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Posted Date: 19 January 2026

doi: 10.20944/preprints202601.1356.v1

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Communication

When “Advances” Become Substitutes for Access: A Systems Critique of Children’s Dentistry in NHS England and the Normalisation of Extraction, Containment, and Planned Tooth Loss

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Abstract

Background: England is a high-income country with a predominantly publicly funded health system organised around the National Health Service (NHS). Yet children’s oral health outcomes continue to reflect a persistent access and prevention gap, with late presentation and hospital-based extractions remaining common.

Objective: To present a policy-facing, evidence-informed critique of how structural constraints in NHS dentistry shape paediatric clinical pathways—often converting “advances” (biological caries management, silver diamine fluoride, and planned extraction pathways for compromised permanent molars) into compensations for service failure rather than patient-centred progress.

Methods: Narrative commentary drawing on UK official statistics and major policy reports, alongside key clinical trials and evidence syntheses relevant to contemporary paediatric dentistry.

Results: The dominant failure mode is not a lack of clinical tools, but impaired delivery: restricted access to routine NHS dentistry, contract and workforce pressures, and unequal prevention coverage. These pressures correlate with crisis-led care (including extractions under general anaesthesia), and can distort how minimally invasive/biological interventions are used—functioning as endpoints rather than bridges to definitive care. In parallel, guidance for compromised first permanent molars (including those affected by MIH) risks being operationalised as an “efficiency pathway” when restorative capacity is constrained.

Conclusions: In NHS England, paediatric dental “advances” cannot be judged solely by trial efficacy; they must be evaluated within a delivery system that currently selects for late-stage, irreversible outcomes. A credible “advances” agenda requires contract reform, workforce retention, prevention at scale, and explicit safeguards against the normalisation of extraction-only trajectories.

Keywords: NHS dentistry; paediatric oral health; early childhood caries; general anaesthesia; health inequalities; Hall Technique; silver diamine fluoride; water fluoridation; MIH; dental contract; implementation

1. Introduction

England’s health system is largely “the NHS” in terms of financing and access expectations: the UK Health Accounts show government spending as the principal mode of healthcare financing, accounting for **81.3% of total healthcare expenditure in 2024** (vs **79.0% in 2019**), with out-of-pocket spending at **14.6%** in 2024. Importantly, the Health Accounts also caution that their definition is broader than “NHS spending” per se, so the figures should be interpreted as a system-financing overview rather than a direct NHS budget line-item [1].

This public-financing dominance creates a moral and political premise: a wealthy, publicly funded system should not routinely allow preventable childhood dental disease to progress to crisis care and irreversible loss. Yet children's dentistry in England increasingly exposes a mismatch between national capacity and service delivery—where “what can be done” clinically is eclipsed by “what can be reached” operationally.

A further nuance is that “NHS care” is not always delivered by NHS-owned providers. The UK government has highlighted substantial use of independent-sector providers for NHS-funded activity (e.g., **6.15 million** NHS appointments, tests and operations delivered by the independent sector in one cited annual period) [2]. This reinforces a key point: **financing and entitlement** can remain NHS-based even while **delivery** is fragmented across provider types.

In this article, “advances” in paediatric dentistry are examined through an implementation lens: when access collapses, and prevention is inconsistently delivered, clinical innovations risk being reinterpreted into system-compatible doctrines—containment instead of cure, temporisation instead of timely care, and extraction instead of rescue.

2. The Core System Defects Shaping Children's Dental Outcomes in NHS England

2.1. Access Failure: The Front Door Is Partially Closed

A primary defect is the inability of many families to secure NHS dental care at all, especially new patients. The British Dental Association (BDA) reported that **up to 97% of new patients** attempting to access NHS dentistry were unsuccessful, according to the referenced data [3]. In practical paediatric terms, this translates into missed preventive appointments, delayed disease detection, and progression from manageable lesions to painful, infected teeth requiring urgent intervention.

2.2. Contract and Workforce Dynamics: Incentives Misaligned with Prevention and Complexity

The National Audit Office (NAO) investigation into the NHS dental recovery plan describes how NHS dentistry in England is commissioned via contracts built around **Units of Dental Activity (UDAs)** and highlights ongoing structural problems in delivery and recovery planning [4]. When time-intensive paediatric prevention and behaviour support are not operationally protected, a predictable shift occurs: complex child-centred care becomes harder to provide at scale, and the system drifts toward throughput and crisis management.

