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INSIDE

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Targeting Unrecognized Diabetics: The Hospital Case Manager Connection

Network with hospital case managers to identify more diabetic patients

Hospitalization another time to be vigilant about looking for the disease

Cathy Reardon, certified diabetes educator at Winchester (MA) Hospital, depends upon her hospital's case managers for many things, but toward the top of the list is the identification of diabetes patients who may be slipping through the system unrecognized. **(See article on Winchester's Casefinder program, p. 3.)** Even if the glucose test administered upon admission shows normal readings, she says, it could merely mean a diabetic's glucose is under control. Or an error may be made on a chart.

"It's up to case managers as well as nursing staff to notice signs," she says. "Some symptoms of high sugar are excessive thirst, frequent urination, weight loss, and blurred vision. A signal can be as routine as when a patient complains to her case manager, 'I can never get the nurses to keep my water pitcher filled.'"

Maria Barnwell, president of E2M Health Services in Dallas, agrees: "Clinicians aren't always automatically aware of a diabetic's condition once he's admitted. The admissions panel will catch an acute situation, but that's just a snapshot. In the same way that an EKG won't [always] catch heart disease, the initial chemistry panel won't catch diabetes." And, she says, diabetics enter the hospital only about 1% of the time with diabetes as a principal diagnosis. Barnwell says the case manager is basically a problem solver. "When we go into a health system, we evaluate a hospital's process of diabetes care. When we see room for improvement, we re-engineer their system. To do that, one of the first things we do is look at what they are doing in case management."

Reardon also works with Winchester's case managers when the time for discharge draws near and patients need diabetes education.

"Teaching inpatients is not usually productive," she says, "because they have too much else going on." Case managers have to make sure diabetic patients are connected at discharge with appropriate persons, says **Susan Burke**, RN, BSN, diabetes program manager for Blue Cross Blue Shield of the Rochester, NY, area.

"Getting them connected with home care at discharge is important. Even if a patient doesn't meet homebound criteria, there are times when it's still a good investment to plug in home care services so a nurse can evaluate what's going on that impacted that admission — the patient's eating habits, for example, or his process of medication." She strongly recommends that the newly diagnosed patient have home care follow-up as soon as possible after the disease has been identified. "Those newly diagnosed patients are overwhelmed with information," Burke says.

Educate in-house staff to watch insulin

Burke says case managers can also ensure that in-house staff are educated on appropriate coverage for their surgical patients on insulin. "It would be rare for any admission not to be somehow impacted by a patient's diabetes."

"Whatever brought the patient in — uncontrolled hypertension, problems with heart disease, chest pain, chronic ulcers — those conditions are closely tied to their diabetes management and poor glucose control. Even for the patient who is admitted for a condition unrelated to diabetes — trauma as a result of a car accident, for example — if the diabetes isn't appropriately managed, healing is slowed due to erratic sugar levels," she adds. **(See also *Diabetes Management*, December 1999, p. 140.)**

She says when someone comes in for an ambulatory surgical procedure, for example, if house staff haven't communicated with the patient's doctor about diabetes management, they may write orders that take the patient off normal meds. If they put him on sliding scale insulin, they may not think to provide coverage for when he eats. "That scenario is particularly common for Type 1 patients," says Burke. "Then when, for example, the patient comes up with a blood sugar of 400 mg/dl, staff will say it's uncontrolled diabetes, and they end up chasing their tails."

Reardon adds that glucose levels of inpatients are generally 70 to 80 points higher than if they were at home — about 220 to 230 mg/dl as opposed to <140 to 160 mg/dl at home. The reason: Inpatients are in what she calls a sterile environment — they are fed the same amounts every day at the same time — quite different from when they are at home. "Some eat very little while they're in the hospital because the food is so different from what they're used to, and their activity level is almost zero."

Even if someone is admitted with a stroke — probably related to diabetes because they go hand in hand — Burke says it's surprising, but often house staff don't make the connection. And sometimes a patient who's had a stroke and is hemiplegic as a result is discharged without instructions on how to compensate for his new disability in order to administer his insulin. "There are lots of places where plugging in a diabetes staff educator makes sense," she says.

The most important function the case manager has, according to **James Rosenzweig**, MD, the director of disease management at the Joslin Diabetes Center/Joslin Clinic in Boston, is to coordinate diabetes education so as to make sure the patient is able to self-manage following discharge.

"We find that having a Joslin case manager double as a diabetes educator is a helpful tool," he says. "For example, if a patient has out of control diabetes because her blood glucose meter is malfunctioning or because she has not been taught how to adjust insulin doses appropriately, or if a patient has a new insulin dosage as a result of being in the hospital, she has to be educated anew so she knows exactly what she is supposed to be doing. The case manager should make sure that patient gets her education and has her insulin supply, and should see if a Visiting Nurse

should come in to check glucose levels and adjust insulin doses." He points out that elderly diabetics especially need support services at home immediately after discharge, and it is the case managers at Joslin who coordinate that.

