

Atraumatic restorative treatment for caries in the elderly - A study to assess a novel approach for the prevention of root caries

Submission date 17/05/2013	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 17/05/2013	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 06/01/2017	Condition category Oral Health	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

The aim of the study is to see how well tooth decay in elderly patients can be treated using a dental material (containing Chlorhexidine, which is commonly found in mouthwashes) when applied using a simple and painless method called Atraumatic Restorative Treatment. This is important because the elderly population are at a high risk of developing cavities (holes) in their teeth near the gum surface (called root caries).

Who can participate?

Adults aged 60 years or older, with at least one tooth with root caries that requires treatment.

What does the study involve?

Participants will be seen at a screening assessment to confirm that they are suitable to take part. Participants will then be invited for a treatment visit where photographs, plaque and saliva samples will be taken and the root caries treated with the dental material. Saliva and plaque samples will be collected at 1, 3 and 6 months and photographs taken at 6 months. Questionnaires will be completed at all visits.

What are the possible benefits and risks of participating?

Chlorhexidine is used safely in toothpastes and mouthwashes, so very few side effects are expected. The way the treatment is applied is likely to be simple and painless compared with conventional dental fillings. However additional visits are needed in order to collect plaque and saliva samples.

Where is the study run from?

Leeds Dental Institutes Dental Translational and Clinical Research Unit (DenTCRU), Leeds, UK

When is the study starting and how long is it expected to run for?

May 2013 - August 2014

Who is funding the study?
Dunhill Medical Trust

Who is the main contact?
Gillian Dukanovic
g.dukanovic@leeds.ac.uk

Contact information

Type(s)
Scientific

Contact name
Prof Paul Brunton

Contact details
Leeds Dental Institute
Clarendon Way
Leeds
United Kingdom
LS2 9LU
+44 113 343 6182
p.a.brunton@leeds.ac.uk

Additional identifiers

Protocol serial number
14230

Study information

Scientific Title
Atraumatic Restorative Treatment for CARies in the Elderly - A pilot non-randomised study to assess a novel approach for the prevention of root caries

Acronym
ARTCARE

Study objectives
The aim of this pilot study is to see how well tooth decay in elderly patients can be treated using a glass ionomer cement (GIC) dental material containing chlorhexidine (CHX) (which is commonly found in mouthwashes) when applied by dental therapists using the simple and painless method, Atraumatic Restorative Treatment (ART).

Ethics approval required
Old ethics approval format

Ethics approval(s)
NRES Committee Yorkshire & The Humber - Leeds West, 22/02/2013, ref: 13/YH/0010

Study design

Non-randomised interventional treatment trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Topic: Oral and Gastrointestinal; Subtopic: Oral and Gastrointestinal (all Subtopics); Disease: Oral & Dental

Interventions

GIC modified with chlorhexidine.

GIC with 5% chlorhexidine, applied once and left in place.

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

Reduction of bacteria in plaque samples; Timepoints: 6 months post treatment

Key secondary outcome(s)

1. Reduction of bacteria in plaque samples; Timepoints: 1 and 3 months post treatment
2. Reduction of bacteria in saliva samples; Timepoints: 1 and 3 month post treatment
3. Reduction of bacteria in saliva samples; Timepoints: 6 months post treatment
4. Survival rate of restorations; Timepoints: 6 months post treatment
5. Treatment delivery acceptability by dental therapists; Timepoints: Baseine, and at 1, 3 and 6 months post treatment
6. Treatment delivery acceptability by patients; Timepoints: Baseline and at 1, 3 and 6 months post treatment

Completion date

08/08/2014

Eligibility**Key inclusion criteria**

1. Patients will be ≥ 60 yrs (females and males)
2. Patients will have at least one lesion of root caries, which requires operative intervention.
3. Patients who are willingly to provide signed informed consent.
4. Patients who are willing to follow the research schedule for the period of the study.

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Senior

Sex

All

Key exclusion criteria

1. Patients with no natural teeth.
2. Patients currently having antibiotic therapy or within 4 weeks of completion of a course of therapy with antibiotics.
3. Patients who are currently receiving or who have had radiotherapy of the head and neck region within the last 12 months.
4. Patients who are currently using or who have used toothpastes and/or mouthwashes containing chlorhexidine within the last 4 weeks.
5. Patients who have active periodontal disease which is likely to require treatment such as root surface debridement (RSD) during the study.
6. Patients who have any condition (including an allergy to chlorhexidine) which could be expected to interfere with the patients safety during the study.
7. Patients who demonstrate an inability to comply with study procedures.

Date of first enrolment

08/05/2013

Date of final enrolment

08/08/2014

Locations**Countries of recruitment**

United Kingdom

England

Study participating centre

Leeds Dental Institute

Leeds

United Kingdom

LS2 9LU

Sponsor information**Organisation**

University of Leeds (UK)

ROR

<https://ror.org/024mrxd33>

Funder(s)

Funder type

Charity

Funder Name

Dunhill Medical Trust (UK) Grant Codes: R245/0212

Alternative Name(s)

The Dunhill Medical Trust, Dunhill Medical Trust, DunhillMedical, DMT

Funding Body Type

Private sector organisation

Funding Body Subtype

Trusts, charities, foundations (both public and private)

Location

United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
HRA research summary			28/06/2023	No	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes