Send your letters to the Editor, British Dental Journal, 64 Wimpole Street, London W1G 8YS. E-mail bdj@bda dentistry.org.uk
Priority will be given to letters less than 500 words long. Authors must sign the letter, which may be edited for reasons of space.

Endocarditis risks

Sir,— I have been told by two consultants from my local dental hospital that they would not carry out periodontal probing for a patient at risk of endocarditis, unless prophylactic antibiotic cover was in place. This would preferably be arranged to coincide with a treatment session. I fully understand the reason why they take this view and it is, of course, confirmed in the FGDP publication 'Adult Antimicrobial Prescribing in Primary Dental Care' (p28). However, where does the GDP stand in diagnosing cases requiring referral and in carrying out routine, regular monitoring?

There is surely a risk to patients in arranging ABC for every examination and it cannot always be assumed in advance that a patient will need periodontal treatment. Consultants know there is a problem before they start but the GDP is at the beginning of the diagnostic chain. I would be interested in the views of colleagues.

T. Dalton
Lindley

Occlusal considerations

Sir,— I am disappointed in the editorial board's tacit endorsement of 'Occlusal considerations in periodontics' (*BDJ* 2001; **191**: 597) and thereby perpetuation of the traditional misconceptions about occlusion to the detriment of the patient.

The misplaced prominence given to the 1989 World Workshop in Clinical Periodontics guidelines on occlusion highlights the intrinsic bias in therapy. Thus despite the reviewer of the literature, at that time, concluding that the influence of occlusion on periodontal therapy remained unsolved, the Consensus Report supported the continued use of occlusal adjustment.

The profession's apparent disinterest in clarification then prevailed and the reviewer's comment, in the next World Workshop in Clinical Periodontics (1996), that research efforts post 1988 had shifted away from dental occlusion to other areas is most instructive, for only nine possible pertinent articles on occlusion could be located. A number of these should have been examined by Stephen Davies and colleagues. Their sadly misleading trend is further manifested in the legends to the clearly presented clinical photographs (Figs 3, 6 and 7) and the lower radiograph in Fig 4. These make no reference to the obvious signs of periodontal disease and to which the occlusal changes portrayed can be so readily attributed.

This is surely an inappropriate message to those aspiring to good clinical practice?

J. B. Kieser
London

The authors of the paper respond:

We welcome the correspondence from Dr Keiser and the opportunity to further debate the interpretation of studies which have investigated the role of occlusion. We made it clear in our paper that periodontal treatment is the most important requirement for those with periodontal disease.

We acknowledged that the role of occlusion is controversial and still not completely understood. Several authorities have noted that it is a difficult area to study and this may be one explanation for the dearth of research in recent years.

We did review the work of Burgett et al which was one of the nine studies examined by World Workshop in Periodontics.[1,2]

This randomised controlled trial showed that those who had occlusal adjustment as part of periodontal therapy had a statistically greater gain in attachment level (0.42 mm) compared with in those who had no adjustment (0.02 mm).[1]

The extent to which this is clinically meaningful is unclear nevertheless the study does indicate a benefit. Gher stated that while this gain was statistically significant it may be of limited clinical importance.[2]

This was Gher's interpretation, however, if the figures were reversed and the group who received occlusal treatment had less attachment gain it is interesting to speculate on what comments would have been made.

The conclusion of Hallmon at the International Workshop for the Classification of Periodontal Diseases and Conditions was that studies suggested that tooth mobility may be clinically associated with adverse effects on the periodontium and affect long-term attachment response to therapy.[3]

Research published after our review was completed and has reopened the debate on occlusion. Nunn and Harrel found some evidence that occlusal discrepancy is an independent risk factor contributing to periodontal disease.[4] *They commented that it was possible that previous studies could have underestimated the impact of occlusion on the periodontium because it was only recently that appropriate statistical tools became available to allow meaningful analysis at tooth level.*

We await research which unequivocally establishes the extent of the association between occlusion and periodontitis and provides the evidence base for treatment. In the meantime we can only rely on published research which to date has indicated some, albeit marginal, benefit from occlusal treatment in conjunction with appropriate periodontal treatment.

In this context no studies have indicated a negative effect of occlusal treatment. We believe, therefore, our paper does not indicate an approach which is to the detriment of patients.

