Diabetes and Medication Management

September 16, 2025



MASSACHUSETTS Diabetes Network

Today's Agenda

12 noon: Welcome!

- **Announcements – Network Updates**
- **How to obtain CEUs**

12:10-1:10 pm: Presentations

1:10 -1:30 pm: Q&A and Upcoming Events

- **Joining the Network**

ADCES Massachusetts Coordinating Body

MASSACHUSETTS Diabetes Network

Join Us

Network Benefits

- Expand your professional network with diabetes professionals and organizations
- Receive and contribute to Network newsletters
- Earn CEUs for quarterly meeting presentations

Get Involved

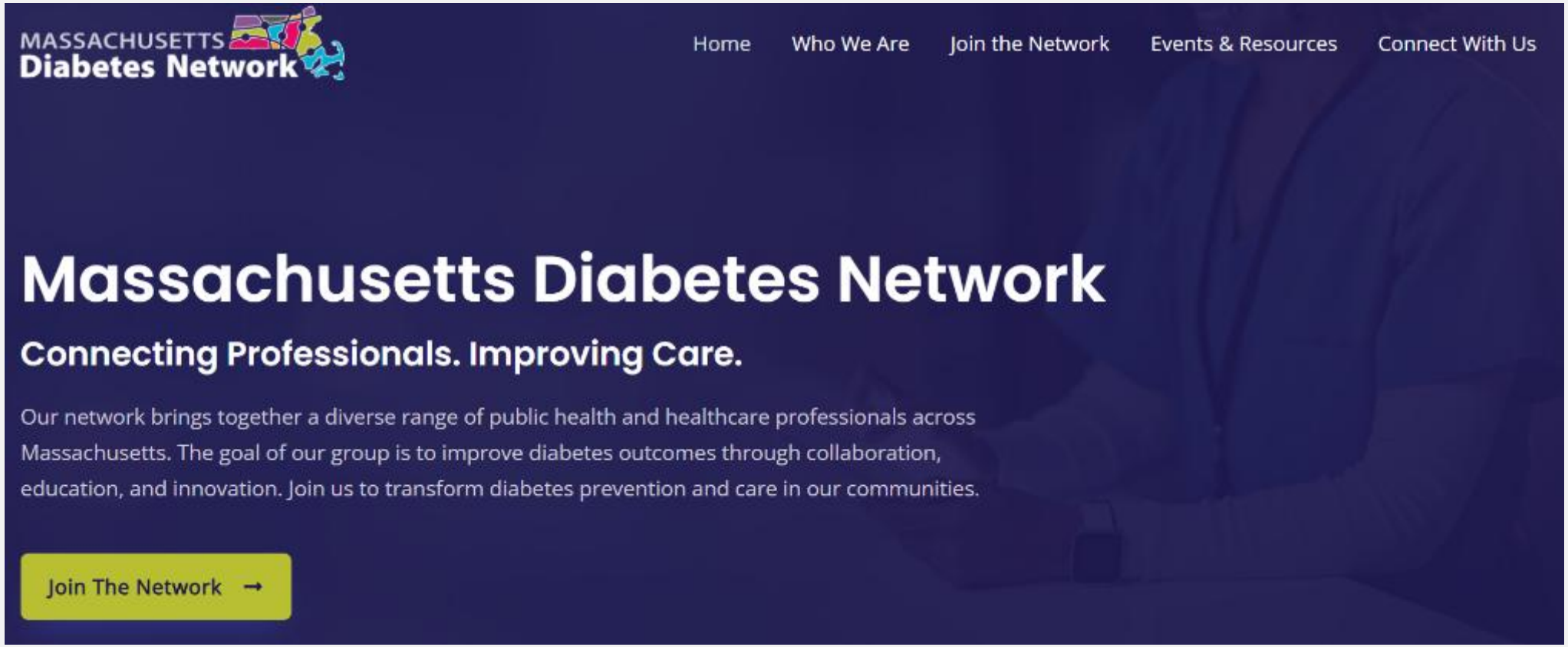
- Join committees of interest
- Participate in collaborative meetings
- Connect with your peers



MASSACHUSETTS Diabetes Network

New Website!

https://madiabetesnetwork.org/



MASSACHUSETTS
Diabetes Network

Network Office Hours

Connect with us on the first Tuesday of the month at 10am!

Registration link:
https://www.zoomgov.com/meeting/register/GsihxfnVTFqrRdeGQ1jdKg#/registration

Office hours provide an opportunity to share tools and resources, discuss challenges and potential solutions, and meet others in the field.

