DIABETES MANAGEMENT:
DIRECTORY OF PROVIDER RESOURCES
ACKNOWLEDGMENTS

Diabetes Management: Directory of Provider Resources was prepared with input from National Institutes of Health National Institute of Diabetes and Digestive and Kidney Diseases; Centers for Medicare & Medicaid Services Advisory Panel on Outreach and Education; NORC at the University of Chicago; Jamie Murkey, MPH, PhD, Program Alignment and Partner Engagement Group 2019 summer intern; Asian Services in Action – International Community Health Center; Chinatown Public Health Center; Colorado Coalition for the Homeless; Garden City Community Health Center, Genesis Family Health; Jackson Medical Mall and Jackson Hinds Comprehensive Health Center; Montefiore Medical Center; Nash Health Care Systems; Sun Life Family Health Center; and Bryan W. Whitfield Memorial Hospital, Tombigbee Healthcare Authority.
The purpose of this directory is to support providers and care teams by identifying resources on the management of type 2 diabetes. It is particularly suited for providers who work with Medicare beneficiaries and vulnerable populations for whom the prevalence of type 2 diabetes and diabetes complications is higher. This directory will help the care team identify resources to improve diabetes management by promoting medication adherence.

This directory also aims to equip primary care teams with tools to manage diabetes and that patients with more complex needs are appropriately referred to specialists. While some patients require care from endocrinologists, primary care teams can effectively manage many patients with prediabetes and type 2 diabetes. Other health professionals and patients can play an important role in facilitating medication management and other diabetes self-care behaviors.

This directory serves as a companion resource to the Culturally and Linguistically Tailored Type 2 Diabetes Prevention: Resource Inventory published by the Centers for Medicare & Medicaid Services Office of Minority Health (CMS OMH). The Resource Inventory presents evidence-based approaches to tailoring type 2 diabetes initiatives to better serve minorities and beneficiaries with limited English proficiency. It was developed for suppliers of diabetes prevention services to address disparities in prediabetes and diabetes.
BACKGROUND

The prevalence of type 2 diabetes is higher among Medicare beneficiaries (18.9 percent) compared to the general US population (about 9 percent), and among Medicare beneficiaries, higher among Black (24.1 percent) and Hispanic (20.5 percent) beneficiaries than among White beneficiaries (15.5 percent). Compared to White beneficiaries, a lower percentage of Black and Hispanic beneficiaries report that they know most or just about everything necessary to manage their diabetes and that their blood sugar is well controlled all of the time, and a higher percentage of Black and Hispanic beneficiaries report high blood pressure and diabetes-related eye problems. With proper management, these disparities can be reduced.

The American Association of Diabetes Educators identifies seven self-care behaviors that are integral to effective diabetes management, including healthy eating, being active, monitoring blood sugar, taking medication, problem solving, reducing risks, and healthy coping. However, out-of-pocket medication expenses have consistently been a barrier to diabetes medication adherence, exacerbating existing disparities among those with uncontrolled diabetes. The American Patients First blueprint was developed in 2018 to guide efforts towards lowering out-of-pocket medication costs, as Medicare Part D low-income subsidies have been associated with lower out-of-pocket costs and better diabetes medication adherence among beneficiaries.

The Medicare Extra Help program provides qualifying beneficiaries with assistance paying for prescription costs, premiums, deductibles, and coinsurance. A 2015 systematic review found evidence of racial and ethnic differences in diabetes medication adherence, with lower adherence among Hispanic and Black patients, and identified diabetes medication adherence as a contributor to better health outcomes. Self-care behaviors, such as proper medication management and healthy eating, can help reduce disparities among Medicare beneficiaries at higher risk for adverse outcomes. This resource directory focuses on the importance of medication adherence in diabetes management.
DIABETES MEDICATION

Many individuals with type 2 diabetes or prediabetes receive treatment with medication to control their blood glucose, and must be under the supervision of providers with prescribing authority. There are many diabetes medications available, including more than 20 types of insulin and nine classes of oral anti-diabetic drugs. In addition, some patients with diabetes are prescribed medications such as anti-hypertensive (for blood pressure), statins (for cholesterol), and aspirin (for heart attack risk). Diabetes medication options depend on factors including the patient’s blood glucose, other health conditions and medications, side effects, insurance coverage, and cost.

