



Diabetes QI Patient Education Toolkit

AHEAD INITIATIVE



CASE WESTERN RESERVE
UNIVERSITY
School of Medicine



NORTHEAST OHIO QUALITY IMPROVEMENT HUB



Northeast Ohio
MEDICAL UNIVERSITY

Contributors to the Development of this Toolkit

This toolkit was modified and updated in September 2023 from a previous **diabetes patient education toolkit**, which was developed in 2022 as part of a Medicaid-funded statewide diabetes quality improvement project in high-volume Medicaid practices. This toolkit was modified by Case Western Reserve University School of Medicine and Northeast Ohio Medical University faculty and experts in primary care and endocrinology from affiliated health system partners and regional Federally Qualified Health Centers (FQHCs).

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In partnership with



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Background



The Ohio Department of Medicaid (ODM), in collaboration with academic leaders, healthcare providers, and payers, has established Regional QI Hubs across Ohio to advance population health improvement for Medicaid enrollees. The Northeast Ohio (NEO) QI Hub is led by Case Western Reserve University (CWRU) School of Medicine in partnership with Northeast Ohio Medical University (NEOMED), regional healthcare systems, and Federally Qualified Health Centers (FQHCs). The NEO QI Hub will be recruiting patients and family members enrolled in Medicaid at clinics to ensure patient and consumer voices are integrated into the toolkit, allowing adaptation over time based on their input. To align priorities for greater impact, the NEO QI Hub will also engage with community-based organizations, businesses, and Medicaid Managed Care Plan partners.

Achieving HEAlth Equity in Diabetes (AHEAD)

The initial QI project of the NEO QI Hub, AHEAD, seeks to improve the health of adults living with diabetes in Northeast Ohio by using quality improvement science to improve glycemic control and eliminate disparities. AHEAD builds upon a prior successful statewide Diabetes QI Project which improved A1C > 9% from 25% to 20% at high-volume Medicaid primary care sites led by Ohio's seven schools of medicine, the Ohio Colleges of Medicine Government Resource Center, and ODM. To implement evidence-based strategies to equitably improve HbA1C control, participating primary care practices in AHEAD will participate in a kick-off meeting, monthly webinars, and monthly QI coaching. A companion Diabetes QI Clinical Toolkit for primary care teams can be found at NEOQIHub.org.

According to a **technical brief from the Agency for Healthcare Research and Quality (AHRQ)**, a review of evidence on strategies to engage patients and families in managing a chronic condition found the most evidence for self-management strategies.

A team of certified diabetes care and education specialists working on the NEO QI Hub AHEAD Initiative have crafted a selected list of “must have” diabetes self-management education resources for clinicians to share with their patients. The materials are tailored to the overall goals of the project, frequently asked questions of patients with diabetes, and materials with clear, low literacy messages and content.

While numerous sources of diabetes education exist, a concise list of reputable, easy to understand, evidence-based selections are provided from expert groups and institutions. The intent is to share these handouts with patients to engage them in meaningful dialogue and education around the various topics included. Lifestyle changes can significantly lower A1C! Additionally, informed patients can live more safely with diabetes.

How to Use This Toolkit

The patient education materials have been organized into clinical focus areas so that teaching can be customized to each patient. To avoid overwhelming patients with too much information, it is recommended that health care team members give patients the fact sheets as they are needed, limiting information to just the key concepts or behaviors needed for improved self-management.

One approach is to **bundle the resources** by key concepts of self-management and use them for focused visits. For example, a patient starting insulin would benefit from the medication bundle pertaining to insulin management. Three suggested bundles of resources are included below. There is also an **index of patient education handouts** organized by topic. It is intended to be a resource for the diabetes educator to select “à la carte” the topics most helpful at the time of the visit. The title of each document below is a direct link to the patient education handout. The handouts can be downloaded and printed locally at your clinical site.

