

Oral health & primary dental care research – an overview

PRIME Centre Wales Annual Event 2018
26th November 2018

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Professor and Hon Consultant in Dental Public Health

PRIME Work Packages

1. Long-term conditions and co-morbidities
2. Patient centred and prudent healthcare
3. Infections and antimicrobial resistance
4. Screening, prevention and diagnosis in primary care
5. Unscheduled and emergency (including pre-hospital) care
6. Patient safety
- 7. Oral health and primary dental care**

Plus 7 cross-cutting themes

Primary Dental Care plays a crucial role in maintaining health Wales

- In the two years ended 30 June 2018:
 - **1,718,382 patients** seen by NHS general dental practitioners in Wales
 - Of the population
 - 51.9% adults
 - 67.1% children (excludes those seen in CDS)



We aim to:

Build the evidence-base and ensuring services are effective and efficient – in Wales, United Kingdom and International context

Areas of research focus in Oral and Dental Work Package

**Clinical Trials
Preventive Dentistry**

**Antimicrobials in
Dentistry**

**Delivery of Dental
Care**

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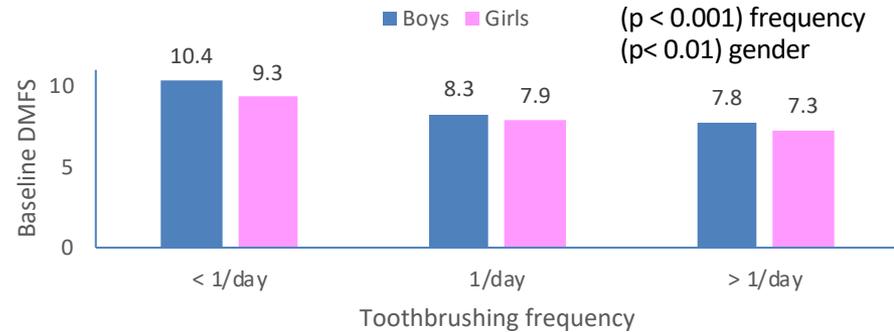
Dental Clinical Trials



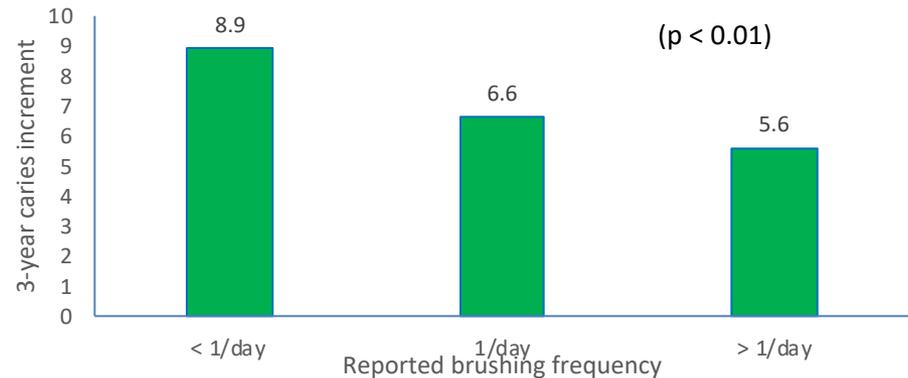
Lanarkshire Clinical Trial 1988-1992

How often should you brush your teeth?

Association between baseline DMFS and reported toothbrushing frequency



Association between 3-year caries increment (DMFS) and reported toothbrushing frequency



How do you rinse your mouth after brushing your teeth?