USING THE DIRECTORY

The resources in this directory cover a range of topics that primary care providers and other members of the diabetes care team may consider when prescribing diabetes medications. Some resources also cover other important aspects of diabetes treatment and management, including nutrition and exercise. Contents are organized by:

- Guidelines and Clinical Recommendations;
- Toolkits and Clinical Reference Tools;
- Continuing Education;
- Diabetes Care Apps; and
- E-Prescribing and Formulary Management Apps

The diabetes care and e-prescribing and formulary management apps included in this directory were identified through a comprehensive online search and targeted keyword searches of the Apple and Google Play app stores. To select apps for inclusion, the publishing organization, covered topics, and information sources cited (e.g., evidence-based clinical guidelines) were assessed for quality and relevance to the scope of the directory. There are numerous resources available to treat type 2 diabetes. The ones included in this directory were identified through a search of resources for providers related to the treatment and medication management of type 2 diabetes. Their inclusion does not constitute an endorsement by the Centers for Medicare & Medicaid Services.

Tables 1 and 2 summarize the resources and topics included in the directory.
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- Guidelines and Clinical Recommendations;
- Toolkits and Clinical Reference Tools;
- Continuing Education;
- Diabetes Care Apps; and
- E-Prescribing and Formulary Management Apps.

Tables 1 and 2 summarize the resources and topics included in the directory.

### Table 1. Resource Directory Contents

Table 1 presents the directory contents by category and includes an overview of the topics covered in each resource. Each resource can be directly accessed by clicking on the hyperlinked page number in the right hand column.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Name of Resource</th>
<th>Summary of Resource</th>
<th>For More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Guidelines and Clinical Recommendations</strong></td>
<td></td>
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</tr>
<tr>
<td>National Institute of Diabetes and Digestive and Kidney Disease (NIDDK)</td>
<td>Guiding Principles for the Care of People With or at Risk for Diabetes</td>
<td>Synthesis of existing national guidelines on diabetes care for primary care providers and health teams</td>
<td>See Page 9</td>
</tr>
<tr>
<td>American Diabetes Association (ADA)</td>
<td>Pharmacologic Approaches to Glycemic Treatment: Standards of Medical Care in Diabetes – 2019</td>
<td>Recommendations for pharmacological therapy for type 1 and type 2 diabetes</td>
<td>See Page 10</td>
</tr>
<tr>
<td>American Diabetes Association (ADA)</td>
<td>Standards of Medical Care in Diabetes: Abridged for Primary Care Providers</td>
<td>Presents evidence-based diabetes care recommendations that are most applicable to primary care providers</td>
<td>See Page 11</td>
</tr>
<tr>
<td>World Health Organization (WHO)</td>
<td>Guidelines on second-and third-line medicines and type of insulin for the control of blood glucose levels in non-pregnant adults with diabetes mellitus</td>
<td>Primary care guidelines for managing hyperglycemia in low-resource settings, including 1) which pharmacological agents to use and 2) selecting type of insulin</td>
<td>See Page 12</td>
</tr>
<tr>
<td>American Association of Clinical Endocrinologists (AACE) and American College of Endocrinology (ACE)</td>
<td>Comprehensive Type 2 Diabetes Management Algorithm</td>
<td>PowerPoint slides that present the major components and principles of the comprehensive type 2 diabetes management algorithm</td>
<td>See Page 13</td>
</tr>
<tr>
<td>American Association of Clinical Endocrinologists (AACE) and American College of Endocrinology (ACE)</td>
<td>Clinical Practice Guidelines for Developing a Diabetes Mellitus Comprehensive Care Plan</td>
<td>PowerPoint slides with questions and recommendations to help guide providers in developing comprehensive diabetes care plans</td>
<td>See Page 14</td>
</tr>
<tr>
<td>National Institute of Diabetes and Digestive and Kidney Disease (NIDDK)</td>
<td>Medication Adherence: Resources for Health Care Teams</td>
<td>Online resource center with resources to support health care professionals in their role promoting medication adherence among their patients</td>
<td>See Page 15</td>
</tr>
<tr>
<td>American Association of Clinical Endocrinologists (AACE)</td>
<td>Diabetes Resource Center</td>
<td>Online resource center with guidelines and support tools for outpatient providers related to treatment and management of type 2 diabetes and prediabetes</td>
<td>See Page 16</td>
</tr>
</tbody>
</table>