Bundles of Patient Education Resources



Diabetes Survival Bundle

The Diabetes Survival Bundle is focused on the Association of Diabetes Care & Education Specialists (ADCES) **7 Self-Care Behaviors™**, which are aimed at engaging patients to eat healthy, be active, monitor their sugars, take their medications, problem solve, and reduce their risk for complications. This bundle may be particularly useful for those being seen after a hospital discharge, or for an individual who is being seen after being out of care. Consider including the following patient education handouts:

- **What Is Diabetes?**
- **How to Test Your Blood Sugar**
- **Tracking Blood Glucose**
- **Low Blood Sugar (Hypoglycemia) and Symptoms of Hyperglycemia (High Blood Sugar)**
- **Nutrition for Life: Diabetes Plate Method**
- **What Can I Eat?**
- **Tips for Being Active With Diabetes**
- **Sick Day Guidelines**

Medication Bundle

The Medication Bundle is separated for patients on oral medications and patients on insulin. For patients on oral medication, consider including the following patient education handouts:

- **Learning About Diabetes Medications**
- **How to Test Your Blood Sugar**
- **Blood Glucose Log**
- **Tracking Blood Glucose**
- **Low Blood Sugar (Hypoglycemia) and Symptoms of Hyperglycemia (High Blood Sugar)**

For patients on insulin, consider including the following patient education handouts:

- **Learning About Diabetes Medications**
- **Injectable Medications**
- **Giving Yourself Insulin**
- **How to Test Your Blood Sugar**
- **Blood Glucose Log**
- **Tracking Blood Glucose**
- **Low Blood Sugar (Hypoglycemia) and Symptoms of Hyperglycemia (High Blood Sugar)**
- **Diabetes Alert Card**
- **Hypoglycemia in Diabetes: The 15-15 Rule**

Blood Glucose Monitoring Bundle

The Blood Glucose Monitoring Bundle can serve as an introduction to blood glucose monitoring and provide education about how lifestyle changes and medication adherence impact diabetes. Consider including the following patient education handouts:

- **How to Test Your Blood Sugar**
- **Blood Glucose Log**
- **Tracking Blood Glucose**
- **Getting Started With Your Continuous Glucose Monitor (link forthcoming)**

Index of Patient Education Resources by Topic



What Is Diabetes?

What Is Diabetes?

This booklet provides a high level overview of topics including definitions of the different types of diabetes, hyperglycemia, hypoglycemia, monitoring blood glucose, medications, and setting glucose goals. It is written for low literacy patients and uses drawings to illustrate the topics. It is available in English and Spanish from Learning About Diabetes, Inc.

4 Steps to Manage Your Diabetes for Life

This booklet is for newly diagnosed patients with diabetes. It is written for low literacy patients and is available in English and Spanish from the National Institute of Diabetes and Digestive and Kidney Diseases.

Medication for Diabetes

Learning About Diabetes Medications

This handout lists oral medications and how they work on the body. It also explains how to best take them. It is available in multiple languages from Scripps.

Injectable Medications

This handout includes a table of oral and injectable medications (GLP-1 agonists and insulin), including insulin types with onset, peak, and duration times. It is available in multiple languages from Scripps.

Giving Yourself Insulin

This handout uses drawings to illustrate the steps to give injections with a syringe or pen. It is written for low literacy patients and is available from Scripps.

What to Do With Used Sharps

This handout defines a sharp, includes pictures of appropriate containers to dispose of needles and lancets, and instructions on disposal. This is specific to Ohio and is available from safeneedledisposal.org.

Managing Your Medicines

This handout explains the basics about taking medications, gives tips about how to remember to take them, and provides a form for a medication list. It is available from the American Diabetes Association.

Blood Glucose Monitoring

How to Test Your Blood Sugar

This handout provides general directions with pictures of how to check blood sugar using a meter. It is available in multiple languages from Scripps.

Blood Glucose Log

This is a two-week log, which includes before and after meal-time slots, a medication log, and a notes section. It is available from the American Diabetes Association.

Tracking Blood Glucose

This handout outlines how to use glucometer data, what information to include in a glucose log, and explains the importance of looking at blood glucose trends to make changes. It is written for high literacy patients and is available from the American Diabetes Association.

What Do My Numbers Mean?

This handout provides information on normal blood glucose responses to meals. It also describes the American Diabetes Association blood glucose targets for most nonpregnant adults. It is available in multiple languages from Scripps.

What Does A1C Mean?

This handout illustrates how A1C levels correspond with average glucose values, showing the level of control with a color gradient from green to red. There is also an area to record a patient's A1C goal. It is available in multiple languages from Scripps.

Hypoglycemia and Hyperglycemia

Low Blood Sugar (Hypoglycemia) and Symptoms of Hyperglycemia (High Blood Sugar)

These handouts define hypoglycemia and hyperglycemia and include recommended actions for treating these conditions. They are written for low literacy patients and use illustrations to depict associated symptoms. They are available in multiple languages from Scripps.