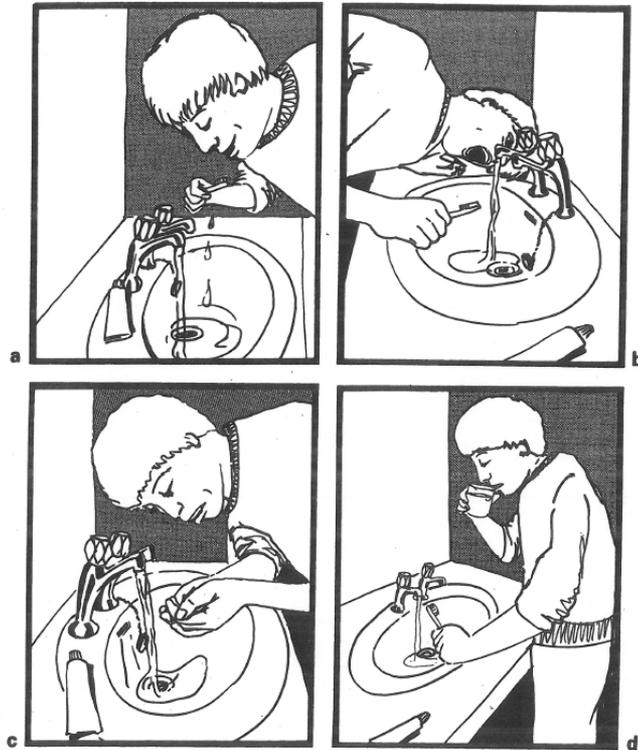
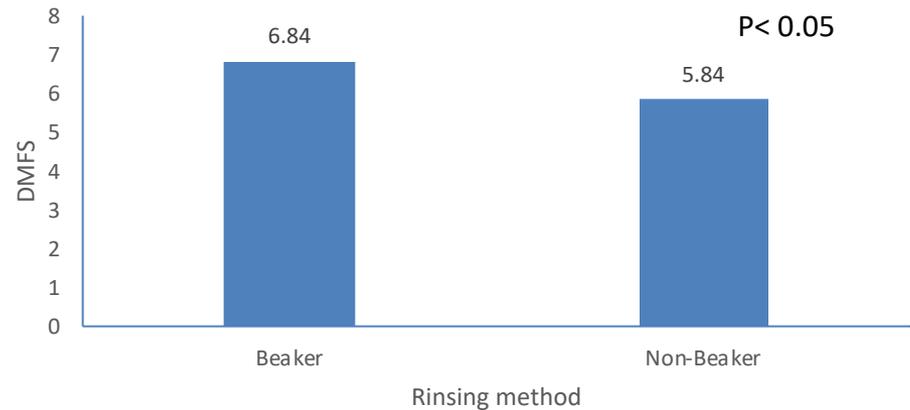


Fig. 1. Sketches of alternative rinsing methods. **a** Using a toothbrush to transfer water to the mouth. **b** Putting the mouth under the tap. **c** Transferring water using cupped hands. **d** Using a beaker to transfer water to the mouth.

Association between 3-year caries increment and reported post-brushing rinsing method



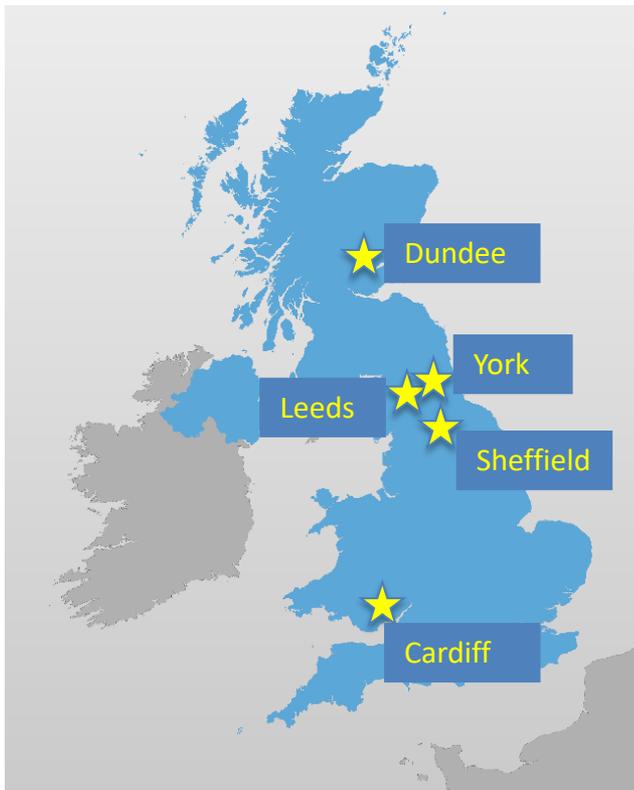
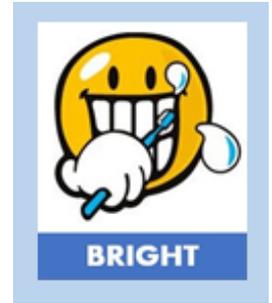
Why trouble you with my work from a quarter century ago?