2.3. The Downstream Burden: Hospital Tooth Extractions Remain Common

The Office for Health Improvement and Disparities (OHID) reports **49,112 episodes** of tooth extraction for **0–19-year-olds** in England in **2023/24**, with **30,587** attributed to tooth decay (reported as **62%**) [5]. OHID also notes tooth decay as a major driver of hospital admissions in key child age groups [5]. These are not rare, exceptional events; they are system outputs.

2.4. Inequalities: Deprivation Is Biologically Expressed as Dental Disease

England's child oral health data show a persistent social gradient. The 2024 National Dental Epidemiology Programme report for 5-year-olds indicates that children in the most deprived areas experienced **2.7 times** the prevalence of dentinal decay compared with those in the least deprived areas (reported as **32.2% vs 13.6%**) [6]. If a universal system delivers systematically different outcomes by postcode for a preventable disease, equity has become rhetorical rather than operational.

2.5. Prevention Tools Exist—But Are Not Consistently Delivered or Scaled

National prevention guidance exists (e.g., *Delivering Better Oral Health*), including routine preventive measures such as fluoride varnish and age-appropriate fluoride toothpaste

recommendations [7]. The issue is not that prevention is unknown; it is that prevention is not reliably *delivered* across populations most at risk—especially when access to routine care is itself unstable.

3. When Extraction Under General Anaesthesia Becomes “Normal”

General anaesthesia (GA) is sometimes clinically necessary in paediatric dentistry. The ethical and systems concern is different: **how often GA extraction becomes the de facto endpoint of delayed access**, rather than the last resort after early prevention and timely conservative treatment.

OHID’s extraction statistics illustrate the scale of secondary care involvement [5]. Separately, the Parliamentary briefing has noted large numbers of admissions for the extraction of decayed teeth and estimated the costs to the NHS, explicitly framing childhood dental extractions as a major public health and service issue [8].

The deeper failure is philosophical: if a wealthy system repeatedly waits until disease becomes surgically “efficient” to manage, it is not practising prevention—it is managing neglect.

4. “Restoration Doesn’t Change the Fate”: Evidence, Misinterpretation, and the Service Context

UK practice-based research and subsequent trial programmes have repeatedly raised an uncomfortable question: **does conventional restorative care, as commonly delivered in general practice settings under real-world constraints, reliably prevent pain, sepsis, and extraction?**

The NIHR FiCTION programme and related publications explicitly emerged from uncertainty in primary care caries management. In the FiCTION three-arm RCT report, dental pain and/or dental sepsis occurred across all strategies, and modelling indicated **no statistically significant differences** between trial arms for the primary outcome when comparing strategies over follow-up [9]. This finding does **not** mean “restoration is pointless.” It means that *within the system that delivered these strategies*—with its access limits, follow-up variability, and behavioural constraints—no strategy can be treated as a magical substitute for early prevention plus reliable continuity of care.

The harmful misinterpretation is to weaponise such findings into a fatalistic policy stance: “children’s primary teeth will be lost anyway, so extraction is rational.” The responsible interpretation is the opposite: when a delivery system makes outcomes converge toward failure, it is the system—access, continuity, incentives—that must be interrogated, not the child’s dentition.

5. The Hall Technique: From Pragmatic Innovation to System-Compatible Doctrine

5.1. What the Hall Technique Is (and Why It Spread)

Innes and colleagues described the Hall Technique as a simplified method using preformed metal crowns, cemented without **local anaesthesia, with no caries removal and no tooth preparation** [10]. Its behavioural and time advantages are obvious in pressured primary care.

Longer-term follow-up work reported that sealing caries using the Hall Technique outperformed “standard restorations” in that study context, with markedly lower failure rates [11].

5.2. The Uncomfortable Systems Question

The critique is not that the Hall Technique “doesn’t work.” The critique is that **systems under strain preferentially adopt interventions that minimise chair time and complexity**, thereby risking elevating those interventions into default philosophies. When access is poor and follow-up is uncertain, “seal and survive” can become a defensible clinical stance. But when a wealthy system converts a scarcity-adapted technique into its baseline offer—without simultaneously restoring access and prevention capacity—it quietly redefines “evidence-based” as “system-compatible.”

