

Cardiovascular disease and oral health pilot study at the University of Sydney



The challenge

Thirty percent of Australians who experienced a myocardial infarction did not display any traditional risk factors. With poor oral health identified as a key risk factor for cardiovascular disease, researchers at the University of Sydney are exploring the efficacy of oral health therapies as a means of treating and potentially preventing otherwise unforeseen cardiovascular disease. Research by the Australian Institute for Health and Welfare found that 44 percent of individuals aged 55 to 74 suffered from moderate to severe periodontitis, or gum disease. Defined as the inflammation of the tissue around the teeth, periodontitis has been identified as a risk factor for cardiovascular disease, and may be a sign of more systemic inflammation in the body.

Our approach

Co-designed by Professor Clara Chow and Professor Joerg Eberhard, this four-year pilot project will recruit individuals who have experienced, or who are at high-risk of, a myocardial infarction, to take part in a pilot oral health study.

Participants will be recruited from within the Western Sydney Local Health District (WSLHD) and will receive interventional oral health therapy, in the form of dental therapy and anti-inflammatory medicines. Following the therapy, patient cardiovascular health levels will be monitored and incidences of myocardial infarction will be recorded, to better understand the impact of oral health interventions on cardiovascular health.

The project will be broken down into three-main phases as follows:

Phase 1 (0-6 months): Set up the study

Phase 2 (6-36 months): Run pilot study, write up meta-analysis, apply for larger study funding and additional resources

Phase 3 (36-48 months): Follow up, data analysis, promotion of study findings.

Why the University of Sydney?

The University of Sydney is the ideal institution to take this project forward. The University of Sydney School of Dentistry has more than 100 years' experience providing education and training in dentistry and oral health. The School has strong links with the Sydney Dental Hospital, Nepean Hospital and the Westmead Centre for Oral Health. The existing collaboration with the Westmead Centre for Oral Health means the School is ideally positioned to recruit and treat members of the Western Sydney population.

Thank you

This exciting pilot project holds the potential to improve diagnosis and treatment of cardiovascular disease. Moreover, it will provide an evidence base for the efficacy of oral health therapy as an adjunct cardiovascular disease treatment, findings which will help to inform future larger-scale studies on the topic.

For more information

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