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Media Statement

RESEARCH EVENT TOLD WA PLAYS ROLE IN MAJOR DIABETES BREAKTHROUGH

A World Diabetes Day seminar held by WA's peak diabetes funding group has been told West Australians with type 1 diabetes should be able to get their hands on the first artificial pancreas systems within two years.

Princess Margaret Hospital paediatric endocrinologist Martin de Bock also told audience members at Diabetes Research WA's forum that WA had played a significant part in progressing the technology.

Also called the closed-loop system, the artificial pancreas is a device, or series of devices, that can be combined to automatically give the correct amount of insulin in response to food intake and rising blood sugar levels.

"For people with type 1 diabetes, a closed loop artificial pancreas system is a game-changer that paves the way for living a life of greater freedom so it's incredible that research is about to deliver such a big breakthrough," said Diabetes Research WA executive director Sherl Westlund.

Dr de Bock said while fully automated artificial pancreas systems were still some time away because a faster-acting insulin needed to be developed, a hybrid closed loop system was close.

"Commercialisation is underway with the Medtronic 670G recently gaining approval for use in the US, meaning it's probably about one or two years away from Australian patients being able to use it. It is likely that several other insulin pump companies will follow soon after with their own closed loop systems," he said.

"It's a big step forward – a paradigm shift in how we manage and approach insulin therapy - and it's progress that, excitingly, WA research has played a sizeable role in.

"We've conducted several inpatient and now brief outpatient trials using closed loop technologies that are now part of the Medtronic 670G system and our results and feedback with industry has directly influenced the design of the final product, not only of the algorithm used, but also the menu systems and how the pump looks, much like getting consumer feedback on a new iPhone.

"In 2017 we will embark on an Australia wide study using the Medtronic hybrid closed loop system, looking at many outcome measures from glucose levels to quality of life and health economics."

Perth father-of-two John Baines, who has type 1 diabetes, said he was really excited by the progress.

"I've recently started using continuous glucose monitoring sensors with my Medtronic 670G pump and have achieved a measureable improvement in my blood sugar levels both on a daily basis and long term which is amazing," he said.

"Closing the loop to automatically control my insulin is the next step I'm really looking forward to because I can see will make it easier to manage my blood sugar levels and, importantly for me and my family, it should also reduce the risk of me developing long term health complications."

World Diabetes Day is on November 14.