Two important messages from that clinical trial

- Evidenced the effectiveness of twice daily brushing
- Origin of the message “Spit, don’t rinse!”

BRIGHT Trial: Brushing RemInder 4 Good oral Health:

the clinical and cost-effectiveness of a Short Messaging Service behaviour change programme to improve the oral health of young people living in deprived areas

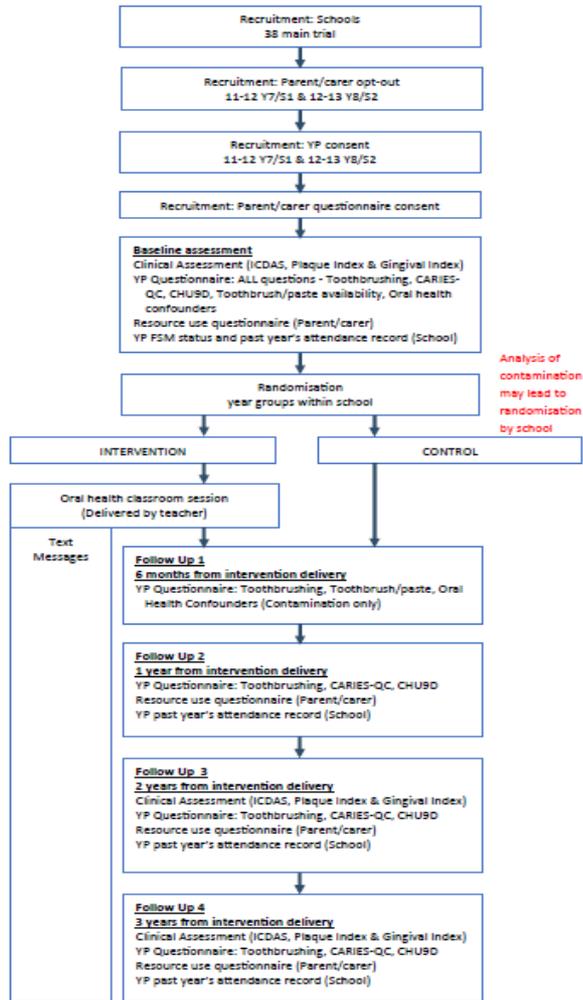


The BRIGHT Trial is a multi-centre, school-based, assessor-blinded, two-arm cluster-randomised control trial with an internal pilot trial.

We are recruiting 6,160, 11 and 12 year-olds from 44 schools.

12 schools – 1,680 in Wales

BRIGTH Trial: Brushing RemInder 4 Good oral Health:



Baseline assessment

INTERVENTION

CONTROL

Oral Health
Classroom session

Text messages
Twice daily

Clinical follow-up for three years

Clinical follow-up for three years

Outcome measures:
Development of dental caries (tooth decay)
Cost effectiveness

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Antibiotic prescribing by dentists

Approximately 1 in 10 of all community antibiotics are prescribed by dentists

About 95% of antibiotics prescribed by dentists in the UK are for the management of acute dental conditions



Guidelines

- Try local measures (dental treatment) first
- Antibiotics are **only** indicated if there are signs of severe infection and are unlikely to cure infections by themselves

If antibiotics don't cure toothache why do dentists prescribe them?

In a cross-sectional study of dentists we established:

- 57% adult patients with an acute dental condition received an antibiotic
- 67% of antibiotics were prescribed in situations where there was no evidence of spreading infection
- 71% of antibiotics were prescribed without operative treatment during the same appointment
- Large variations in dose, frequency and duration of antibiotic courses
 - 20% of prescriptions were for ≥ 7 days duration

Studies on antimicrobials and primary dental care

- Cochrane Systematic review of the use of antibiotics. Systemic antibiotics for symptomatic apical periodontitis and acute apical abscess in adults (2014, and 2018)
- Qualitative study of dentists' attitudes towards AMR (2014)
- Management of acute conditions in general dental practice (2015) and antimicrobial prescribing by dentists in Wales, UK 2012-2015 (2016)
- Exploring the feasibility of using routinely collected data to produce antibiotic prescribing profiles for general dental practitioners in Wales (2018)
- Knowledge and attitudes of recently qualified dentists towards antimicrobial prescribing and resistance (2018)

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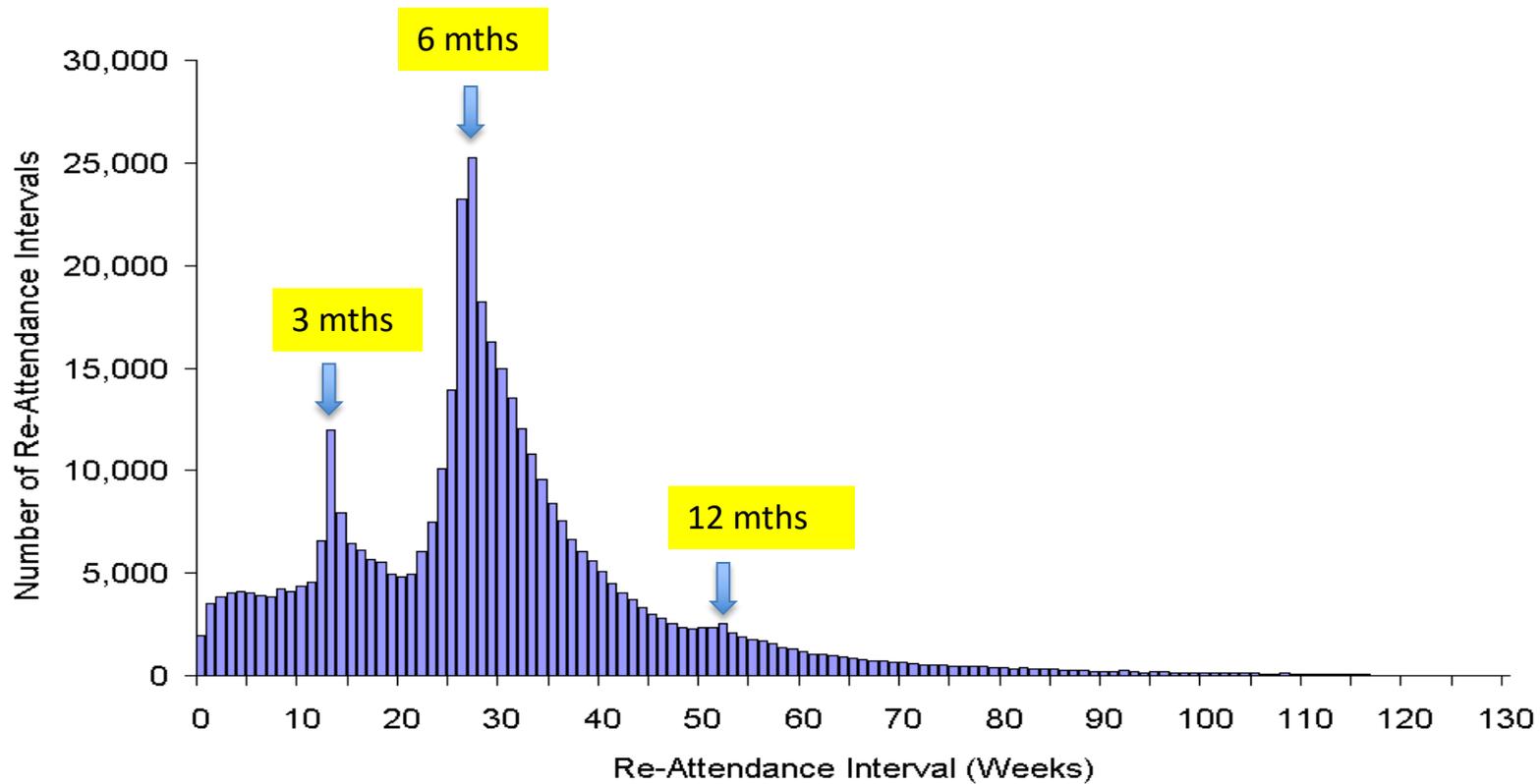
How often should you visit the dentist for a check-up?

- Every 3 months
- Every 6 months
- Every 12 months
- Every 18 months
- Every 24 months

You should visit your dentist at an interval based on your risk of developing dental disease

(NICE Guidelines, 2004)

Interval between check-up appointments in a Welsh Health Board



Shared decision making

- Expertise in PRIME on how clinicians and patients come to an agreed position - options are fully explored, along with their risks and benefits
- Decision on recall interval suitable for this approach
 - Patients like coming every six-months
 - Dentists like to see patients every six-months
- New project to develop a decision aid to help dentists and patients together explore what would be a suitable recall interval.

Why do patients with a dental problem visit their doctor instead of a dentist?

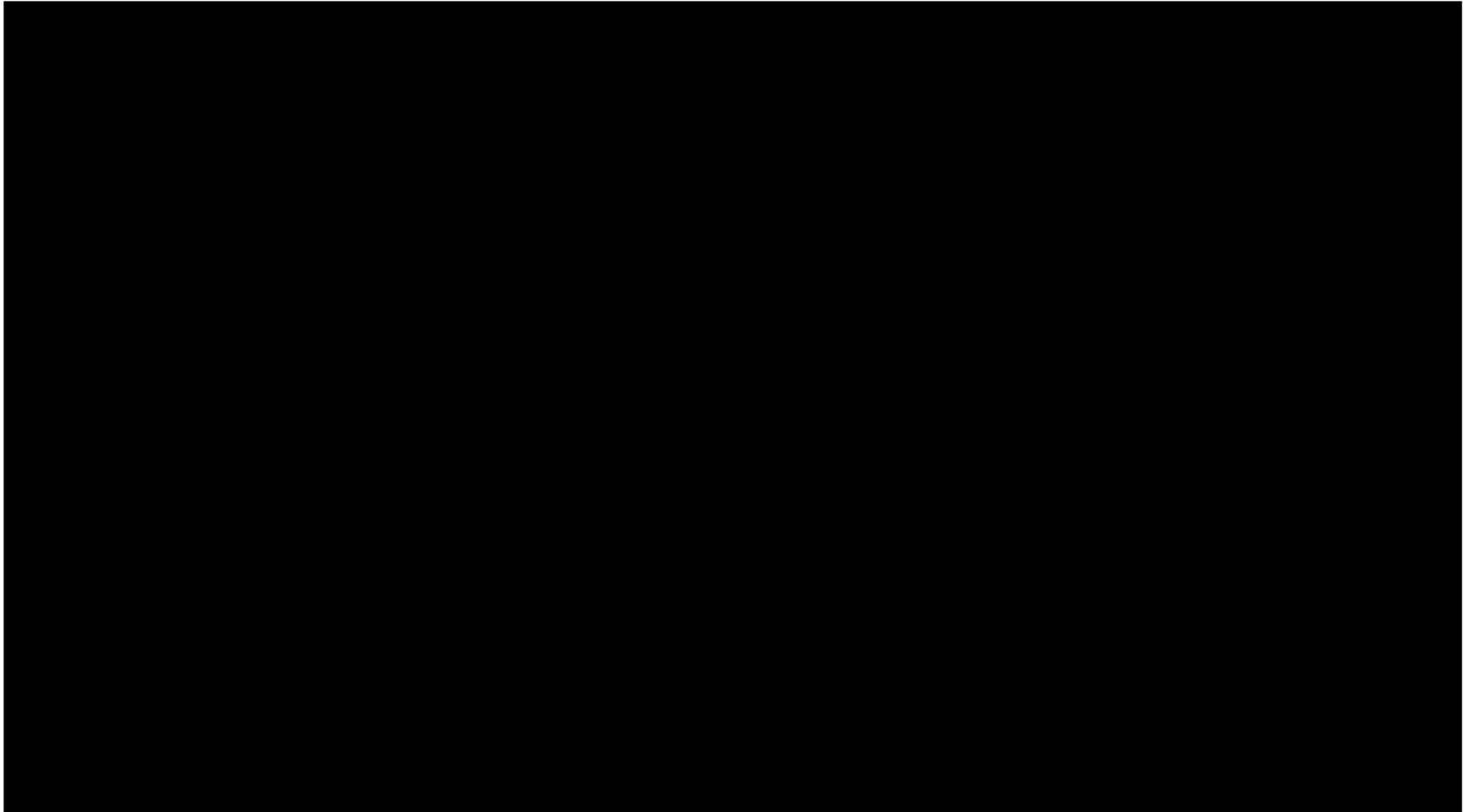
Research

Anwen L Cope, Fiona Wood, Nick A Francis and Ivor G Chestnutt

Patients' reasons for consulting a GP when experiencing a dental problem:

a qualitative study

- We estimate there are 380,000 consultations in the UK every year about a dental problem
- Why?
- Patients' interpretation of symptoms
- Patients' interpretation of scope of practice
- Comparative ease of navigating the medical and dental care systems
- Previous experiences of dental care
 - Anxiety about dental treatment
 - Dissatisfaction with prior treatment
- Willingness / ability to pay for dental care





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Time to take down barriers pushing dental patients to GPs

23 October 2018

The BDA has called on government to urgently take down the barriers facing patients with dental problems, as new research reveals the struggles they face with cost and access.

Based on interviews with GP attenders, the study, published in the *British Journal of General Practice*, found issues around greater accessibility of GP services, previous experiences of dental care, including dental anxiety, and willingness and ability to pay for dental care.