| **Toolkits and Clinical Reference Tools** | | | |
| Centers for Disease Control and Prevention (CDC) | Working Together to Manage Diabetes: A Guide for Pharmacy, Podiatry, Optometry, and Dentistry | Toolkit for providers of pharmacy, podiatry, optometry, and dentistry (PPDOD) to manage diabetes, with a resource center with resources for patients and providers by topic | See Page 17 |
| Indian Health Service (IHS) | Diabetes Management in Type 2 Diabetes | Type 2 diabetes glucose management algorithm for providers | See Page 18 |
| Health Services Advisory Group (HSAG) | Diabetes Education: Use Teach-Back to Help Patients Successfully Manage Their Insulin | Resource for providers on how to use teach-back techniques to help patients manage insulin | See Page 19 |
| American Association of Diabetes Educators (AADE) | Fostering Medication Adherence: Tips and Tricks | Resource for providers on fostering medication adherence among patients with diabetes | See Page 20 |
| MDCalc | Practice Pearls: Diabetes | Resource page with practical tips and evidence-based information on diabetes management, including a diabetes calculator toolkit | See Page 21 |
Table 1. Resource Directory Contents cont.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Name of Resource</th>
<th>Summary of Resource</th>
<th>For More Information</th>
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</thead>
<tbody>
<tr>
<td><strong>Continuing Education</strong></td>
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<tr>
<td>American Pharmacists Association</td>
<td>The Pharmacist &amp; Patient-Centered Diabetes Care</td>
<td>Continuing education course on diabetes standards of care, including drug therapy</td>
<td>See Page 22</td>
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<tr>
<td></td>
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<td>regimens</td>
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<tr>
<td>Diabetes Education Services (DES)</td>
<td>Medication Update Toolkit</td>
<td>Certified diabetes educator continuing education courses on diabetes pharmacology</td>
<td>See Page 23</td>
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<tr>
<td></td>
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<td>in inpatient and outpatient settings</td>
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<tr>
<td>University of Florida College of Pharmacy</td>
<td>Pharmacist’s Guide to the Management of Diabetes</td>
<td>Comprehensive four-part continuing education course covering diabetes prevention,</td>
<td>See Page 24</td>
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<tr>
<td></td>
<td></td>
<td>diagnosis, treatment and complications</td>
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<tr>
<td><strong>Diabetes Care Apps</strong></td>
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<tr>
<td>American Diabetes Association (ADA)</td>
<td>Standards of Care app</td>
<td>App that allows providers to access ADA’s Standards of Care and relevant treatment</td>
<td>See Page 25</td>
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<tr>
<td></td>
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<td>algorithms</td>
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<tr>
<td>WellDoc</td>
<td>BlueStar app</td>
<td>Diabetes management app with evidence-based guidelines and a platform for providers</td>
<td>See Page 26</td>
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<td></td>
<td></td>
<td>to receive patient reports</td>
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<tr>
<td>Endocrine Society</td>
<td>Accurate Insulin Decisions (AID) app</td>
<td>App with type 2 diabetes decision support tools and algorithms related to insulin</td>
<td>See Page 27</td>
</tr>
<tr>
<td>Wolters Kluwer</td>
<td>UpToDate</td>
<td>Clinical decision support software that offers evidence syntheses and point-of-care</td>
<td>See Page 28</td>
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<tr>
<td></td>
<td></td>
<td>recommendations</td>
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<tr>
<td><strong>E-Prescribing and Formulary Management</strong></td>
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</tr>
<tr>
<td>MDCalc</td>
<td>MDCalc Medical Calculator app</td>
<td>Medical reference app with over 275 medical calculators</td>
<td>See Page 29</td>
</tr>
<tr>
<td>DrFirst</td>
<td>iPrescribe app</td>
<td>Electronic prescribing app that allows providers to prescribe from their mobile</td>
<td>See Page 30</td>
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<tr>
<td></td>
<td></td>
<td>device and access information including medication history and patient out of pocket</td>
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<tr>
<td>Managed Markets Insight &amp; Technology and AIS Health</td>
<td>Formulary Search app</td>
<td>App that allows providers to access commercial, Medicare, Medicaid, and Exchange</td>
<td>See Page 31</td>
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<tr>
<td></td>
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<td>formularies</td>
<td></td>
</tr>
<tr>
<td>Medscape</td>
<td>Medscape app</td>
<td>App with medical calculators, drug information, and continuing medical education</td>
<td>See Page 32</td>
</tr>
</tbody>
</table>
Table 2. Topic Key and Definitions

