Effectiveness of pharmaceutical care in a community setting

Few large randomised studies have examined the effectiveness of pharmaceutical care in a community pharmacy setting. Thus, the results of a recent study of a pharmaceutical care program for outpatients with asthma and COPD is of interest to community pharmacists.[1]

The randomized trial was conducted in 36 community pharmacies in Indianapolis that were divided into three well-matched groups. At intervention pharmacies, patients with asthma or COPD were cared for by pharmacists who had been trained to provide pharmaceutical care and had access to a computer with patient-specific data, including the results of lung function tests. Patients in this group received a peak flow meter and were taught how to assess their peak expiratory flow rate (PEF).[1]

Patients attending a second group of pharmacies were given a peak flow meter, but the pharmacists were not trained to provide pharmaceutical care and did not have access to patient-specific data. Patients attending the third group of pharmacies received 'usual care' from their pharmacist and were not given peak flow meters.[1] The three groups comprised 1113 patients and were well matched at baseline.

At the end of the 12-month study, the 356 patients in the pharmaceutical care group had significantly ($p = 0.02$) higher PEF values than those in the usual care group ($n = 246$), but not those who were provided with peak flow meters alone ($n = 296$). Patients receiving pharmaceutical care reported having discussions with their pharmacists approximately twice as often as patients attending pharmacies in the other two groups ($p < 0.001$). Health-related quality of life (HR-QOL) scores and self-reported medication compliance increased within each group during the study; however, there were no differences in either HR-QOL or compliance across the three groups at the end of the study. Pharmaceutical care recipients also reported greater satisfaction with their pharmacist than did those in the other groups ($p = 0.02$). Also, patients with asthma, but not COPD, who received pharmaceutical care or a peak flow meter made approximately twice as many emergency room visits during the study; the association between PEF values and symptoms may have prompted this increase in care-seeking behavior.[1]

According to the authors, the apparent lack of effectiveness of their pharmaceutical care program may be due to incomplete implementation of the program. Pharmacists had to use a separate study computer to access patient-specific information and to document interventions, which was done in only about one-quarter of patient encounters, while coping with their usual workload.

Additional research is needed to assess the extent to which pharmaceutical care can improve clinical status and HR-QOL. Such studies should be conducted under 'real-world' conditions typical of community pharmacies.

1. Weinberger M, Murray MD, Marrero DG et al. Effectiveness of pharmacists care for patients with reactive airways disease. *JAMA* 2002;288:1594-160

— Julie Hamel, Québec

PRODUCT PIPELINE

New Indication

Avapro (irbesartan)

Health Canada has approved irbesartan (Avapro), an angiotensin II receptor blocker, for the treatment of patients with hypertension, type 2 diabetes mellitus and either early- or late-stage kidney disease. Irbesartan was previously approved for the treatment of essential hypertension.[1]

The indication is based on the results of two recent clinical trials in hypertensive patients with type 2 diabetes and either microalbuminuria[2] or frank nephropathy.[3] At a dosage of 300 mg/day irbesartan retarded progression of diabetic renal disease, effects that were independent of the extent of blood pressure reductions.[2,3]

In the study involving patients with nephropathy, the risk of a patient's serum creatinine concentration doubling was significantly lower in irbesartan recipients compared with recipients of placebo ($p = 0.003$) or amlodipine ($p < 0.001$).[3]

1. Health Canada approves Avapro (irbesartan) for the treatment of diabetic renal disease. Available at: http://www.docguide.com/news/content.nsf/NewsPrint/8525697700573E1885256C6F006C0EC6 (accessed 21 Nov, 2002)

2. Parving HH, Lehnert H, Mortensen JB et al. The effect of irbesartan on the development of diabetic nephropathy in patients with type 2 diabetes. *N Engl J Med* 2001;345:870-8

3. Lewis EJ, Hunsicker LG, Clarke WR et al. Renoprotective effect of the angiotensin receptor antagonist irbesartan in patients with nephropathy due to type 2 diabetes. *N Engl J Med* 2001;345:851-60

— Blair Jarvis