1. Burgett F G, Ramfjord S P, Nissle R R, Morrison E C, Charbeneau T D, Caffesse R G (1992). A Randomized Trial of Occlusal Adjustment in the Treatment of Periodontitis Patients. *J Clin Perio*, 19, 381-387.
2. Gher M E. (1996) Non-surgical pocket therapy:dental occlusion. *Annals Perio*, 1, 567-580.
3. Hallmon W H. (1999) Occlusal trauma:Effect and impact on the periodontium. *Annals Perio*, 4, 102-107.
4. Nunn M E, Harrel S K. (2001). The effect of occlusal discrepancies on periodontitis. I. Relationship of initial occlusal discrepancies to initial clinical parameters. *J Perio*, 72, 485-494.

Paracetamol pain relief

Sir,– The study of different formulations of paracetamol in the control of pain after third molar surgery (*BDJ* 2001; **191**: 319-324) disturbed me.

In brief, 627 patients were randomized to receive the study medications on recovery from general anaesthesia, when pain levels had reached moderate or severe intensity. Patients were then encouraged to wait for 45 minutes, to let this analgesic take effect, before they were given rescue medication.

In their discussion, the authors state that they were aware that paracetamol is recommended for mild to moderate pain and that the pain following removal of impacted third molars is moderate to severe. They expected that 90% of patients would require post operative analgesia. In the event, all 627 patients required analgesia so all the study group suffered moderate to severe pain for varying durations.

It is difficult to believe that truly informed consent was obtained for this study or that five separate ethical committees gave their approval. The removal of third molars has a reputation for being an unpleasant procedure; this study can only have added to that reputation and makes depressing reading for those oral surgeons who do their best to remedy this. It has also provided a poor example for trainees, in the five University Dental Hospitals that participated, of the standards acceptable in patient care.

K. F. Ashley
Hereford

The authors of the paper respond:

We thank Mr Ashley for his letter and trust that the following deals with his comments constructively. The post-operative dental pain model is well established as a sensitive method to evaluate the efficacy of analgesic agents and to compare dose-effect relationships in acute pain.[1]

The model is accepted by regulatory authorities worldwide as an appropriate method for the evaluation of analgesics. Inevitably, patients must experience pain in order to be eligible for a dental pain study. The study was approved by five independent ethics committees.

At the screening visit, the investigators explained the aims, methods, objectives and potential hazards of participating in the study and a patient information sheet was provided to all who enrolled.

Patients provided written informed consent at this visit, which was up to 30 days before the day of surgery in order to allow time to consider participation in the study. It was also clearly stated that patients were free to withdraw from the study at any time. As shown in Figure 1 of the paper, 44 patients withdrew consent prior to randomisation.

One of the considerations taken into account for the sample size calculation was that not all patients who underwent surgery may have needed analgesia on recovery but it was assumed that at least 90% of patients would require analgesia. Consistent with this assumption, ten patients participating in the study failed to report pain of sufficient intensity after surgery to warrant treatment with study medication and therefore were not randomised.

These patients were recorded as protocol deviations in Figure 1 of the paper. To receive study medication, the level of pain reported by the patient was only required to be 30 mm on a 100 mm visual analogue scale (VAS), which equates to the start point of moderate pain.[2]

In our study, 627 patients experienced this level of pain and therefore received study medication (intention to treat population). Patients were asked by the study staff at 10 minute intervals after recovery from the anaesthetic to record their level of pain in order to ensure that study medication was administered within a few minutes of crossing the 30 mm threshold.

Patients were asked to wait 45 minutes, if possible, before requesting rescue medication in order to allow time for the study medication to be absorbed, which was not unreasonable given the level of baseline pain and the fact that a therapeutic dose of paracetamol had been administered. For patients requiring rescue medication, alternative oral analgesics were readily available after 45 minutes and intravenous tramadol was also available for patients with severe pain, although no patient required this treatment.

Activity of the paracetamol formulations used in the trial was inferred based on comparison with data from placebo-controlled studies. Paracetamol remains an acceptable treatment option for dental pain, the advantage with the sustained release formulation being its longer duration of action.

As stated in the paper, the study was conducted in accordance with the 'Declaration of Helsinki and Good Clinical Practice' thus the rights, safety and well being of the patients were paramount.

1. Cooper S A. Models for clinical assessment of oral analgesics. *Am J Med* 1983; **75**: 24-29.
2. Collins S L, Moore A, McQuay H J. The visual analogue pain intensity scale: what is moderate pain in millimetres? *Pain* 1997; **72**: 95-97.