**Tandem Diasend WORKSHEET with Control IQ**

**Control IQ**

*The Control IQ feature of the system means the pump has these additional functions:*

* *Auto adjusts background insulin delivery every 5 mins using the Dexcom Sensor readings which are displayed on the pump home screen. The system will predict the blood glucose level and adjusts insulin 30 minutes ahead of time by using the sensor data from the Continued Glucose Monitor.*
* *Auto corrects if the sensor glucose follows the algorithm trend to trigger a small insulin correction without any interaction by the user, it will deliver 1 auto correction every 60 mins if required.*

Dates of Download: \_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_

**Point to Remember and Consider:**

CIQ setting changes that can be made –

* **Review TDD and Weight – update these into CIQ settings on pump (affects algorithm function)**
* **Review sensitivity and consider change as this also affects the CIQ algorithm (see guidance pg 3)**
* **All Basal Rates can be adjusted – setting up new profiles for life events such as weekend/weekdays, exercise routines**
	+ **Exercise Activity – set 1 hour pre - duration - 1 hour after - most beneficial in conjunction with a specific profile so CIQ works well with activities and not against.**
* **Carb Ratios**
* **Option to use Extended Bolus in CIQ (maximum set for 2 hours)**
* **Sleep Activity - advise this is set up routinely to go on every night – stops auto correction function and narrows parameters to 6.25 – 6.7 mmols during sleep mode as less variables.**
* **System has a set target 6.1 mmols and Active Insulin Time of 5 hours can’t change**

**SUMMARY**

**(If using Dexcom there is a tab to view glucose data type SG or BG, this won’t be highlighted if no sensor data is linked)**

**CGM/BG**

* Average Blood Glucose \_\_\_\_\_\_\_\_\_\_\_\_ (aim: less than 8mmol/L)
* Average Sensor Glucose\_\_\_\_\_\_\_\_\_\_\_\_(aim: less that 8mmol/L) – If Applicable
* % Time in Range\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (aim: >70%)
* Avg number of readings per day (if BG selected) \_\_\_\_\_ (aim: at least 8 per day)
* % Very High (>13.9mmol)\_\_\_\_\_\_\_\_\_
* % High (>10mmol) \_\_\_\_\_\_\_\_\_\_
* % Time in Range (3.9 – 10mmol) \_\_\_\_\_\_\_\_\_
* % Low/Very Low (<3.9mmol) \_\_\_\_\_\_\_\_\_

**Insulin (click show details)**

* Avg Total Daily Insulin (TDD) \_\_\_\_units/day
* Calculate insulin sensitivity (100 ÷ Total Daily Insulin) = \_\_\_\_\_\_\_\_\_\_
* Avg # Bolus per Day \_\_\_\_\_\_\_\_\_
* Avg Daily Basal \_\_\_\_\_\_\_ units
* Avg Daily Bolus \_\_\_\_\_\_\_ % (usually 60-70%)
* Avg Cannula Fills: Every \_\_\_\_\_ days (indicates set change, aim: every 2-3 days)
* Avg Prime: Every \_\_\_\_\_ days (indicates set change, aim: every 2-3 days)

(Cannula and Prime should reflect same number always – no value units attached to this)

**Carb Summary**

* Avg daily carbs \_\_\_\_\_\_\_\_\_\_\_g

**Glucose Tab – Day by Day**

* Review last 7 days data – highlighting any trends in BG patterns
* Correlate carb intake and bolus of insulin – identified with green triangles on charts

**CGM Tab – Day by Day (applicable if linked Dexcom)**

* Review last 7 days CGM trends
* Correlate carb intake and bolus of insulin – identified with green triangles on charts

**Insulin Tab**

**Day by Day (Control IQ system review)**

* Illustrates all events in Control IQ – Basal Variations, Low glucose suspends, Auto Corrections, Activities settings, Bolus events

**Pump Alarms/Settings**

* Looking at Pump Alarm Events – any alarms thinking mismanagement
* Max Bolus \_\_\_\_\_\_\_units (Increase if Max Bolus being reached and not all bolus being delivered – you will see this is day to day breakdown)
* Max Basal – Not visible on Diasend Reports
* Active Basal Program:\_\_\_\_\_\_\_\_\_\_\_\_
* **Insulin Action: Set at 5 hours whilst in CIQ – unable to change**
* **Carbohydrate Ratio (g/U)**

|  |  |  |
| --- | --- | --- |
| Time | Ratio | Insert usual meal/ snack eaten at this time |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