MASSACHUSETTS Diabetes Network

Massachusetts Health Promotion Clearinghouse

https://massclearinghouse.ehs.state.ma.us/







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CEUs

- Those who attend the full session are eligible for continuing education units (CEUs), provided by ADCES, MA chapter.
- CEUs will be available for Pharmacists, RNs, Dieticians, Social Workers, CDCES, DCES
- Sign up for CEUs here: https://www.adces.org/event/MACBSEP25
- Anyone can create a free account to get CEUs. ADCES membership is not required.
- **We will share the evaluation link after the presentations.**
- Not an ADCES member? Use code **CBJOIN25** to get $50 off your new membership!



ADCES Massachusetts Coordinating Body

Lost in Transition: How Medication Errors Sneak In (and How We Prevent Them)

- **Dr. Phung C. On, PharmD, BCPS**
- **Dr. Kripali Patel, PharmD**

Associate Professors of Pharmacy Practice at MA College of Pharmacy and Health Sciences (MCPHS)

MASSACHUSETTS Diabetes Network



Bridging the Gap: Medication Management Best Practices Across Care Settings

Dr. Aimee Dawson, PharmD, CDCES

- Associate Professor & Vice Chair of the Department of Pharmacy Practice at MCPHS in Worcester
- Certified Diabetes Care and Education Specialist

Dr. Alyssa Puia, PharmD, BCACP, CDCES

- Clinical Pharmacist at the Holyoke Health Center (HHC)
- Certified Diabetes Care and Education Specialist

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Lost in Transition: How Medication Errors Sneak In (and How We Prevent Them)

Phung C. On, PharmD, BCPS

Associate Professor of Pharmacy Practice, Massachusetts College of Pharmacy and Health Sciences

Clinical Pharmacy Specialist, Codman Square Health Center

Kripali B. Patel, PharmD

Assistant Professor of Pharmacy Practice, Massachusetts College of Pharmacy and Health Sciences

Clinical Pharmacy Specialist, Whittier Street Health Center

Disclosure

Phung C. On, PharmD, BCPS: I have no financial relationships within eligible companies within the last 24 months to disclose.

Kripali B. Patel, PharmD: I have no financial relationships within eligible companies within the last 24 months to disclose.

Objectives

- Identify common causes and types of medication-related errors during inpatient admission and discharge that impact patient safety and transitions of care.

- Discuss strategies in preventing and resolving medication-related errors to improve patient safety during transitions of care.

Transitions of Care

From the World Health Organization (WHO):

"Transitions of care refers to the various points where a patient moves to, or returns from, a particular physical location or makes contact with a health care professional for the purposes of receiving health care."

transitions of care = care transitions = continuum of care

Why Every Transition Counts

Compliance

- Centers for Medicare & Medicaid Services:
  - Hospital Readmissions Reduction Program
  - Merit-based Incentive Payment System
  - Star Rating
  - Quality Reporting
- The Joint Commission

Best Practices

- National Quality Forum
- National Association for Healthcare Quality
- National Committee for Quality Assurance

Patient Care

- Communication
- Care coordination and shared accountability
- Medication management
- Patient/caregiver engagement and education

Medication Error

From the National Coordinating Council for Medication Error Reporting and Prevention:

"A medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer."

Implications of Medication Errors

- **Potential** for patient harm
- **Actual** patient harm
  - Adverse drug events
  - ED visits
  - Hospital admissions and readmissions
  - Prolonged length of stay
  - DEATH
- Patient and provider dissatisfaction

Hospital readmission rate among patients with diabetes: 14–20%

Adverse drug events occurred in discharged patients: 11%

Objective 1: Identify Common Causes and Types of Med Errors

Where Errors Happen…

During care transitions!

Types of Common Medication Errors

Reconciliation Errors:

- Omission
- Commission
- Duplication
- Discrepancies: dose, frequency, formulation

Therapy-Related Errors:

- Dosing errors
- Failure to treat

For patients with diabetes…

Omission of…	Incorrect…	Inappropriate…	Discrepancies in…
Medications for diabetes	Dosing or failure to adjust for renal function, nutrition, or acute illness	Continuation or discontinuation of insulin regimens	Insulin type or administration timing

Why Does it Happen?

Poor communication

- Healthcare team member & patient/caregiver
- Healthcare team member & healthcare team member

Incomplete or inaccurate medication reconciliation

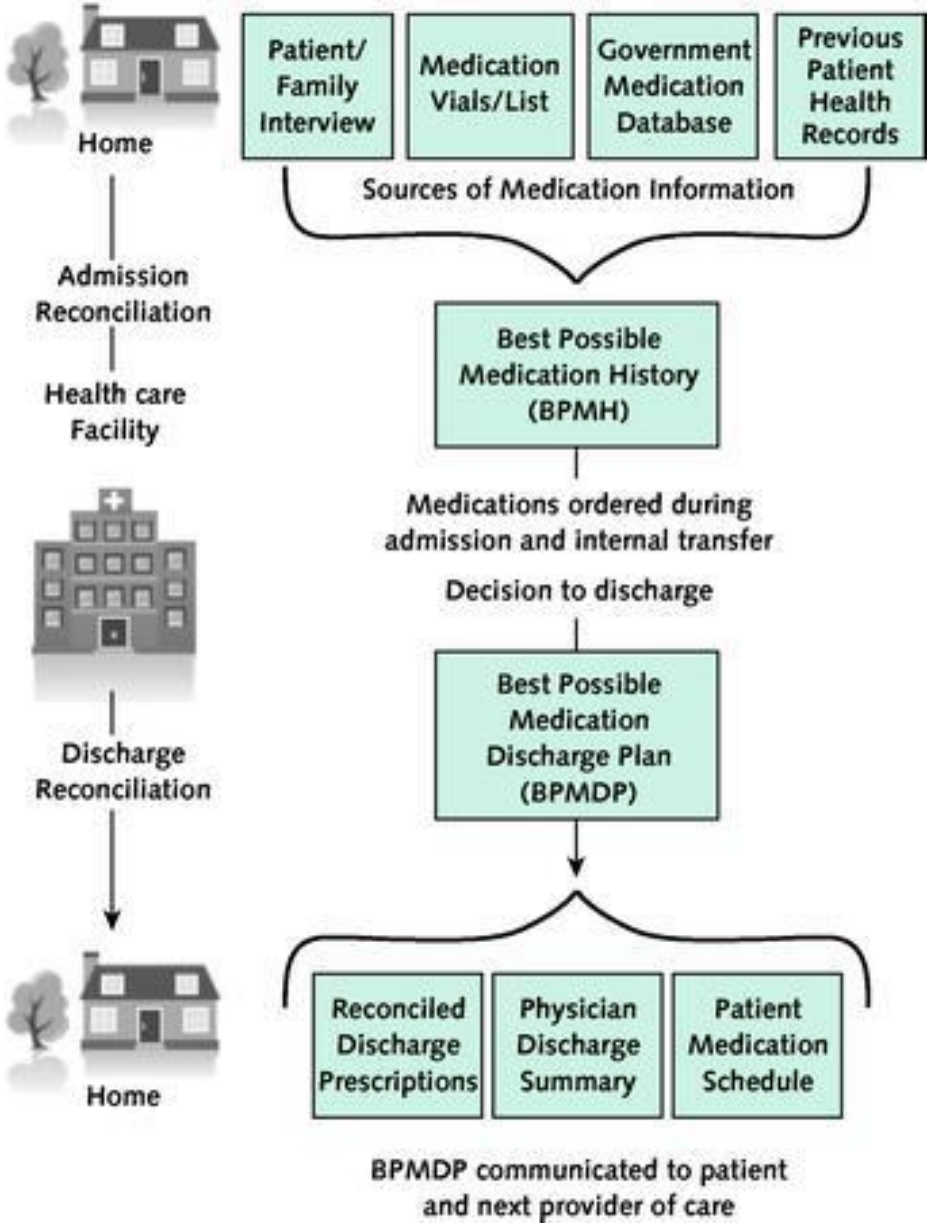
Lack of structured discharge planning

Objective 2: Strategies to Prevent and Resolve Errors

Medication Reconciliation

- Medication reconciliation ensures accurate, complete medication lists across transitions a best possible medication history (BPMH)

- Defined by AHRQ/Joint Commission as a structured process to improve patient safety



Schnipper, J. L., et al. (2013). Medication reconciliation during transitions of care as apatient safety strategy. *Annals of Internal Medicine, 158*(5 Part 2), 397–403.https://doi.org/10.7326/0003-4819-158-5-201303051-00006

Roles & Responsibilities

Nursing

- bedside med reconciliation (admission)/ BPMH collection
- patient education

Pharmacy

- medication reconciliation
- formulary substitutions
- discharge counseling

Case management/social and community health workers

- coordinate follow-up
- address barriers

Physicians

- write order and prescriptions
- confirm final discharge medication list

Practical Tools and Approaches

Interprofessional Implementation Strategies

- MARQUIS Toolkit: addresses unintentional discrepancies (>50% of patients)
- MATCH Toolkit: leadership support, standardized process design, staff training
- Use continuous auditing and feedback for quality improvement

Standardized Templates

- Use MATCH toolkit checklists to standardize BPMH and reconciliation
- Clearly define roles for nurses, pharmacists, and physicians
- Improves communication and accountability

Discharge Counseling & Teach-Back

- Use teach-back: patients restate instructions and/or demonstrate techniques to confirm understanding
- Pharmacist-led medication counseling improves knowledge and reduces post-discharge errors
- Collaboration is key - enhances adherence and safety

