



CGM – A Case Study in Therapeutic Inertia

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What is CGM?

- Measures glucose in the interstitial space
 - 3 components: sensor, transmitter, and reader
 - Records values every 5 15 minutes
 - · Personal patient owns the device
 - Professional HCP owns the device
- · Patient: glucose value, trend (direction and velocity), and historical data
- Provider: glucose summary reports (e.g. Standardized Glucose Report)
- Clinical Evidence
 - Reductions in A1C without an increase in hypoglycemia
 - Reductions in hypoglycemia without increase in A1C
 - Improved QoL
- Low Penetration of CGM (10%) Despite Clinical Benefits

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Factors Contributing to Therapeutic Inertia

- Lack of Awareness
- Limited Clinical Experience
- Clinic Workflow
- Restricted Access





Lack of Awareness

Non-specialists > specialists lack info on CGM Considered to be difficult to use based on older technology Not clear on professional CGM

SOLUTIONS

- Publications addressing use and benefits to patients, clinicians, health systems, and payers
- Symposia/ Product Theaters at conferences
- Peer-to-peer outreach
- Direct-to-consumer marketing/ communications

OBSTACLES

- Scalability 209K PCPs vs. 8K diabetes specialists^{1,2}
- · Rapidly evolving technologies
- Clinician outreach must be tailored based on depth of diabetes knowledge, clinic type, and support staff

SUCCESSES

- · Peer-to-Peer outreach helped to educate HCPs
- Direct-to-consumer marketing worked very well to create awareness

1. https://www.ahrq.gov/research/findings/factsheets/primary/pcwork1/index.html; 2. https://www.statista.com/topics/1244/physicians/

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Limited Clinical Experience

Questions on how to use glucose data for glucose management decisions

SOLUTIONS

- Collaboration with professional organizations to develop standards
- Support educational programs to promote understanding of CGM as a category
- Support updating professional guidelines

SUCCESSES

- International Consensus on use of CGM
- · Collaborations on CGM use and interpretation of standardized glucose report
- Publication guidance on use of trend arrows
- ADA compendium, "Role of Continuous Glucose Monitoring in Diabetes Treatment" (https://professional.diabetes.org/sites/professional.diabetes.org/files/media/final_adaabbott_cgm_compendium_final.pdf)



OBSTACLES

- Education of non-diabetes specialists more challenging (lack of time, up-to-date knowledge of diabetes,
- Lack of evidence in using CGM (SMBG likewise had little to no evidence)





Therapeutic

Clinic Workflow

Clinics may not be equipped to incorporate new technologies into workflow Downloading of devices (CGMs, SMBGs, insulin pumps, sphygmomanometers,..etc.) can tie up office staff

SOLUTIONS

- Redesign of CGM to be easier to use, implement, and interpret
- Education on use and interpretation of CGM
- Integration with 3rd party device download services

OBSTACLES

 Patients and clinicians vary in their ability to learn new technologies and their needs for more detail and/or guidance in reports

SUCCESSES

- Newer CGMs much easier to use
- · Standardized glucose report and standardized methods to interpret the report
- · Direct-to-consumer marketing worked very well to create awareness

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Therapeuti Inertia

Restricted Access

Restrictions in usage HCPs find process to be cumbersome (e.g. prior authorizations) Distribution varies by insurance (DME vs. retail pharmacy) HCP perception of cost to patient due to coinsurance or lack of coverage

SOLUTIONS

- Working directly with payers and health systems to improve access
- Working with professional organizations, patient advocacy groups, and government

OBSTACLES

- Coverage is still restricted in many cases (e.g. Medicare requires patients test 4 times per day in order to be covered for CGM)
- Professional guideline updates can be a slow process – need for published clinical evidence
- Difference in professional guidelines (e.g. ACP recommendation for A1c threshold)
 - Coinsurance can limit ability of clinician to bill

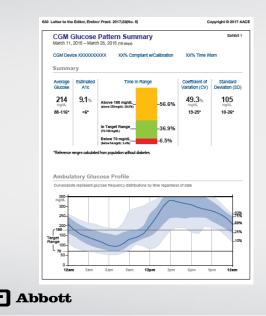
SUCCESSES

- Widespread coverage with regards to plans
- Availability in retail pharmacy (vs. only DME) makes CGM easier to obtain





Standardized Glucose Report with Metrics & AGP



Benefits of Standardizing Enables:

- Education and training of primary care and other clinicians
- Efficient office workflow by avoiding multiple mfg versions in physician offices
- Future interpretation guidelines
- Moving beyond A1c



Future Needs

- Support from professional organizations
 - Future practice guidelines should be more dynamic to reflect rapid pace of technology changes (all devices)
 - · Acceptance of clinical evidence aside from RCTs (e.g. real world evidence)
 - · Use of data from sources other than published manuscripts
 - · Alignment between organization guidelines to reduce confusion by clinicians
 - Training of clinicians
 - Specific to CGM: Alignment on interpretation of Standardized Glucose Report along with Ambulatory Glucose Profile
- Removal of restrictions on CGM coverage
- Use of CGM data in population care models (centralized approach)
- Training of all PCPs not scalable





