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MELBOURNE

iDENTify

Identification of type 2 diabetes & pre-diabetes in the oral healthcare setting

INFORMATION FOR GENERAL MEDICAL PRACTITIONERS

Diabetes And Oral Health

Type 2 Diabetes is a common chronic disease in Australia, with an estimated one in four adults aged 25 years or over having either diabetes or a condition known as pre-diabetes (impaired glucose metabolism)¹. The hyperglycemia associated with diabetes is responsible for the chronic complications of diabetes, including retinopathy, neuropathy, nephropathy, cardiovascular complications (coronary arterial disease, stroke and peripheral vascular disease) and delayed wound healing².

Oral health is integral to an individual's overall health and quality of life. Diabetes has been associated with a number of oral complications including gum disease (periodontal disease), dry mouth, Candida infection, neuropathic changes (burning mouth syndrome), altered taste sensation, altered tooth eruption, and hypertrophy of the parotid salivary glands³.

Substantial research has focused on the relationship between diabetes and gum disease. Studies have demonstrated that the severity and extent of gum disease is greater in people with diabetes. Research suggests that the relationship between diabetes and gum disease is two-way, in that gum disease adversely affects glycemic control thus contributing to the development and progression of diabetic complications such as renal disease and cardiovascular disease⁴. Intervention studies have demonstrated that treatment of gum disease may improve metabolic control, resulting in improved overall health outcomes for people with diabetes⁵.

Despite this two-way relationship between oral health and diabetes, oral health is frequently overlooked in most diabetes management programs, education sessions and complication screening processes. Research also shows adults with diabetes have a low level of knowledge of the bidirectional link between diabetes and oral health, are often unaware of the need for stringent oral self-care and attend oral health professionals less than people without diabetes⁶.

The role of the medical professional includes discussing why it is important for people with diabetes to maintain a healthy mouth, and treat gum disease when it is present. They should emphasise the importance of oral self-care and that regular oral healthcare visits are a part of comprehensive diabetes management. Medical professionals can screen for the signs and symptoms of gum disease by asking about symptoms and performing a visual assessment of the mouth⁷.

Communication between medical and oral health professionals is essential to exchange important information about a patients' medical history, level of metabolic control and presence of other complications and co-morbidities. It is only through effective communication and collaboration between healthcare professionals that optimal health outcomes can be achieved for people with diabetes.

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1. Twigg S, Kamp M, Davis T, et al. Prediabetes: a position statement from the Australian Diabetes Society and Australian Diabetes Educators Association. *Med J Aust* 2007;186:461–65
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5. Simpson T, Needleman I, Wild S, et al. Treatment of periodontal disease for glycaemic control in people with diabetes. *Cochrane Database SystRev*. 2010;5:CD004714.
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7. Albert DA, Ward A, Allweiss P, et al. Diabetes and oral disease: implications for health professionals. *Annals of the New York Academy of Sciences*. 2012;1255:1-15.

Any questions or to join now:

If you have any questions about this study or would like additional information contact:

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Please also visit the study website:

<https://identify-diabetes.org/>

Funding:

This project is funded by an unrestricted grant from Colgate-Palmolive Pty Ltd.

Feedback and study results:

A summary of the study results will be available for you via email at the completion of the study. Please indicate on the consent form if you would like to receive feedback on the outcomes on the study.

Melbourne Dental School in partnership with:

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For further information:

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INFORMATION FOR ORAL HEALTH PROFESSIONALS

Diabetes And Oral Health

Type 2 Diabetes is a common chronic disease in Australia, with an estimated one in four adults aged 25 years or over having either diabetes or a condition known as pre-diabetes (impaired glucose metabolism)¹. The hyperglycemia associated with diabetes is responsible for the chronic complications of diabetes, including retinopathy, neuropathy, nephropathy, cardiovascular complications (coronary arterial disease, stroke and peripheral vascular disease) and delayed wound healing².

Oral health is integral to an individual's overall health and quality of life. Diabetes has been associated with a number of oral complications including periodontal disease, xerostomia, Candida infection, burning mouth syndrome, altered taste sensation, altered tooth eruption, and hypertrophy of the parotid glands³.

Substantial research has focused on the relationship between diabetes and periodontal disease. Studies have demonstrated that the severity and extent of periodontitis is greater in people with diabetes. Research suggests that the relationship between diabetes and periodontal disease is two-way, in that periodontal disease adversely affects blood glucose control thus contributing to the development and progression of diabetic complications such as kidney disease and cardiovascular disease⁴. Intervention studies have demonstrated that treatment of periodontal disease may improve metabolic control, resulting in improved overall health outcomes for people with diabetes⁵.

Despite this two-way relationship between oral health and diabetes, oral health is frequently overlooked in most diabetes management programs, education sessions and complication screening processes. Research also shows adults with diabetes have a low level of knowledge of the bidirectional link between diabetes and oral health, were often unaware of the

need for stringent oral self-care and attended oral health professionals less than people without diabetes⁶.

Oral health professionals must be familiar with the oral manifestations of diabetes. They must inform their patients about the two-way link between oral health and diabetes and emphasise how maintaining good oral health may positively impact their general health.

Oral health professionals also have an important role in addressing the common risk factors for chronic diseases such as smoking, diet, inactivity and excessive weight by promoting lifestyle changes and good oral and overall health behaviors.

Oral health professionals are an essential member of the team of healthcare professionals that provide the self-management support and treatment for people with diabetes. As such, they must communicate and collaborate with other healthcare professionals to achieve the optimal health outcomes for their patients.

References:

1. Twigg S, Kamp M, Davis T, et al. Prediabetes: a position statement from the Australian Diabetes Society and Australian Diabetes Educators Association. *Med J Aust* 2007;186:461–65
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