Factors Affecting Blood Glucose

This handout presents factors that raise or lower sugar levels. It is available from the American Diabetes Association.

Hypoglycemia in Diabetes: The 15-15 Rule

This is an infographic explaining the three levels of hypoglycemia and the 15-15 Rule for treatment. It is available from the American Diabetes Association.

Diabetes Alert Card

This foldable wallet card includes symptoms of hypoglycemia, recommended actions to treat, and a space for the patient to enter emergency contact information. It is available from the American Diabetes Association.

Healthy Eating With Diabetes

Nutrition for Life: The Diabetes Plate Method

This handout explains how to use the portion plate to help improve diabetes. It gives examples of foods in each category (vegetables, grains, proteins, fruits, fats, and beverages) including how to measure portion sizes. It is available from the American Diabetes Association.

Plan Your Portions

This handout explains how food groups work together and a short list of food choices for each food group. This handout is available from The American Diabetes Association.

Plan Your Portions Diabetes Placemat

The diabetes placemat is a simple guide to planning meals and managing portions.

Nutrition Facts Label

This handout includes a picture of the new food label with notes about what to eat less of and how to read carbohydrates. It is available from Learning About Diabetes, Inc..

What Can I Eat?

This handout lists low carbohydrate and carbohydrate-containing foods and includes pictures. It also shows a food label and provides a one-day sample meal plan. It is available from Learning About Diabetes, Inc..

Physical Activity

Tips for Being Active With Diabetes

This handout explains how to get started with activity and recommended duration. It gives examples of physical activities and discusses safety considerations for exercising with diabetes. It is available from the Centers for Disease Control and Prevention.

Being Active

This handout highlights aspects of physical activity including planning for exercise, creative ideas for activity, safety, and how to get started. It is available from the Association of Diabetes Care & Education Specialists.

My Exercise Plan

This handout explains why exercise is important, gives activity ideas, and includes simple chair exercises with illustrations. It is available from Scripps.

Desk Moves

This handout highlights several desk exercises with simple, step-by-step illustrated instructions. It is available from the American Diabetes Association.

Prevention of Long Term Complications

What Are Diabetes Complications?

This handout includes brief descriptions of long-term complications of diabetes and includes illustrations. It is available from the National Diabetes Education Initiative.

Diabetes Can Affect the Entire Body

This handout describes the end organ complications of diabetes with measures to reduce the risk. It is available from Scripps.

Foot Care Instructions

This handout includes large pictures and simple text recommending actions to improve foot care. It is available from the United States Department of Veterans Affairs.

Problem Solving

Problem Solving

This handout describes the three steps for problem solving with diabetes. It is available in multiple languages from the Association of Diabetes Care & Education Specialists.

Sick Day Guidelines

This handout explains what is appropriate to eat and drink for an ill person with diabetes. It is available in multiple languages from Scripps.

DKA (Diabetic Ketoacidosis) and Ketones

This handout describes the symptoms that may suggest diabetic ketoacidosis and when to seek care. It is available in multiple languages from Scripps.

Healthy Coping

Healthy Coping

This handout describes healthy and unhealthy coping strategies. It is available in multiple languages from the Association of Diabetes Care & Education Specialists.

Stress

This handout describes stress related to diabetes and identifies negative and positive coping strategies. It is available in English and Spanish from the Association of Diabetes Care & Education Specialists.

Diabetes Distress

This handout describes diabetes distress and provides suggestions for healthy coping and when to seek additional care. It is available in English and Spanish from the Association of Diabetes Care & Education Specialists.

Diabetes and Depression

This handout describes the symptoms of depression and information about how it can be treated. It is available in English and Spanish from the Association of Diabetes Care & Education Specialists.

Your Mental Health and Diabetes

This handout briefly describes the different emotions that a patient may experience when managing their diabetes. It is available in multiple languages from the American Diabetes Association.

Continuous Glucose Monitoring

Getting Started With Your Continuous Glucose Monitor (link forthcoming)

This handout provides step-by-step, device-specific continuous glucose monitor (CGM) instructions. CGM models included: Freestyle Libre 2, Libre 2 Reader, and Libre 3; Dexcom G6, G6 Receiver, and G7. It includes large font and easy-to-see pictures for those with impaired vision. It is written for low literacy patients and is available in English and Spanish.

