The Doctor Will Sync You Now

How to select an mHealth app

Donna Bain, Assessment Specialist

National Telehealth Technology Assessment Resource Center

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"Doctors have to be able to trust the app and the data that it's collecting and distributing"

Creagh Milford, DO, MPH – Massachusetts General Physicians Organization

What makes a good app?

- A good app solves a problem.
- A good app considers screen real estate, color, and contrast.
- A good app engages the user.

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How to choose an app?

- 1) Gather Information
- 2) Test apps
- 3) Review testing results, pros and cons
- 4) Decide, purchase, & implement

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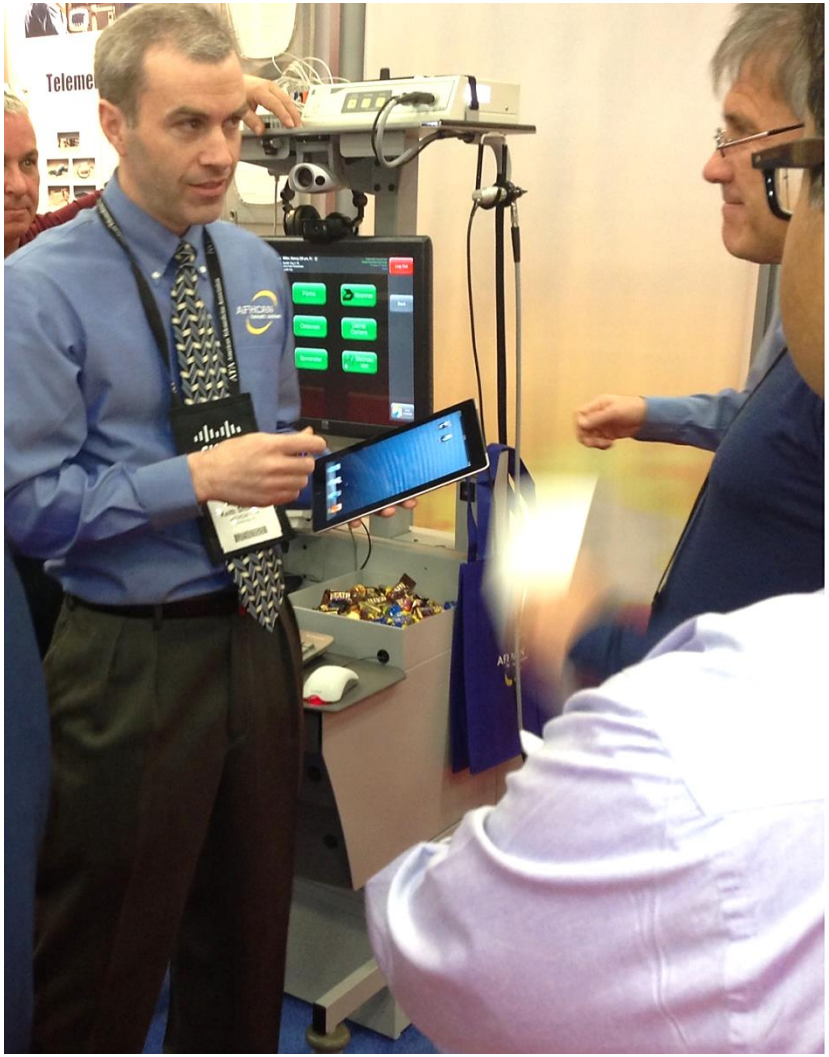
1) Gather Information

- Needs Assessment
- Market Review



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2) Test the Apps

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3) Review the Test Results

Pros	Cons
Captures needed data	Poor screen layout
Integrates with calendar & email	Bugs, random crashing
Works with my existing phone	

4) Decide, purchase, implement & support

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Mobile App Selection: Our Criteria

- Consumer-based BGL monitors designed to work with mobile apps.
- The glucometer has to sync data with the app (without requiring manual data entry of BGL).
- No major investment--Under $250.

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What problem will the app solve?

- Our Definition: I want to travel with my glucometer, measure my BGL, and upload all of the data into my app at my convenience instead of writing it down or typing it into software. I want the app to compile and communicate my results to my provider. What can I purchase for under $250?

