

Comparison of Intuitiveness, Ease of Use, and Preference in Two Insulin Pens

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Abstract

Background:

The intuitiveness, instruction time, and handling of the Levemir[®] (insulin detemir) FlexPen[®] and the Lantus[®] OptiClik[®] pen (with insulin glargine) were investigated.

Methods:

This randomized open-label crossover study involved two groups of insulin-device-naïve Japanese patients with type 2 diabetes [mean (SD) age 61.9 ± 12.3 years, 57% male]. Patients were evaluated on the ease-of-use of each insulin pen without instruction [intuitiveness group (*n* = 32)], or with instruction [instruction time group (*n* = 29)]. Patient preferences for the respective devices were assessed by questionnaire.

Results and Discussion:

FlexPen required significantly less instruction time (*p* < .001) and was objectively more intuitive to use (*p* < .001) than OptiClik. Nevertheless, few patients in the intuitiveness group felt confident injecting either pen prior to instruction (FlexPen, 31%; OptiClik, 16%). No patients in the instruction time group found FlexPen difficult to learn, whereas 45% of patients found OptiClik difficult or very difficult to learn. FlexPen was rated simpler to use (77% versus 12%; *p* < .001), easier to inject (67% versus 13%; *p* < .001), and more convenient (71% versus 12%; *p* < .001) compared with OptiClik. More patients would trust FlexPen to deliver insulin injections (*p* < .01) and would prefer to use FlexPen compared with OptiClik (82% versus 13%; *p* < .001).

Conclusions:

FlexPen was faster to teach, simpler to use, and more trusted by patients compared with OptiClik. Mean injection time was significantly shorter for FlexPen than OptiClik, with or without instruction. This study highlights not only how easy it is for patients to learn to use FlexPen, but also how easily health care providers can teach patients to use it.

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Abbreviations: (CI) confidence interval, (HAQ) handling and acceptance questionnaire, (IFD) important features of the devices, (IG) intuitiveness and device understanding, (LQ) learning to use questionnaire, (OAD) oral antidiabetes drug

Keywords: diabetes mellitus, FlexPen, insulin pen, preference

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