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A New Automix Self-adhesive Resin-based Cementation System Evaluated by General Dental Practitioners.

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INTRODUCTION

The purpose of this practice-based evaluation was to assess the handling of new automix self-adhesive dual-cure resin-based cement (RelyX™ Unicem 2 Automix, 3M ESPE, Seefeld, Germany) 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 33 members and has published over 50 papers (13 in peer-reviewed journals) reporting handling evaluations and clinical trials carried out by the group.

METHOD

Ten GDP members of the PREP panel were chosen at random to receive two 8.5g syringes (one A2 Universal and one Translucent) of the material, plus one bag of standard mixing tips and one bag containing three types of angulated tips (fine, wide and endodontic) together with with instructions for use over a ten-week period. Also included was a questionnaire designed to evaluate their current cementation 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).

MATERIAL

This new material is a development of RelyX™ Unicem (3M ESPE, Seefeld, Germany) self-adhesive cement, which was also evaluated for handling properties by the Prep Panel in 2002 & 2007 and the results published[1,2]. The clinical performance of this material was also evaluated by the Prep Panel and the results published[3,4].

The materials supplied for this evaluation were in a pre-launch form and an A3 Opaque shade syringe is now available.

RESULTS

Background Information

All (100%) of the evaluators previously used a resin-based luting material, with two evaluators using more than one material. Four evaluators (40%) also used a resin-modified glass ionomer 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

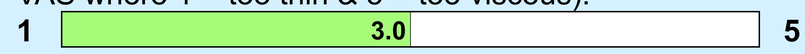
b) Resin-modified glass-ionomer system

After clinical use of RelyX Unicem 2

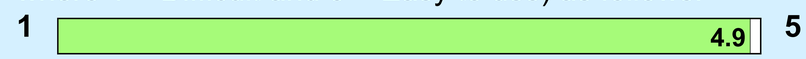
The syringe & components achieved good ratings for **presentation** (4.7 on a VAS where 1 Poor and 5 = Excellent). On a similar VAS the **instructions** scored 4.9

A total of **148 restorations** were placed. 90% (n=9) of the evaluators used the material for post cementation and all (100%) found the variety of mixing tips helpful. 60% (n=6) stated the 'endo' tip was the most useful.

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

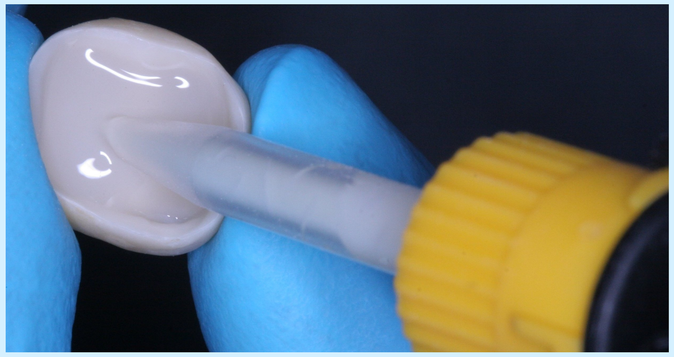


The **ease of use** of the new system was rated (on a VAS where 1 = Difficult and 5 = Easy to use) as follows:



The lack of the need to etch & bond prior to luting was stated to be an advantage by 100% of the evaluators.

90% (n=9) of the evaluators stated that it was an advantage for the same luting material to be used for all indications (even if some additional steps were required) and the same percentage would both purchase the system and recommend it to colleagues.



CONCLUSION

The new material achieved high ratings in the criteria evaluated and, notably, was rated higher than the pre-trial resin-based luting material for ease of use and equal to the resin-modified glass-ionomer material used pre-trail.

ACKNOWLEDGEMENT

The authors acknowledge the support of 3M ESPE and also wish to thank the participating practitioners.

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