P1752.2 Metabolic Subgroup Meeting

Working Group Sponsored by IEEE Engineering in Medicine & Biology (EMB) Standards Committee

16 May 2023
Teleconference
1. Attendance
2. Review of action items
3. Review of tasks
4. Other business
Review of Tasks
Action Items & WG discussion

• Drafted implementation of generic threshold schema in TIR schema (to be tested with validator)

• Can we use time-in-range schema to model most important parts of AGP? *Not really*

• Draft modeling AGP as an implementation guide rather than schema?

• Possible update to temporal-relationship-to-meal schema:
  • “with meal”
  • “with food”
Ambulatory Glucose Profile CGM - v5.0

AGP Report: Continuous Glucose Monitoring

Goals for Type 1 and Type 2 Diabetes

- Very High: 31% (Goal: <5%)
- High: 25% (Goal: <25%)
- Target: 36% (Goal: ≥70%)
- Low: 4% (Goal: <1%)
- Very Low: 8% (Goal: <4%)

Test Patient
DOB: Dec. 10, 1975
14 Days: September 1 - September 14, 2021
Time CGM Active: 94.6%

Glucose Metrics

- Average Glucose: 201 mg/dL (Goal: <154 mg/dL)
- Glucose Management Indicator (GMI): 8.1% (Goal: <7%)
- Glucose Variability: 45.2% (Goal: ≤36%)

Not in TIR schema
Ambulatory Glucose Profile SMBG - v5.0

**AGP Report: Blood Glucose Monitoring**

**Percent BGM Readings in Ranges**

- **Very High**: 12%
- **High**: 25%
- **Target**: 58%
- **Low**: 4%
- **Very Low**: 1%

**Test Patient**

**DOB**: Dec. 10, 1975

**31 Days: May 17 – June 17, 2021**

**BGM Statistics**

- **Number of Readings**: 130
- **Average Readings/Day**: 3.3
- **Average Glucose**: 171 mg/dL

- **Average Before-Meal Glucose**: Unable to Calculate
- **Average After-Meal Glucose**: Unable to Calculate

- **Lowest/Highest Glucose**: 43/354 mg/dL

**Glucose Variability**

- **37.4%**

*Not in TIR schema*

*Added in v5.0*

*Not in TIR schema*
Food Intake

• Food intake (important for BG measures)
  • As currently the source is self-report, would that be a food diary?
• Subgroup recommendation:
Continuing the discussion

- Review Metabolic landscape analysis document to select measures shared by clinical and personal perspectives:
  - GSR (or EDA)
  - Body components (see page 6)
    - Which ones to model?

Additionally (from earlier discussion)
- Body temperature
Summary of Action Items
Next Meeting
Upcoming Meeting

• Metabolic subgroup:
  • Tuesday, June 27 at 8 am Pacific