The Effects of Continuous Insulin Pump Therapy on Glycemic Control in Pregnant Type 1 Diabetics

Kimberly Kelsey
Dominican University of California
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Luanne Linnard Palmer
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Background

- Approximately 29.1 million people in the United States have diabetes (CDC, 2015)
- 5% of the diabetic population is classified as Type 1
- Type 1 Diabetics need 3-4 times more insulin by the end of pregnancy than the non-pregnant state (Lowdermilk, 2016, p. 689)
Problem statement

The purpose of this research was to examine the effects of insulin therapy through multiple daily injections or insulin pump therapy to determine which provided better glycaemic control for the Type 1 Diabetic.
If a patient is using multiple daily injections, any form of long acting insulin will work.

Insulin pump therapy had overall lower blood glucose levels and Hemoglobin A1c levels.

Insulin pump users had less negative outcomes such as hypoglycemia in the infant, diabetic ketoacidosis and severe hypoglycemia.

When the patient was allowed to use their pump through labor and delivery, the infant did not need as much time, if any time, in the NICU.
Implications For Nursing Practice

- Nurses who interact with female Type 1 Diabetics need to be familiar with insulin pump therapy
- Training should be provided for those that will be involved with the care, especially during the labor process
- Preparations should be made for the infant upon birth to prevent severe hypoglycemia and separation from the mother
- Independence should be encouraged