Managing Inpatient vs Outpatient Formularies

- Ensure smooth transition between hospital and outpatient regimens
- Pharmacists adjust/interchange medications based on coverage and availability
- Collaborative Practice Agreements empower pharmacists

Access, DUR & Warm Handoffs

- Address medication acquisition and cost barriers
- Proactive Drug-Use Review (DUR) prevents coverage and safety issues
- Warm handoffs ensure communication with outpatient providers/pharmacies

High-Risk Patient Identification

- Risk factors: polypharmacy, low health literacy, complex regimens
- MARQUIS toolkit recommends early identification of high-risk patients
- Prioritize extra counseling and additional follow-up post transition

At-Risk Population for ADE

Older Adults	Low Health Literacy	Polypharmacy	Complex Medical Conditions
Behavioral Health Conditions	Children with Special Health Care Needs	Cognitive Impairments	Coexisting Disabilities
Lower socio-economic status	Newly admitted to Long Term Care Facility	Frequent movers	Persons lacking stable housing or medically underserved

Hume AL, Kirwin J, Bieber HL, et al. Improving care transitions: current practice and future opportunities for pharmacists. *Pharmacotherapy*. 2012;32(11):e326-e337. doi:10.1002/phar.1215.

Patient Case

Case Vignette

- MP is 78 y/o women
- PMH:
  - T2DM
  - HTN
  - CKD3
  - Tremors
  - Poor vision
- Medications:
  - on insulin
- Social History:
  - Lives alone, daughter visits 2x/week

Plan

- Start **Dexcom G7** (Medicare-covered, safest fit)
- Switch insulin vials to pens
- Education for patient & daughter
- Document in discharge summary
- Arrange follow-up with PCP & pharmacy

- **Teaching Point:** Interdisciplinary teamwork (nurse → physician → pharmacist → case manager) ensures safe transitions of care in older adults with diabetes.

Interdisciplinary Team

Nurse

- Observes patient cannot self-check glucose and has trouble drawing up insulin from vials (tremors, vision barriers) → risk after discharge

Physician

- Consults pharmacy
- Sends appropriate prescrption to pharmacy

Pharmacist

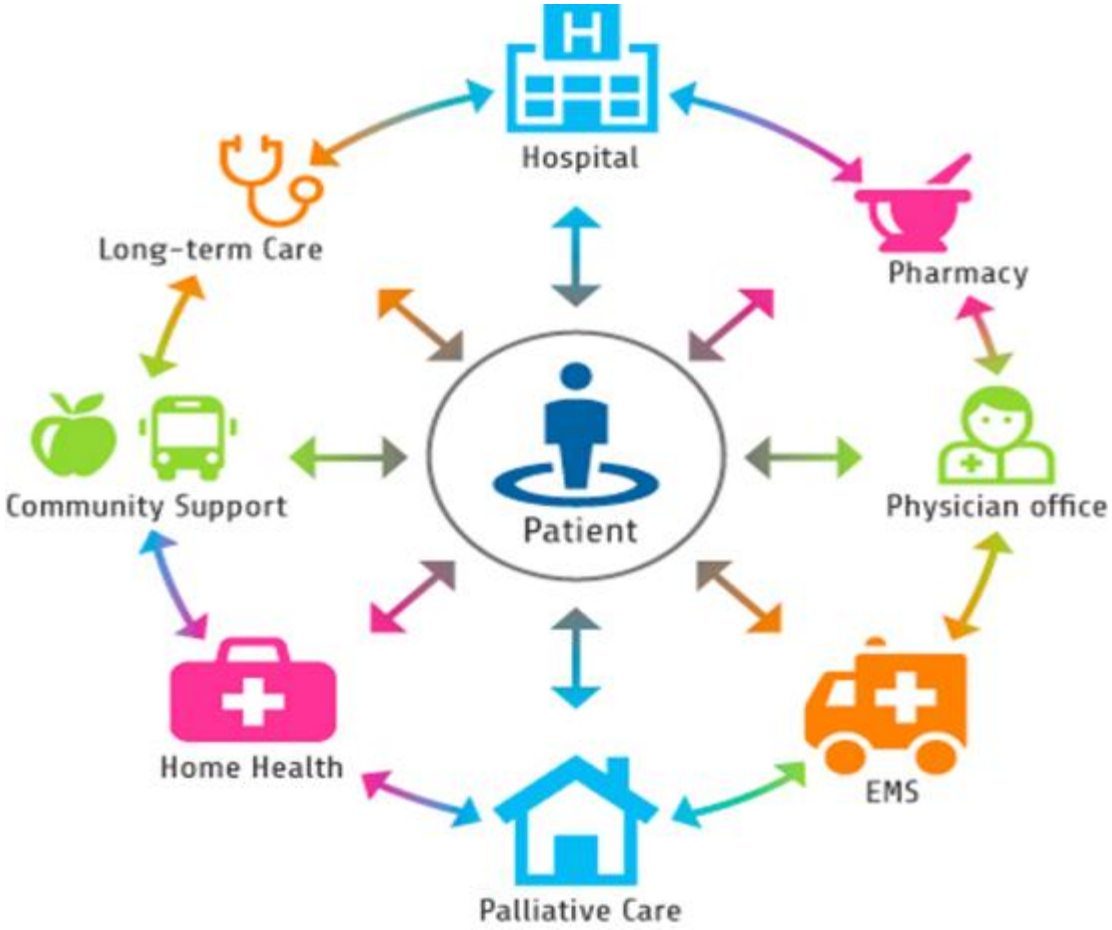
- Evaluates barriers, coverage, caregiver support
- Reviews CGM options
- Provides education on use of insulin pens and CGM

