Affecting Diabetes Outcomes through Diabetes Self-Management Education and Training (DSME/T)

Using a Continuous Quality Improvement (CQI) Plan

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Project Objective

Background:

Diabetes self-management education and training (DSME/T) aims to empower people with diabetes to effectively self-manage their disease. Diabetes educators who provide DSME/T do this by working with the patient to collaboratively set change goals and then providing people who have diabetes with skills, knowledge, and tools that they need for self-management.

According to the National Standards for Self-Management Education, accredited/recognized DSME/T programs are required to focus on continuous, continuous quality improvement (CQI) projects each year. (1-2) Data from these CQI projects can be used to help identify opportunities for improvement at the DSME/T program level. Over time, the CQI projects lead to better behavioral and clinical outcomes as well as increased participation and retention. (3) CQI efforts may foster the evolution toward best practices in diabetes education.

Objective of this Project:

To identify and positively affect outcomes measurements using CQI methodologies in DSME/T.

Definitions

Continuous Quality Improvement

CQI is an iterative, plan-implement-control approach to improving the delivery of products or services with an emphasis on the organization and systems of an institution or industry. (3)

Diabetes self-management education and training

DSME/T is a collaborative process through which people with or at risk for diabetes gain the skills needed to modify behavior and successfully self-manage the disease and its related conditions.

• an interactive, ongoing process involving the person with diabetes (or the caregiver or family) and a diabetes educator(s);

• an intervention that aims to achieve optimal health status, better quality of life and reduce the need for costly healthcare. Focus on self-care behaviors that are essential for improved health status and greater quality of life. Know as the AADE Self-Care Behaviors, these are (3):

  o Healthy eating
  o Being active
  o Monitoring
  o Taking medication
  o Problem solving
  o Healthy coping
  o Reducing risks

• Most often provided by diabetes educators who are licensed health care professionals with additional education and skills in expertise in diabetes, education and behavior change.

• Cost-effective and is associated with high quality care. (6)

CQI — Common Elements and Process

Three common elements are shared by CQI processes:

1. Emphasis on Processes
2. Customer Focus
3. Use of Objective Data

There are 8 Steps in the CQI Process:

1. Identify the Problem/Opportunity
2. Collect the Data
3. Analyze the Data
4. Identify Alternative Solutions
5. Develop the Plan
6. Implementation of the plan
7. Evaluate the Actions
8. Maintain the Improvement

Literature Review and Survey Information

Published literature indicates that for every 1% point decrease in A1C reduces risk of having diabetes complications. According to information available from medicare.com, lowering A1C by 2% reduces the 3% drop in A1C reduces risk of complications.

• Vision loss by 39%
• Kidney disease by 39%
• Peripheral Vascular disease by 22%
• Heart attack by 18%
• Diabetes-related deaths by 25%


The AADE’s 2011 National Practice Survey of diabetes educators indicates that DSME/T programs routinely undertake CQI efforts. Guidance is available for educators who undertake CQI projects in the “National Standards” and a CQI Step-by-Step Guide (1; 2). The latter states, “A necessary element of CQI is data collection and data analysis. In all CQI efforts it is the data that must guide the decisions about programs and procedure.” (3)

CQI Relates to the Outcomes Continuum

What we Learned

A1C were chosen by more than 50% of DSME/T programs that focused on a clinical outcome measure. The data below is aggregate data from A1C programs that are accredited by AADE’s Diabetes Education Accreditation Programs (DEAP).

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Methods

As a first step, a literature review was conducted to ascertain the need for a better understanding of DSME/T related outcomes. The review also examined how CQI could contribute to enhanced patient outcomes.

Test information on CQI activities was collected from: 1) the AADE National Practice Survey; 2) existing diabetes education data platforms and electronic medical record (EMR) systems; and 3) annual reports submitted by accredited programs were synthesized. This analysis allowed us to identify linkages to behavioral and clinical outcomes as well as opportunities for improvement.

Summary and What can be Improved

Some educators are intuitively wary of CQI projects. Tools and sample plans help to overcome these worries.

CQI programs have common attributes:

1. Emphasis on process rather than on individuals (even though information about individuals in DSME/T is used for the analysis).

2. Recognition of the linkage in the outcomes continuum.

3. Use of objective data to analyze and improve processes.

The CQI process helps diabetes educators achieve better outcomes by establishing or improving work processes and understanding where what is needed.

Additional efforts are needed to develop a large, national data repository of DSME/T CQI data to enhance analysis and benchmarking.

Sample CQI Plan

Continuous Quality Improvement Process

Identified Problem: Patient with Type 2 diabetes who are referred to our DSME Program do not always have a recent HgbA1c.

PLAN

Improve the percentage of patients referred who have a current (within the past 3 months) HgbA1c.

DO:

Each patient enrolled in classes or individual track will be entered into a spreadsheet, software or EMR.

At the end of each quarter, a report will be compiled of the percentage of patients who are referred with a recent HgbA1c.

STUDY:

Measure the percentage of patients who are referred with a recent HgbA1c every quarter.

ACT:

Analyze the effect of the plan to increase the percentage of patients who are referred with a recent HgbA1c.

Utilize spreadsheet to track data.

OPTIONAL

Use strategies that are effective and create new ones as needed. Report results to Quality and Risk Management, and the advisory committee annually. Repeat cycle.

References


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