

Innovative Colour-matched Multi-purpose Resin-based Cementation System Evaluated by General Practitioners

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INTRODUCTION

The purpose of this practice-based evaluation was to assess the handling of new shade-matched dual-cure adhesive resin cement suitable for total and self-etch procedures (RelyX™ Ultimate, used with Scotchbond™ Universal adhesive, 3M™ ESPE™, 3M Deutschland GmbH, Seefeld, Germany), and its delivery system, by general dental practitioner (GDP) members of a UK-wide Practice-Based Research Group (P-BRG) the PREP (Product Research and Evaluation by Practitioners). The PREP Panel was established in 1993, has presently 37 members and has published over 50 papers (14 in peer-reviewed journals) reporting handling evaluations and clinical trials carried out by the group.

METHOD

Twelve GDP members of the PREP panel were chosen at random to a kit containing four 8.5g syringes (one A1, one B0.5, 1 A3 and one Translucent) of the material, adhesive, try-in pastes plus mixing tips and instructions for use over a two month period. Also included was a questionnaire designed to evaluate their current resin-based luting cement usage, and to rate the presentation, instructions, dispensing, ease of use and handling of the new material. Most responses were given on visual analogue scale (V A S).

MATERIALS

This new material is a two component adhesive resin system for glass ceramic restorations and when used with the Scotchbond™ Universal adhesive offers high bond strength^{1,2} and a choice of a total or self-etch methods.



RESULTS

Background Information

All (100%) of the evaluators previously used a resin-based luting material, with three evaluators using more than one material. Eight evaluators (67%) also used a form of glass ionomer luting material. The main reasons for choice of these materials were reliable results and ease of use. The **ease of use** of these systems were rated (on a VAS where 1 = difficult to use & 5 = easy to use) as follows:

a) Resin-based luting system



b) Glass-ionomer system

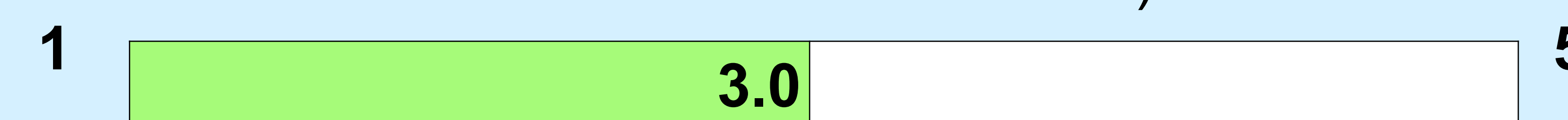


After clinical use of RelyX Ultimate

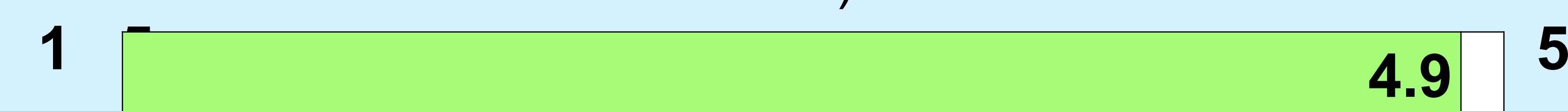
The ease of use of the syringes & the bottle of adhesive achieved good ratings (4.6 & 4.4 on a VAS where 1 = difficult to use and 5 = easy) On a VAS (where 1 = poor and 5 = excellent) the final version of the **instructions** scored 4.8.

A total of **143 restorations** were placed. 92% (n=11) of the evaluators stated it was an advantage to use the new material for all indications and also that the adhesive can be used as both a bonding agent and a silane & restoration primer.

The **viscosity** of the materials was rated as ideal (on a VAS where 1 = too thin & 5 = too viscous):



The **dispensing and handling** of the new materials was rated by the evaluators and their dental nurses (on a VAS where 1 = inconvenient and 5 = convenient) as follows:



The overall **ease of use** of the evaluation materials was rated as follows (on a VAS where 1 = difficult and 5 = easy):



83% (n=10) of the evaluators stated they would purchase the new material and 75% (n=9) would recommend it to colleagues.

CONCLUSION

The new material achieved high ratings in the criteria evaluated and was rated slightly higher than the pre-trial resin-based luting material for ease of use.

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