

Undiagnosed diabetes: what can we do?

The prevalence of potentially undiagnosed type II diabetes in patients with chronic periodontitis attending a general dental practice in London – a feasibility study. *Br Dent J* 2021; <https://doi.org/10.1038/s41415-021-3223-5>

A shocking one in four people with type II diabetes in the UK are currently undiagnosed. Type II diabetes is one of the top ten causes of death globally, with this partly due to the large proportion of people undiagnosed and so not accessing treatment. Diabetes impacts many areas of the body, from head to toe. As dental professionals, we are well aware of the bidirectional link between periodontal disease and diabetes. We are also in a unique position in that we see patients regularly and consistently to screen for disease such as caries and periodontal disease. Could we also have a key role to play in identifying those patients with undiagnosed diabetes?

This study proposes an effective method of type II diabetes risk screening that can successfully be used in general dental practice, with good acceptability by both patients and dental professionals.

The Finnish Diabetes Risk Score (FINDRISC) questionnaire was completed by 40 patients with chronic periodontitis attending for routine check-up at an NHS general dental practice in North London. In total, around 15 minutes extra per patient was required, but the authors offer solutions for reducing this. The questionnaire asked for information on risk factors for type II diabetes, such as amount of daily physical activity, diet and family history. If they had a high risk factor

score on the questionnaire (>10), then the patient was told about their increased risk of having type II diabetes and referred to their general medical practitioner (GMP) for testing.

Of the 19 patients who were referred, 79% (n = 15) of these patients did follow up with their GMP. Of these, a huge 60% (n = 9) were diagnosed with prediabetes and 13% (n = 2) were diagnosed with type II diabetes. It can be inferred that without the dental visit, it is unlikely that these patients would have been aware of their diagnosis or at least would not have been tested as quickly. This has clear implications for improving the future general health of those patients diagnosed with prediabetes and diabetes, and of course, a likely improvement in their periodontal health.

In summary, this study demonstrated the successful use of a type II diabetes risk screening tool at a general dental practice, which has the potential to be of great benefit to our patients. With the prevalence of type II diabetes set to rise, it is clear that our role as dental professionals will continue to expand beyond the mouth, with promising evidence that we are in prime position to help identify undiagnosed type II diabetes.

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Goh *et al.* undertook a study to assess aspects of the feasibility of the use of a simple questionnaire together with estimation of Body Mass Index (BMI) to identify undiagnosed type II diabetes mellitus (DM) in adult patients with chronic periodontitis attending a primary dental care setting in the UK. However, for this setting to become a possible screening site for common but clinically significant diseases (eg dementia), allied lifestyles (eg tobacco and/or alcohol usage) or unknown important infections (eg HIV or HCV), consideration needs to be given to training staff, the need for additional time, appropriate facilities and establishing effective liaison with the next-in-line clinicians. Furthermore, patients need to be provided with good reasons to participate in such interventions.

With the advent of the COVID-19 pandemic, it is likely that the attitudes of patients towards acceptance of interventions in previously unused settings is likely to have changed. For example, until recently, all patients were asked a series of questions about

their risk of COVID-19 infection. It did take extra time, but it is unlikely that many patients were averse to such questioning – as they realised it was for the benefit of themselves and others. Thus, there is no notable reason as to why such actions cannot be converted into screening for common non-communicable disease.

Significant change in any public-funded healthcare system rightly requires strong evidence, and the present study is a starting point that must be followed up by the present and other researchers. The findings must not fall by the wayside, hence Goh and others should work to secure appropriate funding to confirm that it is indeed feasible to run such studies in a general practice setting, and then establish that such an intervention is clinically and economically beneficial to patients and the healthcare system.¹ Nevertheless, within all of this, there is an underlying concern – many vulnerable individuals have utterly no access to oral healthcare services; therefore, steps need to be taken by electors and governmental bodies to ensure that public funds are directed towards reducing vulnerability. The COVID-19 pandemic has highlighted the dreadful impact of vulnerability upon life – it's time to sort this, as well as enhance the opportunities of oral healthcare delivery.² ■

References

1. National Institute for Health Research. Guidance on applying for feasibility studies. 2021. Available at <https://www.nihr.ac.uk/documents/nihr-research-for-patient-benefit-rfpb-programme-guidance-on-applying-for-feasibility-studies/20474> (accessed September 2021).
2. Watt R. COVID-19 is an opportunity for reform in dentistry. *Lancet* 2021; **396**: 462.