Medical Groups: Improving Diabetes Outcomes

AMGA's National Summit on Quality Accountability in Diabetes: Alignment for Success

To identify best practices for diabetes management, the American Medical Group Association (AMGA) hosted the National Summit on Quality Accountability in Diabetes: Alignment for Success earlier this year. The goals of the summit were to bring stakeholders together to discuss strategies for delivering quality diabetic patient care, and to serve as a launching vehicle for AMGA programs to advance the alignment of stakeholders. As described in the first article of this series,[1] the summit identified three major areas of improvement for diabetes outcomes: treatment guidelines and A1c goals, systems that support clinical goals, and patient-centered care.

Medical groups can take action to raise the quality and cost-effectiveness of diabetes care.

While improving diabetes outcomes on a national scale will require agreement and coordination between all the stakeholders who affect patient care and support, medical groups can take action to raise the quality and cost-effectiveness of diabetes care. This article describes what two medical groups—HealthPartners Medical Group and Allina Medical Clinic—have accomplished.

- HealthPartners Medical Group and its 600 physicians at 22 primary care clinics care for approximately 400,000 patients in seven counties in Minneapolis and St. Paul, Minnesota. The integrated system employs about 9,800 and includes a 435-bed Level I trauma center and urban teaching hospital. HealthPartners has approximately 13,000 patients with diabetes. Beth Averbeck, M.D., associate medical director, primary care, represented HealthPartners at the summit.
- Allina Medical Clinic is another integrated system in the Twin Cities area, with about 40 sites including primary care and specialty practices and several hospitals. Allina, which has approximately 17,000 diabetes patients, transitioned from a group of several independent organizations to an integrated, multispecialty medical group and currently employs approximately 24,000, including 600 physicians. Allina was represented at the summit by Bruce McCarthy, M.D., chief medical officer.

Primary Focus: Improving Patient Outcomes

Allina and HealthPartners agree that improving patient outcomes and patient experience should be the primary focus of healthcare organizations. Fortunately, in the case of diabetes, one of the many benefits

TABLE 1

HealthPartners Visit Cycle

Step	Responsible Party	Primary Purpose(s)
Scheduling	Centralized call center; local clinic schedulers	• Check to make sure patient is current with labs and all preventive services (not just those related to diabetes)
Pre-visit (1–2 weeks before the visit)	Rooming staff (LPN or CMA)	• Identify any missing labs and contact the patient to encourage completion of labs before the visit
Check-in and Rooming	Rooming staff (LPN or CMA)	• Order any needed labs • Check blood pressure • Record medications
Visit	Physician/ provider	• Negotiate and establish care goals and plans • Adjust medications as needed • Complete any needed referrals to extended care team members (e.g., CDE)
Check-out	Receptionist	• Give visit summary to patient • Schedule future labs and appointments
Post-visit	Rooming staff, or registered nurse	• Contact patient with test results • Adjust medications if indicated by test results based on providers' orders
Between-visit	Diabetes care team staff (e.g., RN, diabetes educator, pharmacist)	• Review monthly exception report (patient registry, by provider) to identify process failures (e.g., missed labs or visits) and clinical intervention opportunities (e.g., lab values not at goal)
		• Contact patients as needed

FIGURE 1

Allina Monthly Provider Report

Optimal Diabetes Care Report

The Report is for measurement period 5/1/2008 through 5/31/2008

Component ("optimal" care) measure of the percentage of adult patients who have type 1 or type 2 diabetes with optimally managed modifiable risk factors.