Table 2 presents topic categories covered in the directory, definitions, and corresponding icons included in the entries below that may be used for quick reference when searching for topics of interest.

<table>
<thead>
<tr>
<th>Topic Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comorbidities:</strong></td>
<td>Includes information on the assessment and management of common co-occurring medical conditions, such as cardiovascular disease</td>
</tr>
<tr>
<td><strong>Complications:</strong></td>
<td>Includes information on the assessment and management of diabetes complications such as neuropathy and retinopathy</td>
</tr>
<tr>
<td><strong>Diabetes in Pregnancy:</strong></td>
<td>Provides guidance on screening and management of diabetes for women who are pregnant</td>
</tr>
<tr>
<td><strong>Drug Safety:</strong></td>
<td>Addresses topics such as drug side effects, dosing information, drug interactions, and adverse drug events</td>
</tr>
<tr>
<td><strong>Formulary Management:</strong></td>
<td>Assists providers in accessing up-to-date formulary information</td>
</tr>
<tr>
<td><strong>Glycemic Control:</strong></td>
<td>Contains information on how to manage patients' blood glucose levels, such as glycemic control goals and pharmacologic approaches to achieving those goals</td>
</tr>
<tr>
<td><strong>Insulin:</strong></td>
<td>Includes information about insulin therapy, such as guidelines on selecting insulin regimens and costs of insulin products</td>
</tr>
<tr>
<td><strong>Lifestyle &amp; Exercise:</strong></td>
<td>Includes information on lifestyle management and exercise for individuals with type 2 diabetes</td>
</tr>
<tr>
<td><strong>Medication Adherence:</strong></td>
<td>Includes information on promoting and measuring medication adherence among individuals with diabetes</td>
</tr>
<tr>
<td><strong>Nutrition:</strong></td>
<td>Includes dietary guidance for individuals with type 2 diabetes</td>
</tr>
<tr>
<td><strong>Patient Education:</strong></td>
<td>Provides resources for providers to educate and communicate with patients about the management of diabetes</td>
</tr>
<tr>
<td><strong>Pharmacologic Treatment:</strong></td>
<td>Includes information on selecting and managing pharmacologic regimens</td>
</tr>
<tr>
<td><strong>Prevention &amp; Prediabetes:</strong></td>
<td>Includes information on preventing the onset of diabetes as well as identifying and managing prediabetes</td>
</tr>
<tr>
<td><strong>Screening &amp; Diagnosis:</strong></td>
<td>Include guidelines and suggested approaches for identifying patients with diabetes</td>
</tr>
</tbody>
</table>
RESOURCES BY CATEGORY

GUIDELINES & CLINICAL RECOMMENDATIONS

Guiding Principles for the Care of People With or at Risk for Diabetes 2018

ORGANIZATION

National Institute of Diabetes and Digestive and Kidney Disease (NIDDK)

OVERVIEW

These principles aim to identify and summarize areas of general consensus from existing guidelines in order to support primary care providers and health teams when delivering care to adults with diabetes or at-risk for developing it. These principles (updated in August 2018) include updated evidence on 1) the importance of diabetes self-management and education and 2) addressing obesity and overweightness during diabetes management.

