

# FUNDED INSULIN PUMPS

## Comparison Guide



Two insulin pumps will be funded by Pharmac from October 1<sup>st</sup> 2024. Both will have the ability to provide automated insulin delivery with a compatible continuous glucose monitor. More information is available on their websites.

|   | <b>Tandem T: Slim X2</b><br>( <a href="http://www.NZMSdiabetes.co.nz">www.NZMSdiabetes.co.nz</a> )   | <b>mylife YpsoPump</b><br>( <a href="http://www.pharmacodiabetes.co.nz">www.pharmacodiabetes.co.nz</a> )   |
|---|--|--|
| <b>HCL Algorithm</b>                            | Control IQ   | CamAPS FX  |
| <b>Location of Algorithm</b>                    | Pump-integrated  | App based (currently only Android – Apple iOS pending) – Phone must be within 6m of pump   |
| <b>Pump Type</b>                                | Tethered (tubed)   | Tethered (tubed)   |
| <b>Continuous Glucose Monitor (CGM)</b>         | Dexcom G6<br>Dexcom G7<br>FreeStyle Libre 3 Plus pending   | Dexcom G6<br>FreeStyle Libre 3 Plus pending<br>Dexcom G7 pending   |
| <b>Bolus Delivery Operation</b>                 | Pump<br>Phone compatibility for remote bolus option pending  | Android smartphone<br>Apple iOS smartphone pending<br>Pump (manual boluses by units of insulin)  |
| <b>Pump Charging mechanism</b>                  | Rechargeable   | AAA Alkaline battery   |
| <b>Correction Target</b>                        | 6.1mmol/L  | Individualised from 4.4-11.1mmol/L (default 5.8mmol/L)   |
| <b>Exercise/Activity treatment values</b>       | 7.8-8.9mmol/l  | No specific target. Ease off mode can be used for exercise with a programmed duration 0-24 hours   |
| <b>Sleep Mode treatment values</b>              | 6.25-6.7mmol/l   | Individualised glucose target can be adjusted overnight  |
| <b>Bolus calculator based on</b>                | Carbohydrates entered and/or CGM value, based on programmed bolus calculator settings  | Carbohydrates entered and/or CGM value, based on programmed bolus calculator settings  |
| <b>Automatic correction settings</b>            | If predicted glucose in 30mins >10mmol/l & increasing/max delivery is reached  | Frequent extended microboluses every 8-12 mins based on current and predicted glucose levels and estimated insulin requirements to reach glucose target        |
| <b>Set up requirements</b>                      | TDD, body weight, basal rates, ICR and ISF, max basal and max bolus  | TDD, body weight, basal rates and ICR required for initial set-up  |
| <b>Adjustable settings in automation</b>        | Basal rates, ICR and ISF   | Target glucose and ICR. Ease off and Boost modes   |
| <b>Learning mechanisms</b>                      | Predicts glucose 30mins ahead, insulin delivery is adjusted every 5 minutes, remembers TDD over previous 6 days Uses body weight and TDD for initial start-up and resuming HCL | Predictive control: the algorithm calculates the insulin requirement for the next 2.5-4 hours. Adaptive model: insulin delivery is adjusted every 8-12 minutes |
| <b>Remote monitoring for parents and carers</b> | Glucose data via Dexcom follow app only if wearer has mobile phone   | Follow - Mylife CamAPS Companion App<br>SMS (Text) based monitoring  |
| <b>Data share with HCP's</b>                    | Glooko (download needed)<br>Cloud based Tandem Source pending  | Glooko (real-time)   |
| <b>Minimum and maximum daily dose</b>           | 10-100 units   | 5-350 units  |
| <b>Pump capacity</b>                            | 300 units  | 160 units – can change reservoir without changing infusion set   |
| <b>Approved insulins</b>                        | Humalog and Novorapid  | Apidra, Humalog and Novorapid  |
| <b>Licensed in pregnancy</b>                    | No   | Yes  |
| <b>Age range</b>                                | 6 years and over, but may be used for younger children if deemed safe by a specialist  | 1 year and over  |
| <b>Demo pump app/simulator available</b>        | Yes: t:simulator   | Yes: mylife CamAPS FX  |

*As kaitiaki (carers/guardians) of diabetes related services, it is a collective responsibility to establish an environment that facilitates a pathway for people with diabetes to navigate te ao mate huka - the world of diabetes<sup>1</sup>.*

<sup>1</sup> Te Kaiwhakahaere Māori te Roopu mate huka Debbie Rawiri - Te Whatu Ora Waitaha Canterbury