Evaluation of the Uptake of a Novel Tool to Adjust Insulin Boluses Based on CGM Trend Arrows and Insulin Sensitivity (CGM TIME Trial Trend Arrow Adjustment Tool)

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Background

- Enable use of dynamic data, beyond SMBG
- Allow proactive adjustments to prevent hypoglycaemia or high sugars
- Trend arrows “most helpful feature” according to survey of T1D Exchange (92% CGM users indicated arrows were helpful)

Methods

- 40 CHEO participants in TIME Trial
- CareLink data reviewed over 6 week periods:
  - at CGM initiation
  - 3 months
  - 6 months
- CareLink Professional ‘daily details’
  - when subject makes an adjustment for arrows, this is shown as “difference”
  - Correlated with ISF and CGM sensor tracing

CGM Trend Arrows

Comparison of 10/20% vs. TAAT

Example

Objectives

- Evaluate uptake and use of TAAT through retrospective audit of CGM data of CHEO participants in the multicentre CGM TIME Trial.
- To determine whether use of TAAT was sustained over 6 months
- To examine details of TAAT use (used for up/down arrows, time of day)

Results

- TAAT uptake was high (87.5%) & sustained over 6 months following CGM initiation (73%)
- Frequency of use was variable; subjects used TAAT to avoid low & high sugars; most frequently used in evenings
- A prospective study is underway to evaluate the effect of TAAT on postprandial glycemic control, ease of use and patient satisfaction

Conclusions

- TAAT uptake was high (87.5%) & sustained over 6 months following CGM initiation (73%)
- Frequency of use was variable; subjects used TAAT to avoid low & high sugars; most frequently used in evenings
- A prospective study is underway to evaluate the effect of TAAT on postprandial glycemic control, ease of use and patient satisfaction

CGM TIME Trial Demographic Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Simultaneous CGM</th>
<th>Delayed CGM</th>
<th>Overall</th>
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<tbody>
<tr>
<td>Number</td>
<td>20</td>
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<tr>
<td>Age (yrs)</td>
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<tr>
<td></td>
<td>Std Deviation</td>
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<tr>
<td>Gender</td>
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<tr>
<td>Race</td>
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<td>Diabetes duration (yrs)</td>
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<td>Range</td>
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<td>HbA1c %</td>
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References