TOPICS COVERED

1. Identify People with Undiagnosed Diabetes and Prediabetes
2. Manage Prediabetes to Prevent or Delay the Onset of Type 2 Diabetes
3. Provide Comprehensive, Patient-centered Diabetes Care
4. Provide Ongoing Self-management Education and Support for People with Diabetes
5. Encourage Lifestyle Modification for People with Diabetes
6. Address Overweight and Obesity in the Management of Diabetes
7. Individualize Blood Glucose Management for People with Diabetes
8. Provide Multifactorial Cardiovascular Disease Risk Reduction
9. Detect and Monitor Diabetes Microvascular Complications and Provide Treatment to Slow Their Progression
10. Consider the Needs of Special Populations with Diabetes

HYPERLINK

ORGANIZATION
American Diabetes Association (ADA)

OVERVIEW
The ADA’s Standards of Medical Care in Diabetes are updated on an annual basis and include current clinical practice recommendations. Chapter 9 focuses on recommendations for pharmacological therapy for type 1 and type 2 diabetes. This chapter includes a user-friendly decision guide for using a patient-centered approach to choosing appropriate pharmacologic treatment for blood glucose (Fig 9.1 on pp. S94-S95).

TOPICS COVERED
1. Pharmacologic Therapy for Type 1 Diabetes
2. Initial Therapy for Type 2 Diabetes
3. Median monthly cost of maximum approved daily dose of noninsulin glucose-lowering agents in the U.S
4. Median cost of insulin products
5. Combination Therapy in Type 2 Diabetes
6. Cardiovascular Outcomes Trials
7. Insulin Therapy
8. Combination Injectable Therapy

HYPERLINK
http://care.diabetesjournals.org/content/diacare/42/Supplement_1/S90.full.pdf
OVERVIEW
This abridged version of the 2019 Standards of Medical Care in Diabetes focuses on the evidence-based recommendations that are most applicable to primary care providers.

TOPICS COVERED
1. Adapting treatment for social context
2. Classification and diagnosis of diabetes
3. Diagnostic tests for diabetes
4. Prevention or delay of Type 2 Diabetes
5. Comprehensive medical evaluation and comorbidity assessment
6. Lifestyle management
7. Diabetes technology
8. Obesity management for the treatment of type 2 diabetes
9. Pharmacological approaches to glycemic treatment
10. Cardiovascular disease and risk management
11. Microvascular complications and foot care
12. Older adults
13. Children and Adolescents
14. Diabetes in pregnancy
15. Diabetes care in the hospital
16. Diabetes advocacy

HYPERLINK
http://clinical.diabetesjournals.org/content/diaclin/early/2018/12/16/cd18-0105.full.pdf
ORGANIZATION

World Health Organization (WHO)

OVERVIEW

These guidelines provide public health recommendations for adults with type 1 and type 2 diabetes in low resource settings on 1) which pharmacological agents to use in order to manage hyperglycemia in primary care settings and 2) selecting type of insulin (human insulin vs. insulin analogues). These guidelines are intended for health care professionals and other diabetes stakeholders in low-resource settings in low- or high-income countries.

TOPICS COVERED

1. Hypoglycemic agents for second and third-line treatment in type 2 diabetes
2. Insulin

HYPERLINK

http://apps.who.int/iris/bitstream/handle/10665/272433/9789241550284-eng.pdf?sequence=1&isAllowed=y
ORGANIZATION
American Association of Clinical Endocrinologists and American College of Endocrinology

OVERVIEW
This PowerPoint deck uses tables and flow charts to outline the major components and principles of the comprehensive type 2 diabetes management algorithm.

TOPICS COVERED
1. Principles of treatment for Type 2 Diabetes
2. Lifestyle therapy
3. Complications-centric model for care of the patient with overweight/obesity
4. Prediabetes algorithm
5. ASCVD (Atherosclerotic Cardiovascular Disease) risk factor modifications algorithm
6. Glycemic control algorithm
7. Algorithm for adding/intensifying insulin
8. Profiles of antidiabetic medications

HYPERLINK
Clinical Practice Guidelines for Developing a Diabetes Mellitus Comprehensive Care Plan
2015

ORGANIZATION
American Association of Clinical Endocrinologists and American College of Endocrinology

OVERVIEW
This evidence-based education resource is a PowerPoint deck that includes 24 diabetes management questions and 67 practical recommendations to help guide providers in developing a comprehensive diabetes care plan for their patients.

