Role of Information Technologies for Diabetes Practice: Where and How to Find the Latest Information

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Meeting ADA A1C Targets
Life Expectancy Decreased in T1D by ~10 yr*

*Diabetologia 2016
T1D Exchange, 2014

Economic Impact of Hypoglycemia in Insulin Treated Patients with Diabetes
Cost of severe hypoglycemic events: $1,200 – $17,500/episode in the US

*High/Low Efficacy Interventions represent 95% CI for base case efficacy
*Using 640G Saves £1500/year/patient-NICE Guidelines 2016
Responses of PCPs in Colorado and Utah when asked about CGM

- “I have no clue.”
- “I have patients with T1D in my practice. They may be able to use it. I have no clue how to get it.”
- “I don’t think it’s evidence-based.”
- “I would like to use it for patients with T2D on glipizide who are having low blood sugars.”
- “I have never seen it.”
- “It sounds cool.”
- “I think patients should pay for it, at least partly, since it is too much to ask insurance, they would never pay for it.”
- “It is not a technology that I think will stick around, with the bulk of stuff to carry around it’s likely to become redundant. It’s just for research stuff…”
- “It would be good to use in non-compliant patients for a short time, but would be just too much data to handle in the long run.”
- “I don’t know how much value it adds in adults, but I can think of it in children with T1D.”
- “I don’t have the documentation to prove it’s accurate and I don’t know about the cost.”

Bhide, Grey, Moser and Garg: DT&T 2013

TIDEPOOL: App that may reduce the burden of T1D

Dexcom
G4 and G5
Mac and Windows

Insulet
Omnipod
Mac and Windows

Tandem
t:slim and t:flex
Mac and Windows

Medtronic
Paradigm 523 and 723, 530
and Enlite sensor
Mac and Windows

Bayer Contour
Contour, Link, Navix, USB and Next USB
Mac and Windows

Abbott
Precision Xtra, Freestyle Lite
and Freedom Lite
Windows

Animas
Ping and Vibe
Mac and Windows

OneTouch
VerioIQ, Ultra2, Ultra Mini
Mac and Windows

Coming soon
TIDEPOOL: App that may reduce the burden of T1D
Carelink Pro

Dexcom Download

We found no patterns during this date range. The best day was March 26, 2016.

Evan's best glucose day
Evan's glucose data was in the target range about 87% of the day.
Standardized CGM Reporting-Ambulatory Glucose Profile (AGP)
Ways to get Technology Information

• AACE, ADA, ATTD, ATDC, EASD and DTS Annual Scientific Meetings
• Journals like DT&T, JDST, Diabetes Care, Diabetologia etc.
• Didactic lectures at scientific meetings
• Online by Googling
• Smart Phones and Apps
• Through friends like Irl and George?

Information Overload?

• Too much data and controversial
• Dissecting through Maze?
• Proper Studies with a defined end-point
• CareLink Pro
• Data on Smart-Phones
• AGP
• Tidepool
• Glooko
What is Really Needed

- Guidance and Advisors for dose adjustments
  - For SMBG
  - CGM
  - MDI
  - Pump-SAPT
  - HCL
  - Closed-loop
- Legal Implications?
- Memory Pens
- Support Systems and Resources

Severe Hypoglycemia and A1C:


![Graph showing the relationship between Glycosylated Hemoglobin (%) and the Rate of Severe Hypoglycemia (per 100 patient-years).]