

Remote control

Shaun Sellars continues his series on ethical dilemmas in dentistry which appears in every second issue of the *BDJ*.



While dentists have been aware of problems for some time, it has taken until now for the issues with direct-to-consumer orthodontic treatment to make headline news.¹ Offering reduced costs with no need to see a dentist in person and the promise of speedy treatment, this sector of teledentistry has seen an explosion in start-ups in recent years. Products are heavily promoted via social media, expensive television spots and often through pop-up shops showcasing a high-tech, futuristic way to access a new smile. And it's big business, with the larger companies worth millions and often employing strong-arm legal tactics to silence dissenters.

Dentists are rightly alarmed about this dentist-free approach to orthodontics. While the providers will claim that registered professionals supervise plans, the lack of personal contact and limited recourse should problems occur is concerning. And problems do occur, with reports of extended treatment times, poor results and people having to seek further orthodontic treatment easy to find online.

This situation has arisen due to the ongoing convergence of two factors – the rise in accessibility of non-healthcare

dentistry and improvements in artificial intelligence (AI) and computer-aided treatment planning. And future developments in the AI sector will influence dentistry on an ongoing basis. We already have AI-based applications to aid in note-taking, simulators to help teach new skills and software that claims to assist in diagnosing pathology from radiographs. While, for the most part, the tech is not yet fully mature, we can expect this to change in the coming years. As a profession, we must learn to embrace these developments and safely direct their use to benefit patients.

The new kid on the block of AI is ChatGPT.² This online tool can conduct lifelike conversations with users and carry out tasks such as writing essays and answering exam questions. While the answers to dental questions are currently rudimentary, they are easy to understand and generally give good basic information. With continued fine-tuning, tools such as this could prove an asset to patient information and provide a first port of call for patients enquiring about our available services. Combined with a 3D scan of the teeth, similar software could even provide patient-specific oral hygiene advice.

But why stop there? The technology to scan teeth is already readily available, and

virtual and augmented reality headsets are becoming increasingly accessible. We can 3D print models; some even use similar products to manufacture restorations. Future development of simulation and diagnostic software could overlay cavity and crown preparation designs directly onto the view from our loupes, for example. Or imagine being shown the best way to access a challenging canal or being able to visualise a buried root before picking up an instrument.

We may not be there yet, but we're not far away. The future of dentistry involves embracing practice-changing technology to improve the predictability of treatment and achieve better patient outcomes. All of this leaves dentists able to see more patients and positively affect more lives.

References

1. Bubalo M. Dentists warn of permanent damage from clear braces ordered online. 2023. Available at <https://www.bbc.co.uk/news/uk-58038752> (accessed February 2023).
2. OpenAI. ChatGPT. 2022. Available at <https://openai.com/blog/chatgpt/> (accessed February 2023).

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New Drug Prescribing for Dentistry website replaces app

The Scottish Dental Clinical Effectiveness Programme (SDCEP) has launched a new Drug Prescribing for Dentistry mobile-enabled website for users in the UK. The new website should now be used instead of the Dental Prescribing app.

The Dental Prescribing smartphone app was introduced in 2012 as a handy way of accessing information within the SDCEP 'Drug Prescribing for Dentistry' guidance. With developments in technology and a significant evolution in the ways that users access digital information, the app has now reached the end of its useful life. Therefore, the Dental Prescribing app

has been withdrawn and replaced with a mobile-enabled website, developed with NHS Education for Scotland Technology Service.

The new website provides the same content as the app with similar functionality



and has the advantage that it can be viewed on both mobile devices and desktop computers. Accessing content requires an internet connection and, as the content is based on the British National Formulary (BNF), is restricted to users in the UK.

All Dental Prescribing app users should now use the new Drug Prescribing for Dentistry website: <https://www.sdcedentalprescribing.nhs.scot/>. The app is no longer supported or updated and should be deleted from all devices.

The SDCEP website provides further information: <https://www.sdcep.org.uk/>.

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