

The Role of Diabetes Educators, Dietitians, and Other Diabetes Care Team Members in Quality Improvement

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March 20, 2019

Learning Objectives

- Identify specific recommendations for measuring quality of care for people with diabetes in your clinical or community health practice.
- Explain the benefits and challenges of using QI techniques and tools to colleagues in your work setting, using case examples.
- Implement one change in your clinical or community health practice to measure the quality of care patients are receiving.

Institute of Medicine definition

- Quality of care is the degree to which *health services* for *individuals* and *populations* increase the likelihood of desired health outcomes and are consistent with current professional knowledge.

Quality Health Care Is...

- **Safe:** Avoids injuries to patients from the care that is intended to help them
- **Effective:** Provides services based on scientific knowledge to all who could benefit, and refrains from providing services to those not likely to benefit
- **Patient-centered:** Provides care that is respectful of and responsive to individual patient preferences, needs, and values.

Quality Health Care Is... (continued)

- **Timely:** Minimizes waits and sometimes harmful delays
- **Efficient:** Avoids waste
- **Equitable:** Provides care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status

Traditional Model

- Fee for service
 - Health care organizations and providers are reimbursed based on each visit or procedure
- Counting patient encounters or community member encounters

Quality of Care and Value-based Payment

- Patient Protection and Affordable Care Act of 2010
- Joint Commission, Center for Medicare and Medicaid Services (CMS)
- National Committee on Quality Assurance (NCQA)
Healthcare Effectiveness Data and Information Set (HEDIS)
- Patient-Centered Medical Home initiatives
- Diabetes Education and DPP program
accreditation/recognition

Why Is This Important for YOU?

- *For the first time*, you could be part of a net positive revenue-producing department or service
- Diabetes care is a major area of quality measurement and quality improvement
- **You** are an essential part of the care team in the health care delivery system of the future.

How Do We Assess Quality?

- Structure measures
- Process measures
- Outcome measures

Structure Measures

How is care organized?

- Facilities, equipment, EHR/other technology
- Staffing
- Care delivery systems: Care teams, patient-centered medical homes, availability of specialty services
- Diabetes education program accreditation/recognition
- Access to Medical Nutrition Therapy (MNT) with a dietitian
- Use of registries
- Funding
- Systems to measure or report quality
- Training/continuing education

Process Measures

- What is done?
 - Adhering to the best known practice: Doing the right thing, for the right patient, at the right time, and doing it right.
 - Correct treatment and medications
 - Did they get a flu shot? Screening exams? Statin? Education? Labs?
 - Interpersonal skills — communication, respect, empathy

Outcome Measures

- What happens to the patient's health?
 - Behavioral
 - Decreased substance abuse
 - Diet or exercise changes
 - Clinical
 - Shorter-term: A1c, blood pressure
 - Longer-term: complications, mortality

Outcome Measures (2)

- Patient's perspective
 - Health status
 - Disability
 - Patient experience/satisfaction
 - Quality of life
- Societal perspective
 - Costs/utilization

Quality Improvement (QI)

- Systems approach
- Information systems
- Meaningful participation in quality improvement program
- Robust reporting systems
- Collaboration and Teamwork
- Coordination of care

Polling Question

At your organization, do you or someone on your diabetes team report patient safety events that you have become aware of or been involved in?

Polling Question (2)

At your organization, do you receive or otherwise participate in the resolution of reported patient safety incidents?

QI Process Tools

- Plan-Do-Study-Act or Plan-Do-Check-Act (PDSA and PDCA)
- Continuous Quality Improvement (CQI)
- Lean Six Sigma
- Root Cause Analysis
- Other formal tools and processes