Glucometer & Apps: Three Units Identified

iBG*Star

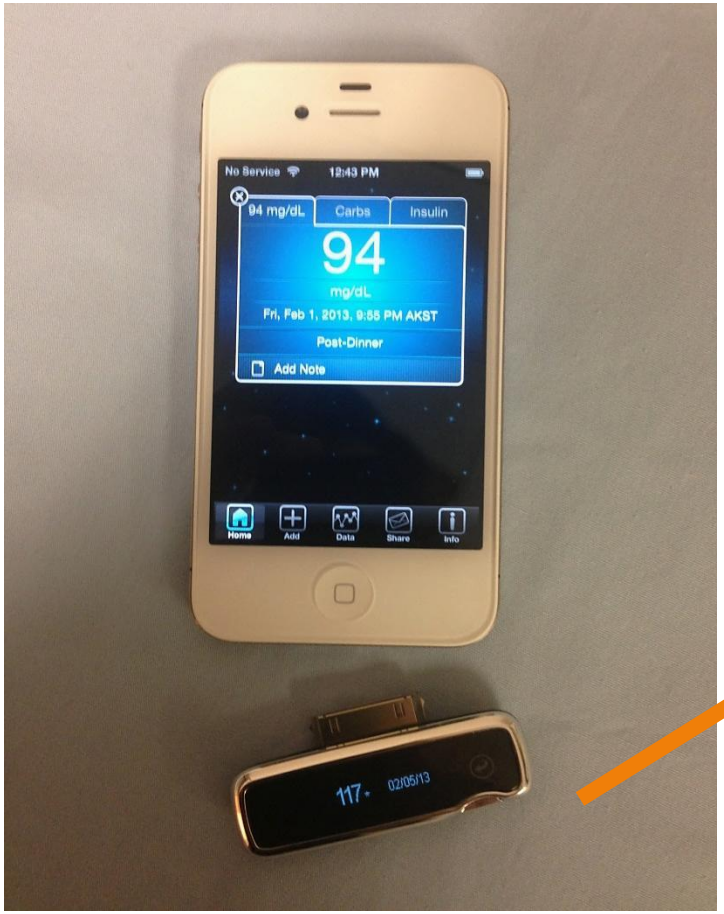
myglucohealth

Telcare

Comparison Table

	iBG*Star	myglucohealth	Telcare
App type	iOS	Android	Android & iOS
# Readings stored	300	255	300
Online portal?	No	Yes	Yes
Meter to app upload method	30-pin male end on meter	Bluetooth	Cellular
Base price (not including smart phone)	Free app $100 meter	Free app $64 meter	Free app $150 starter kit

iBG*Star device image w/phone



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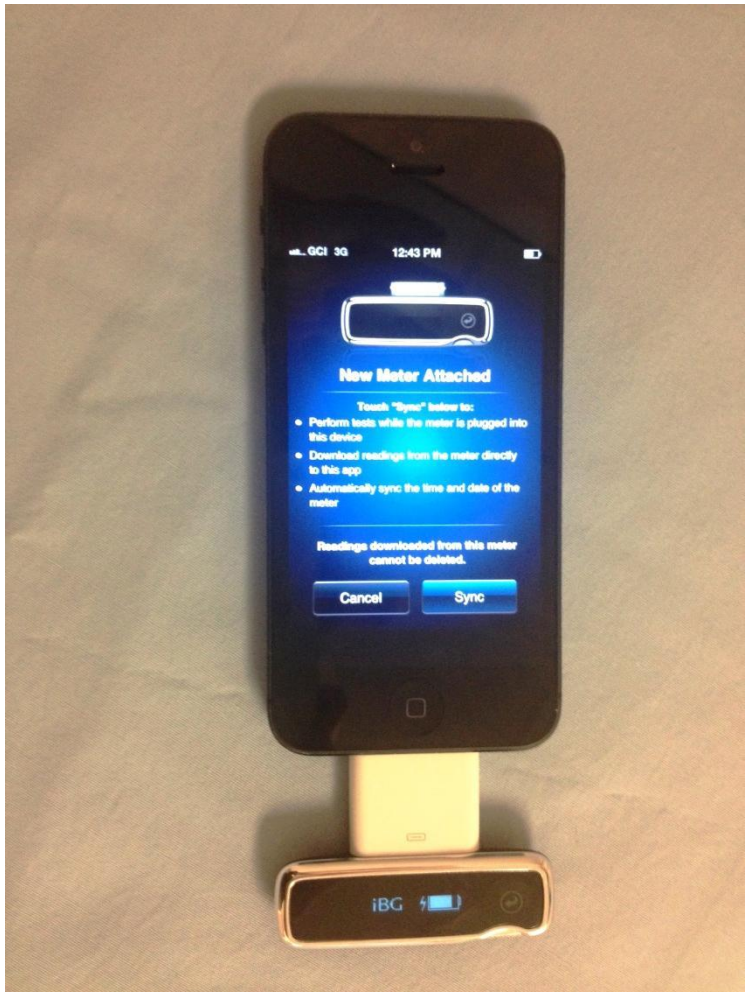
iBG*Star with iPhone 5 & Adapter



