancement of the practice of pharmaceutical care through excellence in patient care, education and involvement in professional nephrology organizations.
2. To facilitate pharmacists in delivering optimal patient care.

I continually get excellent constructive feedback, and bring it forward to our executive meetings. Please continue to communicate with anyone on the executive to let us know how the RPN could help you improve your own practice.

I look forward to hearing from you.

Andrea Fox, Chair, Renal Pharmacists Network



## CANNT SUCCESS!!!!

Congratulations to all those who participated in the Canadian Association of Nephrology Nurses and Technologists conference (CANNT) in November 2003. The Renal Pharmacists Network was well represented with many members in attendance. Among these, 8 speakers were sponsored by the RPN.

The next CANNT conference will be held in Niagara Falls, ON November 2004. Please put your thinking caps on and submit your posters and abstracts to Roza Berkowitz. All submissions will be reviewed. The RPN will be sponsoring speakers for next year's event as well.

CHECK OUT OUR WEBSITE AT [www.renalpharmacists.net](http://www.renalpharmacists.net)

# Herbal Medicines in Chronic Kidney Disease

Presented by Anar Dossa, Vancouver General Hospital, at CANNT 2003.

Paraphrased by Reshma Rathod



Herbal remedies are used by more than 75% of Canadians. They are more commonly used by patients with chronic conditions and women rather than men. It is believed that patients have turned to these remedies as the medical system is too impersonal. Practitioners of herbal medicine take a holistic approach to providing care, as opposed to conventional medicine. Prescribed medications are considered to be artificial and toxic whereas herbal remedies are deemed to be safe and natural.

Plants synthesize a variety of complex chemicals to maintain their structure and function and provide a rich source of chemicals. Purified parts of plants have been used as medicines in Western practice; examples include digoxin and morphine. Herbal medicines are crude extracts of plants or parts of plants. They consist of hundreds of chemicals and the quality of the product is influenced by factors such as the species, variety, part of the plant, growth conditions (soil, temperature, water). Standardization of these products is difficult to achieve as there is usually more than one active ingredient present.

Currently, natural health products can be sold as either a food or a drug. Therefore, the application for a product to be sold as a drug is voluntary. Food products lack adequate information on labels regarding safety. A DIN (drug identification number) does not ensure the safety or quality of the product. Here are some examples of herbal products that have resulted in adverse effects.

## Noni juice and hyperkalemia

Some of the many claims made about this product include killing harmful microbes, lowering blood pressure and inhibiting and eradicating certain cancers. It is also deemed to be a good source of potassium and vitamin C. The sales of this product in Canada and the US were \$72,000,000 in the first year alone. A case example of Noni juice causing hyperkalemia in a CKD patient despite adhering to a low potassium diet, was documented in *Am J Kid Dis* 2000;35(2):310-2. The patient had

started taking Noni juice after hearing that it cured cancer. There is no documented literature on the potassium content of Noni juice. A lab assay determined that Noni juice had a potassium content of 56.3 mEq/L as compared to that of orange juice which is 51mEq/L.

## Kava and liver failure

Kava has been marketed for many indications including insomnia. There are four reports of this causing liver toxicity in Canada. There were thirty-nine cases of liver failure reported in Germany, including three fatalities.

## Tung Shuch

This product has been marketed for problems of the heart, liver and kidney. A chemical analysis of one pill reveals that it contains 3.86mg indomethacin, 16mg mefenamic acid, 8mg diclofenac and 0.73mg diazepam.

## Red Yeast Rice and Rhabdomyolysis

The Canadian adverse reaction newsletter reported the case of a 28 year old renal transplant patient who refused statin therapy and chose to reduce cholesterol naturally using red yeast rice. Bloodwork revealed that his CPK at 2 months measured 2600U/L. This value had declined to <600U/L after discontinuation of the product. Red yeast rice contains a product similar to lovastatin. Statins interact with cyclosporine causing an increase in the levels of this drug.

## Echinaeca

This product is marketed for the prevention and treatment of colds. Its proposed mechanism of action is an immune system stimulator. It may decrease the severity and duration of a cold. Its safety has been established in trials lasting up to twelve weeks. It is fairly well tolerated, however it may cause severe allergic reactions.

