

A Comparison of Conventional Intravitreal Injection Method vs InVitria Intravitreal Injection Method

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Abstract

Purpose: To compare use of the conventional intravitreal injection method to the InVitria intravitreal injection device. Three outcome measures were studied: patient comfort, speed of injection and cost-effectiveness.

Patients and methods: A prospective review of 58 patients was undertaken. Patients scored their perceived pain for each part of the conventional injection method using visual analogue scales (VAS), which allows pain to be scored from 0 (no pain) to 100. The same 58 patients scored their perceived pain for each part of the injection process with the InVitria on their follow-up visit. The procedure was timed in both settings and cost to the Trust was analysed.

Results: Pain scores when the InVitria was used were lower than when the conventional method was used for all aspects of the intravitreal injection procedure, in particular, when comparing insertion of drape/speculum (mean score 57.56) to insertion the InVitria (mean score 16.50), needle entry (mean score 37.76 to 27.86) and removal of the drape/speculum (mean score 38.72) to removal of the InVitria (11.07). The reduction in pain scores was statistically significant for all aspects of the procedure, except the initial instillation of drops. The InVitria was an average of 1 minute and 32 seconds faster than the conventional method. Use of the InVitria in place of the conventional method provides an annual saving of £24,300 to the Trust based on the number of injections currently performed.

Conclusion: The introduction of the InVitria in the Newcastle Eye Centre has had a positive impact on patient comfort, time and cost to the Trust.

Keywords: InVitria; drape; pain scores; speculum; visual analogue scale.

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Conflict of interest statement

Mr James Talks reports grants, personal fees, non-financial support from Bayer, grants, attended conference and participated in research for Novartis, participated in research for Roche and Allergan, outside the submitted work. The authors report no other conflicts of interest in this work.

Figures

Figure 1

Figure 1 Number of attendances (blue) and...

Figure 2

Figure 2 The InVitria (image courtesy of...

Figure 3

Figure 3 The Visual Analogue Scale.

Figure 4

Figure 4 VAS scores (with standard error)...

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