

# 5<sup>th</sup> World Congress on **Diabetes & Metabolism**

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## The 'Value' of innovative technologies for diabetes treatment and management: Insulin pumps and continuous glucose monitoring systems

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Over 1 million Australians have diabetes, which accounts for around 4% of the Australian population. Diabetes places a large economic burden on the Australian healthcare system in terms of expenditure on hospitalisations, medications, diagnostic services and other out-of-hospital medical care. Non-healthcare and indirect costs borne by governments, private health insurers and individuals with diabetes also are substantial.

Insulin pump therapy is currently the only treatment type that replicates normal insulin secretion by a healthy pancreas, which is especially important for individuals with type 1 diabetes, for which insulin therapy is necessary for their survival. Recent studies have shown insulin pump therapy to be more beneficial and cost-effective in comparison to other insulin therapy.

Insulin pumps can be linked to continuous glucose monitoring (CGM) systems, which are also known as sensor-augmented pumps. The use of insulin pumps linked to CGMs for diabetes treatment and management has great potential to improve patient compliance and quality of life, and provide better health outcomes for individuals with diabetes. It is particularly beneficial for individuals with diabetes living in rural and remote locations.

Accessibility to technologies such as insulin pumps with CGM capabilities is particularly important for a country like Australia – where the prevalence of diabetes is significantly higher in rural and remote regions. Furthermore, remote and self-management patient care capabilities of insulin pump therapy can bring substantial cost savings for the healthcare system by reducing the incidence and severity of diabetes-related complications.

### Biography

Alessandra Doolan is the Health Outcomes Policy Manager at the Medical Technology Association of Australia (MTAA). She has worked in clinical research, clinical trials and quality management. Alessandra obtained her PhD at the Centenary Institute, University of Sydney and has been involved in different areas of clinical research including diabetes, cardiovascular disease, cancer and immunology. Since joining MTAA, Alessandra has worked on the Value of Technology (VOT) project. The VOT project was established to improve the understanding of the impact of advances in medical technology on healthcare expenditure in Australia, and the associated benefits for the Australian healthcare system and community. The VOT research provides evidence-based support for a range of technologies that might not have strong Australian evidence to date and/or lack funding. Alessandra is currently finishing a Masters of Public Health at the University of Sydney (finishing mid 2014), majoring in Health Economics and Outcomes Policy. She is a member of the Australian Health Economics Society (AHES) and the International Health Economics Association (IHEA).

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