CASE STUDY FOR QUALITY IMPROVEMENT

Building a Diabetes Clinic

BILLINGS CLINIC—CODY DIABETES CENTER

Organization Profile

Based in Billings, Montana, Billings Clinic is a not-for-profit health care organization governed by the community and is the community's largest employer. Billings' satellite clinics provide health care in communities throughout Montana (400-mile radius). In addition, each year more than 52 Billings Clinic physicians in 18 specialties travel in excess of 260,000 miles to provide specialty care for residents of rural Montana, Wyoming, and North Dakota.

Billings Clinic-Cody employs 8 physicians, 1 PA-C, 4 CDE's, and specialty care centers including the Diabetes Center. The clinic manages more than 10,000 patient visits annually and 11 outreach clinics. Billings Clinic-Cody also provides many Tele-Health appointments, in particular in oncology and diabetes.

Project Summary

One of 10 participants in a CMS Medicare Physician Group Practice (PGP) Demonstration project, Billings Clinic focused on providing disease management by engaging information technology, developing patient registries, and preventing avoidable admissions and readmissions.

Goals and Objectives

Using a multidisciplinary team approach, Cody strives to ensure that patients and clinicians meet minimum annual diabetes assessments for quality care and management:

- Labs
  - Lipids, A1C, microalbumin
  - Others as required
- Vital signs: HT, WT, BMI, BP
- Eye and foot exams
- Immunizations

Team Composition

Physician Advisor	Adair Bowlby, MD, FP NCQA-Certified in Diabetes
RNs	2 CDEs
RDs	2 CDEs
MDs	5 NCQA Diabetes-Certified The only MDs certified in WY
PA-C	1 Certified

Outcomes and Successes

Among the key elements that contributed to the success of the Billings CMS Demo Project was having the Diabetes Registry to track outcome data including the following:

- 700 patients (inside the clinic, 1,200 annual basics)
- Median average A1C 6.5%
- Outside eye care documentation 43% (Lions International provided $2,000-$5,000 annually for eye exams)
- Kidney function documentation 54%
- BP <130/80 53%
- BP – only 13% population have diagnosis of HTN

Project Details

Billings Clinic had the challenge of engaging a number of rural clinics in implementing its diabetes management strategies and has been able to offer a unique view on the demonstration project's results due to the extreme geographic dispersion of many of its patients. Approximately 40% of Medicare patients analyzed in the project reside outside of Yellowstone County. Billings-Cody serves a 125-mile radius including areas of Wyoming.

In 2007, all physician groups participating in the Demonstration Project improved the clinical management of diabetes patients in the first year of the 3-year project.

In 2007, Billings Clinic attained quality targets on 20 of 22 possible quality points, representing a 91% performance rating during the first year of the program. As a result of these performance improvements, nearly 20 Billings Clinic physicians, representing 80% of eligible physicians, were recognized through NCQA Diabetes Physician Recognition Program for excellence in diabetes care. Billings Clinic's focus on technology led to a Diabetes Registry of patients, electronic record modules to provide for consistent evidence-based care, and an expanded team of diabetes experts and educators offering a patient-friendly Report Card to help with patients' understanding of their disease and raise provider accountability for health maintenance.

In August 2009, The Centers for Medicare & Medicaid Services (CMS) announced that each of the 10 physician groups participating in the Medicare PGP Demonstration improved performance on the delivery of preventive care and care for patients with chronic illnesses. Billings Clinic achieved 31 of 32 measures, resulting in a 98% quality score for year 3 of the demonstration.

Diabetes Intervention and Population Baseline

The Billings Diabetes Clinic focuses on both Type 1 and Type 2 diabetes patients, aged 18 and older. Areas of focus and interest include

- Newly diagnosed diabetes patients
- Poorly controlled diabetes patients
- Diabetes patients with difficult to control cholesterol or high blood pressure
- Patients on oral medications or insulin therapy
- Patients on an insulin pump or interest in insulin pump therapy
- Patients interested in the newer therapies available for diabetes

Patients are identified and referred by their clinician or occasionally by self-referral. The clinic is a rural care center serving a 125-mile radius. The Cody diabetes team works with patients from local hospital, outside local physicians, and 7 outreach facilities. Most patients are fee for service and have no insurance.

The Diabetes Registry (Diabetes Quality Care Management System [DQCMS]) identifies patients and collects additional data elements, interfacing with the system's Electronic Medical Records (EPIC).

Before obtaining the Software (DQCMS) from WY State Diabetes Prevention and Control Program and a grant from the University of Wyoming Coordinator ($10,000) to fund the project, all data had been entered manually on a laptop computer at each site.

The DQCMS included for each patient a Registry Data Form and Eye Form. The forms provided physicians with a pre-visit review of patient progress. Patients also requested copies of the form, seeing it as a “report card” allowing them to view their progress.

Staff and physician buy-in to the program was achieved through a good deal of internal and roundtable education, exploration of NQCA Certification options, incentives for reimbursement, ADA Recognition, and actual patient benefits achieved at 2 demo sites. Having a coding and compliance person available was instrumental in helping to capture billing for the 2-year demo.

Improvement Interventions—Diabetes Clinic/2006

Due to the rural area, most people travel from 75 to 100 miles, so it’s necessary to do all needed “in town” in 1 day. Therefore, quarterly, or more often as may be requested, patients were scheduled for appoints with the nurse, dietitian, lab (if not done prior), and clinician all on the same day (generally 90-minute appointment). Diabetes clinic was usually scheduled in the morning and class in the afternoon. This way, patients missed less work or school and tended to keep their appointments.

Eye exams could also be scheduled for that day, or they could make future appointments. The Lion’s club agreed to hold a certain number of appointments for days the Diabetes Clinic saw patients. If needed, a patient could be sent right over for an eye exam. To maintain cost-effective staff management, patients were scheduled into class within 30 days, or less if indicated, or placed in group education that same day for most. Both patients and staff were very satisfied with this system.

Several measures were used to maintain accurate records of patient progress. These included: National NCQA measurement tools recognized for clinicians; ADA-certified program use AADE 7 measurement tools for education; and DQCMS Diabetes registry software as report tool for 10 quality assurance measures and to produce a monthly report important for looking at trends and particularly helpful in identifying patients due for a visit and/or which interventions were required.

Challenges or Obstacles

Of the many challenges to the Billings demo project, most fall into 3 interrelated areas: funding/cost, time restraints, and distance (due to rural area).

Funding: Keeping funding; low Medicare and insurance reimbursement; cost of travel; cost of quality training materials.

Time restraints: need to write for grants to fund outreach classes; time for documentation and billing (nonproductive).

Distance: patient scheduling; cost of travel.

Future Steps

- Continue quarterly monitoring at present. Considering bimonthly monitoring moving forward.
- Extend outreach rural clinic.
- Continue to invite and utilize patient input and to refine the Diabetes Clinic.

Lessons Learned

- **Don't be afraid to fail. The Billings team redesigned the clinic 3 times.**
- **Ask for patient input. The clinic obtained patient evaluation after 4 visits and ongoing.**
- **Learn from others.**
- **Each clinician has his/her unique needs.**
- **Look at each clinician's panel before scheduling: factor in patient age; allow time for questions.**
- **Communication is essential; interface with departments like lab so they are ready for increased volume; send reminder letters for labs and appointments.**
- **Continue to remind PCP of clinic format to maintain consistent flow.**
- **Use any/all channels for patient communication: phone, fax, email, etc.**
- **Be creative; use all available resources.**

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21050182(2) 06/10-SGR Printed in USA Minimum 10% Recycled Paper Kit #: 21051425(1)

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