

Ask the Pharmacist to Join Your Diabetes Care Team

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Pharmacists are a key source of education, medication, monitoring, and motivational support for people with diabetes. Their training places them in a unique and valuable role in diabetes care, with expertise in the pharmacological management of diabetes. Additionally, pharmacists routinely provide patient education and are trained in the motivational interviewing techniques important for promoting effective self-management.

An article by Julie Stading, PharmD, CDE, et al. in this issue of *Diabetes Spectrum* (p. 241) highlights improved A1C benefits that resulted when clinical pharmacists were added to the diabetes care team and when they worked directly with patients who were newly diagnosed with diabetes or new to insulin therapy at the Veterans Administration. Although their study was a retrospective comparison, it suggests a beneficial effect of the expanded team (i.e., one that includes a pharmacist) compared to a control group of patients who did not see a pharmacist. These findings are consistent with other studies that have explored the effect of pharmacist collaboration with patients and providers to improve the management of diabetes. It further underscores the importance of the expertise of the pharmacist as part of the diabetes care team.

In addition to providing diabetes self-management education in the clinic setting, randomized controlled trials have demonstrated that pharmacists can make a significant impact in improving control of diabetes,¹ lipids,^{2,3} and blood pressure;¹ smoking cessation;⁴ and use

of medications that reduce mortality (e.g., aspirin for cardioprotection).¹ Patients with diabetes who are trying to manage their overall health and reduce their cardiovascular risk often face these issues and comorbidities.

In a controlled trial in a university-affiliated primary care clinic, subjects randomized to the pharmacist intervention achieved a statistically significant reduction in A1C (2.2 vs. 0.9%) compared to control subjects after 12–24 months of follow-up.⁵ Ragucci et al.⁶ reported a 1-year observational study in which pharmacists in three university-based primary care clinics provided diabetes education and disease state management services to 191 patients. Significant improvements demonstrated in this study included a reduction in A1C from 9.5 to 7.8% at 1 year ($P < 0.05$), a decrease in average blood pressure from 141/79 to 135/75 mmHg ($P = 0.007$), and an increase in aspirin use from 34 to 73% at 1 year ($P < 0.0001$).

In addition to pharmacists making a positive impact on diabetes care in the health system clinic setting, several studies have demonstrated significant benefit of community pharmacists in diabetes management. In the Asheville Project,⁷ a diabetes intervention involving 12 community pharmacies in Asheville, N.C., pharmacists provided clinical assessments, assisted patients with goal setting and monitoring, and managed drug therapy by collaborative agreements with area physicians. The proportion of people with optimal A1C values ($< 7\%$) increased from 40 to 67% at the 12-month follow-up ($P < 0.0001$), with 58% achieving their LDL cholesterol goal

at 18 months ($P < 0.02$). Total mean direct medical costs decreased by \$1,200 per patient per year compared to baseline.

This intervention was also implemented in a chain pharmacy located in grocery stores, resulting in beneficial effects after 1 year of follow-up compared to baseline for A1C (decreased from 7.9 to 7.1%), LDL cholesterol (decreased from 113.4 to 104.5 mg/dl), and systolic blood pressure (decreased from 136.2 to 131.4 mmHg).⁸

More recently, the Asheville Project design has been expanded to community-based pharmacies in 10 U.S. cities in what is called “The Ten City Challenge.” In this program, employers, pharmacists, physicians, and patients work closely together to manage diabetes. Initial results at 1 year indicate a \$918 cost savings per employee in total health care costs, with reduced absenteeism from work and high employee satisfaction.⁹

Pharmacists are in an excellent position to provide support to people with diabetes as part of the diabetes care team. Throughout the United States, people rely on pharmacists for their diabetes medications and supplies, medication information, health advice, and instruction on the use of glucose monitors and insulin. Many community-based pharmacies have developed diabetes care specialty centers to facilitate patient access to diabetes care supplies. Pharmacists specializing in diabetes work in many health systems as part of diabetes care teams.

Pharmacists represent the third largest health professional group in the United States, with ~ 226,000 active, licensed pharmacists in

2004¹⁰ and > 400 pharmacists certified as diabetes educators as of 2000.¹¹ According to one survey,¹² virtually every household in the United States is within 5 miles of a pharmacy, highlighting the strong presence of pharmacists in communities and excellent accessibility to their care for patients. As accessible and trusted health care professionals in both rural and inner-city settings who are often available evenings, weekends, and holidays when most other providers are less likely to be available, pharmacists are well positioned to provide information and counseling to better promote diabetes self-management for patients dealing with this disease.

The value added by having a pharmacist on the diabetes care team, whether in the clinic or in a community pharmacy, is significant and worth the attention of those leading diabetes self-management programs, clinic directors, pharmacy managers, health care providers, and patients. It is important for key decision-makers to move beyond the traditional product focus of pharmacy services to integrate pharmacists into this important role. Strategies for staffing and remuneration must be in place to ensure that pharmacists are available “offline” from prescription dispensing to assist patients and that no pharmacist is too busy filling prescriptions to answer questions and provide necessary care and education for their patients with diabetes.

With an already limited health care budget in the United States and an increasing prevalence of diabetes, increased patient access to health care providers who can facilitate improved diabetes self-management will be crucial. As the study by Stading et al. and several others have demonstrated, pharmacists are a significant resource, and adding them to diabetes care teams can improve the care of patients with diabetes.

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