Rosenzweig gives an example of an elderly patient with poorly controlled diabetes. The patient may be confused or demented and stops taking her insulin. She develops high blood glucose and is admitted to the emergency department in a coma. She is put on IV insulin.

Theoretically, that patient can be brought under control quickly, but if the patient can't manage by herself because her cognitive skills are weak, she needs support. She may be able to self-administer her insulin, but not be able to keep good records of or test her blood sugar levels. Someone has to assess how well she does on her own and what kind of support she needs and is getting, such as coordinating visits to the eye doctor after discharge.

That someone is the case manager, says Rosenzweig. "She can be involved in all those things."

Another example is a patient with poorly controlled diabetes who comes into the hospital with a foot infection due to nerve damage and peripheral vascular disease. He sees a vascular surgeon who does bypass surgery to restore circulation to the foot, or who may amputate. That patient needs ongoing services after discharge. His diabetes has to be brought under control or the foot or amputation site won't heal well. An endocrinologist may start the patient on a new regimen, and the patient needs education for that. "It is the case manager who coordinates those services so everything can be done expeditiously," says Rosenzweig.

Diabetic patients with conditions seemingly unrelated to their diabetes need special management by the case manager as well. Her role in the case of the patient with a head injury, for example, is to follow that case through surgery. The patient's diabetes needs to be controlled on a regular basis.

If the patient is not eating, his insulin has to be adjusted. Sometimes an endocrinologist must be ordered to follow blood sugars, and the case manager has to expedite all the processes that are going on so last minute problems don't come up.

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Casefinder program finds 1,500 at-risk

HbA_{1c}s improve for most participants

When a case manager at Winchester (MA) Hospital identifies a diabetic patient, she refers him immediately to the hospital's diabetes center. As much as that case manager is helping, **Kathleen Beyerman**, RN, CNA, EdD, director of the Community Health Institute, a department within Winchester, says that her group felt there were still a lot of undiagnosed diabetics out there who needed finding.

They initiated an innovative approach to diabetes disease management that has been so successful that it is now being expanded to other chronic diseases. Beyerman is in charge of the Diabetes Casefinder Program and explains why she thinks it is important:

Look to local practices

"We extrapolated national data to our service area and [discovered] that, based on the fact that the American Diabetes Association (ADA) in Alexandria, VA, says half of the diabetics are undiagnosed, we probably had 17,000 undiagnosed diabetics in our service area. How could we find them?" They decided a good way would be to work with local medical offices and help them find their own undiagnosed diabetics.

The staff of Winchester's diabetes unit consists of a certified diabetes educator (CDE) who serves as the case manager for the unit, an endocrinologist, a dietitian, and two nurses.

Diabetes Casefinder Program

Goal: Identify patients who are
- ✔ at risk for diabetes
- ✔ undiagnosed with diabetes
- ✔ diagnosed but not maintaining control

Objectives:
- ✔ decrease the incidence of diabetes
- ✔ ensure early detection
- ✔ provide early intervention for those newly diagnosed
- ✔ help patients maintain their blood glucose within prescribed range

Source: Winchester (MA) Hospital.

Diabetes guidelines stress aggressive treatment

Ever since the American Diabetes Control and Complications Trial (DCCT) and the United Kingdom Prospective Diabetes Study (UKPDS) demonstrated that lowering blood glucose in patients with both Types 1 and 2 diabetes slows or prevents development of diabetic complications, the American Diabetes Association (ADA) in Alexandria, VA, has stressed vigorous treatment of diabetes.

Recommendations on Internet

The association's latest Clinical Practice Recommendations for diabetes management were published this year. A summary of Standards of Medical Care for Patients With Diabetes Mellitus can be found on the Internet at www.diabetes.org/Diabetes Care/Supplement199/S2.htm.

The entire document is at www.diabetes.org/DiabetesCare/Supplement199/S32.htm.

In addition, the American Heart Association (AHA) in Dallas recently published its "Statement for Healthcare Professionals" on diabetes and cardiovascular disease as well as an additional statement from the AHA, the ADA, the National Heart, Lung, and Blood Institute, the Juvenile Diabetes Foundation Inter-national, and the National Institute of Diabetes and Digestive and Kidney Diseases.[1,2]

References

1. Grundy SM, Benjamin IJ, Burke GL, et al. Diabetes and Cardiovascular Disease: A Statement for Healthcare Professionals From the American Heart Association. *Circulation* 1999; 100(10):1,134-1,146. Accessible on the Internet at http://circ.ahajournals.org/cgi/content/full/100/10/1134.

2. Diabetes Mellitus: A Major Risk Factor for Cardiovascular Disease: A Joint Editorial Statement by the American Diabetes Association; the National Heart, Lung, and Blood Institute; the Juvenile Diabetes Foundation International; the National Institute of Diabetes and Digestive and Kidney Diseases; and the American Heart Association. *Circulation* 1999; 100(10):1,132-1,133. ■

"Periodically, a case manager may be called into the center to see a patient," says Beyerman, "but that doesn't happen often because her visit is not reimbursed." It also depends on how fragile the patient is. He could come in here when he is discharged, or the CDE might go to see him in the hospital.

The pilot program involved an RN prevention specialist who reviewed medical records in physicians' offices to identify people at risk for diabetes. She used agreed-upon guidelines for diabetes and sent notification letters to identified patients, enclosing laboratory slips for appropriate testing. Test results were sent to the physicians' offices, and the offices notified patients of their results. Patients found to have diabetes were asked to participate in a diabetes education program where teaching is done by CDEs. Teaching content focuses on self-management strategies — a healthy lifestyle, blood glucose self-monitoring, and medication administration and adjustment. The education program also offers support groups, and exercise and weight loss programs.

From nearly 5,500 records reviewed, the pilot program identified 1,500 at-risk patients and 42 newly diagnosed cases. It also turned up 136 patients previously diagnosed with diabetes whose blood sugar was not in control and who had not had an HbA_{1c} (glycosylated hemoglobin) in the previous 12 months. The program generated nearly $350,000 additional revenues in procedures and visits and nearly $300,000 in radiology and lab revenues for the hospital. Within six months:

❒ 82% of the patients in the education program had improved HbA_{1c} levels.

❒ 67% showed successful weight loss.

❒ 72% maintained a successful exercise program.

❒ 60% complied with blood sugar monitoring.

❒ 59% complied with their medical regimen.

Winchester, located about 10 miles from Boston, is one of 11 hospitals in Massachusetts whose diabetes education program is accredited by the ADA. **Cathy Reardon**, CDE at Winchester, says getting accredited "involves lots of paperwork. That was before my time here, but we're getting ready for reaccreditation now, and we have to collect data for six months on many different criteria such as HbA_{1c} readings before and after education. There's a lot of tracking involved. Representatives of another facility told me that it took a full-time person close to four months to accomplish ADA accreditation. You absolutely need administrative support to do this."

But it's worth the effort, she says, because accreditation benefits a hospital. "Once you have the recognition, you're never questioned about reimbursement. Medicare will only reimburse for diabetes education if it takes place at an ADA-recognized program." Also, once accredited, the ADA puts that hospital on a list for referrals.

Winchester's center focuses on self-management, Beyerman says, and the most common patient is the senior with Type 2 disease who is struggling with managing his blood sugar. "If a diabetic patient has exacerbations and complications are becoming a problem, he is seen by nurses and the dietitian to see how lifestyle issues are impacting him, but those patients are referred to specialists for care for their renal failure or peripheral vascular problems. The patient totally cared for within the center is one without severe complications."

"Our program for women who develop diabetes during pregnancy is small but very important," says Beyerman. "Women with gestational diabetes pose our biggest challenge." Subsequent to delivery, most new mothers return to normal blood sugar levels, but those women have a 66% risk for developing Type 2 disease during their next pregnancy and a 40% to 60% risk for developing Type 2 disease later in life. "Our goal is to prevent diabetes in those women," she says. Her team works with them on nutrition and exercise. "If they can keep their weight down, they can delay or avoid Type 2 diabetes later in life, either in their next pregnancy or later on." Beyerman also supports the new mothers with breast feeding, since that's a way to get down to prepregnancy weight.

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Residents' Type 2 care falls short, survey finds

Researchers recently surveyed internal medicine residents at a large urban outpatient clinic on their care of patients with Type 2 diabetes and found that they did not follow guidelines in five areas:

- ❒ Referral for dilated eye exams 60%
- ❒ Measurement of lipids 50%
- ❒ Screen of urine for proteinuria 65%
- ❒ Performance of foot exams 52%
- ❒ Inquiries about glucose self-monitoring 80%[1]

Ideally, the responses should have been 100% in each area. A chart review revealed that 61% of patients had two or fewer HbA1c measurements over the year.

Reference

1. Bernard AM, Anderson L, Cook CB, et al. What do internal medicine residents need to enhance their diabetes care? *Diabetes Care* 1999; 22(5):661-666. ■

Learn to keep patients on the right treatment path

Case management takes many forms

The purpose of the University Diabetes Treatment Center at Parkland Health & Hospital System in Dallas is to encourage self-management — it helps patients take charge of their diabetes so they are in control rather than their disease being in control of them. Once patients are admitted to the program, they begin learning self-management skills such as blood glucose / urine ketone monitoring, record keeping, insulin preparation and administration, and meal planning.

