

Understanding of insulin pump therapy among parents of children with type 1 diabetes

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ABSTRACT

Purpose: The study aimed to analyze the level of awareness among parents of children undergoing therapy using a personal insulin pump and focus specifically on those elements of treatment that create problems for caregivers.

Materials and methods: The study was carried out in a group of 110 parents of children with type 1 diabetes undergoing personal insulin pump treatment. The primary research method was a diagnostic survey conducted using a survey technique. The proprietary survey questionnaire consisted of 69 questions.

Results: Ninety-three percent of parents participated in diabetes education led by qualified personnel. Most subjects (90%) correctly indicated the factors that influence the volume of the primary infusion. Twenty-five percent of respondents pointed to the incorrect answer on the injection site of the infusion set. Nearly all subjects (97%) knew administering a

combined bolus. Forty-four percent of parents chose the incorrect answer to the question concerning the management of hypoglycemia, i.e., the consumption of only simple carbohydrates. Respondents incorrectly identified the symptoms of ketoacidosis: excessive motor activity (15%), decreased volume of urine excreted (10%). Every fourth respondent wrongly indicated an increased dose of insulin as the cause of ketoacidosis. Moreover, 15% of subjects reported excessive motor activity as the cause of ketoacidosis.

Conclusions: The respondents were most knowledgeable about handling an insulin pump, principles of self-control, caring for the injection site, and proper nutrition rules. The caregivers proved least informed about ketoacidosis, choosing the injection site, and managing hypoglycemia.

Keywords: insulin pump, type 1 diabetes, therapeutic education

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