Patients with urgent dental problems (including toothache and abscesses) typically require some form of operative intervention, which GPs are neither trained nor equipped to provide. These patients are usually referred on to a dentist. The study reports many respondents were simply unaware of the existence of emergency dental services.

The BDA estimate that the 380,000 GP consultations referenced in the study cost the NHS £20.8 million. Previous research has estimated 57% of all patients with dental problems are provided with antibiotics - which are not a cure for dental pain.

Nearly 1 in 5 patients have delayed treatment for reasons of cost according to official surveys. NHS Charges have increased by over 23% in the last five years, while the Government's direct spend per head on NHS dentistry has fallen £4.95, from £40.95 to £35.

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News

UK has 'hostile environment' to accessing the dentist as 380,000 people visit GP with dental problems every year, study finds



Dental patients are facing "growing barriers" to accessing the appropriate care, experts have said
CREDIT: MARTIN RICKETT/PA

23rd October 2018

Research in primary dental care – the future

- PRIME – proved advantageous in giving us access to colleagues with expertise, that we have been able to deploy in a dental setting
- Development of a dental practice based research network

The Cast

- Ivor Chestnutt
- Anwen Cope
- Robyn Davies
- Nick Francis
- Kerry Hood
- Natalie Joseph-Williams
- Anup Karki
- Michela Gal
- Rebecca Lloyd
- Candida Lovell-Smith
- Emma Pengelly
- Emyr Roberts
- Fiona Wood
- Angela Watkins

The BRIGHT trial team, the staff of Community Dental Service Cardiff and Vale UHB

Our Funders



Diolch yn fawr