Below are additional links to continuous glucose monitors' manufacturer websites and links to instructional videos.

Freestyle Libre 2

- To learn more:
freestyle.abbott/us-en/products/freestyle-libre-2.html
- Video instructions:
youtube.com/watch?v=pHZlr1dprYw

Freestyle Libre 3

- To learn more:
freestyle.abbott/us-en/products/freestyle-libre-3.html
- Video instructions:
youtube.com/watch?v=CRDitmOolOc

Dexcom G6

- To learn more:
dexcom.com/en-us/g6-cgm-system
- Video instructions:
youtube.com/watch?v=dBOgdsfeM-A
- To learn more about the receiver:
s3-us-west-2.amazonaws.com/dexcompdf/G6-CGM-Users-Guide.pdf

Dexcom G7

- To learn more:
dexcom.com/en-us/g7-cgm-system
- Video instructions:
youtube.com/watch?v=KLbBidcY4lA

Additional Resources

There are many diabetes patient education resources accessible online. The following is a list of additional resources that provide reliable patient education.

American Diabetes Association

- Provides Clinical Support: Including Patient Education Library, information on COVID 19 & Diabetes, and Patient Resources for Community Health Workers. Provides information on National DPP and a Consumer Guide (interactive tool allows for comparing products)
- The **Patient Education Library** provides patient education handouts on a wide variety of topics in both English and Spanish. The handouts are written for high literacy patients.
 - Some handouts are publicly available while others require an account and American Diabetes Association membership.
- Access to the **Standards of Medical Care** in Diabetes.
- **Living with Type 2 Diabetes Program** – free to patients, 12-month program.
- (800)-DIABETES (800-342-2383).
- Resources available in multiple languages.

American Heart Association

- Patient-facing information regarding diabetes risk factors, signs and symptoms, diagnosing, monitoring, and preventing diabetes.
- Has a short, interactive virtual course on diabetes and heart disease, **Let's Talk About Diabetes, Heart Disease, & Stroke**.
- Resources available in English and Spanish.

Association of Diabetes Care & Education Specialists

- Links to diabetes topics including self-care behaviors, access & affordability, blood glucose monitoring, cardiovascular disease, diabetes and vaccines, DKA and sick days, GLP-1 receptor agonist, healthy coping & diabetes, healthy holiday eating, hypoglycemia resources, improving medication adherence, insulin injections, and lifestyle resources.
- PDFs are reproducible.
- Includes a **comprehensive pocket guide** to continuous glucose monitors.
- Resources available in English and Spanish.

Centers for Disease Control and Prevention

- Fact sheets on various diabetes topics including general information, complications, emotional health, gestational diabetes, lifestyle modifiers, and managing diabetes.
- PDFs are reproducible.
- Handouts are mixed in literacy level but primarily higher in literacy level.

Learning About Diabetes, Inc.

- Easy to understand diabetes care handouts that include drawings to illustrate topics.
- Written for low literacy patients.
- Many materials are publicly available in eight languages.
- Also offers a selection for healthcare professionals and organizations at a cost of \$25/handout, which allows reproducibility. If a healthcare professional or organization purchases at least five handouts, then the organization may add co-branding.
- Resources available in English and Spanish.

National Institute of Diabetes and Digestive and Kidney Diseases

- Includes patient-facing topics but does not provide patient handouts.
- Has a comprehensive booklet for newly diagnosed patients with diabetes, **4 Steps for Managing Diabetes**, written for a low literacy level.
- Resources available in English and Spanish.

National Library of Medicine

- MedlinePlus is an online health information resource for patients and their families and friends. It is a service of the National Library of Medicine, the world's largest medical library, which is part of the National Institutes of Health.
- Resources available in English and Spanish.

Scripps

- Provides a **Basics of Diabetes Patient Manual** and illustrated handouts on topics including alcohol, carbohydrate foods, exercise/chair exercises, complications, DKA, portion sizing, insulin administration, hyperglycemia and hypoglycemia, and living with diabetes.
- It is written for low literacy patients and is available in eight languages.
- PDFs are reproducible.

United States Department of Agriculture

- MyPlate includes a number of printable materials, images, and graphics.
- Materials can be sorted by audience type and topic.
- PDFs are reproducible.



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