



**CSII (INSULIN PUMP)
OUTPATIENT RATE RECORD
(MR-COR)**

Affix patient identification label in this box

U.R. No: 1 2 3 4 5
 Surname: MATTHEWS
 Given name: JENNA
 Second given name: ROSE
 D.O.B: 15/11/2002 Sex/Gender: F

Hospital/Site: QUIET CREEK

Circle preferred rapid insulin: Novorapid®/Humalog®

Basal Rate	<u>16/06/21</u>	DATE	DATE	DATE	DATE
0000-0100	<u>1.7</u>				
0100-0200	<u>1.7</u>				
0200-0300	<u>1.7</u>				
0300-0400	<u>1.7</u>				
0400-0500	<u>2.0</u>				
0500-0600	<u>2.0</u>				
0600-0700	<u>2.0</u>				
0700-0800	<u>2.0</u>				
0800-0900	<u>1.5</u>				
0900-1000	<u>1.5</u>				
1000-1100	<u>1.5</u>				
1100-1200	<u>1.5</u>				
1200-1300	<u>1.5</u>				
1300-1400	<u>1.5</u>				
1400-1500	<u>1.5</u>				
1500-1600	<u>1.5</u>				
1600-1700	<u>1.5</u>				
1700-1800	<u>1.7</u>				
1800-1900	<u>1.7</u>				
1900-2000	<u>1.7</u>				
2000-2100	<u>1.7</u>				
2100-2200	<u>1.7</u>				
2200-2300	<u>1.7</u>				
2300-2400	<u>1.7</u>				
Total Basal Insulin Dose (24hours)	<u>40.2</u>				
Target BG	<u>5.5</u>				
Correction Factor (Insulin Sensitivity) 1 unit lowers BG by _____ mmol/L	<u>1.5</u>				
Insulin:Carbohydrate Ratio Pre Breakfast Time: <u>00:00</u> to <u>09:00</u> hours 1 unit for _____ grams	<u>7gm</u>				
Insulin:Carbohydrate Ratio Pre Lunch Time: <u>0900</u> to <u>14:00</u> hours 1 unit for _____ grams	<u>8gm</u>				
Insulin:Carbohydrate Ratio Pre Evening Meal Time: <u>1400</u> to <u>2400</u> hours 1 unit for _____ grams	<u>8gm</u>				
Active Insulin (Insulin on Board) Duration of Action _____ hours	<u>3 hr</u>				
HbA1C <u>7.6</u> % <u>60</u> mmmol/L	<u>01/06/2021</u>				
Sick Day Management Temporary Basal Rate increase of: _____ % for _____ hours duration Temporary Basal Rate decrease of: _____ % for _____ hours duration	<u>Increase by 10-20% for 6 hrs</u>				
Physical Activity Planning Temporary Basal Rate decrease by: _____ % for _____ hours duration	<u>Decrease by 20% for 4 hrs</u>				

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SA Health
Revised
May
2021

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Pump settings adjustment should only occur if there is no problem with the delivery set and the BG levels provided and carbohydrate (CHO) counting is accurate. If hypoglycaemia is occurring, aim to eliminate this first, as hypoglycaemia and its treatment, will affect subsequent blood glucose levels.

Adjusting Basal Rates:

The total daily amount of basal insulin is usually 50% of the total daily dose (TDD). Most people have more than one basal rate over the 24 hour period. This is due to different basal insulin requirements at different times of the day. Basal rate settings must be individualised.

Frequent lows at a similar time of day, a drop in BG when a meal is skipped, excessive CHO intake to avoid hypoglycaemia and weight gain is reason to question if the basal rate is too high. Frequent highs at a similar time of day, a rise in BG when a meal is skipped and the need for frequent correction boluses is reason to question if the basal rate is too low.

Assessing the Basal Rate:

When assessing the basal rate/s, the aim is to find a rate/s that keeps the BG stable (within 2.0mmol/L) when no food is eaten. Basal rates are tested before boluses are given and should be done on a typical day (no illness or excessive physical activity) when there has not been any significant hypoglycaemia or hyperglycaemia. The following assessment strategy has been adapted from the Women's and Children's Health Network.

Night time Basal Rate:	Start at bedtime (at least 3 - 4 hours after the last bolus) and only if the bedtime BG is in the target range 5.0 - 10.0mmol/L. Skip any supper. Test the BG at bedtime, at 2 or 3 am and on waking. A basal rate that is set correctly will keep the BG stable (within 2.0mmol/L) overnight.
Morning Basal Rate:	Start the test when the BG is between 5.0 - 8.0mmol/L before breakfast. Skip breakfast and breakfast bolus. Test the BG at the start and every 1 - 2 hours for 5 hours. A basal rate that is set correctly will keep the BG stable (within 2.0mmol/L) over this period.
Afternoon Basal Rate:	Start the test when the BG is between 5.0 - 10.0mmol/L before lunch. Skip lunch and the lunch bolus. Test the BG at the start and every 1 - 2 hours for 5 hours. A basal rate that is set correctly will keep the BG stable (within 2.0mmol/L) over this period.
Evening Basal Rate:	Start the test when the BG is between 5.0 - 10.0mmol/L before dinner. Skip dinner and the dinner bolus. Test the BG at the start and every 1 - 2 hours for 5 hours. A basal rate that is set correctly will keep the BG stable (within 2.0mmol/L) over this period.

If the BG rises more than 2.0mmol/L during any of these tests, a slight increase in the basal rate covering that time is recommended. Usually the increase is 10 - 20% and should be retested on another day. If the BG falls more than 2.0mmol/L during any of these tests, decrease the basal rate covering this time. This decrease is usually 10 - 20% and should be retested on another day.

Because of the 'lag' in insulin effect, any changes in basal rate/s need to be made 3 - 4 hours before the point in time where the BG change is needed.

Adjusting Carbohydrate (CHO) Ratio Boluses:

The amount of insulin needed to cover each gram of CHO will have to be adjusted periodically. Ensure that the basal rate is checked and found to be correct by basal rate testing, before making changes to the CHO ratio bolus.

The lower the CHO ratio the larger the CHO bolus. An appropriate CHO ratio returns the BG to 2.0mmol/L of the starting BG (3-4 hours after the meal-related bolus is given). If not, it is recommended to adjust the CHO ratio by 10 - 20%. The person's sensitivity to CHO ratio boluses can differ during the day (e.g. a lower CHO ratio is needed at breakfast time, due to relative insulin resistance in the mornings).

Adjusting Correction Boluses:

The amount of insulin bolus needed to correct a high BG will also have to be adjusted periodically. Ensure that the basal rate is checked and found to be correct by basal rate testing, before making changes to the correction bolus.

The lower the sensitivity factor the larger the correction bolus. An appropriate correction bolus returns the BG to within 2.0mmol/L of the target BG after 3 - 4 hours. If not, adjust the sensitivity (correction factor) by 10 - 20%.