Gadgets, Gizmos, and Apps

Candi Possinger MS, RD, CDN, CDE
Personalized Health Nutrition, PLLC
Disclosure

In compliance with the accrediting board policies, The American Diabetes Association requires the following disclosure to the participants:

Candi Possinger MS, RD, CDN, CDE

• Consultant: Eli Lilly and Company
• Insulin Pump Trainer: Accu-Chek, Animas, Medtronic, Omnipod, Tandem
Learning Objectives

1. Understand new devices available for management of diabetes
2. Explain the pros and cons of popular diabetes apps
Gadgets/Gizmos

- Insulin pumps
- Vgo
- CGM sensors

- http://integrateddiabetes.com/insulin-pump-comparisons/
Accuchek Combo

- Discrete bolusing
- Full pump programming from bluetooth meter
- Boluses can be adjusted for health events
  - Exercise, illnesses, stress
- 315 unit cartridge
Animas Ping/Vibe

- Ping:
  - Remote bolusing
  - Water tight
- Vibe:
  - Dexcom G4 integration
  - 35 unit max bolus
- 200 units
Medtronic

- 530G
  - Enlite CGM capability
  - Safeguard technology: basal shutoff when low BG detected from sensor
  - 180 or 300 unit cartridge
- 630G
  - Colored screen
  - Individualized sensor settings
  - Remote set boluses from glucometer
  - 300 unit cartridge
Medtronic cont.

• 670G
  • 1st closed loop system approved by the FDA
  • Requires use of Enlite sensor
    • Type 1 approval
Omnipod

- No tubing
- Automated canula insertion
- Fully watertight
  - No disconnecting / reconnecting
- Can program through clothing
- Forced pod change

- 200 units
Tandem

- Touch screen
- Tslim: 300 units
  - 50 unit max bolus
- Tflex: 480 units
  - 60 unit max bolus
- Tslim G4: Dexcom G4 integration
- Tslim X2: 2 way communication
  - Bluetooth
  - Software updates
Vgo Insulin Delivery

• Disposable insulin delivery device
• 20, 30, or 40 units of insulin delivered evenly over 24 hrs
• In addition, holds 36 units of meal time doses (18 clicks)
• No programming
Dexcom

- Real time glucose readings every 5 minutes
- Alarms for lows, highs, fall/rise rates etc
- 7 day wear
- G5 mobile app
  - iphone
- Share app
  - iphone
- Follow app
  - iphone or droid
Freestyle Libre Pro CGM

• Glucose sensor is connected to a water resistant patch the size of a one-dollar coin.
• The sensor remains inserted for 14 days and does not require fingerstick calibrations:
  • it’s “factory calibrated”
• To use FreeStyle Libre, users take a touchscreen reader device, hold it near (within 1.5 inches) the sensor patch, and wait for it to beep.
  • In less than a second, they can see their real-time glucose value (e.g., 102 mg/dl), a glucose trend arrow (e.g., rising), and a trend graph showing the last eight hours of data.
Diabetes Apps
Glooko

• Syncs blood glucose and insulin data from meter to app in real-time
• Tracks nutrition data from thousands of restaurants, supermarkets, and home-cooked meals
• Sets personal reminders to make sure individuals adhere to their care plan
• Information is accessible online to both patients and health care providers
• Quick syncing allows more time for healthcare provider to focus more on collaborating with patient instead of transferring data
• Data can be synced to electronic health records
• As a healthcare provider, provides a comprehensive set of information for the entire population and patient
Glooko

Pros

- Free
- Syncs with over 50+ glucose monitoring devices, insulin pump, and wearable fitness trackers
- Logs diet, carb intake, insulin, and blood sugar tracking
- Data can be accessed both online and in the phone app
- Can export 2 weeks - 1 month worth of data in PDF/eFax

Cons

- Requires sync cable to connect glucose meter to phone to transfer data: ~$59.95
Diabetes In Check

- Designed by a Certified Diabetes Educator
- Offers digital coaching from a Certified Diabetes Educator
- App claims to help individuals get active, eat better, and control their weight
- Able to send data quickly to healthcare provider
- Community message boards with over 200,000 people living with type 2 diabetes
- Personalized meal plans with diabetes-friendly recipes
Diabetes In Check

Pros
- Free
- Tracks blood glucose and medications
- Sends reminders
- Food tracker
- Barcode scanner for food items
- Recipe database

Cons
- $3.99 for personalized food recommendations
- Cannot enter your own recipes/dishes, must enter each ingredient of food every time
- Not many foods in database, meaning you have to enter food items manually
- Requires individual to make an account to use the features
OnTrack Diabetes

• Created by Medivo
• Creates graphs based on information submitted into app
• Defines high or low glucose ranges and can easily indicate when blood glucose numbers are out of range
• Logs blood glucose, medications, weight, A1C, carbohydrates, and food all in one entry
OnTrack Diabetes