Case Manager

- Handles insurance/DME

Key Takeaways

- Medication errors are common, but preventable!
- Collaboration is key—each discipline has a distinct role
- Standardization of processes improves safety and consistency
- Identify high-risk patients early, use teach-back
- Strong transitions and communication reduce readmissions



Helpful Resources

MARQUIS Toolkit

shm_medication_reconciliation_guide.pdf

MATCH Toolkit

https://www.ahrq.gov/patient-safety/settings/hospital/match/index.html

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Bridging the Gap: Medication Management Best Practices Across Care Settings

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Disclosures to Participants

Notice of Requirements for Successful Completion:

Learners must participate in the full activity and complete the evaluation in order to claim continuing education credit/hours.

Presenter Conflicts of Interest/Financial Relationships Disclosures:

Alyssa Puia– None

Aimee Dawson - None

Disclosure of Relevant Financial Relationships and Mechanism to Identify and Mitigate Conflicts of Interest: No conflicts of interest

Non-Endorsement of Products: Accredited status does not imply endorsement by ADCES or Joint Accreditation of any commercial products displayed in conjunction with this educational activity

Off-label Use: Participants will be notified by speakers to any product used for a purpose other than that for which it was approved by the Food and Drug Administration

Objectives

- Describe the basic differences between pre-diabetes, type 1 diabetes, type 2 diabetes, and gestational diabetes, and identify patient-friendly resources for each condition.
- Effective medication communication strategies for non-pharmacists focusing on clarity, simplicity, and patient engagement will be reviewed.
- Identify common patient handouts for recognizing and managing hypo- and hyperglycemia, as well as evaluate the role of digital tools and apps in diabetes self-management.
- Utilize effective medication communication strategies focusing on clarity, simplicity, and patient engagement.
- Discuss practical strategies to improve adherence—including packaging, routines, combination therapy, and digital tools—and analyze available resources for medication affordability and access.

“Tips and Tricks” from your friendly neighborhood pharmacists

Diabetes 101:

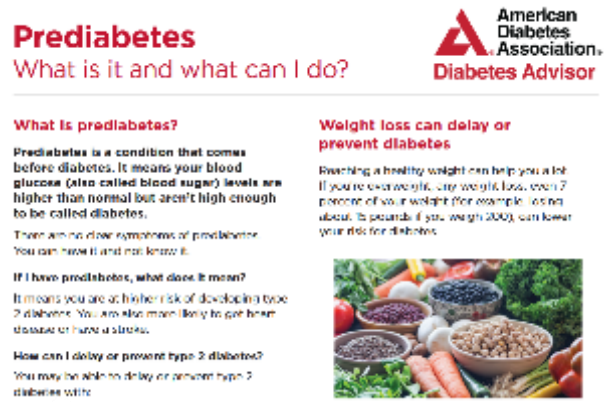
- Quick resources to review basics with patients, caregivers, and other team members

Hot Topic:

- Information that patients are asking timely questions about



Diabetes 101: Patient Handouts for Pre-diabetes, Type 1 Diabetes, Type 2 Diabetes, and Gestational Diabetes



Click for handout

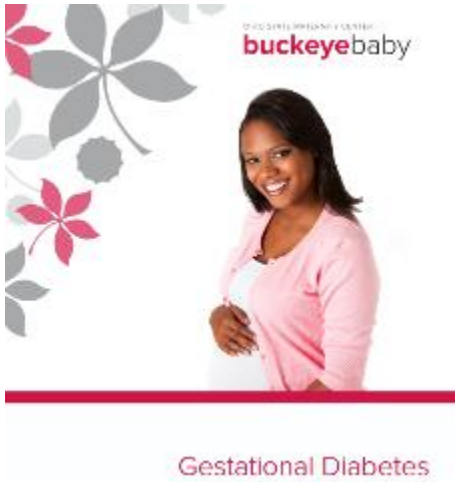




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What we look for?
- "Readability"
- "Understandability"
- "Actionability"

