LEADING THE FUTURE IN DIABETICS CARE

Prof. Dr. Wan Mohd Azizi Bin Wan Sulaimani

Vice Chancellor,
PICOMS International University College

WHAT IS THE CONCEPT OF PERSONALISED CARE FOR DIABETIC PATIENTS? HOW DOES AI HELP TO PREVENT DIABETES COMPLICATION, IN PARTICULAR, RENAL FAILURE MANAGEMENT?

Artificial intelligence and diabetes: two topics that are very close to my heart. Taking this opportunity, I've decided to share with the audiences the many fascinating ways AI is helping the medical world gain ground in the fight against the chronic diseases.

As the world suffering with increasing diabetes trend and in conjunction World Diabetes Day on14th November, is estimated that 415 million people in the world suffer from diabetes. The predicted increase in this number is estimated at approximately 642 million by 2040.In 2019, an estimated 1.5 million deaths were directly caused by diabetes. Nevertheless, diabetes can be treated and its consequences can be avoided or delayed with diet, physical activity, medication and regular screening and treatment for complications.

Need for personalized advice

People living with diabetes need to make decisions about their treatment multiple times per day. But the doctors are not available 24/7 to dispel any doubts: a typical visit to a diabetologist is 15 minutes once every 3 months. Websites, books, patient support groups give only general suggestions. Modern medical devices can collect data, show patterns, and suggest next steps, but have an important limitation: The current systems are not personalized – they do not adjust to individual variations in insulin requirements. It may cause uncertainty and frustration.

> *The current systems are not personalized – they do not adjust to individual variations in insulin requirements. It may cause uncertainty and frustration.*
>
> *– Prof. Dr. Wan Mohd Azizi Bin Wan Sulaimani*

Join our Upcoming Webinar

FUTURE OF HEALTHCARE

on Wed, 21/4/2021,
2pm – 4:30pm (GMT+8)

https://myfinb.com/future-of-healthcare

Diabetes Self-management

Diabetes self-management is crucial in treating the disease. Thanks to AI, patients are now empowered to self-manage their condition, using personal data to adapt their lifestyle and essentially act as an at-home physician.

Artificial intelligence enables patients to decide what to eat or drink as much as what level of physical activity is appropriate.

Complications Monitoring

Diabetes can lead to several common complications, including vascular pathologies (presenting as strokes, blood clots, or arterial disease) and peripheral neuropathies (presenting as weakness, numbness, and pain, often in the hands and feet).

Much like we saw in point one with Diabetic Nephropathy and Retinopathy diagnosis, machine learning can help spot and monitor other issues.
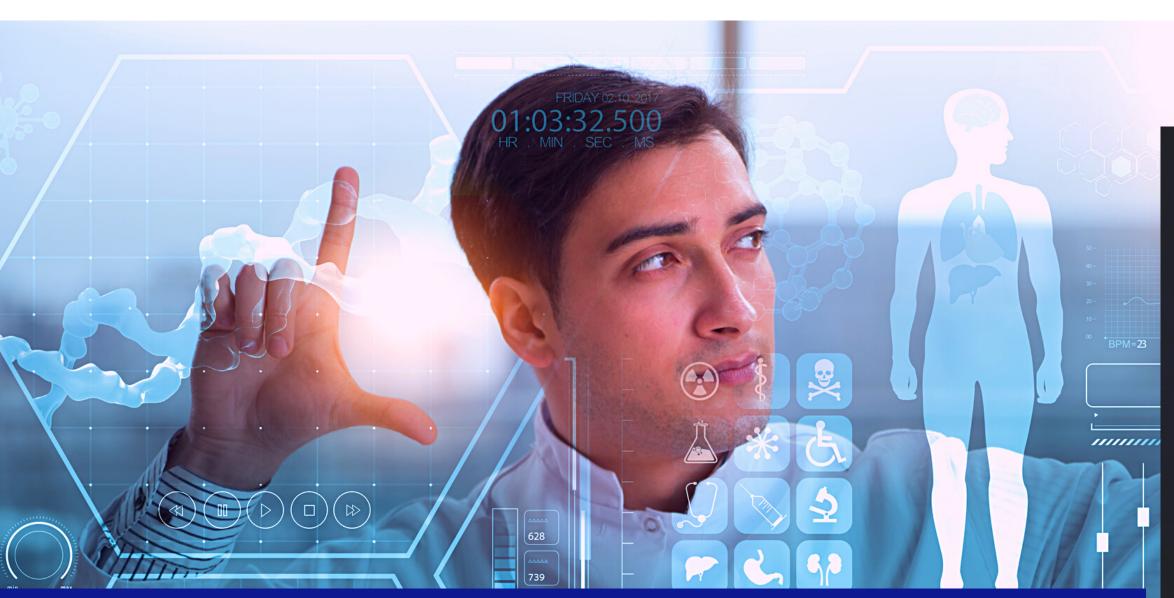
Artificial intelligence (AI) is a fast-growing field and its applications to diabetes, a global pandemic, can reform the approach to diagnosis and management of this chronic condition. Principles of machine learning have been used to build algorithms to support predictive models for the risk of developing diabetes or its consequent complications.

Patients are increasingly being empowered for self-management of diabetes, and both patients and health care professionals are benefitting from clinical decision support. AI allows a continuous and burden-free remote monitoring of the patient's symptoms and biomarkers. AI will introduce a paradigm shift in diabetes care from conventional management strategies to building targeted data-driven precision care.

At PICOMS, we have initiated the AI development for dialysis patients to cater the needs for comprehensive treatment regime during the dialysis, but more importantly post dialysis monitoring and self home monitoring.

> "It is our ambition to become a key global player in the area of "smart" AI solutions which learn from one's data to give personalized treatment suggestions especially managing Chronic Renal failure patients.
>
> – Prof. Dr. Wan Mohd Azizi Bin Wan Sulaimani

FRIDAY 02.10.2017
01:03:32.500
HR   MIN   SEC   MS

628
739