Pros
- Define high and low blood glucose ranges
- Able to create graphs from blood glucose data
- Simple and easy to use interface
- Supports both US and International units
- Can set reminders

Cons
- Only available on Android
- Manually log all blood glucose entries
- No food database, must manually enter food items in note section
BG Monitor Diabetes Pro

• Reminders to check your blood or give insulin.
• Records blood glucose levels, carbohydrates, insulin dosages, exercise, notes, tags, and pictures
• Automatically calculates insulin dosages and total carbohydrates from multiple food servings
• Warnings for low blood glucose and insulin on board to protect from insulin overdose
• Creates reports and can email them to healthcare provider within app
• Backup and restore data from Dropbox
**BG Monitor Diabetes Pro**

**Pros**
- Log photos of your food into a journal
- Detailed graphs and statistics
- Insulin calculator
- Insulin on board – protects from insulin over dosage
- Food database
- Carbohydrates calculator
- Set reminders

**Cons**
- Only available on Android
- $4.99
Diabetik

- Developed by UglyApps
- Super fast data entry
- Interactive charts to visually track progress
- Date and location reminders to help individual remember to take medications
- Ability to export, print, or send CSV and PDF exports of data
- Automated data backup
Diabetik

**Pros**
- Free
- Translated for people around the world
- Insulin calculator
- Records blood sugar levels, medication dosage, insulin doses, and meals
- Reminders to take medications at certain times
- Charts blood sugar levels into reports

**Cons**
- Must make separate entries for meals and medications when taken at the same time
- Only available on iOS
mySugr Diabetes Logbook

Pros
- Free
- Available in both iOS and Android
- Set challenges to achieve personal therapy goals
- Tracks food, medications, weight, carbohydrates, bolus, basal shots, blood sugar, and A1C
- Limits to some features in the app (e.g. 5 food scans/day)

Cons
- PRO version $2.99 (unlocks all features)
- Highly graphical interface, takes some time to learn
Diabetes Pal

- Developed by Telcare Inc.
- Tracks and analyzes blood glucose, medication, nutrition, A1C, blood pressure, weight, sleep, activity and notes
- Works with individuals with or without Telcare’s blood glucose meter
- Set and tracks personal goals such as testing blood glucose levels several times a day
Diabetes Pal

**Pros**
- Auto syncs with mytelcare.com
- Compiles the data into different types of graphs and reports
- Works with/without internet connection
- Can access data on a Mac or PC
- Available on both iOS and Android

**Cons**
- Prone to bugs requiring users to uninstall and reinstall several times to fix the problem
- Manually log data if individual does not have Telcare blood glucose meter
Ezbds – Diabetes Assistant

• Developed by a person with diabetes and ran by a team of diabetes patients
• Personal assistant to managing diabetes
• Pulls together information to show what activities drives blood glucose numbers up or down
• Reminds individual what they’ve eaten at a particular restaurant, how they dosed, and what their numbers were like after their meal
• Advises exercises that will help lower blood glucose numbers and by how much
Ezbds – Diabetes Assistant

Pro
- Recommends exercises to help with blood glucose numbers and by how much
- App reminds you what you’ve eaten in the past, how you dosed, and what your numbers were like afterwards
- Analysis of any new trends that are developing
- Analysis of medicine, carbohydrates, and exercise
- Available on both iOS and Android
- Data can be stored online

Con
- Free for the first 90 days, then $10/month or $100/year for full features
- Limited features (no analysis features)
Glucose Buddy

- Developed by SkyHealth
- Users manually enter blood glucose, carbohydrates, insulin dosages, and activities
- Data can be accessed on their website as well: www.glucosebuddy.com
- Integration with CalorieTrack for easier and faster food and exercise logging
Glucose Buddy

**Pros**
- Free
- Forum to connect with other users of the app
- Available for both iOS and Android
- Can graph both blood glucose and medicine on the same chart
- Able to customize blood glucose ranges
- A1C estimator based on past blood glucose levels

**Cons**
- Any upgrades in the app require money
Glucool Diabetes

- Developed by 3qubits, a startup
- Highly customizable: custom insulin, medication types, and exercise types
- Backup and restore
- Alarm system to remind individuals to check blood sugar 2 hours after meals
- Enter multiple data at once: blood glucose, insulin, and carbohydrates
- Create and send email reports to healthcare providers (including graphs)
Glucool Diabetes

Pros
- Available in mg/dL and mmol/L units
- Define custom glucose ranges
- Display glucose data in graphs
- Able to add blood glucose, insulin, and notes all in one entry
- Tracks blood glucose, blood pressure, insulin, weight, and BMI

Cons
- Only available on Android
- Free trial, Glucool Diabetes Premium: $7.99
- Limited features in the free version; must upgrade to premium to see all features (e.g. send reports to healthcare provider)