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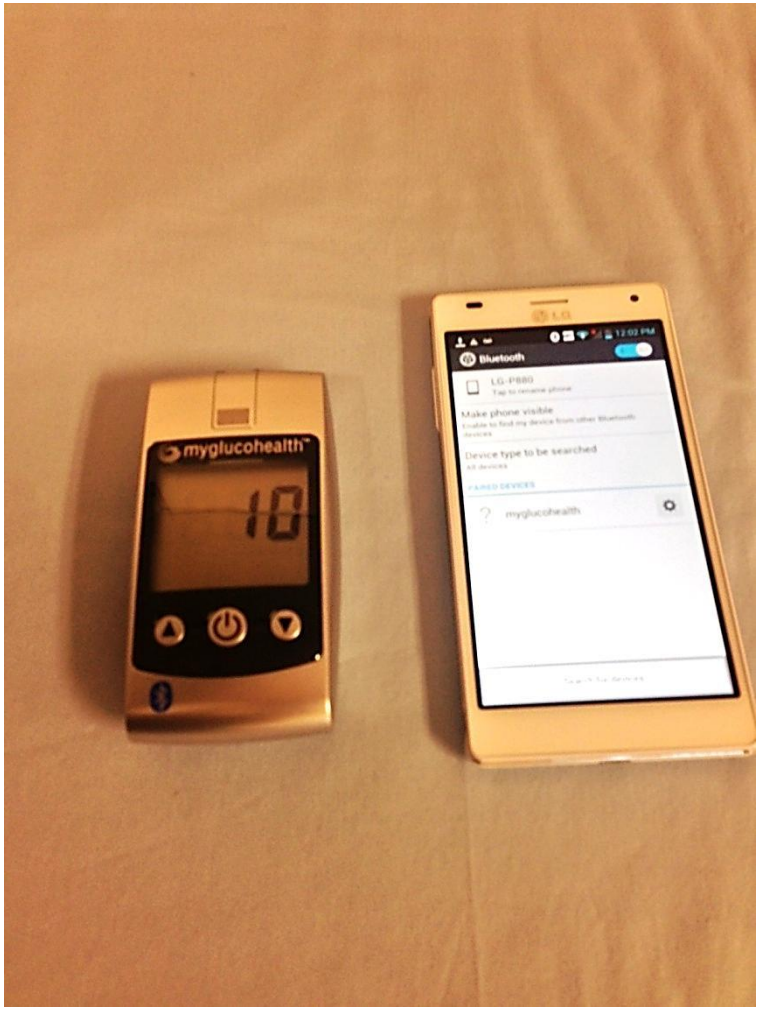
myglucohealth images w/phone



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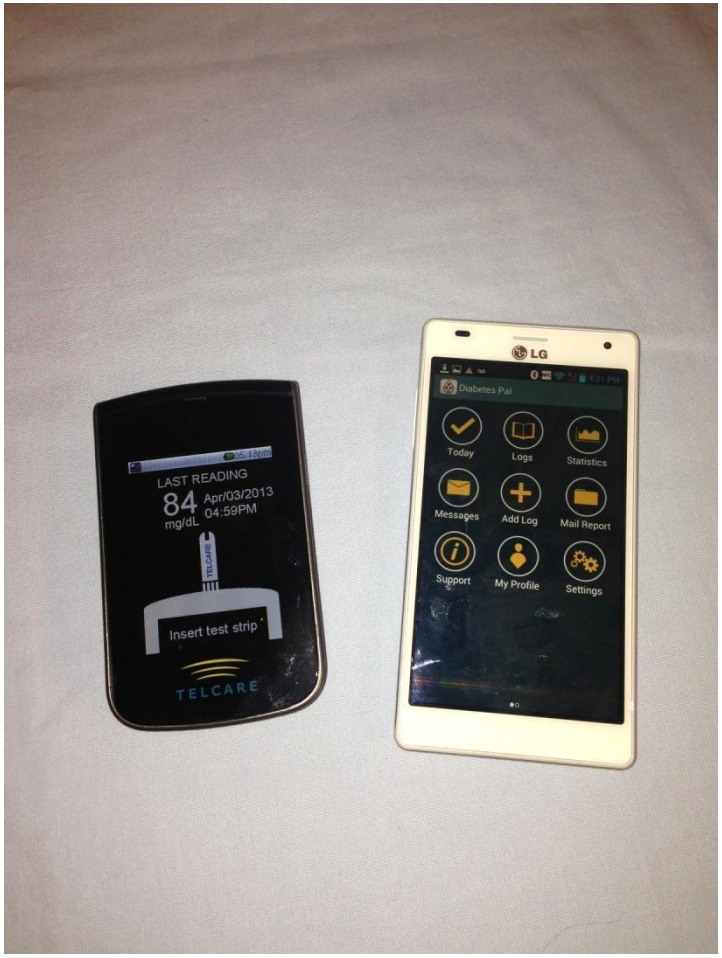
Telcare images with phone