Click here for report documentation

Run Date & Time: 6/20/08 & 4:02 pm

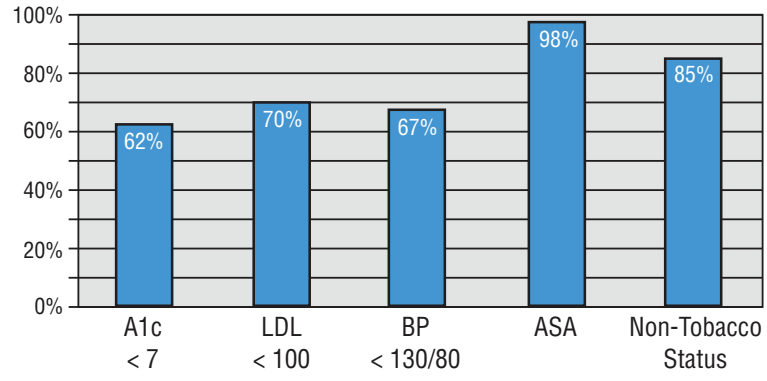
Dr. X - DXXXXXXX

Patient Name & MRN ID	DOB	Recent LDL	Recent LDL Val.	Recent BP Date	Recent Sys. BP	Recent Dias. BP	Recent A1c Date	Recent A1c val	Tobacco Status	ASA Indicator	Reg: Status	Optimal Control (Y/N)
Age 18-75												
Patient a - 1000000000	x/xx/xx	3/3/08	99999	3/3/08	122	74	3/3/08	7.2	Never	Yes	Active	No
Patient b - 1000000000	x/xx/xx	2/25/08	132	4/24/08	112	62	2/25/08	10.2	Quit	Yes	Not Assigned	No
Patient c - 1000000000	x/xx/xx	1/28/08	94	1/28/08	124	72			Quit	Yes	Active	No
Patient d - 1000000000	x/xx/xx	12/31/06	67	2/22/08	108	64	12/31/06	6.5	Never	Yes	Active	Yes
Patient e - 1000000000	x/xx/xx	3/25/08	102	3/25/08	118	78	3/25/08	7.1	Never	Yes	Active	No
Patient f - 1000000000	x/xx/xx	12/15/07	89	5/29/08	138	82	5/13/08	6.8	Never	No	Active	No
Age Over 75												
Patient a - 1000000000	x/xx/xx			4/8/08	120	70	3/13/08	6.7	Never	Yes	Active	No
Patient b - 1000000000	x/xx/xx	4/2/07	105	4/22/08	124	72	1/14/08	6.2	Never	Yes	Active	No
Patient c - 1000000000	x/xx/xx	1/9/08	81	3/31/08	124	70	2/21/08	6.7	Quit	Yes	Active	Yes

Total Population/percent optimal control xx/xx

FIGURE 2

Allina 2008 Diabetes Results



of improved patient outcomes is the reduction of overall healthcare costs through avoidance of costly complications. Early glycemic control reduces the risk of microvascular complications and appears to have long-term cardiovascular benefits as well.[2,3] Therefore, earlier aggressive treatment to goal is recommended. When communicating with providers, Dr. McCarthy emphasizes existing study data showing the importance of aggressively controlling glucose early in the course of the disease, as well as lowering blood pressure and LDL cholesterol. He says that once the evidence is presented for earlier aggressive treatment, "opting out is not really an option."

Clinical Goals

The first step medical groups can take to improve diabetes care is to agree on specific clinical goals and treatment guidelines, so that all providers are following the same strategy. Both Allina and HealthPartners follow the Institute for Clinical Systems Improvement (ICSI) diabetes treatment guidelines. They each developed a care plan approach for their diabetes patients that focuses on quickly achieving the following clinical targets:

- Hemoglobin A1c < 7%
- LDL cholesterol < 100mg/dL
- Blood pressure < 130/80 mmHg
- Daily low-dose aspirin (for patients ≥ 40 years)
- Tobacco free

These targets are the same as those outlined in the American Diabetes Association guidelines. Specific clinical targets may need to be modified for some patients. For example, the ICSI guidelines recommend a lower target LDL of less than 70mg/dL for patients with coronary artery disease. The ICSI guidelines stress setting personalized A1c goals of less than 7% or individualized to a goal of