Lori Allums, RN, diabetes clinical nurse specialist there, acts as the case manager in the unit for coordination of care and discharge. She also teaches them about the types of diabetes, the prevention and treatment of acute and chronic complications, exercise and sick-day management, and some pathophysiology.

"Without self-management, complications can take over their lives down the road," she says. "We stress that you often don't feel sick when your sugars are high — 200 to 300 mg / dl. That's the scary part about diabetes. The disease is easy for patients to ignore because they don't think they're having a problem. We let them know that, even if they don't feel bad, their nerves and other parts of their bodies are being affected by high sugars." Parkland's program provides patients with information on how to take care of themselves, but learning self-management doesn't always come easy in the two to three days a patient spends in the center. Factors such as language, vision, educational level, and a person's ability to interpret numbers can make the learning process difficult.

"Since our mission is to educate, if a patient can't learn for one reason or another, he won't benefit from our unit. We are a county hospital, so we get a lot of patients who are homeless and drug addicted," says Allums. "They forget to take their meds. We see the same people come in over and over, and they are challenging to work with because often they don't take an interest in their health."

Parkland is the only inpatient diabetes unit recognized by the Alexandria, VA-based American Diabetes Association (ADA) in the Dallas/Fort Worth area. The 10-year-old center is directed by Allums, and patients are cared for by a dedicated dietitian, 10 nurses, two nursing assistants, a medical director, three rotating attending physicians, and interns.

She says they also see repeat admissions for people who were sick and thought they shouldn't take insulin. "We teach them it's true that if they take insulin and don't eat, they can get low blood sugar. But of course the insulin has to be adjusted to their needs."

Since Parkland's unit has only 11 beds, they can't take every diabetic admitted to the hospital. With the help of the hospital case manager, a diabetes fellow assesses every diabetic patient who is admitted and sees if that patient would benefit from being on the specialized unit. A typical unit admission is a person with an unhealing abscess who has never been diagnosed with diabetes. Without specialized care, infection can set in, and an amputation could result.

Zeroing in on the 'walkie-talkies'

"Over the years, patients were admitted to this unit who were 'walkie-talkie' — they were feeling fine except that they needed to be put on insulin," says Allums. "Now, with managed care, people are typically started on insulin in an outpatient setting."

James Rosenzweig, MD, the director of disease management at the Joslin Diabetes Center/Joslin Clinic in Boston, says that it used to be routine for diabetic patients to be admitted and treated for several days in the hospital, but now insurance companies mandate outpatient care. The trend is to get patients out as fast as possible. Even so, he says, "it's probably better for elderly diabetic patients or those with multiple chronic illnesses or compliance issues to be kept for a few days. You don't want their problem incompletely treated, then have it exacerbate. I've seen house officers incompletely treat ketoacidosis — they bring the blood sugars down to normal, but neglect to clear the acidosis and ketones — and their patients relapse very quickly."

Allums says her Parkland unit gets the patients who have other comorbidities but need insulin as well. They get some of the sicker patients, such as those with diabetic ketoacidosis. "In another facility, those patients would be transferred to the ICU. Our nurses are trained to manage them with an insulin-glucose infusion protocol. They adjust their insulin requirements depending on their blood sugar." If a patient needs to be on a heart monitor or ventilator as well, he goes to the ICU.

For 15 years, Diabetes Treatment Centers of America (DTCA), a subsidiary of American Healthcorp in Nashville, TN, has provided management services to hospitals nationwide and presently provides a comprehensive plan for inpatient diabetic management to 72 customer hospitals in 29 states.

Hospitals pay considerable fees for the services of DTCA, and those fees "are confidential," says **Robert Stone**, MBA, executive vice president of DTCA, "but utilizing our services increases a hospital's market share by creating a reputation for the hospital as a source of experts in diabetes services." Also, he explains, taking care of these patients efficiently reduces the cost of treating them, and facilities find that dollars are produced that pay the company's fee.

For the hospitals who contract, DTCA gets involved in the management of every patient with diabetes, beginning from the moment the company is notified by admitting.

"We work with case managers throughout the inpatient stay," says Stone. "We support and enable them and the whole nursing staff to be aware of the unique needs of the diabetic population," he says. The consultants work with all departments of the hospital on systems modification so that, for example, patients aren't sent to X-ray without first getting a meal. They also work one-on-one with the attending physicians to make sure the needs of patients with unique metabolic management problems are not overlooked.

Perioperative management of the diabetic

Diabetics often have multiple complications that can prolong their surgical hospitalization. They don't do as well as nondiabetic patients following surgery because it takes longer for them to heal.

