

The pharmacist's role in managing heart failure

IN KEEPING WITH CPJ'S MANDATE TO ENHANCE PATIENT CARE through advancement of pharmacy practice, we are very pleased that this issue features a summary of the 2006 Canadian Cardiovascular Society Recommendations on Heart Failure. That these guidelines are important for pharmacists is a "no-brainer," not only because of heart failure's high prevalence, morbidity, and mortality, but also the fact that contemporary heart failure management involves multidrug combination therapies. This is further complicated by the fact that most heart failure patients are older, and have many comorbidities. This increases the risk for drug interactions, adverse events, poor medication adherence, and poor outcomes.

There is actually substantial evidence for the role of the pharmacist in heart failure management, with at least 15 published studies. The Pharmacist in Heart Failure Assessment Recommendation and Monitoring (PHARM) Study was a randomized trial of the effects of a clinical pharmacist evaluation versus usual care. A total of 181 patients with heart failure were enrolled and followed up for a median of six months. All-cause mortality and heart failure events were significantly lower in the pharmacist care group. In addition, patients in the pharmacist care group received higher ACE inhibitor doses.

The Review of Education on ACE Inhibitors in Congestive Heart Failure Treatment (REACT) Study was a two-stage multicentre trial. In Stage 1, 766 patients admitted to hospital with heart failure were assessed by a pharmacist for ACE inhibitor use. The intervention consisted of recommendations on ACE inhibitor initiation or titration made to the attending physician. As a result of these interventions, ACE inhibitor use increased from 58% of patients on admission to 83% at discharge, and the daily dose of ACE inhibitor was also increased ($p < 0.05$ for both). In Stage 2, patients were randomized to a patient support

program (education about heart failure, self-monitoring, adherence aids, newsletters, telephone hotline, and follow-up for six months) or usual care. In the 276 patients enrolled in Stage 2, there was a reduction in cardiovascular-related emergency room visits, hospital days, and cost of care (\$2,531 less per patient) in favour of the patient support program. From these studies, it is clear that pharmacists *can* make a difference in heart failure management; the current challenge is how to integrate pharmacists into interdisciplinary care to improve patient outcomes.

From the 2006 guidelines, there are three particular areas that we would like to bring to the attention of pharmacists.

Ensuring evidence-based drug therapy: Since evidence-based drug therapies are often underutilized in patients with heart failure, the pharmacist can play a major role in ensuring that patients receive appropriate therapies. This includes the use of ACE inhibitors and beta blockers in most patients, and in selected patients who remain symptomatic on maximally tolerated doses of ACE inhibitors and beta blockers, the addition of digoxin and/or spironolactone. It is important to note that ACE inhibitors, beta blockers, and spironolactone all reduce mortality by about one-third, and reduce hospitalizations by about one-quarter to one-third.

Polypharmacy is the norm for heart failure treatment: The multidrug therapy required for heart failure increases the risk for adverse effects (especially hypotension), drug interactions, and poor medication adherence. The pharmacist has an especially important role in educating patients on the need for combination drug therapy, the importance of good adherence, and monitoring for adverse effects and drug interactions.

Patient and family/caregiver education: The most common reason for exacerbation of heart failure symptoms and hospitalizations is poor self-care. As such, educating patients and their families is essential and pharmacists can play an important role in this regard. The three key messages should be restricting salt and fluid intake; the importance of adherence to heart failure medications; and self-monitoring of symptoms and daily weights (as a measure of fluid retention). Some patient education materials are available from the website of EPICORE Centre (www.epicore.ualberta, under "What's New").

Contemporary heart failure management involves multidrug approaches which increase the complexity of monitoring and risk for adverse effects; however, this improves symptoms, reduces hospitalizations, and decreases mortality. The Canadian Cardiovascular Society recognizes that pharmacists can and should play an important role in improving the management of this highly prevalent condition. We encourage all interested individuals to read the summary and download the full report. ■

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