## Glucosamine sulfate

It has been promoted for osteoarthritis of the knee. Its proposed mechanism is that it

stimulates the metabolism of chondrocytes and it has been compared to NSAIDs. While NSAIDs provide symptom relief in 2 weeks, glucosamine provides symptom relief in 4-8 weeks. Previous studies had documented an increase in blood sugars, however a small, randomized controlled trial suggests no effect on blood sugars at ninety days. The usual recommended dose is 500mg TID and there have been no documented drug interactions.

## Ginko

This product is indicated for dementia. The proposed mechanism of action is as an antiplatelet agent and peripheral vasodilator. It has been studied in trials lasting up to one year. In terms of side effects, it may cause headache, spontaneous hematoma and its seeds can be fatal. Documented drug interactions with Ginko include aspirin (bleeding), thiazides (increase blood pressure), trazodone (coma), warfarin (subdural hematoma), anticonvulsants (may decrease seizure threshold).

Factors to be considered when assessing herbal therapy in patients with chronic kidney disease include: the unpredictable pharmacokinetics, dialyzability, potential for drug interactions (eg: St John's Wort and cyclosporine). Herbal products with anti-inflammatory activity may affect kidney function and products targeted for weight loss may affect electrolytes and blood pressure.

The regulations that are being proposed for natural health products will provide assurance of the safety, quality and claim of the product. A natural product number will be allotted to all products, indicating that Health Canada has assessed this product for its safety, quality and claims. Labelling information will include a complete listing of all ingredients, allowing the consumer to make an informed choice. The Natural Health product regulations will be implemented on January 1, 2004. Please refer to Health Canada's website [www.hc-sc.gc.ca/english/protection/natural.htm](http://www.hc-sc.gc.ca/english/protection/natural.htm).

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## ARTICLES OF INTEREST

Please refer to the website [www.renalpharmacists.net](http://www.renalpharmacists.net) for a more complete list and links to the abstracts.

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**Effect of malnutrition-inflammation complex syndrome on EPO hypo-responsiveness in maintenance hemodialysis patients.** Kalantar-Zede K, McAllister C, Lehn R, Lee G, Nisseson A, Kopple J. *Am J Kidney Dis* 2003 Oct; 42(4): 761-73

**Review of antithrombotic agents used for acute coronary syndromes in renal patients.** Fernandez J, Sadaniantz B. *Am J Kidney Dis* 2003 Sep;42(3):446-55

**Progression of renal insufficiency in type 2 diabetes with and without microalbuminuria.** Mann J, Gerstein H, Yi Q, Franke J, Lonn E, Hoogwerf B, Rashkow A, Yusuf S. *Am J Kidney Dis* 2003 Nov;42(5):936-42

**The safety and efficacy of an accelerated iron sucrose dosing regimen in patients with chronic kidney disease.** Blaustein D, Schwenk M, Chattopadhyay J, Singh H, Gadhi R, Avram M. *Kidney Int* 2003 Nov; 64, s87: 72-77

**An update on Vitamin D as related to nephrology practice.** Coburn J. *Kidney Int.* 2003 Nov; 64, s87: 125-130

**Effect of ascorbic acid administration in hemodialysis patients on *in vitro* oxidative stress parameters: Influence of serum ferritin levels.** Chen W, Lin Y, Yu F, Kao W, Huang W, Yan H. *Am J Kidney Dis* 2003 Jul; 42(1):158-66

**Analgesia in patients with ESRD: A review of available evidence.** Kurella M, Bennett W, Chertow G. *Am J Kidney Dis* 2003 Aug; 42(2): 217-28

**Randomized, double-blind, placebo-controlled, dose-titration, phase III study assessing the efficacy and tolerability of lanthanum carbonate: A new phosphate binder for the treatment of hyperphosphatemia.** *Am J Kidney Dis* 2003 Jul;42(1): 96-107

**Efficacy of perindopril in reduction of cardiovascular events among patients with stable coronary artery disease: randomised, double-blind, placebo-controlled, multicentre trial (the EUROPA study).** *Lancet* 2003; 362(9386): 755-7.

**The EUROpean trial On reduction of cardiac events with Perindopril in stable coronary Artery disease Investigators.** *Lancet* 2003; 362(9386): 782

**The prevention of radiocontrast-agent-induced nephropathy by hemofiltration.** Marenzi G, Marana I, Lauri G, Assanelli E, Grazi M, Campodonico J, Trabattini D, Fabbicchi F, Montorsi P, Bartorelli AL. *N Engl J Med* 2003 Oct 2;349(14):1333-40.