"Perioperative management is extremely important in terms of outcomes," says Stone. "It's a critical population to work with. Diabetic patients tend to stay in the hospital 30% to 40% longer than patients without diabetes with the same admitting diagnoses. Healing rates are slower and infection rates are higher. Mortality rates are closely related to metabolic management."

Rosenzweig says cardiologists in particular tend to ignore blood glucose control during the time patients come in for CABG procedures. "It's usually when they are getting ready to discharge patients that cardiologists discover that their patients' levels are out of control and that there are a variety of other complications as well. Then they call in the endocrinologist." It would be better if the endocrinologist managed the patient from the beginning, he says. If good glycemic control is achieved early, problems can be dealt with more easily. When it is not, infections are prolonged and more difficult to treat, and sugar levels take longer to come under control. "The issue is that diabetes is a multisystem disease," explains Rosenzweig. "It involves many problems — cardiovascular, renal, neurological — and all tend to magnify the overall problems."

> *"The lab is the golden child of any hospital. They have no costs compared to the money coming in. You can point out, 'Maybe my clinic doesn't make money, but look at the revenue generated in the lab from the patients who come from my clinic.'"*

Susan Burke, RN, BSN, diabetes program manager for Blue Cross Blue Shield of the Rochester, NY, area says she routinely helps hospital case managers with their initial contacts with diabetic patients by giving them information they may not have. "For example," says Burke, "my records show if a patient has ever had an HbA_{1c} or an eye exam. Those are the kinds of things we can advise case managers to follow up on."

Blue Cross's Diabetes Disease Management Program, begun in 1997, identifies members with diabetes using claims data and hospital admissions information. Burke and her colleagues have access to the names that are downloaded monthly to the diabetes registry — they are people who are admitted for any related or unrelated problem. She can look at the information on a patient and see how he is being followed. "Is he getting connected to care? If he has heart disease, has a cholesterol check been done? We go through an algorithm," Burke says, "and a red flag goes up for someone who should be assigned to a follow-up phone call after discharge, or if someone should be on a list for a mailing that reminds him that he hasn't had an eye exam in two years, for example."

She says the admission of a patient with uncontrolled diabetes is a window of opportunity that shouldn't be missed. While he is in the hospital, you can get an understanding of what happened to the patient that landed him there and how it could have been prevented. She says that with proper education, many admissions for uncontrolled diabetes could be avoided.

"One of the key issues we're looking at now," says Burke, "is making sure the diabetic's primary care physician or endocrinologist knows his patient is at an ED when the patient presents there. When a person with diabetes comes into the ED, there's often no communication with his doctor. The doctor doesn't know the patient has come in, so he can't do appropriate follow-up on discharge to make sure that whatever happened to the patient doesn't happen again. That doctor needs to know his patient stopped taking insulin for 10 days, for example, or whatever else pushed him over the edge."

Make yourself indispensable

Joan Totka, RN, MSN, certified diabetes educator (CDE) at Children's Hospital of Wisconsin Diabetes Center in Milwaukee, says case management is key across the continuum of diabetes management. "That's where people have to look when they address diabetes. The clinical path is an important piece, but case management is very important too." She explains that pediatric diabetic ketoacidosis is different from adult diabetic ketoacidosis. "Kids can die from mismanagement if adult guidelines are followed. Case management includes the outpatient care of these children."

Totka says that often a diabetes clinic has to demonstrate its value to hospital administration. "Diabetes programs are labor-intensive and are not money-makers. They are more of a public service."

Maria Barnwell, president of E2M Health Services in Dallas, agrees: "The diabetic patient is expensive. They spend about 1.7 days longer in the hospital than the nondiabetic patient."

Totka says that clinics tend to lose money, but you can capture revenue for your clinic from the lab or pharmacy. "The lab is the golden child of any hospital. They have no costs compared to the money coming in. You can point out, 'Maybe my clinic doesn't make money, but look at the revenue generated in the lab from the patients who come from my clinic.'"

Another way to demonstrate value to your administration is to point out how the clinic is affecting the community and how its influence stretches beyond hospital walls, says Totka. "Get them to look at the global perspective. They'll see they can't do without you. We do outreach programs where we distribute educational materials in schools and elsewhere. Not only do we impact the community, but diabetes management is seen as one of the facility's best programs, not because it makes money but because we are indispensable."

Peggy Gardner, PhD, director of medical education and executive director of research at Via Christi Health System in Wichita, KS, was part of a team that developed a clinical algorithm for its diabetes project called Freedom With Diabetes.

"Our diabetes case managers originally came out of an area in the hospital called diabetes care," she says, "an old-style, pre-managed care inpatient education program where patients would come for five days and go through the program. Those case managers had a focus on diabetes and are valuable to the project."

