Glucose PopTest: Saliva Glucose Measurements Reflect Blood Glucose Level in Diabetes Population

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**Methods**

Two devices were evaluated:

- **GPT-1** (unoptimized); detecting down to 0.7 mg/dL SG) and a further optimized GPT-2 (optimized); detecting down to 0.25 mg/dL SG. Both can be read qualitatively/semi-quantitatively (visual color chart) or quantitatively (digital reader).

**Results**

<table>
<thead>
<tr>
<th>Test Device</th>
<th>Patients</th>
<th>Sensitivity</th>
<th>Specificity</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPT-1 (optim)</td>
<td>73</td>
<td>95.9%</td>
<td>100%</td>
</tr>
<tr>
<td>GPT-2 (optim)</td>
<td>144</td>
<td>95%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Conclusions**

- **These data indicate** that SG reflects BG in diabetic and non-diabetic individuals independent of oral hygiene.
- The Glucose PopTest sensitively and specifically measures SG confirming its viability for population screening for DM and possibly for pre-diabetes.
- **These data also suggest** that SG testing could reduce or eliminate needle-sticks for daily self-monitoring for people with insulin dependent DM.

**References**