P1752.2 Metabolic Subgroup Meeting

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

14 March 2023
Teleconference
1. Attendance
2. Review of action items
3. Review of tasks
4. Other business
Review of Tasks
From the WG discussion

- Remodel threshold schema to be generic [drafted]
- Remodel AGP schema for SMBG to match v5.0 (see later slide)
- Possible update to temporal-relationship-to-meal schema (new)
Ambulatory Glucose Profile SMBG - v5.0

AGP Report: Blood Glucose Monitoring

<table>
<thead>
<tr>
<th>Percent BGM Readings in Ranges</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High</td>
<td>12%</td>
</tr>
<tr>
<td>High</td>
<td>25%</td>
</tr>
<tr>
<td>Target</td>
<td>58%</td>
</tr>
<tr>
<td>Low</td>
<td>4%</td>
</tr>
<tr>
<td>Very Low</td>
<td>1%</td>
</tr>
<tr>
<td>250 mg/dL</td>
<td>37%</td>
</tr>
<tr>
<td>180 mg/dL</td>
<td></td>
</tr>
<tr>
<td>70-54 mg/dL</td>
<td></td>
</tr>
</tbody>
</table>

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
- Average Glucose Variability: 37.4%
  - Defined as percent coefficient of variation
  - Goal: ≤36%
Continuing the discussion

• Update to BG landscape document
• Review Metabolic landscape analysis document to select measures shared by clinical and personal perspectives:
  • Accuracy of smart scale study
  • Informal inquiry
  • BMR?
Use cases: measures relating to energy

• Clinical: Thyroid, adrenal, acid-base, diabetes

• Scenario: data for med titration or logging
  • Diabetes: carb load, medication,
    • Data: BG, weight
  • Heart failure
    • Data: weight, body water
  • Infection monitoring
    • Data: body temp
  • Obesity
    • Data: weight, BMI, body fat
  • Athletic performance
    • Weight, BMI, body fat, BG, electrolytes, body water, max O2 consumption (VO2max)
  • Frailty, sarcopenia
    • Muscle mass, bone mass
Summary of Action Items
Next Meeting
Upcoming Meeting

• Metabolic subgroup:
  • Tuesday, April 18 at 8 am Pacific