Recommend:
- "Chunking" material
- Teach back

Hot Topic – "Ozempic Babies"



- Reports of unintended pregnancies while on GLP and GLP/GIP Medications
  - Weight loss can improve infertility
  - If pregnancy occurs: Stop GLP RA containing medications immediately

Birth Control (oral pills) Interactions and Recommendations	
Tirzepatide (Mounjaro®)	Significant interaction • Decreases bioavailability of OCPs. • Use barrier method for 4 weeks after initiation or a dosage increase, or switch to a non-oral contraceptive
Exenatide (Bydureon®)	Significant interaction • Recommend taking OCPs at least one hour prior. • More frequent blood glucose monitoring is warranted, dose adjustments to exenatide may be necessary.
Lixisenatide (Adlyxin®)	Significant interaction • Diminishes therapeutic effect of oral contraceptives. • Recommend taking OCPs at least one hour prior OR at least 11 hours after lixisenatide.
Semaglutide (Ozempic®, Wegovy®)	No significant interaction
Liraglutide (Victoza®)	No significant interaction
Dulaglutide (Trulicity®)	No significant interaction

Diabetes 101: Patient handouts for hyperglycemia and hypoglycemia

Very thirsty



Hyperglycemia

Click for handout

Weak or tired

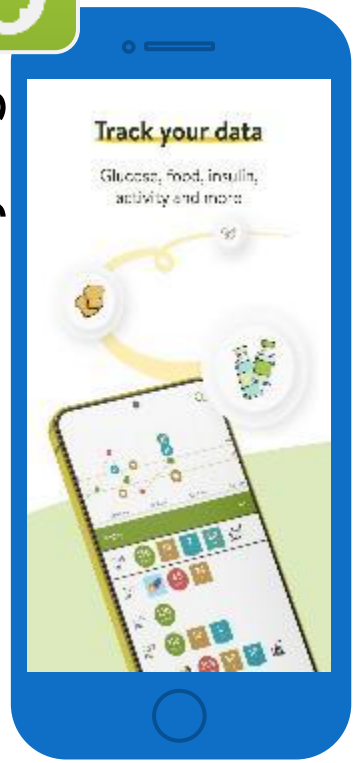


Hypoglycemia

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Hot Topic: Diabetes Management Apps

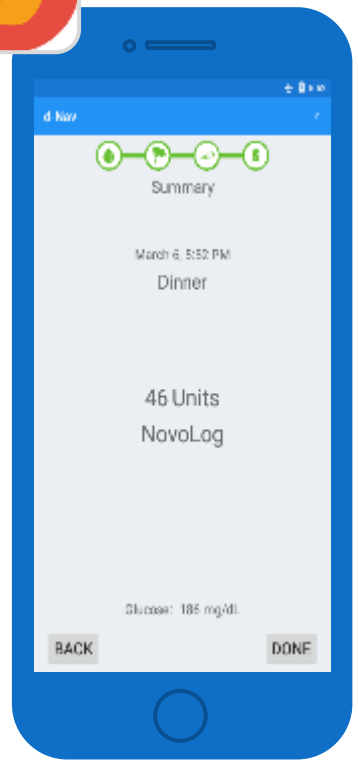
mySugr



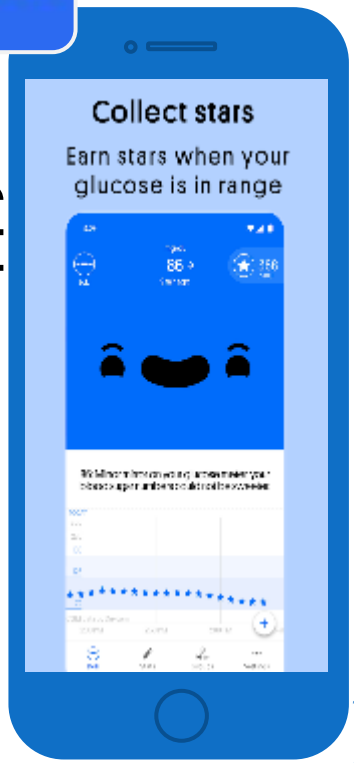
BlueStar



D-Nav



HappyBob



Diabetes 101: Patient handouts for medications

TAKING MEDICINE

Diabetes medicines

Diabetes changes over time. At some point, meal planning, weight loss, and exercising may not be enough to manage your blood glucose. Your treatment may need to change too. You might need to take a medicine for diabetes if:

- Your daily blood glucose levels stay above your goal range
- Your average blood glucose level over the past 3 months is still too high

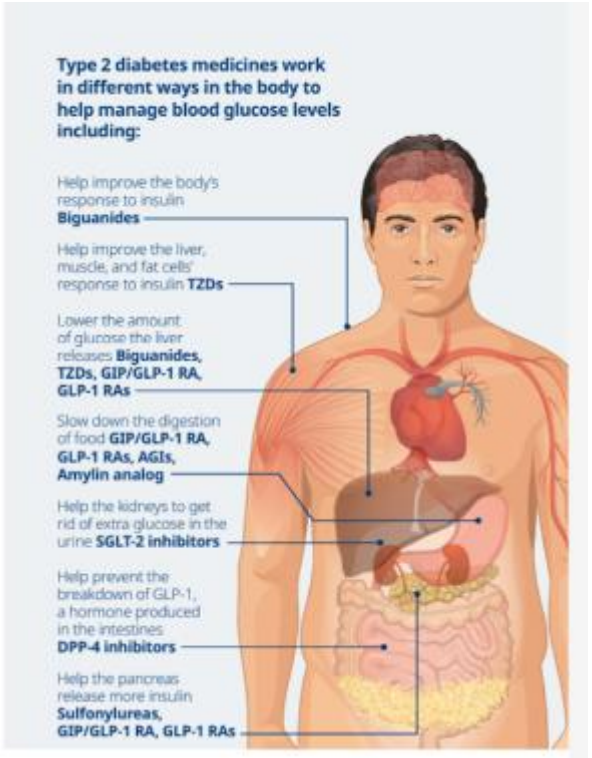


- You use a continuous glucose monitor, or CGM, and you do not spend enough time in your target glucose range

The American Diabetes Association recommends many different types of medicines that work in different ways to help lower your blood glucose. Sometimes one medicine will be enough, but in other cases, you may be prescribed a combination of medicines.

Learning about the different types of diabetes medicines may help you talk with your diabetes care team about treatment options. Together you can decide what type of medicine is right for you.

Click for handout



Did You Know?

HEALTHDIRECT PHARMACY SERVICES

Insulin Expiration Dates: Update

October 2022

All insulins should be stored in the refrigerator until opening and protected from light. Once opened or removed from the refrigerator for storage in the medication cart, the insulin should be dated as it will expire in a specified time per manufacturer.

Click for handout

SGLT-2 inhibitors
Sodium-glucose cotransporter-2 inhibitors

What should I know about it?

- Glucose in the blood is filtered by the kidneys and is either excreted or reabsorbed back into the blood
- An enzyme in the kidneys called SGLT-2 works to reabsorb the glucose into the body
- SGLT-2 inhibitors block the reabsorption of glucose into the blood and leave it in the urine

Some side effects:

- These pills may cause dehydration, low blood pressure, and urinary tract infections

GLP-1 RAs and GIP/GLP-1 RAs
Glucose-dependent insulinotropic polypeptide and glucagon-like peptide-1 receptor agonists

What should I know about it?

- GLP-1 RAs come in multiple formulations
- These medicines can help the pancreas release more insulin when blood glucose levels are high
- They keep the liver from making too much glucose when blood glucose levels are high
- These medicines also slow down movement of food leaving the stomach

Some side effects:

- These medicines may cause nausea, vomiting, diarrhea, and injection site reactions

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DPP-4 inhibitors
Dipeptidyl peptidase-4 inhibitors

What should I know about it?

- These pills prevent the breakdown of the hormone GLP-1
- The body's natural GLP-1 helps to lower blood glucose levels, but it is broken down very quickly
- By blocking the breakdown of GLP-1, these pills allow GLP-1 to remain active in the body longer
- This means glucose levels are lowered only when they are too high

Some side effects:

- These pills may cause joint pain

TZDs
Thiazolidinediones

What should I know about it?

- These pills help insulin work better in muscle, fat, and also reduce glucose production in the liver
- These pills improve the body's response to the insulin that it already makes
- This means that more glucose leaves the blood and enters the muscles and fat cells, where it belongs

Some side effects:

- These pills may cause weight gain, swelling, and increased risk of bone fractures

Visit NovoCare.com to learn more about your medicine options.

