## Risk-based, 6-monthly and 24-monthly dental check-ups for adults: the INTERVAL three-arm RCT

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**Declared competing interests of authors:** Nigel B Pitts consults for Colgate (Colgate-Palmolive Company, New York, NY, USA) and GlaxoSmithKline plc (Brentford, UK) (toothpaste manufacturers) and was also a co-applicant on the National Institute for Health Research (NIHR) Health Technology Assessment (HTA) Improving the Quality of Dentistry trial of dental scale and polish. Craig R Ramsay is a member of the NIHR HTA General Board. John DT Norrie reports grants from the University of Aberdeen and grants from the University of Edinburgh during the conduct of the study, and declares membership of the following NIHR boards: CPR decision making committee, HTA Commissioning Board, HTA Commissioning Sub-Board (Expression of Interest), HTA Funding Boards Policy Group, HTA General Board, HTA Post-Board funding teleconference, NIHR Clinical Trials Unit Standing Advisory Committee, NIHR HTA and Efficacy and Mechanism Evaluation Editorial Board and the Pre-exposure Prophylaxis Impact Review Panel. Gail Douglas reports that she is employed full time by the University of Leeds; 1 day of her time is bought out by Public Health England to assist with academic input to the dental epidemiology programme for England. She is also currently President of the British Association for the Study of Community Dentistry, a professional organisation principally for those working in the field of dental public health or allied areas.

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# **Plain English summary**

### The INTERVAL three-arm RCT

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Traditionally, dentists have encouraged both patients at low risk and patients at high risk of developing dental disease to attend their dental practices for regular 6-month 'check-ups'. There is, however, little evidence available for either patients or dentists to use when deciding on the best dental recall interval (i.e. time between dental check-ups) for maintaining oral health.

In this study, we wanted to find out, for adult patients who regularly attend the dentist, what interval of time between dental check-ups maintains optimum oral health and represents value for money. A total of 2372 adults who regularly attended 51 different dental practices across Scotland, Northern Ireland, England and Wales were involved. Patients aged 18 years or over who received all or part of their care as NHS patients were randomly allocated to groups to receive a check-up either every 6 months, at an individualised recall interval based on their own risk of oral disease (risk-based recall), or every 24 months (if considered at low risk by their dentist). The recruited adults completed questionnaires at their first trial appointment and then every year of the 4-year study. Their attendance at recall appointments was recorded and they received a clinical assessment taken by study staff at the end of their involvement at year 4.

After 4 years, there was no evidence of a difference in the oral health of patients allocated to a 6-month or variable risk-based recall interval. For patients considered by their dentists to be suitable for a 24-month recall interval, there was no difference between those in the 24-month, 6-month or risk-based recall intervals. However, people greatly value and are willing to pay for frequent dental check-ups. The recall strategy that offers the best value for money to patients and the NHS, therefore, depends on what people and decision-makers wish to value within a health-care system.

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