## Pump Back Up Plan in the Event of Insulin Pump Failure

#### **MY SETTINGS**

BASAL RATE		-TO-CARB ATIO	SENSITIVITY FACTOR				
from to = u/hr	from a.m./p.m. to	o a.m. /p.m. = 1 u/g	from a.m./p.m.	to a.m. /p.m. =			
from to = u/hr	from a.m./p.m. to	o a.m. /p.m. = 1 u/g	from a.m./p.m.	to a.m. /p.m. =			
from to = u/hr	from a.m./p.m. to	o a.m. /p.m. = 1 u/g	from a.m./p.m.	to a.m. /p.m. =			
from to = u/hr	from a.m./p.m. to	o a.m. /p.m. = 1 u/g	TARGET (value I am looking to reach in correcting my blood sugar level)				
from to = u/hr	from a.m./p.m. to	o a.m. /p.m. = 1 u/g					
from to = u/hr	from a.m./p.m. to	o a.m. /p.m. = 1 u/g	r	mmol/L			

To respect the schedule defined in my pump back up plan, I may need to eat a meal earlier or later than usual.



MY PUMP BACK UP PLAN	I						
TIME OF DAY		+4H →	 +4H →	 +4H →	 +4H →	 +4H →	
BLOOD SUGAR (MMOL/L)  Measured before calculating the insulin dose							
BASAL RATE  Basal calculation for the next four hours							
CARBS Insulin dose calculation for carbs (if applicable)							
CORRECTION  Correction dose calculation (as necessary)							
NUMBER OF FAST- ACTING INSULIN UNITS TO TAKE  Add together the doses calculated for the basal rate, the carbs and the correction.							

If the problem with my pump persists for 24 to 48 hours, I may need to start taking long-acting insulin. I should talk to my healthcare team if needed.



#### **EXAMPLE**

The insulin pump stops working at 10:45 a.m.

The company will deliver a new pump at around 9 a.m. the next morning.

Here are the current settings:

## BASAL RATE

From 12 a.m. to 6 a.m. = 0.5 u/hr From 6 a.m. to 12 p.m.= 0.6 u/hr From 12 p.m. to 4 p.m.= 0.4 u/hr From 4 p.m. to 10 p.m. = 0.5 u/hr From 10 p.m. to 12 a.m. = 0.3 u/hr

## INSULIN-TO-CARB RATIOS

from 12 a.m. to 10 a.m. = 1 u/15 gfrom 10 a.m. to 4 p.m. = 1 u/10 gfrom 4 p.m. to 12 a.m. = 1 u/13 g

# SENSITIVITY FACTOR

From 12 a.m. to 8 a.m. = 2.5 From 8 a.m. to 8 p.m. = 2.0 From 8 p.m. to 12 a.m. = 2.5

### **TARGET**

7 mmol/L



#### **EXAMPLE** Réception de la pompe 11 am 3 pm 7 am +4H +4H TIME OF DAY +4H <u>+2H</u> am BLOOD SUGAR (MMOL/L) 8.9 mmol/L 6.4 mmol/L 10.3 mmol/L 7.6 mmol/L Measured before calculating the insulin dose Basal from 7 a.m. to 9 a.m. = 0.6 x 2 h = 1.2 u As soon as you **BASAL** Basal from 11 a m to 12 p m = 0.6 u Basal from 3 p.m. to 4 p.m. = 0.4 u Calculate until 9 a.m. (only two hours) receive the insulin Basal from 12 p.m. to 3 p.m. = 0.4 x 3 h = 1.2 u Basal from 4 p.m. to 7 p.m. = 0.5 x 3 h = 1.5 u Basal calculation for the since the pump is expected to be delivered So, 0.6 + 1.2 = **1.8 u** So, 0.4 + 1.5 = **1.9 u** pump, program the next four hours at 9 a.m. settings, insert the **KEEP THIS** catheter or pod UP FOR THE and start the pump Lunch eaten at 11 a.m. so that the meal time **CARBS HOURS THAT** Meal = 40 g of carbs corresponds with the injection time. without delay. Ratio for the time (7 a.m.) = 1 u per 15 g Insulin dose calculation for carbs Meal = 45 g of carbs **FOLLOW** No carbs eaten (if applicable) Ratio for the time (11 a.m.) = 1 u per 10 g Therefore 40 ÷ 15 = **2.6 u** So. 45 ÷ 10 = **4.5 u** CORRECTION Blood sugar = 8.9 mmol/L Blood sugar = 10.3 mmol/L Blood sugar = 6.4 mmol/L Target = 7 mmol/L Target = 7 mmol/L Correction dose calculation Target = 7 mmol/L Insulin sensitivity for the time (11 a.m.) = 2.0 Insulin sensitivity for the time (7 a.m.) = 2.5 (as necessary) No correction necessary So, 8.9 - 7 = 1.9 ÷ 2 = **0.95 u** So, 10.3 - 7 = 3.3 ÷ 2.5 = **1.32 u NUMBER OF** Basal = 1.8 u Basal = 1.9 u Basal = 1.2 **FAST-ACTING INSULIN** Carbs = 4.5 u Carbs = 0 u Carbs = 2.6 u Correction = 0.95 u Correction = 0 u Correction = 1.32 **UNITS TO TAKE** So. 1.8 + 4.5 + 0.95 = **7.25 u** So, 1.9 + 0 + 0 = **1.9 u** So, 1.2 + 2.6 + 1.32 = 5.12 u Add together the doses calculated for the basal rate, the carbs and Round up or down to the nearest number Round up or down to the nearest number Round up or down to the nearest number the correction. and take 7 units and take 2 units and take 5 units

