Summary of: The survival of Class V restorations in general dental practice. Part 1, baseline data

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VERIFIABLE CPD PAPER

FULL PAPER DETAILS

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Objective Evidence on the survival of different restorations in general practice is scarce and so to address this need, a study was designed to monitor the outcome of Class V restorations placed in UK general practices. **Design** Prospective longitudinal cohort multi-centre study. **Setting** UK general dental practice. **Materials and methods** Ten UK dentists each placed 100 Class V restorations and recorded selected clinical information at placement and at recall visits on record cards. Dentists selected materials and techniques which they felt appropriate to each clinical situation. **Results** Data cards for 11 restorations were incorrectly completed or information was missing leaving 989 for analysis. The majority of restorations were placed in patients between 51 and 60 years of age, in canines or premolars (68.4%) and under private contract (63%). Composite (40.85%) and compomer (23.46%) were the most frequently placed materials overall but were not the most frequently placed restorative by some dentists. **Conclusions** Different dentists use different methods to manage Class V lesions but each dentist tends to use one restorative material predominantly. There is a degree of overlap among practitioners in the materials which they employ, but clear preferences were displayed in the materials used and handling techniques.

EDITOR'S SUMMARY

This article is the first paper from a large study based in primary dental care. Research in this setting is currently fairly scarce but extremely important, as it gathers evidence from the 'real world' where most dentistry is provided: in general dental practices, to the public, on a daily basis. It is this type of study that truly informs evidence-based dentistry and that ultimately results in better care for patients.

While this paper reports only the baseline data from the study, the information presented highlights why such a study is needed. The results showed that different dentists in the study used dif-

ferent methods and materials to manage cervical cavities, reflecting the fact that there is a lack of research into the most reliable methods for restoring this type of lesion. The follow-up data from this study, which will be reported in future articles, will therefore be of particular interest and will hopefully help to provide a clearer picture of the factors that may affect the success of Class V restorations.

This study is also an example of what can be achieved by practice-based research groups. Such groups and networks, including the Scottish Practice-Based Research Network, the PREP Panel and BRIDGE in the UK, and DPBRN,

PEARL and PRECEDENT in the USA, undertake projects that investigate oral health issues in everyday practice to high scientific standards. They are very much to be encouraged, as the information that arises from their work will ultimately help dentists to make treatment decisions that result in the best outcomes for patients. And that is, after all, what dentistry is all about.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 208 issue 9.

Rowena Milan,
Managing Editor

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IN BRIEF

- Class V cavities are multifactorial in origin.
- Practitioners are faced with a multitude of possible restorative materials and techniques from which to choose.
- General dental practitioners need guidance as to which material is the most effective for restoring Class V cavities.
- Practice-based research provides evidence derived from real-life situations.

COMMENT

There is considerable confusion both in the literature and in clinical practice as to the aetiology of cervical cavities other than those due to caries and what material should be used to restore them, let alone whether they should be restored or not. It is therefore refreshing to see a study that has addressed these specific research questions. In addition it is good to see a study that has been carried out in primary dental care by practitioners carrying out 'real world' research. Much will be gleaned from the study in due course, notably some insight into the aetiology of the lesions not due to caries, what materials perform to best advantage in this clinical situation and whether additional retentive features are required prior to restoration. As with most clinical research it will raise more questions than answers but nevertheless the results of this study will be enlightening.

Some of the initial data concurs with the literature, notably the incidence and prevalence of lesions. There is still, among the practitioners within the study, it appears, confusion about which material to use for the restoration of these lesions when operative intervention is indicated. There is a sense of actual practice deviating from the evidence, which is demonstrated by the spectrum of materials the study practitioners used to restore these lesions.

This paper, part one of a series, largely describes the design of the study and the authors are to be commended on producing a protocol which is both rigorous and insightful. The number of

restorations placed in the study is large, with 1,000 restorations placed over a period of two years by ten dentists. The long-term follow up of the restorations in this study will be of interest to the readers of the journal and will go some way to providing further evidence to support clinical practice.

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AUTHOR QUESTIONS AND ANSWERS**1. Why did you undertake this research?**

There is an abundance of research reporting how restorative materials behave in laboratory tests or in short clinical trials where individual materials have been carefully placed. In clinical practice, where most restorations are provided, conditions may be less well controlled, but there is a paucity of practice-based research which will provide evidence of actual performance in the real world. This project was undertaken to monitor the performance of different Class V restorations as placed by a group of dentists in their practices, and to collect data on factors of possible importance. The results of this study should provide the evidence which is lacking in dental research.

2. What would you like to do next in this area to follow on from this work?

The large database of information which has been gathered by this work will be analysed to compare the relative survival of different restorative materials, and to determine the effect on survival of the various clinical factors which have been recorded. The outcomes of these investigations will be used to guide practising dentists in the provision of more durable restorations for their patients and optimal handling and placement techniques. This research was made possible through the establishment of a practice-based research group. The group will now be able to undertake further studies which will continue to contribute evidence from real-life dentistry.