A project that lowers risk

Designed as an outpatient project, the Freedom With Diabetes team developed tools for use in physician offices, including a resource manual, chart stickers, and reminder sheets. Offices also received inexpensive glucometers and simple disposable devices for testing pedal neuropathy.

The primary care physicians in those offices fax referrals to the project where telephone operators use scripted materials to contact patients and answer questions. A care coordinator performs a risk assessment and enrolls appropriate patients into an education program. She also provides links between patients and specialist providers and sometimes intervenes to meet with patients and their doctors.

Gardner says the project was begun three to four years ago with the assumption that good care coordination and good communication could reduce risk in the diabetic population. "Our ultimate goal," she says, "was to get HbA_{1c}s down. Nurses, CDEs, and physicians — both endocrinologists and family doctors — worked together to develop an algorithm of care for Types 1, 2, and gestational diabetics." There are now 200 enrolled in the program. The project was not fully implemented until last February, and outcomes are not yet available, but it is thought that the project will cost $500,000.

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Encourage independence and functionality

Andrea Diedrich, RN, MS, director of continuity of care at Kishwaukee Community Hospital in DeKalb, IL, led a team of colleagues who initiated a small pilot project last year to get a feel for how case managers might improve the care of their area's diabetic population. The 173-bed, nonprofit facility 75 miles west of Chicago has a small informal case management program at this time.

"The aim of the project was of course to improve care for those patients, but we mostly wanted to see the effect of a case manager on outcomes in the hope of increasing our case management activities within the hospital," says Diedrich.

Her team coordinated the diabetes registries of three participating physicians and gathered a group of about 20 diabetic patients whose HbA_{1c}s were 9% or greater, then assigned an RN case manager with an expertise in diabetes.

The pilot ran from February to September 1999. "She called the patients on a weekly basis to discuss their self-management," says Diedrich. "She offered encouragement and chatted with them about things they could be doing for themselves that they may need help on."

After several months into the project, average HbA_{1c}s came down. **(See two graphs showing improvements, p. 9.)** "We felt positive about our

