EDITORIAL

Is 'return to better' possible for dental research?

Jan Clarkson and Helen Worthington

The BDI Upfront section includes editorials, letters, news, book reviews and interviews. Please direct your correspondence to the News Editor, Kate Quinlan at k.quinlan@nature.com. Press releases or articles may be edited, and should include a colour photograph if possible.

The experience of COVID-19 clearly demonstrates that high-quality trials can be delivered in an agile way and that global collaboration delivers speedier and more generalisable results.

The rapid translation of COVID-19-related evidence into practice is visible by changes in the behaviour of the public, patients and healthcare professionals. Supported by policy, a complex system change has been achieved indicating evidence can be translated at speed and at scale. At the start of the pandemic, rapid global collaboration informed the safe delivery of dental services and current COVID-19 research is constantly monitored to update clinical recommendations rapidly.¹ If we can react quickly and implement during a pandemic, is it a possibility going forward?

The pursuit of evidence-based practice was advocated three decades ago, however, the lack of high-quality evidence from dental primary care has been a barrier to change. Since the start of the NHS six-monthly check-ups with a scale and polish have been customary for many patients but during COVID-19 recall intervals have been extended and routine scale and polishes not provided. As early as 2002 the Department of Health's 'NHS Dentistry: Options for Change' introduced a novel approach to oral health assessment and review. In 2004, the NICE recall guideline recommended a variable risk-based interval between check-ups acknowledging it was based on limited evidence and inter-linked with routine scale and polish treatment. The National Institute of Health Research (NIHR) then commissioned research to address the evidence gap. We were given the opportunity to conduct two large-scale clinical trials in general dental practice both published in this issue. The INTERVAL and IQuaD trials evaluated the clinical and cost-effectiveness of a variable risk-based recall interval and the frequency of routine scale and polish. They were the first randomised controlled trials in general dental practice to be awarded such significant

funding worldwide. Research of this scale had not been attempted before. It required courage, adaptability, collaboration and trust. Publishing the trials together in the *British Dental Journal* is to acknowledge the achievement of 110 UK dental practices and over 4,000 of their adult NHS patients who participated.

The lack of evidence to support routine and costly aspects of NHS dental care was a surprise for many. IQuaD and INTERVAL's research questions have been answered using robust methodology and have taken considerable time in contrast to some COVID-19 research. It has taken several years to confirm that regularly attending adult patients are not harmed by dentists offering a variable risk-based recall. Many would consider this an obvious finding, only confirming their ability

The future of research in dental primary care is exciting and the BDA have been involved from the outset with two NIHR trials of minimal interventions for caries.^{2,3} We have demonstrated that with collaboration and partnerships important clinical questions can be answered. The way forward, however, needs to embrace what has been demonstrated during the last year. We need to be more agile to enable high quality research to be generated in the NHS more quickly and extend collaboration globally. We are all in this together, managing preventable diseases that incur substantial scarce healthcare resources and are responsible for a considerable burden on global health. Public participation in clinical trials during COVID-19 reflects our experience in dentistry. To realise the potential

'It required courage, adaptability, collaboration and trust'

to assess risk. The clinical findings of IQuaD may be no surprise either, however, the value patients place on scale and polish and oral health advice need to be considered in any attempts to redesign services. For research to inform policy, earlier than the expected 17 years, a synthesis with existing global evidence is required. Therefore, data were provided from these two trials, whilst writing the monographs for the funder, to update the relevant Cochrane reviews.

The purpose of NIHR funding is to generate evidence to inform policy, clinicians and patients. INTERVAL and IQuaD may provide reassurance for low-risk patients of delays in access to routine dental care. Unless they are considered in the current debate and design of a 'return to better' for NHS dentistry after COVID-19, they will constitute only academic achievement and an example of research waste.

for efficient research in primary care there needs to be a national debate involving the public, patients, profession, policymakers and funders. We have demonstrated that researchers can be agile when faced with the challenge of a pandemic. Join us in the 'return to better' for research. ■

References

1. SDCEP. Mitigation of Aerosol Generating Procedures in Dentistry - A Rapid Review. 2021. Available at <https://www.sdcep.org.uk/wp-content/uploads/2021/01/SDCEP-Mitigation-of-AGPs-in-Dentistry-Rapid-Review-v1.1.pdf> (accessed February 2021).
2. NIHR. Research Award: Selective Caries Removal in Permanent Teeth (SCRIPT). Available at <https://fundingawards.nihr.ac.uk/award/17/127/07> (accessed February 2021).
3. NIHR. Research Award: Pulpotomy for the management of irreversible pulpitis in mature teeth (Pulpotomy for Irreversible Pulpitis - PIP Trial). Available at <https://fundingawards.nihr.ac.uk/award/NIHR129230> (accessed February 2021).

<https://doi.org/10.1038/s41415-021-2720-x>