

to many patients, especially in developing countries. Moreover, the accuracy of CBCT imaging for the diagnosis of subtle VRFs in endodontically treated teeth *in vivo* has been reported to be poor, which questions the excessive dependence on CBCT.^{2,3} Therefore, giving critical importance to detailed history taking, meticulous clinical and radiographical examination remain the best diagnostic aids.⁴ The authors' experience points out two major diagnostic clues that can indicate a VRF early:

1. Bifurcation radiolucency in bone in mandibular molars
2. Presence of swelling with or without a sinus opening on the lingual aspect of an endodontically treated tooth.

These signs and symptoms can be an early indication for suspecting a VRE, which should become an affirmative indication for a further CBCT assessment. Early diagnosis will allow for a decision regarding extraction if indicated, as long-standing root fracture will result in excessive bone loss, which can impede or complicate any implant options in the future. Early signs, as discussed here, indicate high chances of a VRE, and identifying and responding to early signs is a wise choice as it is better to be early than to wait until it is too late.

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Restorative dentistry

Indirect adhesive controversies

Sir, I read with interest the recent well-reported and discussed review paper by O'Connor and Gavriil that addressed factors that increase the success of bonding of adhesive indirect restorations.¹

Diverse clinical restorative scenarios are solved with adhesive indirect restorations, a practice that is becoming more common. Thus, dental professionals are expected to

understand their mechanism of action to maximise predictability and excellent clinical performance.

Nonetheless, I intend to draw attention to controversial points raised when bonding indirect restorations preclude solid clinical recommendations. For instance, to adhesively cement indirect composites, precious alloys, or polycrystalline ceramics, there is not a single established protocol considered superior. More specifically, indirect composites' bonding options range from air-particle abrasion alone; air-particle abrasion with silanisation; and tribochemical coating with silanisation.

In conclusion, there are controversies in adhesive cementation of different indirect restorations that I hope become less blurry soon as biomaterial science advances to deliver long-lasting, biocompatible restorative materials.

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Public institutions

Reading suggestions

Sir, institutions and holders of high office including the BDA and OCDO have extended their traditional warm congratulations to the incoming GDC Chair, Baron Harris of Haringey (Lord Toby Harris). Such gestures are professional and proper. However, we would like to offer something potentially more substantive for the public and wider profession: some reading suggestions.

The first is *Black box thinking* by Matthew Syed, who advocates that after things have gone wrong, genuine change can only occur through a process of open learning.¹ Syed explains how over successive decades, diverse industries have benefitted from such a culture, dramatically improving their safety and performance (notably in aviation).

Our public institutions on occasion appear to react as if the nation would benefit without those healthcare professionals (HCPs) who persevere despite suboptimal working environments. The treatment of Dr Bawa-Garba creates the perception that UK regulatory/legal framework

adjudicates individual HCPs' performance as if supposedly working in an idyllic environment, with unlimited resources, where everything works, communication errors do not happen and staff are never unwell. Dr Bawa-Garba is a medical doctor. However, for those who work in any field of healthcare (including dentistry), that a single HCP can be censured for system-wide failings is both intimidating and discouraging.

The second is not a book but an inspirational interview with the late Nobel laureate physicist Professor Richard Feynman.² Even for those with no interest in physics, Feynman elegantly demonstrates the beneficial intellectual discovery when an enquiring mind continues to ask: 'Why?' It would appear our current healthcare regulatory mechanisms neglect to embrace this enquiring thought process, and accordingly, fail to discover the fundamental causes which are necessary to understand for developing genuine and beneficial change.

A healthcare regulator seeking genuine change in the safety and performance of all stakeholders requires its leadership to acknowledge organisational failings and that resource limitations genuinely do exist. Limitations and failings upon which, no matter how devoted or capable the individual HCP is, they have little or no influence. Syed observes that genuine progress fails to occur when individuals are considered solely to blame for endemic systems failings. Feynman simply asks why? Dentistry would do well to learn from both.

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Oral health

Oral rinse digestif

Sir, recently I was invited to a dinner party hosted by a well-trained chef and sommelier. After several courses of fine food and wine, an impromptu double-blind trial took place with all guests and the sommelier taking part as participants to compare Fernet-Branca (a famous Italian herbal digestif with many