

Citizen Participation and Public Petitions Committee
Wednesday 13 November 2024
17th Meeting, 2024 (Session 6)

PE2115: Ensure NHS dental patients have the option of white composite fillings for the treatment of molar teeth

Introduction

Petitioner Paul Aaron

Petition summary Calling on the Scottish Parliament to urge the Scottish Government to ensure white composite fillings are available as a treatment option for registered NHS dental patients, specifically when treating molar teeth.

Webpage <https://petitions.parliament.scot/petitions/PE2115>

1. This is a new petition that was lodged on 6 August 2024.
2. A full summary of this petition and its aims can be found at **Annexe A**.
3. A SPICe briefing has been prepared to inform the Committee's consideration of the petition and can be found at **Annexe B**.
4. Every petition can collect signatures while it remains under consideration. At the time of writing, 49 signatures have been received on this petition.
5. The Committee seeks views from the Scottish Government on all new petitions before they are formally considered.
6. The Committee has received a submission from the Scottish Government which is set out in **Annexe C** of this paper.

Action

7. The Committee is invited to consider what action it wishes to take on this petition.

Clerks to the Committee
November 2024

Annexe A: Summary of petition

PE2115: Ensure NHS dental patients have the option of white composite fillings for the treatment of molar teeth

Petitioner

Paul Aaron

Date Lodged

6 August 2024

Petition summary

Calling on the Scottish Parliament to urge the Scottish Government to ensure white composite fillings are available as a treatment option for registered NHS dental patients, specifically when treating molar teeth.

Background information

The National Health Service (NHS), as an organisation, aims to provide comprehensive health services, which includes dental care. However, patients urgently require more choice when it comes to dental fillings specifically in molar teeth. Currently, the most commonly used filling material in the NHS is silver amalgam – a durable, yet aesthetically unpleasing option. Unfortunately, white composite fillings, which blend with the natural tooth colour and preserve more of the tooth structure, continue to be unavailable for back teeth.

[A 2009 World Health Organization report, 'Future Use of Materials for Dental Restoration'](#), acknowledges the aesthetical advantage of composite over amalgam fillings. Furthermore, research published by King's College London in 2017 indicated that 92% of UK adults prefer tooth-coloured fillings.

It's a major priority to respect patients' preferences and dignity in their healthcare experiences. Thus, we urge the Scottish Government to modify its policy to enable composite fillings on the NHS.

Annexe B: SPICe briefing on petition PE2115



Brief overview of issues raised by the petition

The petitioner is calling on the Scottish Parliament to urge the Scottish Government to ensure white composite fillings are available as a treatment option for registered NHS dental patients, specifically when treating molar teeth.

An overview of how NHS dental services work, and recent reforms in Scotland is available in the SPICe Spotlight blog, [‘NHS Dental Services in Scotland – Braced for change’](#).

The petitioner has included a report from the [World Health Organisation, \(WHO\) published in 2009](#) and referenced research carried out by Kings College London in 2017 (unable to locate research findings).

Background

Dental amalgam is widely used in dentistry for restoring and repairing decayed teeth. It is a compound of mercury and silver-based alloys. So called [‘composite’ fillings are made from resin based material which have been developing over many decades](#), and problems with the different formulations have arisen and been addressed, such as shrinkage and cracking when used in clinical settings. However, [the article suggests that research into materials is very much ongoing](#), but that the discovery of different properties doesn’t always translate into clinical use.

Many people choose or prefer composite fillings because they can be coloured to match the existing teeth. [Because the material is also designed to bond to teeth in a way that amalgam doesn’t, more of the natural tooth can be preserved](#). With amalgam fillings, the base of the filling needs to be wider than the neck in order to hold the filling in place.

While there have been advances in composite materials, amalgam is still longer lasting, and restorations can be carried out much more quickly than for composite fillings.

Because healthcare, including dentistry, is a devolved matter, the Scottish Government would be free to change the advice to dentists on the materials used in fillings, and specifically what dentists providing NHS treatment could claim for. Currently they can only claim a fee for [treatment items listed in the reformed Statement of Dental Remuneration \(Determination 1\)](#). In practice, the four UK nations work closely together through the Chief Dental Officers and the British Dental

Association on policy. That said, NHS dental services are organised differently in each of the nations.

The use of composite/resin materials in NHS dental services in Scotland

According to [NHS National Services Scotland, the health board that is responsible for paying dentists for NHS treatment](#):

- “Amalgam fillings should not normally be provided for:
 - patients under 15 years age
 - retained deciduous (first or ‘baby’) teeth
 - patients who are pregnant or breastfeeding
 - patients where there is a letter from secondary care recommending amalgam should not be used due to specific medical needs.
- If, in the clinical judgement of the dentist, resin cannot be provided for these patients, then alternative materials may be used in exceptional circumstances. The reasoning should be noted and recorded in the patient record.
- Amalgam fillings must not be used in incisors or canines.” (front teeth)

However, other than in these specified situations, amalgam is the normal restorative material to be used in most people over 15 years of age in permanent back teeth (molars) when receiving NHS treatment.

Environmental concerns over the use of mercury amalgam

Minimata Convention on Mercury

This is [a global agreement, established by the United Nations Environment Programme](#) which aims to “protect the [sic] human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds”. It entered into force in August 2017, and as of February 2021 had been ratified by 127 governments. Nine measures were proposed, including the phasing down of the use of amalgam in dentistry. However, [the convention](#) covers all sources of mercury, supply, manufacturing processes, storage emissions, waste and contamination. Part II, Article 4 paragraph 3 of the convention refers to the measures agreed to phase out dental amalgam.