FIGURE 3

HealthPartners Diabetes Results

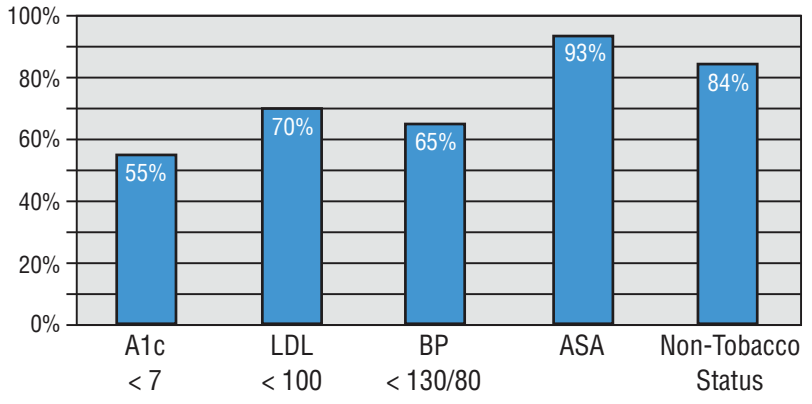


FIGURE 4

Allina Diabetic Patients in Optimal Control

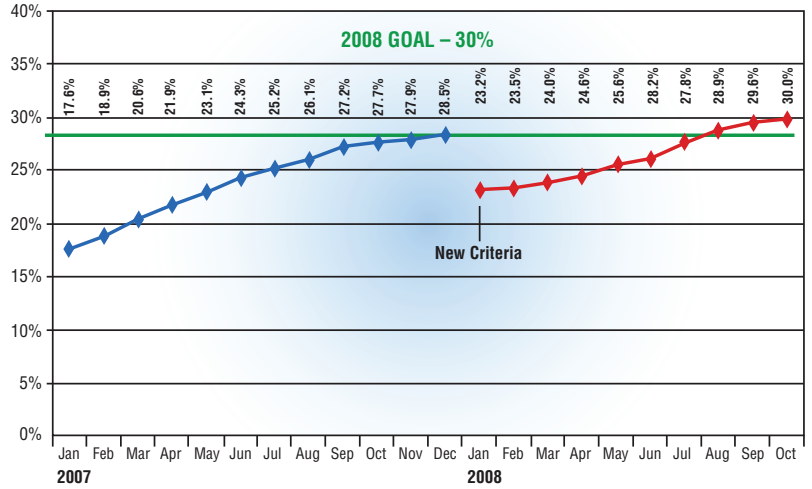
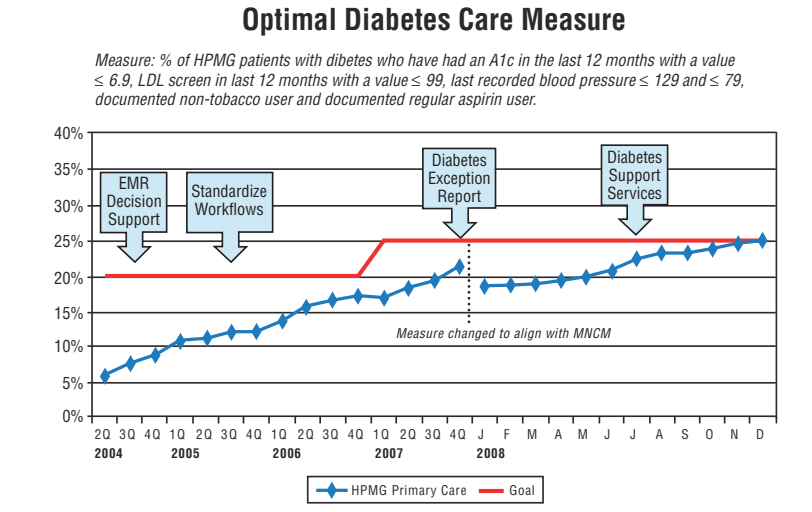


FIGURE 5

HealthPartners Diabetic Patients in Optimal Control



less than 8% based on risk factors.[4] HealthPartners and Allina both feel that an A1c of less than 7% is an appropriate goal for most patients.

