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editorial

Extending the dental examination interval: possible financial and organisational consequences

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One of the principle aims of the journal *Evidence-based Dentistry* (EBD) is to systematically examine the scientific evidence to support or refute our current methods for providing oral health care. Most of the EBD papers you will read here carefully evaluate the evidence for a clinical topic and then provide the reader with guidance concerning the value of the authors' conclusions. What you will not find is a prediction of the possible financial consequences for a general dentist or their patients if a new EBD protocol is adopted. The purpose of my editorial is to ask one question: what could be the financial and organisational consequences of extending from 6 to 12 months the re-examination interval for healthy (low-risk caries or periodontal disease) individuals?

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At first sight this may seem a trivial topic to investigate since healthy patients are in and out of the chair very quickly. After all, little time is required to confirm that they are still healthy, remove a little calculus with a polish, and perhaps make some bitewing radiographs. This is intellectually and technically rather mundane work — so why should we concern ourselves with this topic? One reason is that dentists are earning a higher proportion of their total income from healthy people than from those requiring operative intervention, and this trend is likely to continue.[1] The six-monthly check-up is therefore financially very important to a dentist. Nevertheless, serious doubt was expressed as long as 25 years ago by Sheiham over the scientific validity of the six-month recall interval for healthy patients.[2] Later studies have supported longer intervals somewhere between 12 and 24 months.[3] If, however, fewer visits to the dentist save patients money and their health is not affected, how can dentists embrace EBD and make a living? The answer is, by directing health care changes in such a way that both dentists and patients benefit.

How can extending the examination interval, reducing the annual visits from two to one, possible benefit a dentist? By accepting more patients to fill the vacant appointments and employing three hygienists for every dentist. Two of the hygienists could manage the healthy individuals and the third could manage those patients who have oral disease. Using a spreadsheet model it is possible to predict how a dentist's pool of patients and income might change. Assuming that the dentist keeps their chair-side hours unchanged, 5 minutes is spent with each recall patient and that the hygienists work 7 h/day then the following is predicted for a US dentist:

1. the total number of individual patients seen per year (patients not patient visits) should increase from approximately 1100 to 5000 for all categories of care,
2. there would be 18 recall patients per day occupying 90 minutes of dentist time,
3. the gross income from the two hygienists and the dentist 90 minutes per day would equal the normal full-time income of the dentist and a part-time hygienist in a conventional practice setting, and
4. the gross income of the three hygienists and the dentist full-time would be double the normal practice income since it is the efficient use of auxiliaries that is responsible for the extra income.

The increase by a factor of five of the patient population managed per dentist has some very important implications for predicting workforce size. If 20% of dentists adopt the suggested utilisation

of auxiliaries and manage five times as many patients as conventional practices, a reduced number of dentists may be needed.

In conclusion, EBD recommendations for improving clinical outcomes will be of little use without the recognition by clinicians of the need for change. Dentists cannot be expected to welcome reorganisation of their practices unless there are significant benefits for them in terms of income and improved care or reduced costs for patients. Researchers need to investigate the likelihood of clinicians accepting new EBD protocols linked to realistic changes in their practice environments and improvements in income.

1. Eklund SA, Pittman JL, Smith RC. Trends in per-patient gross income to dental practices from insured patients, 1980–1995. J Am Dent Assoc 1998; 129:1559–1565.
2. Sheiham A. Is there a scientific basis for six-monthly dental examinations? Lancet 1997; 2(8035):442–444.
3. Karkkainen S, Seppa L, Hausen H. Dental check-up intervals and caries preventive measures received by adolescents in Finland. Community Dent Health 2001; 18:157–161.

Editor's note

The National Institute of Clinical Excellence in the UK has just announced the preparation of a clinical guideline on dental recall. The main objective was stated to be, 'to prepare guidance for the NHS in England and Wales, on the clinical and cost effectiveness of a dental recall examination for all patients at an interval based on the risk from oral disease'.

For further information, please see the following webpage: http://www.nice.org.uk/cat.asp?c=33919.
Additionally, the Health Technology Assessment Programme has commissioned a systematic review of the clinical effectiveness and cost-effectiveness of routine dental checks. This is now in the editorial review stage.