



SECTION 11: CARE OF THE CHILD WITH DIABETES

11.9 Insulin Pump Management for Inpatients with Diabetes (Continuous Subcutaneous Insulin Infusion)

11.9.2 Delivering a Food Bolus

Aim

To deliver a food bolus safely and accurately

Definitions

Food bolus: a bolus of insulin delivered prior to the patient eating carbohydrates.

Correction bolus: a bolus of insulin delivered when the blood glucose level is above the target.

Key Points

- A Blood Glucose Level (BGL) is performed immediately before a meal or snack containing carbohydrate. The next BGL is performed 2 hours after the meal/snack.
- A food bolus is delivered before every meal and snack containing carbohydrate and is delivered before the patient begins eating.
- The insulin pump will calculate the amount of insulin to give based upon the carbohydrate ratio and the sensitivity factor (correction factor) programmed into the pump.
- There are several companies manufacturing insulin pumps. Most models of pump have a bolus calculator.

Equipment

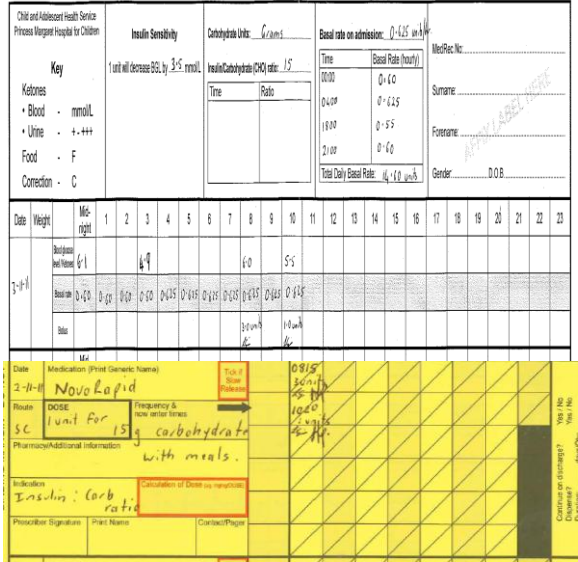
Patient owned insulin pump

“Food for a Flexible Lifestyle” Booklet

Meal or snack


Patient’s own pump record book

CSII Documentation Chart 864.02

Procedure	Additional Information
1. Perform blood glucose level.	Refer to PNPM 11.4.1 Blood Glucose Monitoring
2. Looking at the food, determine which foods contain carbohydrates. Determine the quantity the child is willing to eat.	Determine the total amount (grams) of carbohydrate in the food the child is likely to eat using “Food For a Flexible Lifestyle” booklet. If the food is packaged, use the label to determine the amount of carbohydrates.
3. Enter the blood glucose level into the pump. Enter the total carbohydrates (grams) into the pump.	This may be entered by the patient/parent or nurse.
4. Deliver the insulin dose as calculated by the pump, before the patient commences eating.	Check the dose as per PNPM 2.1.2 Checking and Administration of Medications. Note: Administration of an insulin bolus via an insulin pump requires an independent second check, ensuring that the BGL, and carbohydrate content have been entered correctly.
5. Record and sign the insulin dose in two places: a) MR 864.02 CSII Documentation Chart (white). b) MR 860 Paediatric Medication Chart at the ‘Insulin: Carbohydrate Ratio’ prescription.	 <p>The image shows two medical charts. The top chart is a white 'Child and Adolescent Health Service Process Register Hospital for Children' CSII Documentation Chart. It includes fields for Insulin Sensitivity (I_{cc}), Carbohydrate Units (C_{grams}), Basal rate on admission (0.425 u/h), and a table for Time and Basal Rate (hourly) from 00:00 to 23:00. The bottom chart is a yellow 'Paediatric Medication Chart' for NovoLapid. It includes fields for Date (2-11-18), Medication (NovoLapid), Route (SC), and DOSE (1 unit for 15g carbohydrate with meals). It also has a table for Frequency & how often times from 08:00 to 20:00.</p>

Related policy, procedures and guidelines
PNPM 11.2 Ketone Testing
PNPM 11.4.1 Blood Glucose Monitoring
PNPM 2.1.2 Checking and Administration of Medications

Useful resources
24 Hour Help Line:
Medtronic Paradigm Insulin Pumps: 1800 668 670
Animas Insulin Pumps: 1300 851 056
Roche Pump Technical Hotline: +61 2 9860 2100

File Name and Path:	Delivering a Food Bolus https://healthpoint.hdwa.health.wa.gov.au/policies/Policies/CAHS/PNPM%2011.09.01%20Checking%20Pump%20Settings%20and%20Stopping%20and-or%20Disconnecting%20Pump.pdf		
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