Provider Education

Once a medical group has agreed upon clinical goals and guidelines, it must ensure that its physicians and staff are educated regarding the group's evidence-based strategy and the available therapies. Dr. McCarthy points out the importance of educating everyone who interacts with patients. "We found that once the staff and the physicians have the messages that they can deliver to patients, patients seem to buy into it more." He believes key internal opinion leaders are more effective than the medical group's administration at convincing physicians and staff of the appropriate messages.

Allina uses several approaches, including training by certified diabetes educators (CDEs) and clinical experts, to educate physicians and other staff members providing care. Allina teaches physicians about current therapies, including the different types of injection systems and meters. In fact, through site meetings and CMEs, virtually all Allina physicians have injected themselves with sterile saline, so they can really understand the process and how the needles feel. By conducting this exercise, the physicians can accurately describe the experience to their patients and help to overcome anxiety about injections.

At Allina, CME based on algorithms regarding diabetes, cholesterol, and hypertension treatment is mandated for some providers, including newly hired and low-performing physicians. The CME is free, and physicians' time spent completing the education is compensated. It is not considered a penalty, but rather a support mechanism to help them improve their patients' outcomes. In addition, physicians with patients who are not in control (as identified through medical record reviews) receive

individual coaching from a CDE.

Allina also focuses on training its physicians to be leaders, encouraging them to do the right thing and helping them with their communication and coaching skills. After all, as Dr. McCarthy says, "All change eventually requires one clinician to talk to another about changing behavior."

Improving Care Delivery and Coordination

Making sure providers know the right thing to do isn't enough, however. Dr. Averbeck says medical groups must teach providers how to do the right thing—and make sure that the right thing to do is the easy thing to do. She believes the core design principles of good diabetes care are consistency, standardization, and teamwork.

Team-Based Coordinated Care of Chronic Patients

Both HealthPartners and Allina operate from a chronic care model based on continuity of care, and they both use an electronic medical record (EMR). The EMR helps the medical groups monitor their patients' information (e.g., visits, lab values) and makes that information easily accessible to all the individuals involved in each patient's care. As part of its ongoing strategy to improve coordinated chronic care, HealthPartners is developing a medical home. In addition, to help ensure a high-quality patient experience, HealthPartners has a Patient Council composed of 12–16 patients serving 2-year terms. Council members provide input into how the group provides care and interacts with patients.

One of the key components in both medical groups' success with diabetes care has been the implementation of multidisciplinary care teams. These teams are led by physicians, but benefit from the special skills and expertise of each staff member. Teams may include nurses, pharmacists, CDEs, and dieticians, as well as office staff and representatives of quality and data systems. Each individual has specific duties and is responsible for collaborating with other team members. Dr. Averbeck points out that this approach not only helps ensure high-quality patient care, but is also is more cost-effective for the practice (e.g., paying a nurse, rather than a physician, to order lab tests based on evidence-based protocols). Patient outcomes may improve because of the additional interaction with staff members. For example, patients may feel more comfortable talking to rooming staff, a nurse or a medical assistant than they do to the physician—and be quicker to reveal challenges they are encountering. Patients may also save money (e.g., a lower co-pay for a nurse visit than a physician visit).

> The core design principles of good diabetes care are consistency, standardization, and teamwork.

Standardized Processes

To make it easier for providers to abide by clinical guidelines and improve patient outcomes, HealthPartners and Allina have implemented similar standardized care processes including protocols for the following:

- Scheduling visits
- Rooming
- Ordering lab tests
- Using patient registries
- Referring patients to diabetes educators
- Communicating with patients

HealthPartners has segmented the work involved in patient care into the following Visit Cycle and has defined standard workflows and processes for each step (see Table 1). Dr Averbeck explains, "What we have focused on are system design and reliability—taking some engineering principles and putting them into the operations of ambulatory care. It's about both the processes and the people involved in those processes." It was also stressed that the processes need to be practical and appropriate for the office.

