

Amalgam ban may hasten NHS dentistry's demise

On 17 January the British Dental Association (BDA) warned that the European Parliament's vote to ban dental amalgam from 1 January 2025 will send shockwaves across the UK's already struggling dental services.

Silver amalgam is the most common material for NHS permanent fillings across the UK. Fillings represent around a quarter of all courses of NHS treatment delivered in England, with amalgam used in around in around a third of procedures. The BDA estimate treatment times and costs of alternative materials are over 50% higher than those of amalgam (Table 1).

On 14 July 2023, the European Commission adopted a proposal to revise the Mercury Regulation, to introduce a total phase-out of the use of dental amalgam and prohibit the manufacture and export of dental amalgam from the EU from 1 January 2025 – five years earlier than expected.

The vote will hit all four UK nations but will have a disproportionate impact on services in Northern Ireland, which has the highest proportion of filled teeth of any UK nation (Table 2). Under post Brexit arrangements, Northern Ireland will be expected to phase out dental amalgam on the same basis as EU member states. Divergence means the rest of the UK faces disruption and higher costs given the impact on supply chains, but not a formal ban.

In an open letter to all four UK Chief Dental Officers,¹ the BDA stress there are currently no alternative restorative materials that compete with amalgam on speed of placement or longevity, meaning the ban will eat into clinical time and resources that are in short supply, likely creating further access barriers. There are no indications where the millions in additional funding required will come from nor the workforce to carry out the tens of thousands of extra clinical hours.

MEPs also backed amendments stating that Member States need to 'ensure appropriate reimbursement is made available for mercury-free alternatives' to limit the socio-economic impact. The BDA say the same approach is needed from all UK Governments. The Nuffield Trust warned in December that NHS dentistry was at the most precarious moment in its 75-year history. The BDA warn that without decisive action, this ban will only hasten the service's demise.

While the BDA has long supported a phase-down in dental amalgam, it believes this rapid phase-out is neither feasible nor justifiable. Dental amalgam has been in use and extensively studied for 150 years as a restorative material. Its safety and durability are well established, and it remains the most appropriate material for a range of clinical situations. BDA Chair Eddie Crouch said: 'When we are set to lose a key weapon in the treatment of tooth decay all four UK Governments appear asleep at the wheel.

'When alternative materials can't compete, this will add new costs and new uncertainties to practices already on the brink.

'Without decisive action this could be the straw that breaks the back of NHS dentistry.'

References

 BDA. Letter from Eddie Crouch to UK Chief Dental Officers. 2024. Available at: https://www.bda.org/ media/h5ceamgl/letter-on-amalgam-to-cdos-jan-2024. pdf (accessed January 2024).

Table 1 BDA research on treatment times and costs, 2023. Figures are derived from a comprehensive research study into NHS dental treatment times. A unit price per treatment has been generated using official figures for dental expenses, courses of treatment and dentist earnings (available through NHS digital), supplemented by further BDA research

Treatment	Time taken (m)	Price
Permanent fillings – amalgam – single surface	20	£27.90
Permanent fillings – composite – single surface	27.5	£38.36
Difference	7.5	£10.46
% difference	37.5%	
Permanent fillings – amalgam – more than a single surface	28	£39.06
Permanent fillings – composites – more than a single surface	42.5	£59.28
Difference	14.5	£20.23
% difference	51.8%	

Table 2 Total number of Teeth Filled per 100,000 population by UK nations and Financial Year, From Family Practitioner Services General Dental Statistics for Northern Ireland 2022/23. In Northern Ireland's Item of Service Claims 2022/23, amalgam was used as a material in 153,000 of the 353,000 claims for permanent fillings on adults and children, or 46% of the total. While amalgam use is not centrally recorded in England, the BDA understands these represent around a third of fillings placed in England on the NHS

Year	NI	England	Wales	Scotland
2013–14	54,259	27,679	-	47,280
2014–15	52,892	27,081	27,799	44,931
2015–16	52,179	26,414	27,261	43,421
2016–17	52,228	25,617	27,196	41,614
2017–18	50,262	24,363	25,297	39,817
2018–19	49,767	23,715	25,145	38,798
2019–20	47,088	21,915	23,061	35,372
2020–21	12,924	7,593	7,172	7,953
2021–22	24,439	16,796	14,805	19,007