

Interpreting Sensor Augmented Pump in Type 1 Diabetes: A 5-Step Approach Protocol Using Carelink Therapy Software



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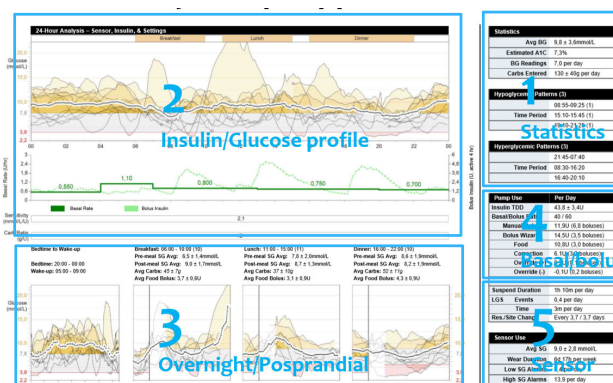
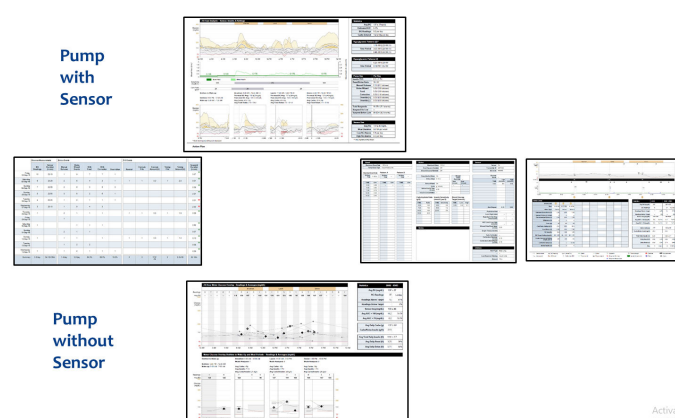


Background:

The goal of this study was assess the usability and satisfaction of implementing a 5-step approach protocol in interpreting Sensor Augmented Pump by physicians.

Five segments on the dashboard page of Carelink in a systematic approach:

Approach in reading the results:



Results:

A total number of 34 patients with 128 downloads were analyzed. Mean age was 15.3 ± 7.7 years, BMI was 21.3 ± 2.1 , A1C was $7.9 \pm 1.6\%$. Surveys completed by physicians indicated a 5-step approach protocol to be more efficient, time saving, and structured compared to their current processes. A1C was decreased by $0.6 \pm 0.3\%$ in the following 3 months.

Make the correlation:

1	eHba1c	BG read.	Carbs	Patterns
2	Patterns	BB insulin	Behavior	Variability
3	Overnight	Periods	Carbs	PP Curve
4	TDD	BB Ratio	Correction	Override
5	Suspends	LGS	Alarm	RS Change

Conclusions:

Our results indicate that a 5-step approach protocol of interpreting the data from SAP is simple and efficient. At the same time, it is time saving and useful tool for physicians to manage patients on insulin pump.

Methods:

We have developed a 5-step approach protocol in interpreting SAP using CareLink. The main analysis is based on the **Therapy Management Dashboard**, where five segments are allocated:

- (1) Basic statistics;
- (2) Glucose and insulin overlay;
- (3) Postprandial period;
- (4) Basal/bolus insulin;
- (5) Suspends and sensor.

Every segment is analyzed with correlation through others with step by step confirmation of possible change (previously noted on insulin settings page based on rationale/physiological insulin use).

Physicians used a 5-step approach protocol on a monthly basis for 3 months to analyze 14 days data and to manage SAP patients. Surveys were conducted in which the physicians rated their feedback related to acceptability of the protocol on a 5-point Likert scale.