While the Visit Cycle is designed to improve patient outcomes, it also has financial implications for the practice—beyond the more cost-effective division of work already discussed. For example, following up with patients to ensure that all their labs are complete is an opportunity to capture additional revenue.

One of the ways Allina's process differs from HealthPartners' is that Allina has standing orders for point-of-care A1c testing for diabetes patients. Not only does the on-site testing keep the process moving by providing immediate test results, it is also a great basis for on-the-spot physician conversations with patients regarding the need for better compliance. In addition, Dr. McCarthy reports that with point-of-care A1c testing, physicians are 24 percent more likely to adjust medications for patients who are not at goal.

The use of decision-support tools—such as registry reports, scorecards, and EMR alerts—is an important part of ensuring that patients don't fall through the cracks. Similar to HealthPartners' exception report process, Allina shares patient-specific reports (see Figure 1) at monthly team meetings, so that physicians can easily see which patients do not meet target criteria and are in need of follow-up. "We look at individual patient names, so it's not just about percentages. We actually go through lists and say, 'I'm not talking about what your percentage is. I'm asking: 'Is Mary Smith getting the best care that she should get? Or is there something we should be doing differently?'" Allina has found that training staff to follow up with patients regarding overdue testing and visits has been more effective than relying on physicians to do the follow-up.

Motivating Physicians

Those internal reports motivate physicians to perform better on behalf of their individual patients. Allina and HealthPartners have seen that openly sharing physicians' performance data with the other providers at the clinic creates a competitive atmosphere, which inspires even better performance. In addition, by regularly reviewing clinic performance data, medical groups can identify which clinics need additional help. Transparency at the public level encourages further improvement. In Minnesota, there is public reporting of performance data for medical groups, both in total and by individual clinic site. Diabetes care is one of the key reporting areas.

Another way to encourage performance improvement is to tie provider reimbursement to the quality of care provided (i.e., pay for performance (P4P). HealthPartners bases about 3 percent of its physician compensation on quality metrics, which include diabetes. However, because HealthPartners wants to emphasize team-based care and encourage joint accountability, the P4P is based on the entire clinic's results, not on the individual physician's results. HealthPartners also receives P4P money from health plans and from programs such as Bridges to Excellence. Allina is similar in that it wants to encourage team-based care. When Allina receives external P4P money, such as from Bridges to Excellence, it goes toward infrastructure support for the whole medical group. Allina doesn't provide any internal P4P for its physicians: its strategy is to emphasize leadership and intrinsic motivation over financial incentives.

Helping Patients Play Their Part

Of course, daily management of diabetes is ultimately up to the patient. HealthPartners and Allina have tools and initiatives to help patients manage their own health.

Education and Ongoing Engagement

The groups have found it helpful to provide patients with a visit summary or report card at the end of each visit. The summary includes the patient's clinical values and goals; it may also include specific instructions about ways they can improve their health. These visit summaries can easily be produced out of the EMR. Some clinics provide patient recognition (e.g., a pin) when they achieve their clinical goals, to reinforce healthy behavior. In addition, HealthPartners has a web-based EMR portal where patients can access their test results and trend them over time. The portal can also be used for patient outreach, including sending messages to patients when they are due for a test or physician visit.

Internal reports motivate physicians to perform better on behalf of their individual patients.

Improving Therapy Adherence

In addition to educating patients, keeping them informed as to their clinical values, and contacting them when they are due for labs or visits, both HealthPartners and Allina recommend including insulin in early discussions with patients. By positioning insulin as a normal course of therapy, physicians can help overcome patient anxiety and concerns. Certified diabetes educators are ideal for communicating with patients about insulin and the different injection systems and meters available because they keep current with the technology and have more time than physicians for this type of patient interaction. They are also a good resource for teaching patients about the disease and the self-management skills that are critical to their health.

