

## Cost Effectiveness of FreeStyle Libre® Flash Glucose Monitoring System from an Australian Health Care Payer Perspective (#308)

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### Purpose:

The IMS Core Diabetes Model (CDM) was utilised to assess the cost-effectiveness of FreeStyle Libre® Flash Glucose Monitoring System (FreeStyle Libre System) vs. Self-Monitoring Blood Glucose (SMBG) in the Australian clinical setting, using a health care payer perspective. FreeStyle Libre System is a novel, sensor-based, factory-calibrated monitoring system that continuously measures glucose levels in the interstitial fluid using wired enzyme technology. Data is wirelessly transferred from the 14-day adhesive sensor to a handheld reader.

### Method:

The IMPACT randomised clinical trial provided key inputs to the IMS-CDM. It assessed the efficacy and safety of the FreeStyle Libre System in people with T1DM over 6 months and reflected real-world clinical practice in 120 people using the FreeStyle Libre System compared to 121 using SMBG. Literature derived utilities and a Sponsor commissioned Time-Trade-Off (TTO) study (1) were incorporated. The TTO study reported utilities of 0.882 vs 0.851 ( $p < 0.0001$ ), favouring the FreeStyle Libre System. A diminishing disutility associated with non-severe hypoglycaemic events (those not requiring 3<sup>rd</sup> party assistance) was applied (2). The model horizon was 50 years, with 5% annual discounting. Only direct costs were included.

### Results:

The IMS-CDM showed a total of 9.74 QALYs using the FreeStyle Libre System, resulting in a base case ICER of A\$39,786 per QALY which is within Australian cost-effectiveness thresholds.

### Conclusion:

The FreeStyle Libre System is a cost-effective method of monitoring glucose in Australia.

*Declarations: R. Hellmund is an employee of Abbott Diabetes Care. KMC Health Care were engaged by Abbott Diabetes Care to conduct this study.*

1. Matza L.S. DEW, Hellmund R., Polonsky W.H., Kerr D. Health state utilities associated with glucose monitoring devices. ISPOR 18th Annual European Congress; Milan, Italy 2015.

2. Lauridsen JT. Diminishing marginal disutility of hypoglycaemic events: results from a time trade-off survey in five countries. Qual Life Res. 2014;23(9):2645-50.