

Insulin Pump Therapy Curriculum - Lancaster County

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Problem

- In 1998 the prevalence of diabetes in the Lancaster population was higher than the national average (Lancaster-6.4, national-5.9, state-5.7)
- Many insulin-dependent diabetics are on very complicated insulin injection regimens desperately trying to control their blood sugars with little or no success.
- The Diabetes Education Center doesn't have an established curriculum in place to educate patients about insulin pump therapy

AIM

- To educate patients on the insulin pump options available to them.
- To develop a curriculum to educate patients on insulin pump therapy ensuring that they will be able to correctly operate an insulin pump and achieve tighter blood sugar control.
- The Diabetes Education Center supports this aim as evidenced by their request to develop such a curriculum

MEASURES

- Increased numbers of patients identified as candidates for insulin pump.
- Improvement in patients scores on posttest examination after education.
- Improvement of patients blood sugar levels and hemoglobin A1C.
- Feedback from health care providers and patients about the impact of the information provided to them.

Possible Changes for Improvement

Develop a Insulin Pump Therapy curriculum

- Drivers:

- Lack of method to adequately educate patients on insulin pump therapy.
- Easy identification of patients who are candidates for insulin pump therapy.
- Complicated insulin regimens.

- Barriers:

- Difficult to insure that patients will understand how to operate insulin pump after instruction
- Curriculum must be revised as technology changes.

PDSA Cycle Plan

- To formulate a curriculum that simplifies insulin pump therapy instruction
- To create a post-test to insure that the patient understands concepts of insulin therapy after instruction.

PDSA Cycle

DO

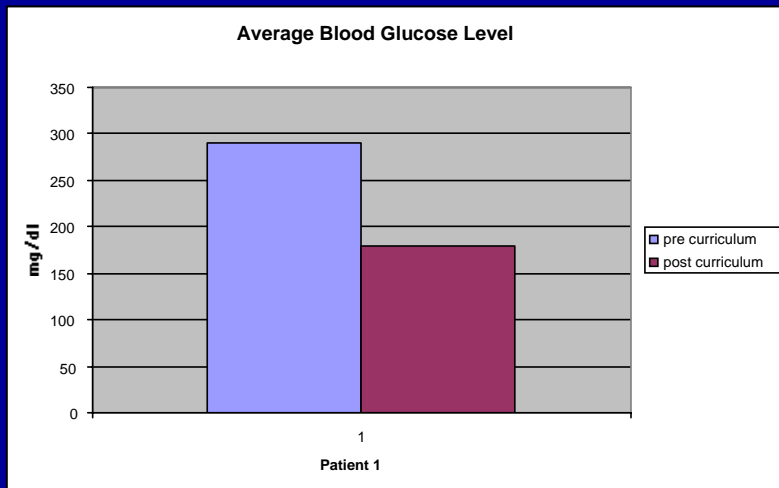
- Underwent instruction given by Medtronic representative regarding education of patients on insulin-pump therapy.
- Researched different insulin pump options available to patients.
- Identified target population through Diabetes Education Center.

PDSA Cycle Study

- Data:
 - The post-test data was collected from patients (only 2 patients have been identified as qualified and undergone training).
 - Follow-up information obtained from patient started on insulin pump.
 - I was unable to receive adequate feedback from health care providers due to time constraints.

PDSA Cycle Study

Data cont'd:



-There was a significant decrease in blood glucose levels following curriculum and pump utilization. The data is limited to one patient who actually underwent training and began insulin pump therapy.

PDSA Cycle Act

- The established curriculum can be used to educate patients in the future.
- Continue to evaluate the effectiveness of curriculum and modify as necessary.

Lessons Learned

- Personal education about insulin pumps.
- Training patients to use the insulin pump requires a great degree of dedication on the part of the patient and instructor.
- Curriculum must be adaptable to changes in technology.