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App Testing Plan- Glucometers

- Do the meters read about the same BGL on the same subject when tested at the same time?
- Are the meters as accurate as a lab-drawn blood serum glucose test?
- How do the devices connect and interplay with their mobile apps?

Meter Test Results

- Do the meters read about the same BGL on the same subject when tested at the same time?

	iBG*Star	myglucohealth	Telcare
Subject 1	106	87	105
Subject 2	123	112	124

Meter Test Results

- Are the meters as accurate as a lab-drawn blood serum glucose test?

	iBG*Star	myglucohealth	Telcare	Lab serum test
Subject 3	112	101	113	114

Meter Test Results

- How do the devices connect and interplay with their mobile apps?

iBG*Star

30-pin

myglucohealth

Bluetooth

Telcare

Cellular

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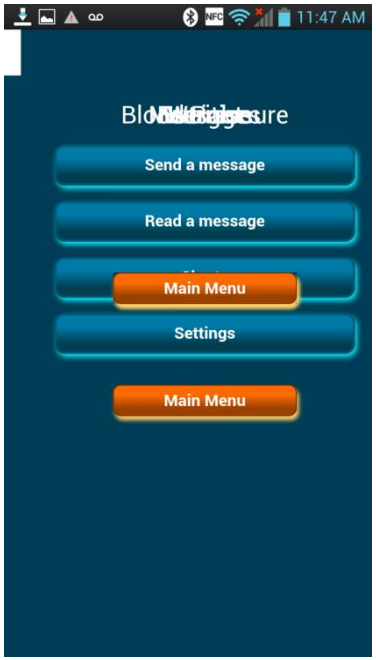
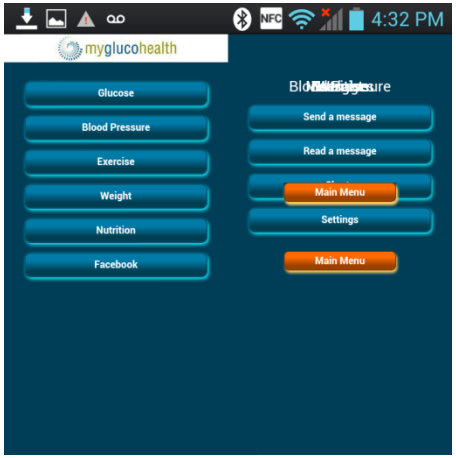
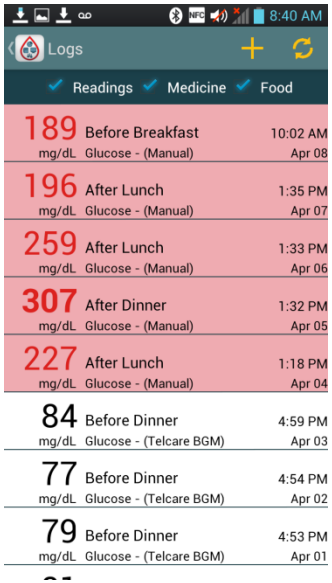
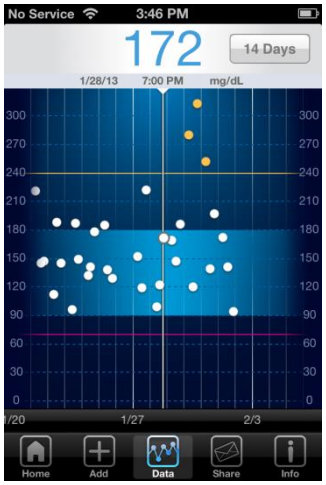
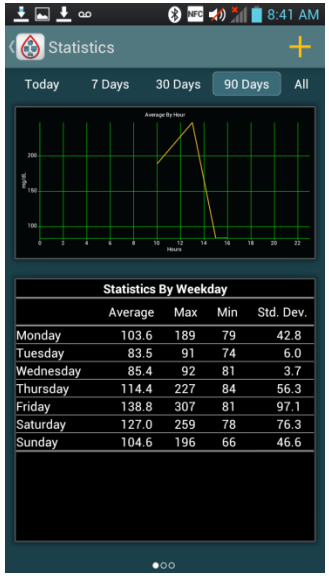
App images











