

What Can We Learn from Patient-Reported Outcomes of Insulin Pen Devices?

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Abstract

Although a variety of effective treatment options are available for patients with type 1 or type 2 diabetes, many patients in the United States have difficulty reaching their glycemic goals. Patient adherence to insulin therapy, which often involves self-administered subcutaneous injections of insulin using either a vial and syringe or an insulin pen device, is often poor. Various factors associated with the type of injection device have been shown to influence the rate of patient adherence to insulin therapy. This article reviews patient-reported outcome (PRO) evidence from pediatric and adult studies that compared insulin pen devices with vial and syringe use. In a majority of these cases, patients preferred the pen devices over vial and syringe, stating advantages such as ease of use, convenience, greater confidence in their ability to properly administer the drug, and a greater perceived social acceptance. The pens were considered less painful than syringes and were associated with less needle fear. In addition, PRO evidence has directed pen technology design, leading to development of more advanced insulin pen devices. By appreciating the correlation between adherence to insulin regimens and a patient's device preference, clinicians can make improved treatment recommendations to facilitate achievement and maintenance of glycemic targets.

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Abbreviations: (DiabMedSat) Diabetes Medication Satisfaction, (OAD) oral antidiabetic drug, (PRO) patient-reported outcome, (QOL) quality of life

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