

Diabetes Management in Adolescents:

Insulin Pump Therapy versus Insulin Injection Therapy

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Understanding the compliance of different insulin delivery methods among adolescents with diabetes is crucial for bettering their outcomes as they grow into adulthood. Adherence to insulin regimens can be influenced by many factors, including education provided to the adolescent from caregivers and providers, utilization of diabetes educators, peer influence, and stereotyping. The two methods of insulin delivery focused on for this review are insulin pumps and daily insulin injections. These authors pose the question: in adolescents, aged 13-18 years with type 1 diabetes mellitus (T1DM), does the use of an insulin pump therapy compared to insulin injection therapy lead to better long-term glycemic control? A literature search was conducted on OneSearch, Nursing Reference Center, PubMed, Google Scholar, and National Library of Medicine database. The following search terms were used: *type 1 diabetes, adolescent adherence, T1DM treatment, compliance*. A total of 11 articles met inclusion criteria. Evidence shows that insulin pumps are preferred over the traditional insulin injections; early initiation of insulin pump therapy provides better compliance with insulin therapy over time; overall, the use of insulin pumps is associated with improved glycemic control over time. Limitations of this review included that many researchers expressed the need for more research on this topic to continually improve glycemic control in adolescents with T1DM and providing education about the best treatment options.

Keywords: T1DM management, adolescent diabetes treatment adherence, insulin pumps, insulin injections

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