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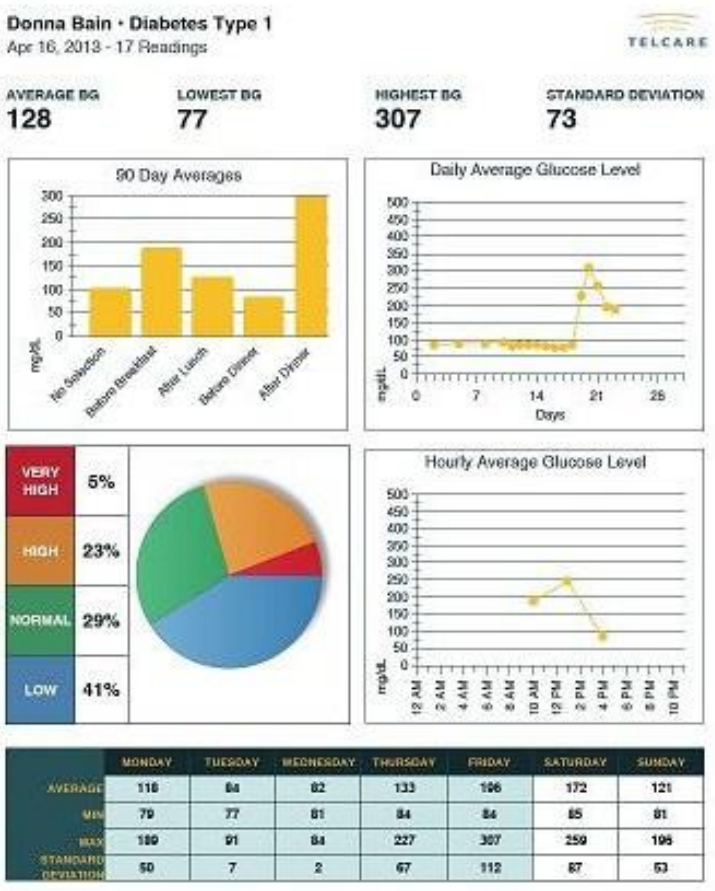
Emailed Data