TOPICS COVERED
1. Diabetes screening and diagnosis
2. Prediabetes management
3. Glycemic treatment goals of Diabetes Mellitus
4. Achieving glycemic targets for Type 2 Diabetes
5. Glycemic management in Type 1 Diabetes
6. Hypoglycemic management
7. Hypertension management
8. Dyslipidemia management
9. Nephropathy management
10. Retinopathy management
11. Neuropathy diagnosis and management
12. Cardiovascular disease management

13. Obesity management
14. Role of sleep medicine
15. Diabetes management in the hospital
16. Establishing a comprehensive diabetes care plan for children and adolescents
17. Diabetes management in pregnancy
18. Glucose monitoring
19. Insulin pump therapy
20. Education and team approach in diabetes mellitus management
21. Vaccinations
22. Depression management
23. Diabetes and cancer
24. Diabetes and occupational hazard

HYPERLINK
https://www.aace.com/ppt/diabetes_ccp_slides2.pptx (direct download)
ORGANIZATION
National Institute of Diabetes and Digestive and Kidney Disease (NIDDK)

OVERVIEW
This website aggregates resources from different organizations to support health care professionals in their role promoting medication adherence among their patients. It includes resources for health care professionals to use with patients to promote medication-taking behavior.

TOPICS COVERED
Topics covered in different resources include medication adherence as it relates to social support, health literacy, health IT, and patient safety, as well as how to measure and improve adherence.

HYPERLINK
https://www.niddk.nih.gov/health-information/communication-programs/ndep/health-professionals/promoting-medication-adherence-diabetes/medication-adherence-resources-patients
ORGANIZATION
American Association of Clinical Endocrinologists (AACE)

OVERVIEW
This online resource center includes guidelines and support tools for outpatient providers related to treatment and management of type 2 diabetes and prediabetes.

TOPICS COVERED
1. Type 2 diabetes glucose treatment presentation
2. Efficacy and safety of modern antihyperglycemic therapies
3. Prediabetes (burden, screening/monitoring, comorbidities and complications, management)
4. Type 1 diabetes (burden, pathophysiology, diagnosis, treatment)
5. Type 2 diabetes (burden, clinical presentation, diagnosis, glucose goals, glucose treatment, comorbidities, diabetes & cancer, team approach)
6. Diabetes in pregnancy (burden, screening/diagnosis, management approach)

HYPERLINK
http://outpatient.aace.com/type-2-diabetes/treatment
TOOLKITS & CLINICAL REFERENCE TOOLS

Working Together to Manage Diabetes: A Guide for Pharmacy, Podiatry, Optometry, and Dentistry 2014

ORGANIZATION
Centers for Disease Control and Prevention (CDC)

OVERVIEW
This toolkit is designed to assist providers of pharmacy, podiatry, optometry, and dentistry (PPOD) in working with each other and other members of the health care team, such as primary health care providers, physician assistants, nurse educators, and community health workers, to improve diabetes patient outcomes. The toolkit includes an overview of each PPOD provider’s role in diabetes management and a resource center with patient and provider resources by topic area. It includes a chapter titled “What Pharmacists Would Like Team Members to Know About Medication Therapy for Diabetes.”

TOPICS COVERED
1. Team care approach for diabetes management
2. Collaboration strategies for PPOD providers
3. Messages to reinforce with patients
4. Medication therapy for diabetes
5. Foot health and diabetes
6. Eye health and diabetes
7. Oral health and diabetes
8. Prediabetes and primary prevention of type 2 diabetes

HYPERLINK
https://www.cdc.gov/diabetes/ndep/toolkits/ppod.html
ORGANIZATION
Indian Health Service (IHS)

OVERVIEW
This resource provides an algorithm through which providers can determine the appropriate glucose management medication levels for their patients.