* **Insulin Sensitivity Factor –**
	+ **Consider making this stronger (i.e. 2 – 1.5) to help support CIQ to be more aggressive especially in relation to bringing back into target faster**
	+ **Consider making this weaker (i.e 2 – 1.5) to help support CIQ to be LESS aggressive in relation to the CIQ causing more hypo or close to hypo events**

|  |  |
| --- | --- |
| Time | Sensitivity |
|  |  |
|  |  |
|  |  |
|  |  |

* **BG target Range Settings:**

|  |  |  |
| --- | --- | --- |
| Time | Target  | Threshold |
|  |  |  |
|  |  |  |
|  |  |  |

**Comparison Tab (All data in 1 page):**

* **Logbook** – illustrates all events in logbook format day by day
* **Day by Day** – Illustrates in table format BG data, CGM data, Bolus events and insulin pattern delivery. Carb intakes and bolus events

**ACTION PLAN (Aim to make 1-3 changes):**

***Example:*** *1) Increase basal rate starting at 3am by 0.05*

*2) Check overnight BG’s 3 hourly to review basal rates*

**HOW TO MAKE CHANGES TO:**

**BASAL RATES:**

* From the Pump History – Delivery Summary - 7 day average check the Total Insulin (average) = \_\_\_\_\_\_\_\_\_\_\_
* Look for trends in BG especially prior to meals & overnight
* Prior to making amendments consider doing a basal review
* To make an adjustment to the basal rate on the pump go into:

|  |  |
| --- | --- |
| **If Total Insulin is:** | **Adjust basal rate by** |
| Less than 10 units per day | 0.03 units per hour |
| 10-20 units per day | 0.06 units per hour |
| 20-40 units per day | 0.1 units per hour |
| More than 40 units per day | 0.2 units per hour |

**Options → My Pump → Personal Profiles → Select Profile then Edit → Timed Settings → ensure green tick selected and then confirm changes with pressing blue tick**

**RATIOS:**

|  |  |  |
| --- | --- | --- |
| **Trend of BG 2 hrs after the meal** | **Action needed** | **Suggested ratio change** |
| **High**(More than 2 mmol/L **above** the pre-meal BG) | Decrease the number of grams of carbs that 1 unit of insulin will cover | 1:2→1:1.5 | 1:7→1:6 | 1:15→1:12 | 1:30→1:25 |
| 1:3→1:2 | 1:8→1:7 | 1:18→1:15 | 1:35→1:30 |
| 1:4→1:3 | 1:9→1:8 | 1:20→1:18 | 1:40→1:35 |
| 1:5→1:4 | 1:10→1:9 | 1:22→1:20 | 1:45→1:40 |
| 1:6→1:5 | 1:12→1:10 | 1:25→1:22 | 1:50→1:45 |
|  |  |  |  |  |  |
| **Low**(More than 2 mmol/L **below** the pre-meal BG)  | Increase the number of grams of carbs that 1 unit of insulin will cover | 1:1.5→1:2 | 1:6→1:7 | 1:12→1:15 | 1:25→1:30 |
| 1:2→1:3 | 1:7→1:8 | 1:15→1:18 | 1:30→1:35 |
| 1:3→1:4 | 1:8→1:9 | 1:18→1:20 | 1:35→1:40 |
| 1:4→1:5 | 1:9→1:10 | 1:20→1:22 | 1:40→1:45 |
| 1:5→1:6 | 1:10→1:12 | 1:22→1:25 | 1:45→1:50 |

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**INSULIN SENSITIVITY:**

* Check that all high readings have been corrected
* Before making any changes review a few readings which have needed a correction & if the insulin sensitivity is working the BG should be back within target blood glucose levels 2 hours after bolus
* If there is a trend of the insulin sensitivity not working adjust by:

|  |  |
| --- | --- |
| **If calculated insulin sensitivity is:** | **Adjust insulin sensitivity by\*:** |
| 1.0-1.9 mmol/L/U | 0.1 |
| 2.0-2.5 mmol/L/U | 0.2 |
| 2.6-4.9 mmol/L/U | 0.5 |
| 5-9.9 mmol/L/U | 1.0 |
| 10 mmol/L/U or higher | 2.0 |

\*Do not set insulin sensitivity below calculated insulin sensitivity unless this has been discussed with your diabetes team

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