Donna Bain · Diabetes Type 1
Apr 16, 2013 - 17 Readings

TELCARE

AVERAGE BG	LOWEST BG	HIGHEST BG	STANDARD DEVIATION
128	77	307	73

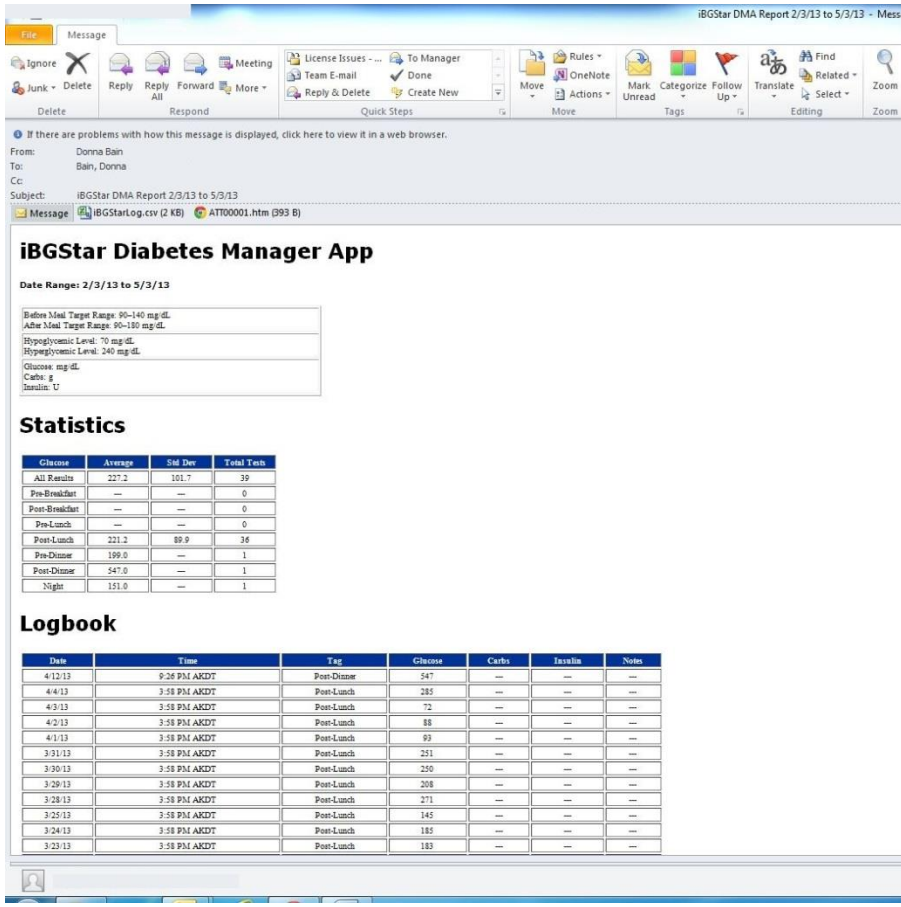
90 Day Averages

Daily Average Glucose Level

VERY HIGH	5%
HIGH	23%
NORMAL	29%
LOW	41%

Hourly Average Glucose Level

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
AVERAGE	116	84	82	133	196	172	121
MIN	79	77	81	84	84	85	81
MAX	189	91	84	227	307	259	196
STANDARD DEVIATION	50	7	2	67	112	87	53



iBGStar DMA Report 2/3/13 to 5/3/13 - Mess

File | Message

Ignore | Junk | Delete | Reply | Reply All | Forward | Meeting | More | License Issues - ... | Team E-mail | Reply & Delete | To Manager | Done | Create New | Move | Rules | OneNote | Actions | Mark Unread | Categorize | Follow Up | Translate | Find | Related | Select | Zoom

If there are problems with how this message is displayed, click here to view it in a web browser.

From: Donna Bain
To: Bain, Donna
Cc:
Subject: iBGStar DMA Report 2/3/13 to 5/3/13

Message | iBGStarLog.csv (2 KB) | ATT00001.htm (393 B)

iBGStar Diabetes Manager App

Date Range: 2/3/13 to 5/3/13

Before Meal Target Range: 90–140 mg/dL
After Meal Target Range: 90–180 mg/dL

Hypoglycemic Level: 70 mg/dL
Hyperglycemic Level: 240 mg/dL

Glucose: mg/dL
Carbs: g
Insulin: U

Statistics

Glucose	Average	Std Dev	Total Tests
All Results	227.2	101.7	39
Pre-Breakfast	—	—	0
Post-Breakfast	—	—	0
Pre-Lunch	—	—	0
Post-Lunch	221.2	89.9	36
Pre-Dinner	199.0	—	1
Post-Dinner	547.0	—	1
Night	151.0	—	1

Logbook

Date	Time	Tag	Glucose	Carbs	Insulin	Notes
4/12/13	9:26 PM AKDT	Post-Dinner	547	—	—	—
4/4/13	3:58 PM AKDT	Post-Lunch	285	—	—	—
4/3/13	3:58 PM AKDT	Post-Lunch	72	—	—	—
4/2/13	3:58 PM AKDT	Post-Lunch	88	—	—	—
4/1/13	3:58 PM AKDT	Post-Lunch	93	—	—	—
3/31/13	3:58 PM AKDT	Post-Lunch	251	—	—	—
3/30/13	3:58 PM AKDT	Post-Lunch	250	—	—	—
3/29/13	3:58 PM AKDT	Post-Lunch	208	—	—	—
3/28/13	3:58 PM AKDT	Post-Lunch	271	—	—	—
3/25/13	3:58 PM AKDT	Post-Lunch	145	—	—	—
3/24/13	3:58 PM AKDT	Post-Lunch	185	—	—	—
3/23/13	3:58 PM AKDT	Post-Lunch	183	—	—	—

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The National Telehealth Technology Assessment Resource Center aims to create better-informed consumers of telehealth technology. By offering a variety of services in the area of technology assessment, the TTAC (pronounced “tea-tac”) aims to become the place for answers to questions about selecting appropriate technologies for your telehealth program.

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