Another way Allina tries to improve adherence and stay current with each patient's medical status is to limit diabetes prescription refills to 6 months. To get another prescription, patients must visit the physician.

The Result: Improving Outcomes

Both HealthPartners and Allina have seen improved diabetes patient outcomes since implementing these various processes and standards. Figures 2 and 3 show data for the individual clinical targets; Figures 4 and 5 show the composite measure trends (i.e., the percentage of patients who met all five clinical targets).

So what do these improved clinical measures mean in terms of patient outcomes? Based on epidemiologic studies in the last few years, Allina estimates that better control of risk factors among its 17,000 diabetics has resulted in:

- 400 fewer heart attacks
- 300 fewer cases of diabetic eye disease
- 130 fewer strokes
- 200 fewer deaths

HealthPartners has also seen a 50 percent reduction in cardiovascular events over 10 years in patients with diabetes.

Obviously those reductions are good for patients. They're also good for a medical group's reputation and financial status. But while composite success rates of 25 percent and 30 percent show improvement (both compared to the past and to the state of Minnesota as a whole), they are still pretty low numbers indicating plenty of opportunity for improvement. One significant challenge mentioned during the summit was physician variability and the perception that the use of standardized processes and guidelines leads to loss of autonomy. HealthPartners' average composite rate of 25 percent is derived from a range of results between 17 percent and 44 percent. That's a lot of variability between clinics.

By implementing evidence-based processes and providing team-based care and better patient support, medical groups can start to improve patient outcomes. But to achieve further improvement, collaborations with other stakeholders will be necessary. In the next article in this series, learn how health plans and employers have contributed to improving diabetes outcomes.

Acknowledgements

This article was prepared by members of the Summit planning committee, including: Julie Sanderson-Austin, R.N., Vice President of Quality Management and Research, AMGA; Gary Branning, President, and Steven Bauwens, Pharm.D., and Susan Smith, Managed Market Resources; with permission of Summit panelists Beth Averbeck, M.D., Associate Medical Director, Primary Care, HealthPartners Medical Group; and Bruce McCarthy, M.D., Chief Medical Officer, Allina Medical Clinic. In preparation for the Summit, the planning committee commissioned research, including an extensive literature search and an e-survey of AMGA members. They also conducted two webcasts for AMGA members. Highlights of the webcasts and the live Summit are topics of this three-part series. The planning committee thanks medical writer, Carmen Walsh, for editorial services in preparing the article series

References

1. For the first article in this series, describing the Summit, see: Leading Diabetes Care in a New Directions: AMGA's National Summit on Quality Accountability in Diabetes: Alignment for Success. *Group Practice Journal*, 58(6): 8-15.
2. J.S. Skyler, R. Bergenstal, R.O. Bonow, et al. 2009. Intensive Glycemic Control and the Prevention of Cardiovascular Events: Implications of the ACCORD, ADVANCE, and VA Diabetes Trials. A position statement of the American Diabetes Association and a scientific statement of the American College of Cardiology Foundation and the American Heart Association. *Diabetes Care*, 32: 187-192.
3. R.R. Holman, S.J. Paul, M.A. Bethel, et al. 2008. Ten-Year Follow-Up of Intensive Glucose Control in Type 2 Diabetes. *New England Journal of Medicine,* 359: 1577-1589.
4. Institute for Clinical Systems Improvement (ICSI). 2009. *Health Care Guideline: Diagnosis and Management of Type 2 Diabetes Mellitus in Adults*. 13th ed.

The National Summit on Quality Accountability in Diabetes: Alignment for Success was supported by sanofi-aventis. For more information, contact Julie Sanderson-Austin, R.N., AMGA vice president, quality management and research, at (703) 838-0033, ext. 356 or jsanderson-austin@amga.org.