In implementation terms, this is the central danger: **efficacy becomes ideology** when the service context is allowed to collapse.

6. Silver Diamine Fluoride: A Valuable Tool That Can Become an Endpoint in a Broken Pathway

Silver diamine fluoride (SDF) is an important advance, particularly for disease control in very young children or those unable to tolerate conventional operative care. An umbrella review (Seifo et al.) reported that systematic reviews consistently supported SDF's effectiveness in arresting caries (with black staining commonly reported as an adverse effect), while also noting limitations in the evidence for some prevention indications in children [12].

The system's critique is again about *use*:

- In a functioning pathway, SDF should often be a **bridge** (pain prevention, risk reduction, stabilisation) while definitive care and sustained prevention are organised.
- In a constrained pathway, SDF risks being operationalised as **the last offer**, especially for disadvantaged children—turning an “advance” into a mechanism that absorbs pressure without fixing causes.

A wealthy system should not rely on pharmacologic arrest to compensate for the absence of access. It should use an arrest to *buy time* while making access real.

7. Water Fluoridation: Population Benefit, Evidence Nuance, and the Risk of Policy Overreach

7.1. Coverage Remains Limited

A Parliamentary POSTbrief (2024 update) states that fluoride is added via water fluoridation schemes to **approximately 10% of the population in England** [8].

7.2. Evidence Evolution: From York Caution to Contemporary Summaries

The University of York systematic review (McDonagh et al., 2000) reported that **no randomised controlled trials** of water fluoridation were found and discussed the inherent methodological challenges, including risks of bias and confounding in observational comparisons [13].

Contemporary policy summaries, however, tend to characterise fluoridation as safe and effective overall, while also noting that more recent studies may show reduced effects compared with earlier work and that evidence for inequality reduction can be less definitive depending on outcomes and contexts [8].

7.3. The Key Implementation Point

Fluoridation is a **risk modifier**, not a substitute for care. No fluoridation scheme prevents the consequences of a child who cannot access a dentist until pain forces hospital referral. The policy error is treating population prevention as a substitute for service delivery reform. The correct stance is “both/and”: scale prevention **and** restore access.

8. MIH and Compromised First Permanent Molars: Guidance, Reality, and the Danger of Normalised Permanent Tooth Loss

The Royal College of Surgeons of England guideline for the extraction of first permanent molars describes MIH, the restorative challenges of post-eruptive breakdown and sensitivity, and the need for careful planning of extraction when prognosis is poor [14]. Importantly, the guideline explicitly includes broader contextual factors, such as service **availability** and the child's capacity to receive complex care [14].

This is precisely where a systems critique becomes unavoidable. Guidance that is clinically sensible at the tooth level can become ethically distorted at the system level:

- If specialist restorative pathways are not realistically available,

- and if repeated repair cycles cannot be supported,
- Then “planned extraction” can shift from being a selectively justified option to a **default pathway**.

To be clear, the guideline does not say “extract all teeth with MIH.” The concern is how guidance is *operationalised* in constrained environments: when the system cannot maintain permanence, the child’s permanent teeth become the adjustable variable.

An “advances” agenda must therefore include service capacity for MIH-specific care pathways (risk-based prevention, restorative expertise, pain control options, and timely orthodontic assessment), otherwise “planned loss” becomes the system’s way of staying within its own limits.

9. What “Advance” Should Mean in NHS Paediatric Dentistry: Practical, System-Level Proposals

A credible advances framework for children’s dentistry in England should explicitly couple clinical tools with delivery guarantees. The following proposals focus on implementation rather than novelty:

1. **Define unacceptable endpoints and publicly track them.**
Treat multi-tooth extractions under GA for preventable caries as sentinel events, not routine throughput. Use OHID extraction indicators as outcome metrics tied to prevention and access performance [5].
2. **Rebuild the front door: access as a child health requirement.**
If 97% of new patients cannot access NHS dentistry, prevention guidance becomes aspirational rather than real [3]. Commissioning must guarantee entry points for children.
3. **Contract reform with prevention and complexity protected.**
NAO reporting underscores that the recovery plan sits on unresolved structural issues in how NHS dentistry is commissioned and delivered [4]. Any “advances” narrative that avoids contract reform is incomplete.
4. **Use biological approaches (Hall/SDF) with explicit “bridge rules.”**
Commission these as stabilisation steps with required recall, escalation thresholds, and pathways to definitive care—so they cannot become quiet endpoints [10–12].
5. **Prevention at scale: fluoridation expansion plus targeted child programmes.**
Fluoridation reaches only ~10% of England, so prevention equity needs additional delivery vehicles (supervised brushing, varnish programmes, early-years integration) while being honest about the nuance and expectations of the evidence [8,13].
6. **MIH pathways must not be a euphemism for capacity limits.**
Planned extraction should remain a carefully selected option with multidisciplinary input, not the default substitute for unavailable restorative capacity [14].

10. Conclusions

Paediatric dentistry in England does not lack clinical innovations. It lacks the consistent delivery conditions that allow innovations to function as intended. In a strained NHS dental system, “advances” can be repurposed into pressure valves: Hall crowns that become doctrine, SDF that becomes the last offer, fluoridation that becomes a political substitute for access reform, and MIH guidance that risks being operationalised as routine permanent tooth loss.

The MDPI’s “Advance in Pediatric Dentistry” is to be more than a catalogue of techniques; it must include a systems claim: **a wealthy, publicly financed health system should not normalise irreversible outcomes for children because it cannot reliably deliver early care.**

Author Contributions: Conceptualisation: Z.D.B.; Methodology: Z.D.B.; Resources: Z.D.B.; Writing—Original Draft: Z.D.B.; Writing—Review & Editing: Z.D.B.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable (commentary/narrative perspective; no new human participant data).

Informed Consent Statement: Not applicable.

Data Availability Statement: No new data were created or analysed in this study. All cited data are available in the referenced public sources.

Conflicts of Interest: The author(s) declare no conflicts of interest.

References

1. Office for National Statistics. *Healthcare Expenditure, UK Health Accounts: 2023 and 2024*. Release date: 30 April 2025.
2. Department of Health and Social Care. Millions more NHS appointments delivered thanks to independent sector. 27 March 2025.
3. British Dental Association. Dentists: 97% of new patients unable to access NHS care. 10 October 2024.
4. National Audit Office. Investigation into the NHS dental recovery plan (HC 308). 27 November 2024.
5. Office for Health Improvement and Disparities (OHID). Hospital tooth extractions of young people aged 0 to 19 years—2023/24 (updated 5 Feb 2025).
6. National Dental Epidemiology Programme for England (OHID). Oral health survey of 5-year-old children 2024—Summary of results (published 19 Dec 2024).
7. Department of Health and Social Care; Office for Health Improvement and Disparities. Delivering better oral health: an evidence-based toolkit for prevention—Summary guidance tables for dental teams. Updated 10 September 2025.
8. Parliamentary Office of Science and Technology (POST). *Water fluoridation and dental health: 2024 update (POSTbrief 63)*. 10 December 2024 (with later noted corrections).
9. NIHR Journals Library. Maguire A, et al. Best-practice prevention alone or with conventional or biological caries management for 3- to 7-year-olds: the FiCTION three-arm RCT. (Report content includes primary outcome modelling and interpretation).
10. Innes NPT, Evans DJP, Stirrups DR. The Hall Technique: a randomized controlled clinical trial... (no LA, no caries removal, no tooth preparation described). *BMC Oral Health*. 2007.
11. Innes NPT, Evans DJP, Stirrups DR. Sealing caries in primary molars: randomized controlled trial (Hall Technique long-term outcomes). *J Dent Res*. 2011.
12. Seifo N, Cassie H, Radford JR, Innes NPT. Silver diamine fluoride for managing carious lesions: an umbrella review. *BMC Oral Health*. 2019;19:145. doi:10.1186/s12903-019-0830-5.
13. McDonagh M, Whiting P, Bradley M, et al. *A Systematic Review of Public Water Fluoridation*. NHS Centre for Reviews and Dissemination, University of York; 2000. (No RCTs found; methodological constraints discussed).
14. Royal College of Surgeons of England, Faculty of Dental Surgery. *A Guideline for the Extraction of First Permanent Molars in Children*. March 2023. (MIH discussed; service availability and capacity included as planning factors).

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