TOPICS COVERED
1. Determining glycemic targets
2. Medication adjustments
3. Types of glucose management medications

HYPERLINK
OVERVIEW
This resource provides information on teach-back and how providers can use teach-back to ensure their patients understand basic information about insulin, how to properly store and inject insulin, and the appropriate methods for syringe disposal.

TOPICS COVERED
1. Teach-back methods
2. Insulin information
3. Insulin injection
4. Insulin storage
5. Syringe disposal

HYPERLINK
https://www.hsag.com/contentassets/dbdb9028f48f4c3a800d16e018502042/medresourceinsulin-education508.pdf
**ORGANIZATION**
American Association of Diabetes Educators (AADE)

**OVERVIEW**
This resource outlines common characteristics of patients with poor medication adherence and ways providers can address medication adherence.

**TOPICS COVERED**
1. Characteristics of patients at high risk of non-adherence
2. Predictors of poor medication adherence
3. Medication adherence

**HYPERLINK**
OVERVIEW
This resource page serves as a hub for practical tips and evidence-based information on diabetes management. It includes up-to-date, synthesized insights and content from variety of sources. One key component of this resource page is the Diabetes Calculator Toolkit, which provides separate calculators, risk scores, and algorithms for diabetes, comorbid diseases, acute diabetic complications, and diabetes in primary care.

TOPICS COVERED
1. Statin-induced diabetes
2. The physician’s role in diabetes management
3. Insulin pumps and complications
4. Diabetic feet
5. National diabetes statistics report
6. Bariatric surgery
7. ADA Standards of Care on obesity and diabetes
8. Glucose monitoring
9. Motivational interviewing
10. Steroid induced-diabetes
11. Diabetes risk assessment
12. Comorbid diseases
13. Acute diabetic complications
14. Diabetes in primary care

HYPERLINK
ORGANIZATION
American Pharmacists Association

OVERVIEW
This continuing education program covers diabetes concepts and standards of care and incorporates case studies and hands-on skill training focused on community and ambulatory care settings. Topics include evaluating and adjusting drug therapy regimens for patients with type 1 and type 2 diabetes, counseling patients about lifestyle interventions, analyzing and interpreting self-monitoring of blood glucose results, and assessing the overall health status of patients to identify needed monitoring and interventions.

TOPICS COVERED
1. Drug therapy regimens for type 1 and type 2 diabetes
2. Counseling patients about lifestyle interventions
3. Blood glucose self-monitoring results
4. Monitoring and interventions based on patient health status

HYPERLINK
https://www.pharmacist.com/education/pharmacist-patient-centered-diabetes-care
ORGANIZATION
Diabetes Education Services (DES)

OVERVIEW
This toolkit includes two courses on diabetes pharmacology in both inpatient and outpatient settings. There is a cost to access this toolkit. Individuals who complete the courses can earn 3.5 certified diabetes educator (CDE) continuing education (CE) credits; the information may also be useful for other clinicians interested in diabetes medication management.

TOPICS COVERED
1. Medication Updates 2017 (1.5 CEs)
2. Basal Bolus Therapy in the Hospital (2.0 CEs)

HYPERLINK
https://diabetesed.net/meds-boot-camp/
OVERVIEW
This four-part continuing education course provides a comprehensive review of and guide to managing diabetes.

TOPICS COVERED
1. Pathophysiology and epidemiology of diabetes, preventive measures, diagnosis, goals of therapy, and monitoring of diabetes based on current guidelines and clinical trials
2. Patient education, including nutrition, exercise, self-monitoring of glucose, medication administration, etc.
3. Classes of diabetes medications, algorithms, and practical approaches to managing diabetes
4. Complications and co-morbidities, preventive and treatment strategy, and practice cases

HYPERLINK
https://cpe.pharmacy.ufl.edu/courses-04-24-2019/certificate-courses/
ORGANIZATION
American Diabetes Association (ADA)

OVERVIEW
This resource equips providers with the complete Standards of Care and relevant algorithms. Providers can review new guidelines that the app publishes through updates. This app is available for iOS and Android.