The Convention has produced a [short fact sheet on mercury emissions](#).

European Union ban on the use of amalgam

[The European Parliament has voted to ban dental amalgam from 1 January 2025](#) (five years earlier than expected). This follows on from agreements reached on the Minimata Convention. On 30 May 2024, the European Council adopted a regulation

to completely ban the use of dental amalgams and to prohibit manufacturing, import and export of other mercury-added products. This is in addition to the current ban on the use of amalgam in children under 15 and pregnant or breastfeeding women.

Exceptions will apply if the use of amalgam is deemed necessary by the dental practitioner for clinical reasons relating to particular patients. The exporting of amalgam will be prohibited from 1 January 2025 and the ban on manufacturing and import into the EU will apply from 1 July 2026.

Cochrane Review of amalgam vs composite resin fillings

[The Cochrane Library, which conducts systematic reviews of research published a review, considering a comparison of direct composite resin fillings versus amalgam fillings in molars in August 2021.](#)

[The Cochrane review notes](#) that “composite resin materials may have potential for toxicity to human health and the environment”, despite them being a more aesthetic alternative to amalgam, with improved mechanical properties in recent years.

The review concludes:

“Low-certainty evidence suggests that fillings made of resin composite lead to higher failure rates and secondary caries risk than amalgam restorations. The international commitment to reducing mercury will increasingly restrict the use of amalgam fillings, but there are still many parts of the world where it is the material of choice for the restoration of posterior teeth with proximal caries. Safety data is very limited for both types of filling material, but very low-certainty evidence suggests there may be no clinically important differences in the safety profile of composite resin and amalgam dental restorations.”

Some of the materials used in composite materials might be toxic or some people might be hypersensitive to them, for example [methacrylates](#). Because the materials haven't been in use for so long as amalgam, and the formulations are under constant development, it will be some time before there is certainty about any risks.

The [main arguments set out in the WHO paper](#) in favour of phasing out the use of amalgam fillings relate to the health and environmental implications of mercury used in amalgams, which can either be released into the bloodstream of the patient, inhaled by dentists or released into the environment. The benefits of using amalgam are also given: it has been widely used for over 150 years, it is highly durable, easy to use and fillings can be done quickly (compared with composite fillings).

British Dental Association (BDA) position

Following the ban announced by the European Union, the [BDA issued an open letter to all four of the UK Chief Dental Officers](#). They are extremely concerned about the ban arguing that the additional costs of “more expensive and time-consuming alternatives is only a further blow to the financial viability of NHS dentistry”.

Parliamentary questions

[Paul Sweeney MSP asked about the use of composite fillings in a written question on 8 August 2024.](#)

Anne Jepson

Senior Researcher, Health and Social Care

August 21 2024

The purpose of this briefing is to provide a brief overview of issues raised by the petition. SPICe research specialists are not able to discuss the content of petition briefings with petitioners or other members of the public. However, if you have any comments on any petition briefing you can email us at spice@parliament.scot

Every effort is made to ensure that the information contained in petition briefings is correct at the time of publication. Readers should be aware however that these briefings are not necessarily updated or otherwise amended to reflect subsequent changes.

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Annexe C: Written submission

Scottish Government written submission, 26 September 2024

PE2115/A: Ensure NHS dental patients have the option of white composite fillings for the treatment of molar teeth

The primary focus of NHS General Dental Services in Scotland is to provide care to maintain the oral health of patients. Currently around 95% of the Scottish population are registered with an NHS dentist. It is essential that the service is able to provide an evidence based package of care that both meets the clinical demands of maintaining oral health and the Scottish Government requirement that it represents value for money. The use of white composite fillings for what would be considered aesthetic rather than oral health reasons means that continued use of dental amalgam remains an essential element to meeting these goals.

Dental amalgam is one of a small number of materials available for restoring teeth. Other materials include, but are not limited to resin composite. Dental amalgam has been used successfully for more than 150 years and has been proven to provide lasting, reliable restorations. The material is relatively cheap to provide and is simple to place, being far less technique sensitive when compared to resin composite. It is far less challenging to place than resin composite under the sub-optimal conditions that often present in patients with significant oral disease.

In 2021 the Cochrane Library undertook a systematic review of published studies which compared success rates of dental amalgam and resin composite restorations for posterior teeth. This review showed that resin composite had a 5-7 year failure rate that is twice that of dental amalgam. Resin composite restorations showed 142 failures per 1000 restorations compared with 75 failures per 1000 restorations for amalgam. The failures were in large part due to recurrence of disease. This represents a significant cost in terms of the financial burden to the public purse in addition to a much greater clinical cost to patients as composite fillings on posterior teeth would need to be replaced much more frequently.

Resin composite is considered the material of choice for restoring teeth at the front of the mouth where they perform reliably better due to the reduced functional loads involved. Additionally, the Scottish Government recognises the strong direction from the European Union in 2018 around the use of dental amalgam in specific target groups. This has led to resin composite being available to patients under 15 years of age, pregnant or breast-feeding women and those who have specific medical conditions that contraindicate the use of dental amalgam.

The Scottish Government introduced significant reform of the NHS dental sector in 2023 which aims to allow dentists to offer far more effective preventive care. The overall aim of this policy is to reduce the requirement for all restorations regardless of material used. In this way we aim to reduce the burden of oral disease along with the need to use dental amalgam.

The view of Scottish Government would therefore be that to include white fillings in all cases for aesthetic reasons in the absence of an oral health rationale would not be supported within NHS general dental services.

CPPP/S6/24/17/12

I trust this is a helpful response in the first instance.

Chief Dental Officer