

**SCIENTIFIC
SECTION**

Commentaries on scientific papers published in this issue

Decontamination of orthodontic bands following size determination and cleaning

P. E. Benson and C. W. I. Douglas

The aim of this paper was to investigate the effectiveness of ultrasonic cleaning in the decontamination of tried-in, but otherwise unused, molar bands. In a prospective cross-sectional clinical trial, 32 patients about to commence a course of orthodontic treatment had four first molar bands tried in and then collected. The bands were then subdivided into two groups. In the experimental group, the bands were subjected to 15 minutes of immersion in an ultrasonic cleaner, while the control group did not receive this treatment. Potential contaminants from each band were tested using antibody-capture enzyme-linked immunosorbent assay (ELISA). This was to detect albumin and amylase, indicators principally but not exclusively, of blood and salivary contamination respectively. In addition, the presence of bleeding on band placement and removal was recorded, and the volume of both blood and saliva on each band was also determined.

This study found that 50% of molar bands that had been tried in had detectable amylase, albumin or both, even after 15 minutes in an ultrasonic cleaner. Although the volume of detectable amylase was significantly reduced by ultrasonic cleaning, the reduction in the volume of albumin was not statistically significant. The implications and possible risks to the patient are discussed in the paper, but the authors rightly temper the potential risk by putting it into context. They point out that ultrasonic cleaning is likely to be just one aspect of a cleaning and disinfection regimen, and that the risk of blood-borne viruses being transferred when such a regimen is used is very small. The only real criticism of this paper is the lack of detail concerning the ultrasonic cleaner and fluid used. Nevertheless, this is a well thought out piece of work that highlights the need for vigilance with infection control measures in clinical practice.

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Patients' expectations of orthodontic treatment: Part 2—findings from a questionnaire survey

M. S. Sayers and J. T. Newton

This paper reports on the results of a survey of patients' expectations of orthodontic treatment using a specially constructed and validated survey instrument. As a consequence, the results of this study are valid from the point of view of the consumers of care rather than orthodontists.

In the study, 50 children and 50 care-givers (out of a possible sample of 87 children and carers) completed the questionnaire. The children had all been referred for orthodontic treatment.

The study agreed with other investigators who have concluded that both the children and parents had realistic perceptions of orthodontic treatment. This was particularly true for social and personal experiences. However, they did not expect to wear headgear or, more interestingly, have extractions. There were also interesting differences between ethnic groups.

The authors stated that the findings were relevant to clinical practice, but they, interestingly, did not state what these benefits were. I felt, after carefully reading the paper, that with respect to my own practice, I should perhaps not need to explain everything in detail to my prospective patients, such as the need to wear fixed appliances, as this seems to be obvious to them. However, there were some aspects of treatment that a patient may not expect, e.g. the need to wear headgear or to have extractions; as such, careful explanations are necessary.

In summary, this is an interesting paper that gives us a real insight into what our patients expect of us and our treatment.

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A survey of the consent practices of specialist orthodontic practitioners in the North-West of England

D. Chappell and C. Taylor

The issue of consent is an ethical and legal dilemma frequently covered in the pages of the advice sheets and

pamphlets I receive from my professional indemnity organization. The consenting process involves providing the individual patient with the information required to enable them to choose whether or not to undergo a particular treatment, but also—and this is more difficult—the clinician must make sure that they have understood it. This study addresses the first part, concerning how the information is given. The second part, ensuring that the patient has understood the information, is much trickier to investigate.

Three individuals in the study claim not to use any form of consent process, which is worrying; however, this might be due to a misinterpretation of the question by the responders, a common problem with postal questionnaires. Twenty-seven out of the 45 responses used some form of written report, and although the status of the signed consent form is questionable in law, there is no doubt that it is essential to have some form of written record that the treatment plan, along with any pros and cons, was discussed. The issue of what areas should be emphasized during the consenting process must be a subject for a clinician to decide when dealing

with each individual patient. In patients with severe malocclusion, the benefits of undergoing treatment will usually outweigh the risks, and only the most obvious negative consequences might be discussed. But in the case of a patient with a mild malocclusion, the clinician might consider it more appropriate to highlight most of the potential problems.

My main concern with this study is the small sample size. On their own admission, the authors only received a 57% response rate from the 84 specialist practitioners who were surveyed. The data for the written consent are based on a sample size of only 27. As of October 2006, the General Dental Council website displayed 1155 entrants on the orthodontic specialist register. Therefore, this sample of 45 represents 4% of the total number of registered specialist orthodontists in the UK. I believe that it would be useful to obtain a larger national survey to provide more robust and generalizable data regarding consenting practices currently being carried out.

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