FEATURES
1. General care information
2. Promoting health and reducing disparities in populations
3. Classification and diagnosis of diabetes
4. Prevention or delay of type 2 diabetes
5. Comprehensive medical evaluation and assessment of comorbidities
6. Lifestyle management

HYPERLINK
https://professional.diabetes.org/content-page/standards-care-app-1
ORGANIZATION
WellDoc

OVERVIEW
In addition to diabetes management features for patients, the BlueStar Diabetes app includes a platform for providers. Providers can receive regular reports that document patient progress in different areas. These reports can serve as a tool for developing treatment plans or to communicate with patients during clinic visits. The app also offers information to providers on relevant evidence-based guidelines. This app is available for iOS and Android.

FEATURES
1. Glucose monitoring
2. Diabetes education
3. 25,000 automated tailored coaching messages
4. Weekly patient challenges
5. Data reports for providers (90 day blood glucose summary, time of day concerns, weight tracking, etc.)
6. Evidence-based guidelines for providers

HYPERLINK
https://www.welldoc.com/product/
Accurate Insulin Decisions (AID) app
2014

ORGANIZATION
Endocrine Society

OVERVIEW
Accurate Insulin Decisions (AID) is a comprehensive resource that contains decision support tools and algorithms for bolus and mealtime insulin regimens in the treatment of T2D, based on Endocrine Society recommendations. This app is available for iOS only.

HYPERLINK
UpToDate software
2019

ORGANIZATION
Wolters Kluwer

OVERVIEW
UpToDate is clinical decision support software that provides a comprehensive synthesis of evidence and recommendations that can be acted on by the provider at the point of care. Subscriptions are available for medical professionals; groups; residents, fellows, or students; patients and caregivers; hospitals, health systems, clinics, physician groups, or academic institutions; and healthcare businesses. Clinical education modules are available through the software. The software can be integrated into several electronic health record systems.

TOPICS COVERED
1. Treatment goals
2. Diabetes education
3. Initial pharmacologic therapy
4. Monitoring
5. Persistent hyperglycemia
6. Society guideline links
7. Information for patients
8. Summary and recommendations
9. Graphics
10. Calculators

HYPERLINK
http://www.uptodate.com
Diabetes-specific examples:
E-PRESCRIPTION AND FORMULARY MANAGEMENT APPS

ORGANIZATION

MDCalc

OVERVIEW

This medical reference app includes information for providers on over 35 specialty areas. The app includes over 275 medical calculators, evidence appraisals, and insights from experts. This app is available for iOS and Android.

FEATURES

1. Risk scores
2. Algorithms
3. Equations
4. Diagnostic criteria
5. Formulas
6. Classifications
7. Dosing calculators

HYPERLINK

http://apps.mdcalc.com/
ORGANIZATION
DrFirst

OVERVIEW
This electronic prescribing app allows providers to prescribe or refill medications from their mobile device. This app is available for iOS and Android.

FEATURES
1. Electronic prescribing
2. Access to prescription drug monitoring program (PDMP) databases
3. Medication history
4. Allergy alerts
5. Out of pocket cost based on a patient’s insurance

HYPERLINK
https://www.drfirst.com/products/iprescribe/
ORGANIZATION
Managed Markets Insight & Technology and AIS Health

OVERVIEW
This app allows providers to identify real-time status and restriction changes on all drugs. It includes formulary information on commercial, Medicare, Medicaid, and Exchanges. This app is available for iOS and Android.

FEATURES
1. Drug restriction changes
2. Real-time coverage status
3. Covered alternatives
4. Save favorite and recently searched drugs

HYPERLINK
https://info.mmitnetwork.com/formulary-search
ORGANIZATION
Medscape

OVERVIEW
This app includes drug information, medical news, medical calculators, and continuing medical education opportunities for providers. It can be used to support providers in making real-time patient care decisions. This app is available for iOS and Android.

FEATURES
1. News reports on various medical topics
2. Guidelines, safety, and prescription information for around 8,000 drugs
3. Visually identifying pills
4. Drug interaction
5. Over 600 dosing calculators
6. Educational videos and directives
7. Continuing medical education
8. Directories of physicians and pharmacies
9. Formulary information

HYPERLINK
REFERENCES


REFERENCES