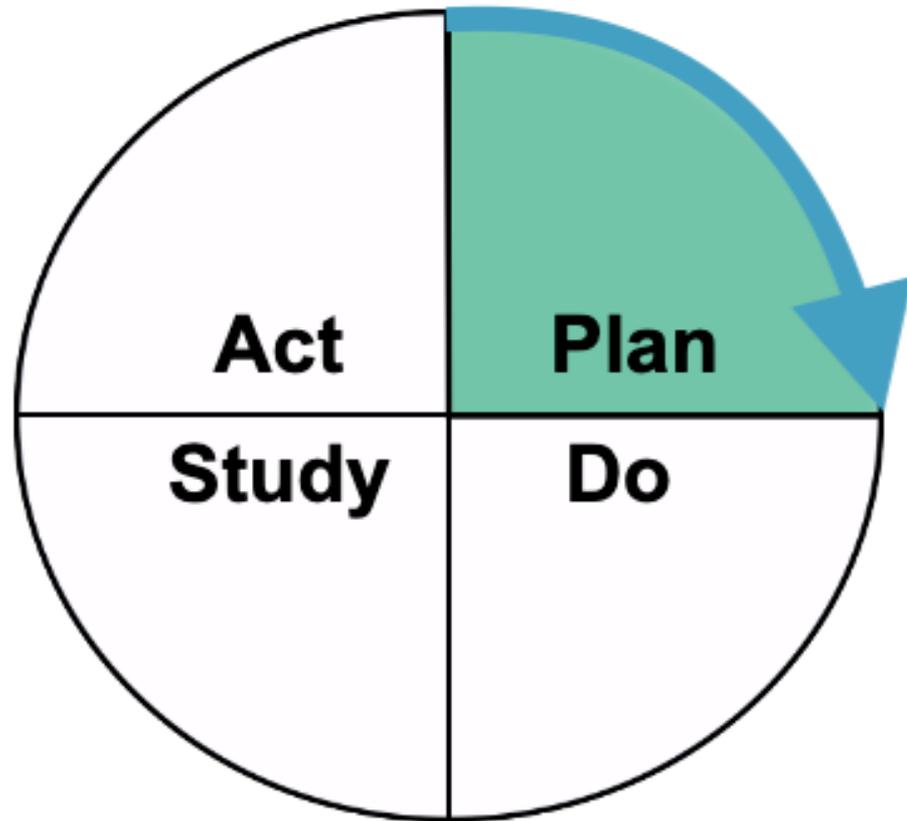
CQI

- What are we trying to accomplish?
- How will we know a change is an improvement?
- What changes can we make that will result in an improvement?

CQI Process

- Identify the Problem/Opportunity
- Collect the Data
- Analyze the Data
- Identify Alternative Solutions
- Develop an Implementation Plan
- Implement the Plan
- Evaluate the Actions
- Maintain the Improvement

PDSA



Plan

- State objective of cycle
- Make predictions
- Develop plan: who, what, where, and when

Do

- Carry out the test
- Document problems/surprises
- Begin data analysis

Study

- Complete data analysis
- Compare results to predictions
- Summarize what was learned

Act

- What changes can/should be made
- What the “next cycle” should follow

Polling Question (3)

Have you participated in a PDSA cycle *and* know you were participating?

Examples



- Diabetes Care and Outcomes Audit
- Annual QI planning using audit as a tool and including
 - Collaboration and Teamwork
 - Shared care, primary-secondary care collaboration
 - Redesign of care processes, care pathways
 - Care management
 - Team training
 - Champions/leadership support

Audit QI

- Co-locating diabetes education and nutrition within primary care
- Expanding scope of practice to top of license for allied health professions (dietitians, pharmacists)
- Local guidelines based on ADA and Indian Health Service (IHS) Standards of Care
- Training & orientation to standards of care for providers, with follow-up from physician champions
- Standing orders for Certified Medical Assistants (CMAs) and Registered Nurses (RNs)
- Marketing of education services
- Diabetes mellitus (DM) education and nutrition via telemedicine
- Expanding staff members trained to provide foot exams

AADE Accreditation

10 National Standards (2017)

- Internal Structure
- Stakeholder Input
- Evaluation of Population Served
- Quality Coordinator Oversight
- DSMES Team
- Curriculum
- Individualization
- Ongoing Support
- Participant Progress
- Quality Improvement

American Association of Diabetes Educators (AADE) Accreditation

- TCRHCC's diabetes education program has been accredited since 2010
- In 2018, we went thru our 2nd re-accreditation application
 - New EHR go-live Oct 2017 (templates and data reporting)
 - Update of Standards in 2017
 - Turnover in data collection staff
 - Difficulty in the setting and follow-up of behavioral goals
 - Inadequate follow-up

Plan (2)

- Meet with all instructors face-to-face on failure of re-accreditation
- All DSME patients scheduled for follow-up at discharge from initial (<3 months out)
- Face-to-face explicit chart reviews with each instructor within 1 month
- SMART goal setting tool
- Each instructor to track and report their own patient data, including clinical and behavioral outcomes

Do (2)

- We were able to implement 2 items immediately, then complete chart reviews with all 13 professional instructors.
- Each instructor submitted data reporting to Quality Coordinator every 2 weeks.
- Each instructor appreciated the chart review and felt it helpful in improving goal setting and documentation. Repeat chart reviews were initiated.

