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[Intervention Review]

Recall intervals for oral health in primary care patients

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ABSTRACT

Background

The frequency with which patients should attend for a dental check-up and the potential effects on oral health of altering recall intervals between check-ups have been the subject of ongoing international debate in recent decades. Although recommendations regarding optimal recall intervals vary between countries and dental healthcare systems, six-monthly dental check-ups have traditionally been advocated by general dental practitioners in many developed countries.

This is an update of a Cochrane review first published in 2005, and previously updated in 2007.

Objectives

To determine the beneficial and harmful effects of different fixed recall intervals (for example six months versus 12 months) for the following different types of dental check-up: a) clinical examination only; b) clinical examination plus scale and polish; c) clinical examination plus preventive advice; d) clinical examination plus preventive advice plus scale and polish.

To determine the relative beneficial and harmful effects between any of these different types of dental check-up at the same fixed recall interval.

To compare the beneficial and harmful effects of recall intervals based on clinicians' assessment of patients' disease risk with fixed recall intervals.

To compare the beneficial and harmful effects of no recall interval/patient driven attendance (which may be symptomatic) with fixed recall intervals.

Search methods

The following electronic databases were searched: the Cochrane Oral Health Group's Trials Register (to 27 September 2013), the Cochrane Central Register of Controlled Trials (CENTRAL) (*The Cochrane Library* 2013, Issue 9), MEDLINE via OVID (1946 to 27 September 2013) and EMBASE via OVID (1980 to 27 September 2013). We searched the US National Institutes of Health Trials Register (<http://clinicaltrials.gov>) and the WHO International Clinical Trials Registry Platform (<http://www.who.int/ictrp/en/>) for ongoing trials. Reference lists from relevant articles were scanned and the authors of some papers were contacted to identify further trials and obtain additional information. We did not apply any restrictions regarding language or date of publication when searching the electronic databases.

Selection criteria

We included randomised controlled trials (RCTs) assessing the effects of different dental recall intervals.

Data collection and analysis

Two review authors independently assessed the search results against the inclusion criteria of the review, extracted data and carried out risk of bias assessment. We contacted study authors for clarification or further information where necessary and feasible. If we had found more than one study with similar comparisons reporting the same outcomes, we would have combined the studies in a meta-analysis using a random-effects model if there were at least four studies, or a fixed-effect model if there were less than four studies. We expressed the estimate of effect as mean difference with 95% confidence intervals (CIs) for continuous outcomes. We would have used risk ratios with 95% CI for any dichotomous outcomes.

Main results

We included one study that analysed 185 participants. The study compared the effects of a clinical examination every 12 months with a clinical examination every 24 months on the outcomes of caries (decayed, missing, filled surfaces (dmfs/DMFS) increment) and economic cost outcomes (total time used per person). As the study was at high risk of bias, had a small sample size and only included low-risk participants, we rated the quality of the body of evidence for these outcomes as very low.

For three to five-year olds with primary teeth, the mean difference (MD) in dmfs increment was -0.90 (95% CI -1.96 to 0.16) in favour of 12-month recall. For 16 to 20-year olds with permanent teeth, the MD in DMFS increment was -0.86 (95% CI -1.75 to 0.03) also in favour of 12-month recall. There is insufficient evidence to determine whether 12 or 24-month recall with clinical examination results in better caries outcomes.

For three to five-year olds with primary teeth, the MD in time used by each participant was 10 minutes (95% CI -6.7 to 26.7) in favour of 24-month recall. For 16 to 20-year olds with permanent teeth, the MD was 23.7 minutes (95% CI 4.12 to 43.28) also in favour of 24-month recall. This single study at high risk of bias represents insufficient evidence to determine whether 12 or 24-month recall with clinical examination results in better time/cost outcomes.

Authors' conclusions

There is a very low quality body of evidence from one RCT which is insufficient to draw any conclusions regarding the potential beneficial and harmful effects of altering the recall interval between dental check-ups. There is no evidence to support or refute the practice of encouraging patients to attend for dental check-ups at six-monthly intervals. It is important that high quality RCTs are conducted for the outcomes listed in this review in order to address the objectives of this review.

PLAIN LANGUAGE SUMMARY

Recall intervals for oral health in primary care patients

Review question

The main question addressed by this review is: what is the optimal interval for dental check-ups (the time period between one dental check-up and the next)?

Background

The effects on oral health and the economic impact of altering the recall interval between different types of dental check-ups are unclear. Primary care dental practitioners in many countries have traditionally recommended dental check-ups at six-monthly intervals.

Study characteristics

The Cochrane Oral Health Group carried out this review of existing studies, which includes evidence current up to 27 September 2013. This review includes one published study in which a total of 185 children and young adults were randomly chosen to have a clinical examination every 12 months or every 24 months. The study measured what effects the two different check-up times had on tooth decay and total time used per person (which could then be used to measure costs to the healthcare system).

Key results

The limited results did not enable a conclusion to be made about whether or not extending the time to the next dental check-up can reduce tooth decay or costs.

Quality of the evidence

The evidence presented is of very low quality due to there only being one study and issues with the way it was conducted.