



ACEs, ARBs, OTC, CKD

What your renal patients (and you) need to know

When dispensing furosemide and other drugs that affect potassium, a pharmacist might be inclined also to dispense some advice:

“Eat more bananas” or “take potassium.” This, however, is not necessarily the best approach for a patient with chronic kidney disease (CKD) who already may have higher potassium levels.

“This advice — it’s one of the pet peeves of our nephrologists,” says Marisa Battistella, BSc Phm, Pharm D, ACPR, a clinical pharmacist in nephrology in Toronto’s University Health Network. “A lot of times our patients don’t have low potassium issues. Pharmacists should try to understand why certain drugs are being used in different situations.”

However, the majority of prescriptions filled in stores are for patients with hypertension and/or cardiovascular disease, and the majority of people in Canada with CKD have developed kidney dysfunction as a result of diabetes and/or cardiovascular disease. To treat the CKD, you must treat the underlying disease; thus the frequent use of diuretics, ACE (angiotensin-converting enzyme) inhibitors, ARBs (angiotensin receptor blockers), beta-blockers, and statins.

“Sometimes it’s difficult for pharmacists who work in drugstores to know that patients have decreased renal function,” Battistella acknowledges. Danka Grguric, BScPharm echoes her sentiment, pointing out that “people who are not on dialysis often do not consider mentioning that they have kidney disease. Pharmacists need to ask if



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proteinuria. Always ask why they’re using it, not only to better educate the patient but also to make sure that we know as pharmacists why they are using certain agents that could cause potential harm.”

New treatments

There’s a new duo that might soon become popular. The SHARP study investigators recently reported in *The Lancet* (Pub Med ID 21663949, free full text) that CKD patients taking a combination of ezetimibe and simvastatin experienced significant reduction in major atherosclerotic events. “SHARP is interesting because it’s the first positive trial done in a large population with severe disease,” says Manish Sood, MD, FRCPC, director of hemodialysis at St-Boniface Hospital in Winnipeg and a member of the Canadian Kidney Knowledge Translation and Generation Network (CANN-



Educate yourself and your patients through relevant websites such as these:

Renal Pharmacists Network
www.renalpharmacists.net

Kidney Foundation of Canada
www.kidney.ca

uKidney Internet School of Nephrology
www.ukidney.com

University Health Network
www.uhn.ca/Patients_&_Visitors/health_info/topics/k/kidney.asp

Canadian Society of Nephrology
www.csnsn.ca

American Society of Nephrology
www.asn-online.org/

National Kidney Foundation (USA)
www.kidney.org

National Kidney & Urologic Diseases Information Clearinghouse (NKUDIC) <http://kidney.niddk.nih.gov>

The Cochrane Collaboration — systematic reviews
<http://www.cochrane.org>

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there is any chronic condition. Ask directly if they have kidney disease,” says the renal pharmacist for Macdonald’s Prescriptions in Vancouver.

This is particularly important if patients want to use over-the-counter and natural health products. “They must be cautious about everything on the shelf; it’s very often not safe,” Grguric emphasizes. Battistella says, “Our recommendation is usually to stay away from them because there may be no literature explaining their use.

“Pharmacists also need to understand that CKD patients might use any drug differently than other patients,” Battistella adds. For instance, an ARB plus ACE inhibitor combination is contraindicated for blood pressure regulation, but “we do use them together in nephrology patients to decrease

NET). “This provides clinical benefit for patients with CKD: reductions in heart attack, stroke, and operations to open blocked arteries. However, the study was not able to answer whether it benefits patients on dialysis.”

One study that does involve dialysis patients is FISH (Fish Oil Inhibition of Stenosis in Hemodialysis Grafts). In an abstract from Kidney Week 2011, FISH investigators report how consuming fish oil affects arteriovenous grafts for patients with end stage renal disease. Although there was no significant difference in graft patency between the fish oil and placebo groups, the fish oil group did have advantages: lower rate of graft failure, about half as many thrombosis events, longer time to first thrombosis, and fewer instances of radiological or surgical interventions.

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According to Sood, one of the biggest changes to affect treatment of CKD in Canada is the move away from defining kidney disease through creatinine levels, which are highly inaccurate predictors. “The standard now is GFR (glomerular filtration rate),” he says. “It takes into consideration gender, age and race.” Sood says we’re experiencing “an explosion” in medical data from small studies as well as huge databases that combine national and international data, and the importance of proteinuria has also emerged. “We’re reclassifying the severity of kidney disease based on proteinuria as well as GFR. There’s a new classification system coming in one or two years.”

But what about treatment in the here and now? “You need to empower the patient by asking them what they know, what their doctor has told them about their kidney function, and about their lab values,” says Battistella. “If the pharmacist can understand what the lab values mean, then they can help explain things to the patient.”

Grguric also emphasizes communication. “Over the years there is a partnership that develops between us and patients,” she says. “Whenever there is a new drug or a dose change, we phone patients to explain it. Education happens on many levels, and we are the last in line to reinforce whatever previous healthcare providers have told them.” **PB**

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Help your patients to take advantage of services such as MedsCheck, PharmaCheck, and Pharmaceutical Information Network (PIN), and discuss the results with them.



Direct your patients to easily accessible online information and tools such as these:

TIPS FOR KIDNEY PATIENTS (English, Chinese, Punjabi): <http://www.bcrenalagency.ca/patients/KdnyPatRsrcs/TipsforKidneyPatients/default.htm>

KIDNEY COMMUNITY KITCHEN — information and tools for managing the renal diet: www.kidneycommunitykitchen.ca/

TREATMENT CHOICE: Peritoneal Dialysis <http://kidney.niddk.nih.gov/KUDiseases/pubs/choosingtreatment/index.aspx#peritonealdialysis>

SODIUM 101 iPhone app www.sodium101.ca/ and other cardiovascular health websites.

Reinforce the experience by accessing one or two of the sites on your or your patient’s computer, tablet, or smartphone, and go through them together.

Give your patients printouts of information from websites. Offer take-home items such as the three-day emergency grocery list for diabetic patients at <http://www.kidney.org/atoz/content/emergencymealdb.cfm>



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