Study (2)

- Of 214 unique patients:
 - 123 with new A1c improved 1.1 points (10.3 to 9.2)
 - 125 with new BP had improvement (133/74 to 131/73)
 - 133 with new BMI had improvement (31.7 to 31.6)
- The 214 patients 647 goals were set
 - 424 were followed-up (65%)
 - 168 were achieved (40%)

Act (2)

- We will continue with the chart reviews and scheduling change indefinitely.
- We will continue the manual outcome tracking until EHR reporting is able to fully replace it. Reporting both clinical and behavioral outcomes quarterly
- Update DSME template with mandatory goals section, and more spaces for clinical progress.
- SMART goal setting training

Identify a Problem and One Action to Make It Better

- Inpatient hypoglycemic events
 - Set a time to deliver meals
- Outpatient/ER hypoglycemic events
 - Reporting outpatient/ER hypoglycemic events — send errors to prescribing provider ASAP
- Medication errors
 - Have a pharmacist in clinic to educate on med changes
- Lack of behavior change/inadequate data
 - Educators documenting achievement of behavioral goals

Identify a Problem and One Action to Make It Better (2)

- High A1c
 - MA/RN-initiated same-day referral for pts with A1c > 9.0
- Inpatient diet order errors
 - Random QA of delivered trays vs. diet order
- Underuse of statin prescribing
 - Share internal data to all med staff on statin prescribing unblinded
- Underscreening for nephropathy by Creatinine/eGFR **and** urinary albumin/creatinine ratio
 - Initiating standing orders by RN/MA for creatinine and UACR

Root Cause Analysis

- Inpatient hypoglycemic events
 - Identify one or two events for review.
 - Get the involved front-line staff members in a room.
 - What are all the moving parts of this process that allowed this event to happen? Ask why that happened at least five times.

Factors

	Patient #1	Patient #2
Patient Factors	<ul style="list-style-type: none"> • decreased renal function • advanced age • severely underweight/cachexia • chewing/swallowing issues • thyroid dysfunction • bacteremia • reduced alertness • food allergies of unknown degree • highly variable intakes • glycemic variability • Cirrhosis 	<ul style="list-style-type: none"> • Constipation • Narcotic pain meds • Massive home dose, unknown compliance • Poor appetite, nausea, vomiting • Glycemic variability • Change in diet
Task Factors	<ul style="list-style-type: none"> • Insulin is so frequently used, its inherent riskiness may not be recognized. Blood sugars so frequently checked. • Incorrect diet ordered. Not using “copy-reorder” function after NPO status • No effective method of ensuring that ordered diet is delivered, e.g. snacks and supplements. • Intakes not consistently documented • No standardized process for prescribing insulin, or for coordinating POC glucoses, food, and dosing. • Not removing or lowering initial sliding scale when it has not been needed, as once it is used can cause a significant drop 	<ul style="list-style-type: none"> • no protocol on orals vs insulin (and how long sliding scale can be used) • no clear direction as to when to consult IM • Home dosing to inpatient dosing protocol lacking • No procedure for uptitrating fixed dose and adjusting correction
Caregiver Factors	<ul style="list-style-type: none"> • Recurring hypoglycemia not documented in physician notes after several days • Whose responsibility is glycemic control, especially when perceived as not relevant to admission? • D5 could have been used for the prevention of hypo. 	<ul style="list-style-type: none"> • Do the PAs have the ability/authority/training for glycemic management for patients on their service?
Team Factors	<ul style="list-style-type: none"> • Was the ER hypoglycemic episode communicated to ACU nursing staff? • Adjustment and treatment not properly documented/communicated • Variable use of copy forward • Had 5 IM physicians (not including nights and surgeons), handoffs? 	<ul style="list-style-type: none"> • Lack of consistency in the ordering, provision, delivery, and consuming of snacks

More Factors

<p>IT/EHR Factors</p>	<ul style="list-style-type: none"> • EHR downtime may resulted in undocumented dose • Lack of clinical decision support • No order set for the use of insulin/treatment of hypoglycemia • Sliding scale orders state to follow hypoglycemia protocol if <80—no orders for protocol • Hard to figure out that the pre-set dose algorithm can be adjusted with a few extra clicks. • Bedtime dosing same as mealtime dosing • No simple way to review dietary intake documentation • Dosing for arbitrary times, rather than meals 	<ul style="list-style-type: none"> • Timing of dosing Q12 rather than with meals. • Difficulty reviewing POC glucoses by physician outside of clicking thru flowsheet. • Are our “standard” sliding scale choices designed for sliding scale only outdated care or are we properly using them as correction in addition to fixed dosing?
<p>Institutional Environment</p>	<ul style="list-style-type: none"> • Is glycemic control valued? • Pt here for social, for IV abx, and/or awaiting placement • Lack of data monitoring, Q-statim reporting 	

How Can We Eliminate or Mitigate Some of These Factors?