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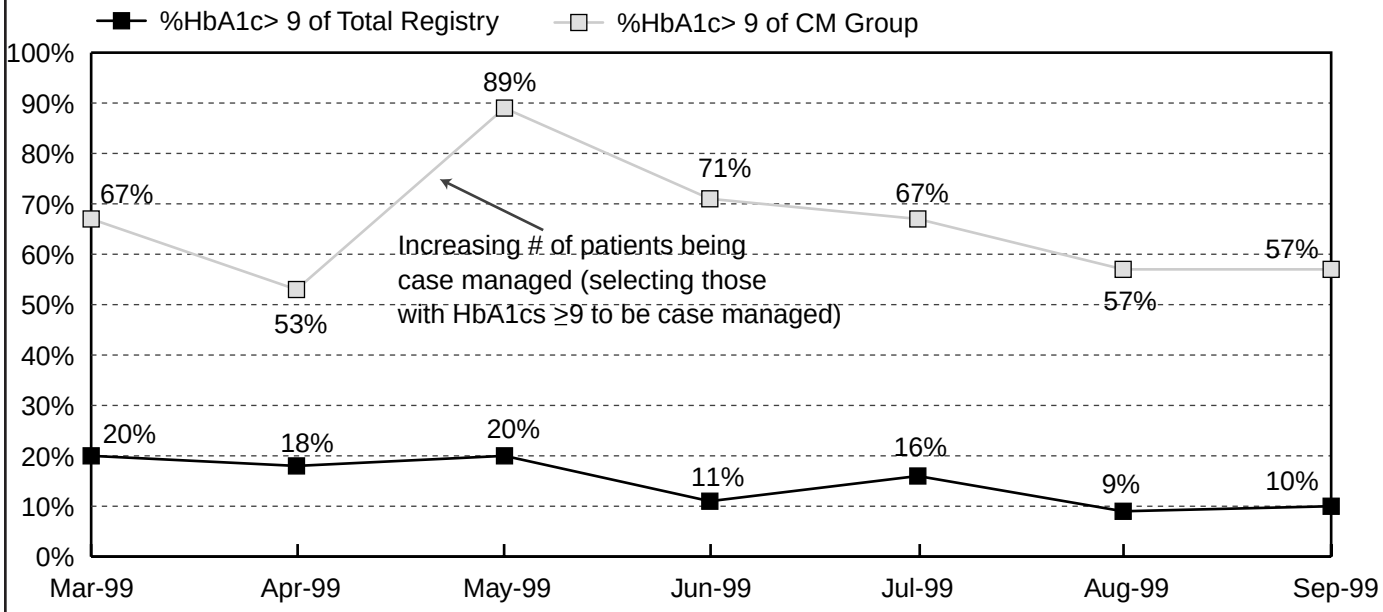
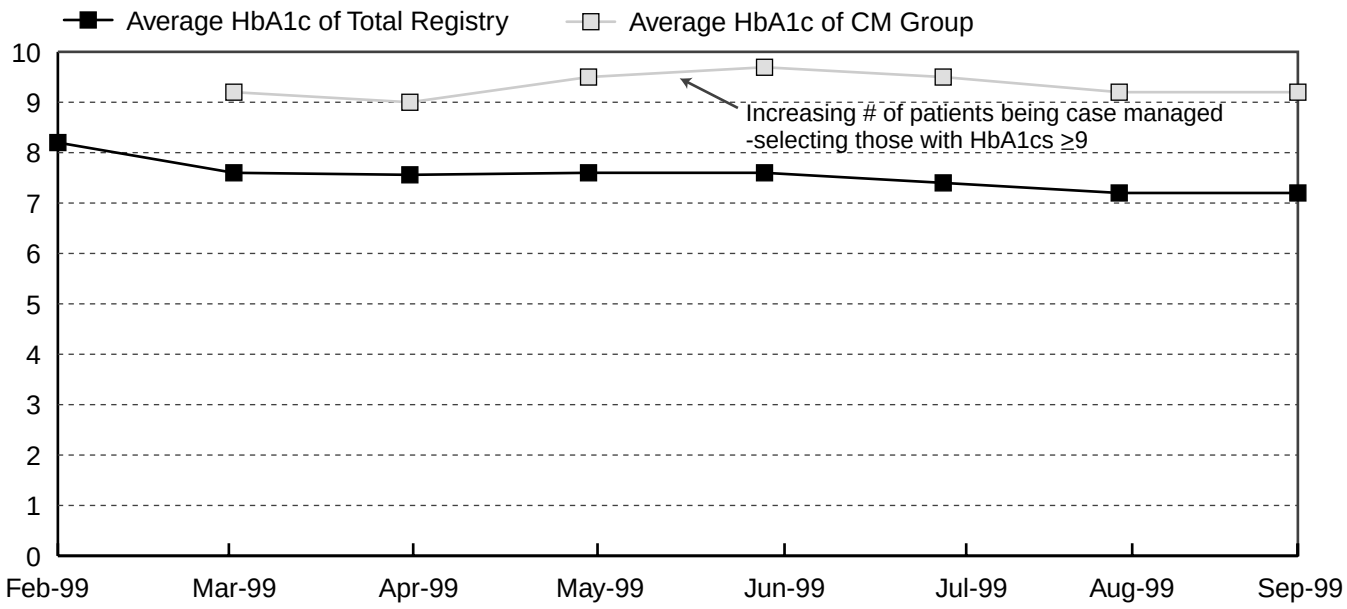
Case-managed Diabetic Patients Show Improvement





These graphs compare the case management group of diabetes patients with the total diabetic registry at Kishwaukee Community Hospital in DeKalb, IL. Both show decreases in HbA_{1c} levels and percent of populations with levels below 9%.

Since the study team did a significant amount of work on the total registry group through the physician offices, they were looking at both groups to see what kind of decreases they would see in HbA_{1c} levels.

small accomplishment," she says, "and now we're expanding upon the program. We'll soon be working with people in our registries who have HbA_{1c}s of 8%."

Diedrich says the pilot project encountered barriers, such as getting physician buy-in. "Also, it's not always easy to justify the cost of a case manager — there's a time investment, and positive outcomes are hard to measure on the short term."

Important to keep patients motivated

Keeping patients motivated was another challenge. "These patients tend to 'fall off the wagon,'" says Diedrich. "But for the most part, patients continued to participate in our project because they were happy to have the support and encouragement. They were happy to have someone to answer questions for them."

In the beginning, the team offered an eight-week educational session to get patients interested. "We invited every patient on the three registries," says Diedrich. "Our patient base originated with the patients who took the class, as long as they had HbA_{1c} levels equal to or greater than 9%." Others became part of the pilot, too, if their physicians recommended them.

What were the keys to the project's success? "For one thing, the physicians' support with their registries," she says. "Also, the case manager we hired had credibility and respect. We set up goals for her phone calls so she knew how to direct the conversations. Also, there was good documentation so monthly follow-up flowed smoothly."

The Institute for Healthcare Improvement in Boston invited the Kishwaukee team to present their outcomes at its Oct. 28-29, 1999, National Congress in Dallas, "Improving Care for People with Chronic Conditions."

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Teach diabetics survival skills before discharge

Diabetes education moving to outpatient area

About 10 years ago, nurses at York (PA) Health System would contact diabetes educators when a patient needed teaching. Today educators have moved to the outpatient area where they set up formal classes. This trend is common in health care today, says **Donette Lasher**, MAT, patient education coordinator for the health care system.

