

Diabetes Group Visits at the University of South Florida Morsani College of Medicine

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■ IN BRIEF “Quality Improvement Success Stories” are published by the American Diabetes Association in collaboration with the American College of Physicians, Inc., and the National Diabetes Education Program. This series is intended to highlight best practices and strategies from programs and clinics that have successfully improved the quality of care for people with diabetes or related conditions. Each article in the series is reviewed and follows a standard format developed by the editors of *Clinical Diabetes*. The following article describes a successful project from the Division of General Internal Medicine at the University of South Florida Morsani College of Medicine, Tampa, to improve A1C, systolic blood pressure, and weight in patients with type 2 diabetes.

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Describe your practice setting and location.

This study was conducted within the Division of General Internal Medicine at the University of South Florida Morsani College of Medicine (USF Health). Our division is composed of 13 providers: 7 physician generalists, 1 endocrinologist, 1 sports medicine physician, 1 allergist/immunologist, 1 podiatrist, 1 clinical pharmacist, and 1 nurse practitioner. The specialist physicians care for a panel of primary care patients in addition to their specialty field. The Division of General Internal Medicine is within the larger USF Health Physicians Group, a multi-specialty group of >400 providers. Our patient population is ethnically and linguistically diverse and includes a large percentage of vulnerable elderly patients who rely on Medicare.

Describe the specific quality gap addressed through the initiative.

This program focused on improving the A1C, systolic blood pressure, and weight of our patients with type 2 di-

abetes through intensive self-management support in a group visit setting.

How did you identify this quality gap? In other words, where did you get your baseline data?

We identified this gap in quality when we started to use MD Insight, a population health management software.

Summarize the initial data for your practice (before the improvement initiative).

Across all panels in General Internal Medicine, only 7% of 1,194 total patients with diabetes had “perfect care,” including an A1C <8% and systolic blood pressure <140 mmHg, before this project was implemented. For the 16 patients with diabetes who enrolled in the first group visit, average A1C was 9.3%, average systolic blood pressure was 157 mmHg, and average weight was 100.5 kg (221.5 lb).

What was the time frame from initiation of your quality improvement (QI) initiative to its completion?

This was an 8-month improvement

project beginning 1 June 2016 and ending 30 January 2017.

Describe your core QI team. Who served as project leader, and why was this person selected? Who else served on the team?

The project leader was our endocrinologist because she was already the primary care provider for the patients who were recruited as participants, and we felt her expertise in the clinical management of complicated diabetes would be crucial for success. The team also included our clinical pharmacist, advanced registered nurse practitioner (ARNP), certified diabetes educator (CDE), lead medical assistant (MA) for diabetes, internal medicine residents, and office administrator. The project was sponsored by our division director and patient-centered medical home physician champion.

Describe the structural changes you made to your practice through this initiative.

We started by developing a monthly group visit appointment type, which was a new option for our organization. Thus, group visits required training and creation of new workflows for the telephone scheduling team, front desk staff, medical assistant, and revenue-cycle operations teams.

Describe the most important changes you made to your process of care delivery.

Group visits occurred on one afternoon per month for a total of 4 hours per session. The 16 enrolled diabetes patients were invited to participate in each session, along with seven providers whose roles are detailed below. The process flow of a visit started with all patients arriving at 1:00 p.m. to have their vital signs checked by the MA and their medication list printed and given to them. Next, patients participated in an educational seminar (Table 1) led by our CDE, pharmacist, and endocrinologist. During this session, individual patients were called into a different room to have

TABLE 1. Patient Self-Management Curriculum Topics for Monthly Group Visits

Session 1	Introduction to Diabetes: Preventive Health and Avoiding Complications
Session 2	Learning About Diabetes Medications
Session 3	Self-Management and Problem-Solving
Session 4	Nutrition Decision Support and Nutritional Practical Cooking Class
Session 5	Exercise Class
Session 6	Mental Health Screening and Mindfulness

a one-on-one consultation with internal medicine residents and our ARNP, supervised by the endocrinologist, during which they reviewed medication adherence, side effects, and needed laboratory tests and adjusted medications as needed. Two of the sessions (on exercise and nutrition) took place outside of the clinic classroom, but patients were still taken aside individually to discuss their clinical needs.

This project produced the following important process changes in patient communication, care team workflow, and standard orders for diabetes care:

- Patient communication:
 - Developed a standardized curriculum of patient education and health literacy for each session; the curriculum guides patients through structured communication with their peers focused on their disease state
 - Implemented written decision-support tools and patient-generated data (smartphone apps) to document patients' self-management goals
- Care team workflow for preventive health:
 - Standardized the use of the health maintenance function within our electronic medical record (EMR) in the pre-visit planning for diabetes patients
 - Defined which member of the care team was responsible for updating this function (the MA)

- Approval of standing orders for diabetes care:

- Approved and adopted standing orders for A1C testing frequency across our division
- Won buy-in from all providers to empower MAs to carry out A1C testing during rooming of patients

Summarize your final outcome data (at the end of the improvement initiative) and how it compared to your baseline data.

Fifty percent of the participants (8 of 16) in this project were able to achieve an A1C <8%, compared to 20% (2 of 10) of nonparticipants in an age- and sex-matched group who received only regular office visits during this same period of time. Of the eight patients whose A1C improved, seven attended at least four sessions. In comparison, among the eight program patients whose A1C did not improve, only two attended at least four sessions.

After six sessions of group visits, the 16 enrolled patients had a mean A1C reduction of 1.26% (95% CI -2.56 to 0.03%), mean systolic blood pressure reduction of 7 mmHg (95% CI -15.2 to 1.2 mmHg), and mean weight loss of 2.3 kg (range -32.4 to 8.3 kg). Table 2 shows the changes in these values over time during the project.

What are your next steps?

We adopted group visits as a normal appointment type, recurring weekly. We have diabetes group visits twice per month and also have added obesity group visits on alternating

TABLE 2. Flowsheet of Priority Quality Measures for Diabetes Group Visits

	Mean A1C (%)	Mean Systolic Blood Pressure (mmHg)	Mean Weight (kg)
June 2016	9.3	157	100.5
October 2016	8.2	143	100.9
January 2017	8.0	150	98.3

weeks. We are now opening enrollment in both types of group visits to patients from other divisions of USF Health, including Family Medicine, Medicine-Pediatrics, and Geriatrics. We also worked with revenue cycle operations staff to ensure that these visits are billable as established level-3 or level-4 (Current Procedural Terminology codes 99213 or 99214) visits because we do spend individu-

al time with each patient to adjust medications or order diabetes-related laboratory tests as needed. For subsequent group visit participants, we created a generic provider in the EMR so that patient satisfaction feedback can be gleaned and reported separately from our automated CAHPS (Consumer Assessment of Healthcare Providers & Systems) scores quarterly.

What lessons did you learn through your QI process that you would like to share with others?

Make sure your team is multidisciplinary; our patients gained more value because we streamlined access to the whole team. Participating patients did not need to have separate appointments with the pharmacist, nutritionist, podiatrist, or other team members. Patients were more receptive to the services of these providers when the barriers to meeting with them were lowered.

Duality of Interest

No potential conflicts of interest relevant to this article were reported.