**EDITORIAL**

# Improving Diabetes Care: Organize Your Office, Intensify Your Care

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Diabetes patients with poorly controlled glucose levels, lipid levels, or blood pressure have high mortality, low quality of life, and increased health care costs.[1–3] There is growing evidence that changes in how family physicians' offices are organized, coupled with aggressive drug intensification using metformin, statins, angiotensin-converting enzyme (ACE) inhibitors, and aspirin, can save lives[4–8] and save money.[2,9–11] In this issue of *The Journal*, Sutherland et al[12] provide encouraging evidence that family physicians can improve care for our patients with diabetes and provide some clues on how we might do it.

Most diabetes success stories[13–16] show that improvement requires changes in how our offices are organized—working smarter, not just working harder. The first steps toward improvement are the desire to change, active leadership, and resources needed to implement new office systems. Once motivated, and once practice leaders and committed resources are available, the second step is to organize our offices to support the needs of patients with chronic diseases. Office staff are often given more responsibility, and measurable goals can be selected based on rapid analysis of current quality of care (eg, review 25 charts to look at measurements for blood pressure, hemoglobin $A_{1c}$, and low-density lipoprotein [LDL] cholesterol). A high percentage of practices that have successfully improved care report use of the following office systems: (1) select patients who have diabetes using a simple registry based on diagnosis codes, laboratory tests, or prescriptions; (2) monitor the clinical status of these patients, such as their glycosylated hemoglobin level, lipid levels, or blood pressure; (3) prioritize patients based on their tests, risk, or readiness to change; (4) provide systematic follow-up for patients, with active outreach to those lost to follow-up; and (5) plan visits so that key issues, such as glucose levels, lipid levels, and blood pressure, receive attention during office visits. Put together a system that meets your and your patients' needs.

Recent studies provide a new perspective on what is most important in type 2 diabetes care. More than 75% of adults with type 2 diabetes diagnosed after the age of 40 years die of a heart attack or a stroke, compared with the 4% to 15% who develop end-stage eye, foot, or kidney complications. Control of LDL-cholesterol to less than 130 mg/dL (less than 100 mg/dL in patients with heart disease)[5]; control of blood pressure to less than 130/80 mm Hg[4]; medication with aspirin,[6] ACE inhibitors,[8] and metformin[7]; and smoking cessation have each been shown to reduce cardiovascular events in those with type 2 diabetes by 20% to 35% in randomized clinical trials. There is good reason to use metformin, aspirin, ACE inhibitors, and statins in adults with diabetes. (Recall, though, that metformin is contraindicated for patients whose creatinine level is greater than 1.4 mg/dL, and that renal and hepatic function [alanine aminotransferase] should be monitored after changes in therapy.)

Thus, type 2 diabetes is a disease of macrovascular complications. Diabetes is not just a disease of glucose control affecting the eye, foot, and kidney. It is a disease that causes heart attacks and strokes.[3] Patients with diabetes have generally not yet received this message, and it is time for patients to learn that aggressive management of glucose levels, blood pressure, and lipid levels and use of aspirin (along with smoking cessation) are the clinical determinants with the greatest impact on future health status.[17] Drug intensification is key. Statin or fibrate drugs are needed to control lipid levels, three blood pressure agents are often required to

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achieve blood pressure goals, and combinations of metformin, sulfonylureas, thiazolidinediones, and insulin are often needed to reduce hemoglobin $A_{1c}$ to less than 7%. Drug initiation and titration should be automatic responses with most diabetes patients who have not reached goals set for glucose, lipid, or blood pressure goals. We do neither ourselves nor our patients any favors by waiting 3 or 4 more months before we start or add metformin or increase the dose of a statin in a patient who is not at goal levels. Diabetes is a progressive disease. It is appropriate to anticipate disease progression and to quickly match with intensified pharmacotherapy. The treatment mantra for many type 2 diabetes patients can be expressed in a catchy phrase: metformin,[7] statin,[5] ACE,[8] and aspirin.[6] Write it on the palm of your hand. Do not forget the statin, ACE, and aspirin, or the 75% of adults with diabetes who die from heart attack or strokes.

Patient self-management is part of many successful diabetes improvement initiatives. Patients who have diabetes must manage not only the illness, but also the social and role problems that come with the illness, as well as their own emotional response to the illness. After diagnosis, many patients are in denial, and more than 20% become depressed at some point. I find it helpful to tailor my clinical approach to the patient's archetype or beliefs about diabetes.[18] If a patient is in denial about diabetes (which can persist for decades after diagnosis), then the first job is to address this issue.

Primary care physicians are at the forefront of improvement in diabetes care,[13–15,19] and recent reports of improved quality of care show that we can get the job done. There is no room for complacency, however. Managed care organizations and health insurance companies have a choice. They can direct patients with diabetes to primary care clinics, or they can "carve out" diabetes care and send tens of thousands of diabetes patients and millions of dollars to disease management firms. Carve-out care is expensive, is difficult to coordinate, and often disrupts continuity of care, which is related to better diabetes care outcomes.[20,21] To stop carve-out care, we need to be sure that every primary care group—not just best-practice sites—are able to determine which patients are not at goal levels and systematically initiate and titrate therapy until their hemoglobin $A_{1c}$ is less than 7%, their LDL approaches 100 mg/dL, and their blood pressure is less than 130/80 mm Hg.[22]

When we adopt a guideline, determine which diabetes patients have not reached their goal levels, memorize the metformin-statin-ACE-aspirin mantra, and recognize the need to be emotionally supportive of our diabetes patients, we are on our way to success. Clearly good diabetes care is not a job for the Lone Ranger. We need to visualize ourselves as coach and surround ourselves with staff, consultants, and educators to get the job done.[23] Sutherland and others have shown that it can be done. Will we do it? The time is now. We do it for our patients. We do it for ourselves.

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