Some background

In the old system, when the educators left, the inpatient floor nurses were supposed to teach patients survival skills if they were admitted to the hospital for diabetes, then refer them to the outpatient program. A formal policy was written and pamphlets stocked on each unit, yet many of the nurses felt they lacked expertise or they just didn't have the time.

"It takes about an hour to go over some of the information," explains Lasher. As a result, patients on the inpatient side weren't being referred to the outpatient area. All the referrals were coming from the endocrinologists at clinics. A committee of physicians, dietitians, diabetes educators, and nurses was formed last summer to examine the problem, and it decided someone needed to be accountable for inpatient diabetes education. It considered training nurses or hiring an inpatient diabetes educator.

Lasher called other hospitals to inquire about their inpatient education for diabetes. She also tracked the teaching history at York Health System and had the nurses ask their clinical directors for suggestions. The consensus was that an inpatient diabetes educator would be the best solution, and money was allocated to fill the position.

Handling two problems

Many health care facilities today are reviewing their policy for inpatient diabetes education to correct problems. "The major problem is letting people fall through the cracks," says **Nancy Moline**, RN, MEd, CDE, regional diabetes care management program coordinator for Kaiser Northern California Region in Oakland. "The connection between inpatient and outpatient is really difficult sometimes. You don't necessarily catch everyone."

A second problem is providing consistent information. Different health care workers sometimes give patients contradictory information,

says Moline. Various health care institutions are implementing solutions to these problems in a number of ways. At Kaiser, a tool kit for diabetes teaching is stocked on each floor.

"I started by inservicing the nurses about diabetes and then decided they needed some kind of a tool kit so they would have everything they need at their fingertips," says Moline.

Everything needed to educate patients

The tool kit contains all the information needed to teach patients about Type 1 or Type 2 diabetes. The assortment is built around a starter kit produced by a drug company with the basic tools a newly diagnosed diabetic needs, such as a syringe for insulin.

Additional materials, such as pamphlets and videos, were inserted to tailor the kit to the teaching policies outlined by Kaiser.

A teaching sheet explains what the nurses are supposed to teach and the order in which it should be taught. For example, it lists which videos for newly diagnosed diabetics should be shown first, second, or third. The tool kit and teaching checklist provide a guideline of what survival skills are needed by newly diagnosed patients.

There is also a quick assessment tool nurses give patients. It's a simple quiz in which patients check "yes" or "no" answers for several questions. "The assessment tool gives nurses an idea of how to target the patient's education," says Moline.

Teaching is slightly different at Baptist Health System in Miami. Any patient with diabetes who is admitted to the hospital is given an

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identification bracelet to wear that reads "DIABETES PRECAUTION." Diabetes patients wear the bracelet regardless of the diagnosis for which they are admitted to the hospital, explains **Lois Exelbert**, RN, MS, CDE, administrative director for the Diabetes Care Center at Baptist Hospital.

In addition to the bracelet, special posters are hung in the patient's room reminding nurses what information is important to teach the patient. A reminder for the physician to order diabetes education is placed in the chart.

"As soon as we get an order from the physician for diabetes education, our team goes out," says Exelbert. The team consists of a nurse and dietitian from the outpatient area who are both certified in diabetes education.

Development continues

Because many of the patients are so sick during their hospital stay, they are simply taught survival skills that consist of giving themselves insulin when appropriate, testing for blood glucose levels, and following a basic meal plan. The teaching is ordered for newly diagnosed diabetes patients or those struggling to control their disease.

Although the program at York Health System is not yet complete, an assessment tool is in the process of being created. This tool is a combination of a tool found at another hospital and one produced by the American Diabetes Association. Focus groups consisting of patients who have been discharged from York also are being used to help design the curriculum and review materials such as videos and pamphlets.

The patients are asked what their priorities were as inpatients and what they needed to know when they were discharged. A way to evaluate the effectiveness of the teaching also is being built into the program.

While an inpatient teaching plan is important to ensure that patients are taught survival skills and referred to the outpatient program, nurses must be continually reminded during inservices to make sure the teaching gets done, says Kaiser's Moline.

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CE objectives

After reading this month's issue of *Diabetes Management,* the continuing education participant should be able to:

- Identify particular clinical, administrative, education or managerial issues related to the disease management of diabetes patients.
- Describe how those issues affect diabetes patients, diabetes management programs, and diabetes costs.
- Cite practical solutions to disease management problems associated with diabetes, based on overall expert guidelines from the National Institutes of Health, the American Diabetes Association, the American Association of Diabetes Educators, or other authorities, or based on independent recommendations from clinicians at individual institutions. ■