

Summary of: An investigation of current endodontic practice and training needs in primary care in the north west of England

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FULL PAPER DETAILS

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Objective To investigate current endodontic clinical practice in the north west of England and evaluate practitioner's training needs. **Method** A questionnaire was posted to 702 primary care dentists in the north west of England in January 2006. The questionnaire investigated aspects of dentists' endodontic clinical practice, the provision of endodontics within their practice, their recent postgraduate training in endodontics and their training needs. **Results** Responses to the questionnaire were received from 498 (70.9%) primary care dentists, of which 449 questionnaires contained useful information. Only 30% of respondents use rubber dam for isolation in all endodontic cases. The majority used radiographs either as the only method for establishing the working length (57.3%) or in conjunction with an apex locator (34.5%). Most dentists used sodium hypochlorite solution as an irrigant during the root canal treatment. Almost 55% used a combination of conventional hand files and rotary files to prepare root canals. Fifty-eight percent used the crown down technique while 35% used the step back technique for canal preparation. Almost two-thirds routinely used non-setting calcium hydroxide as an intra-canal medicament. Lateral condensation technique was the popular obturation method and the vast majority of respondents routinely took postoperative radiographs. Almost 25% of respondents had not received any teaching or training in endodontics in the past two years. **Conclusions** The results of this study suggest that primary care dentists in the north west of England have embraced modern techniques and follow most aspects of accepted endodontic practice. Despite the majority having postgraduate training in the last two years, only a minority used rubber dam routinely for endodontic treatment.

EDITOR'S SUMMARY

This investigation of primary care endodontic practice in north west England is a good example of a paper the results of which, as well as fulfilling the original aims of the study, also throw up issues that warrant further research. Three such areas immediately stand out on reading this article: the use of rubber dam among general dental practitioners (GDPs), and the effects of the new 2006 dental contract and single-use endodontic files on primary care endodontic practice.

The first of these arises directly from the results of the study, and similar results have been found in other research – indeed, the authors mention that previous work has investigated the barriers to use of rubber dam in the UK. It is clear that there is still a long way to go

before these barriers are overcome, and the authors suggest that more hands-on training in rubber dam use is required for GDPs. Further, larger studies might improve our understanding of the reasons why UK GDPs seem so reluctant to use rubber dam and how to remedy this.

The need for further research into the effects of the new contract and single-use endodontic files on primary care endodontics arises not directly from the results, however, but as a result of legislative developments since the study was undertaken. Research comparing clinical practice before and after such changes is important because of its ability to reveal unexpected consequences. For example, the authors suggest in their discussion that making NiTi rotary endodontic files single-use may introduce cost pressures which affect the quality outcomes

of endodontic treatment in future. By stimulating further studies that will help to answer such questions and give us a clearer picture of the effects of changes such as the new contract, this paper goes beyond its original aims and becomes a link in a chain of research – an excellent illustration of why research is and will remain relevant to general dental practice.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 206 issue 11.

Rowena Milan,
Journal Editor

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IN BRIEF

- Provides evidence of the primary care endodontic services provided before the new NHS contract.
- Many practitioners have adopted new technologies in their endodontic management of patients.
- Many practitioners followed accepted endodontic practice, but routine use of rubber dam was poor.
- Practitioners found most postgraduate courses in endodontics to be of value.

COMMENT

Endodontics in both primary and secondary care has undergone enormous technological and scientific change recently, requiring a necessary leap in skills and knowledge to keep pace with modern developments. This paper looks not only at the procedural delivery of endodontic care in early 2006 by primary care dentists but also investigates what training needs are required to keep abreast of these changes.

A majority of primary care dentists in the north west were found to be using modern techniques and an evidence-based approach, the one disappointment from the technique side being the continued low usage of rubber dam in endodontic practice. Marshall and Page in their 1990 paper reported a 10% usage,¹ Wilson *et al.* in 2004 saw a rise to 17%² and now this paper reports a 30% usage of rubber dam in endodontics - an improvement, but a figure that will distress many, especially in the professional indemnity area.

Since the time of this survey not only has the NHS payment system changed away from fee per item, but also the advice for single use endodontic files has been introduced. This survey provides an excellent baseline for further studies on the impact of the many directives and initiatives of the last three years.

This acceptance of modern endodontic techniques would be expected to indicate a training need; a low proportion of respondents had received hands-on training in this technique sensitive area of practice. This can be countered

by the fact that a large majority of the respondents had received endodontic training from various sources and this had still led to a change in their endodontic practice.

This study reinforces the fact that a majority of primary care dentists strive to provide an up-to-date, efficient and sound approach to endodontic service delivered to their patients. There is and there will be a need for competency focused, skill-based, hands-on training; there still exists a high proportion of primary care dentists who underutilise rubber dam. Perhaps this outlines a further training need.

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1. Marshall K, Page J. The use of rubber dam in the UK. A survey. *Br Dent J* 1990; **169**: 286-291.
2. Wilson N H, Christensen G J, Cheung S W, Burke F J, Brunton P A. Contemporary dental practice in the UK: aspects of direct restorations, endodontics and bleaching. *Br Dent J* 2004; **197**: 753-756.

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

Endodontic treatment is provided by most primary care practitioners and over the last 10-15 years there have been significant technological advances in the practice of endodontics. Many of these advances, particularly nickel titanium rotary endodontic files, if employed by dental practitioners should reduce chairside time and improve treatment outcomes. The authors undertook the research to investigate practitioners' current provision of endodontics under the old NHS contract, whether these new technologies had been embraced, but also to look at factors affecting provision of endodontics to patients. The authors were also interested in the postgraduate education that practitioners had received, whether this had changed clinical practice and what training needs were required in the future.

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

Future work in this area would focus on the impact of the new NHS contract and the impact of single use nickel titanium rotary files in provision of endodontic treatment by primary care dentists. Another area of interest that requires further research is why dentists continue to avoid the use of rubber dam in endodontic treatment. Educationally, further work is required in assessing whether changes practitioners institute as a result of attending courses actually improves the standard of treatment outcomes.