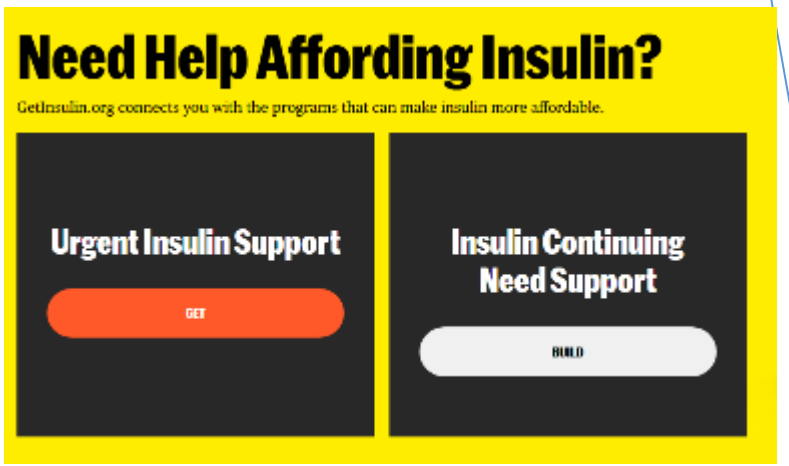
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Hot Topics: Access to Medications

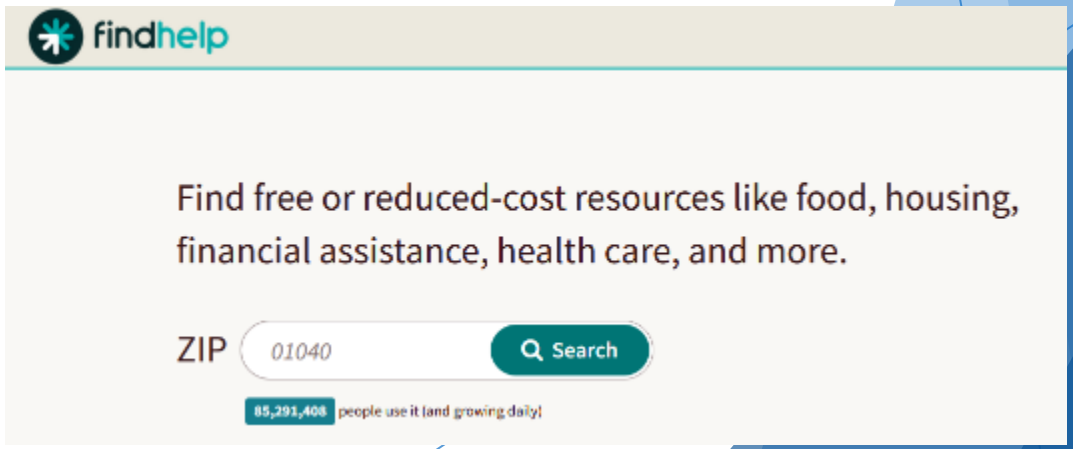
https://www.goodrx.com/
https://www.needymeds.org/
https://www.rxassist.org/



https://getinsulin.org/



Findhelp.org



Diabetes 101: Adherence Strategies

- Medication packaging
  - Local pharmacy programs
  - OTC pill boxes
- Applications
  - Ex: Dosecast, Medisafe, MyTherapy
- Routines
  - Alerts/alarms
  - Associate dosing with daily tasks



Medisafe Pill Reminder



Dosecast: My Pill Reminder App



Meds & Pill Reminder MyTherapy

Hot Topic: Combination Meds

Polypharmacy

- the simultaneous use of multiple drugs to treat a single ailment or condition.



Selected combination meds covered by MassHealth

Drug name, brand	Drug name(s), generic
Actoplus Met	Pioglitazone / metformin
Janumet (XR)	Sitagliptin / metformin (ER)
Jentadueto (XR)	Linagliptin / metformin (ER)
Metaglip	Glipizide / metformin
Synjardy (ER)	Empagliflozin / metformin (ER)
Xigduo XR	Dapagliflozin / metformin ER

Questions?

Ask us anything!

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References:

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CEUs

- Those who attend the full session are eligible for continuing education units (CEUs), provided by ADCES, MA chapter.
- CEUs are available for Pharmacists, RNs, Dieticians, Social Workers, CDCES, DCES
- Evaluation link: https://www.surveymonkey.com/r/773TFLX
- Please complete the evaluation by Sept. 30 to obtain CEUs
- Certificates can be obtained through your ADCES profile/free account.



ADCES Massachusetts Coordinating Body

Fall Meeting

Understanding Diabetes & Women's Health
Saturday, October 11th
Andover Inn
Andover, MA

For additional information and registration
www.adces.org/event/MALN1OCT25



MASSACHUSETTS Diabetes Network

Save the Date!

The MA Diabetes Network will be hosting a hybrid event
on **November 12**

In-person at:
Community Servings
Mansfield, MA

Join us in recognition of National Diabetes Month!

Schedule of events:

- Presentations in the morning (with Zoom registration option)
- Lunch at 12noon
- Volunteer opportunity with Community Servings, 1-4pm

MASSACHUSETTS Diabetes Network

Contact Us

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