**Survival of patients undergoing hemodialysis with paricalcitol or calcitriol therapy.** Teng M, Wolf M, Lowrie E, Ofsthun N, Lazarus JM, Thadhani R. *N Engl J Med.* 2003 Jul 31;349(5):446-56.

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## BABY BOOM

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Congratulations go out to Lori Wazny and Steve Elliott on the birth of their baby boy Harrison McNeil Elliott, born October 8th at 3:38 am weighing 6 lbs 14oz and measuring 19 1/2 inches.

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## NOTICE – ADDRESS / INFO CHANGES

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Please forward any address/phone number changes to the Secretary/Treasurer. Her e-mail is [shelley.parker@grhosp.on.ca](mailto:shelley.parker@grhosp.on.ca). We are constantly updating our membership mailing list. Thank you.

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**Deadline for submissions for the next Newsletter is May 15, 2004. E-mail or call Reshma Rathod, Communications Co-ordinator, using the contact information on the front of this newsletter.**

## MEMBER PROFILE

### Andrea Fox



Andrea is currently serving as the Chair for the Renal Pharmacists Network. She has served as secretary and vicechair on the executive of the RPN. She brings with her a wealth of knowledge and experience. Andrea graduated with co-op honours degree in Chemistry from the University of Waterloo. Following that, she

completed her Pharmacy degree from the State University of New York in Buffalo. Andrea is a veteran pharmacist at St. Michael's Hospital, having worked there for ten years. She has worked in many areas including Orthopedics/Plastic surgery and the role of distribution pharmacist. She is a Clinical Pharmacist with in-patient nephrology and renal transplant ward. Andrea is also active on a professional level. She has been a member of CSHP and the RPN since 1998. For the past four years, she has served as lecturer at the Faculty of Pharmacy, University of Toronto. Andrea enjoys working with patients who have chronic renal disease because it is possible to develop a real relationship with the patient and use the principles of pharmaceutical care to develop a unique care plan based on the individual.

Andrea is married with two children age 3 and 6 years. In order to balance her work and home life, she will be working part time starting January 2004. She has a passion for flag football and has played the game for ten years; sometimes resulting in minor injury such a broken fingers! Ouch!

## UPCOMING CONFERENCES

### 35th annual Professional Practice Conference

January 31 - February 4, 2004  
Sheraton Centre Toronto Hotel,  
Toronto, Ontario.

Please view the Preliminary Program at:

<http://www.cshp.ca/professional/professional.html>



### Satellite Symposium Sponsored By The Renal Pharmacists Network:

The Renal Pharmacists Network is sponsoring a Satellite Symposium of the PPC's this year on Wednesday, Feb 4th from 12:30 - 2:15 pm. Dr. Phil McFarlane will be speaking to us on "Nocturnal Hemodialysis." To register for the satellite luncheon, you must be registered for the PPC's as well.

**Registration is limited to 100 participants, so register early. Registration for the Satellite symposiums is separate from the PPC registration.**

### Annual Conference on Dialysis

February 9 - 11, 2004, San Antonio, TX

[www.muhealth.org/~dialysis](http://www.muhealth.org/~dialysis)

### COMMUNICATING DRUG SAFETY INFORMATION: A SHARED RESPONSIBILITY - Workshop II

March 6 & 7, 2003

[http://www.hc-sc.gc.ca/hpfb-dgpsa/tpd-dpt/cdsi\\_report\\_2\\_e.html](http://www.hc-sc.gc.ca/hpfb-dgpsa/tpd-dpt/cdsi_report_2_e.html)

### NKF Clinical Nephrology Meeting

April 28 - May 4, 2004, Chicago, IL,

[www.kidney.org](http://www.kidney.org)

### Contemporary Issues in Cardiology and Nephrology

May 1-2, 2004

Intercontinental Hotel, Toronto, ON,

### Canadian Society of Nephrology Annual Meeting

May 27-31, 2004

Royal York Hotel, Toronto, ON,

[www.csnsn.ca](http://www.csnsn.ca)

Check out the RPN Website at  
**[www.renalpharmacists.net](http://www.renalpharmacists.net)**  
on a regular basis for  
2004 CE activities.

**A Great Big  
THANK  
YOU!**

*To all of those who  
contributed (especially the  
new contributors!!) and to  
ORTHO BIOTECH for printing  
and distributing the  
newsletter.*