- Fix low-hanging fruit first — less aggressive sliding scales
- Glycemic control protocol, which includes hypoglycemia treatment and prevention
 - Includes responsibilities for nursing, IM and surgical physicians, dietary, diabetes educators, etc.
 - Training
- Order sets that align with policy
- Robust reporting of events

Next Problem!

- Diabetes in pregnancy outcomes
- Assessing satisfaction with diabetes education and nutrition care
- Parenteral nutrition safety

PI Quarterly Reporting

- Diabetes in Pregnancy
 - Number of DIP deliveries in quarter
 - Percentage of large-for-gestational-age births
 - Percentage of small-for-gestational-age births
 - Percentage of neonatal hypoglycemia episodes
 - DIP pregnancies ending in other-than-live births

Patient Satisfaction

Date of visit: _____

What type of service with our department did you have today? *(Mark all that apply)*

- Group Diabetes Education
- Individual Diabetes Education
- Individual Nutrition
- Foot, or Eye exam, or Meter teaching

Other *(Please specify clinic or provider):*

Patient Satisfaction Survey

It was easy to get this service scheduled: *(Circle one)*

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

Staff were courteous and respectful: *(Circle one)*

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

I felt like the educator listened to my needs and personalized the service to my concerns:

(Circle one)

- Strongly Agree
- Agree

My cultural values on health were represented:

(Circle one)

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

The education materials and handouts helped me learn: *(Circle one)*

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

I had enough time with my educator to have my questions answered: *(Circle one)*

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

My educator helped me set at least one personalized and specific lifestyle goal: *(Circle one)*

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

The room was comfortable: *(Circle one)*

- Strongly Agree

My educator told me when I need to come back for follow-up: *(Circle one)*

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

I would recommend Healthy Living Diabetes Education and Clinical Nutrition to a family member or friend: *(Circle one)*

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

I would prefer to come to a group diabetes education class that was offered: *(Mark all that apply)*

- 8am-2:00pm on a Tuesday one time
- 8am-12pm on a Tuesday for 2 weeks in a row
- 12pm-1pm on a weekday for 8 weeks in a row
- 5:30pm-6:30 pm on a weekday for 8 weeks in a row
- I would not come to a group.
- I prefer 1 on 1 education.
- I prefer not to do diabetes education at all.

Comments?

Other suggestions for improvement or other comments:

Parenteral Nutrition

- Patient safety concern
 - An inherently high-risk process
 - Requires a protocol in which it is easy to do the safe thing and hard to do an unsafe thing
 - Requires EHR tools, such as order sets and task reminders
 - Training and re-training

How Do You Actually Change Behavior?

- Be specific and relevant on the goal and the behavior, with a challenging but realistic target
- Agreed-upon, collaboratively developed goals
- Education by experts, plus champions from within
- Engage all staff members that may be affected
- Remove a culture of blame

How Do You Actually Change Behavior? (2)

- Provide education on evidence and your data
- Facilitative — make it easy to do and hard not to do
 - Give resources
 - Fix systems
- Believe the data and the indicators (have them involved in the collection of data).
- Immediate response — inform of inappropriate practice in the moment and related to a specific case
- Chart review with explicit criteria

What About Patient Behavior?

- Education on guidelines
- Self-management training
- Physician-patient encounter — does the physician address weight, smoking, etc., and if so, how?
- Reminder systems
- Financial/other incentives
- Care coordination

Do...

- Do make your proposed actions relevant and easy for others.
- Do coordinate with your organization's formal QI teams and processes
- Do choose a *real* problem that *matters* and that you can *measure*

Don't...

- Don't just measure — you must also improve.
- Don't assume that education, policies/procedures, forms, or telling someone what to do will be effective.
- Don't do it by yourself or rely on any one person — build a system that will still be there, even when you are not.
- Don't focus on any one individual or individual action — QI is not policing.
- Don't feel that you need to be expert in the QI tools to start a QI process

Polling Question (4)

Do you have a problem at your organization that could benefit from a QI process?

Polling Question (5)

Do you now know where to start in the quality improvement process for your problem?

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Questions?

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