

Innovative ideas in Medical Technology

A tool to tailor care for type 2 diabetes

Societal challenge

Type 2 diabetes is a global epidemic and increases the risk of cardiovascular morbidity and mortality, bearing a large impact on quality of life and high economic burden. Current diabetes care is based on a more or less one-size-fits-all approach, ignoring the differences between persons in cardiovascular risk. With the growing prevalence of diabetes, a huge health care problem arises.

Suggested solution

A tailored treatment approach based on an accurate assessment of patients, risk of future complications based on patients, personal risk profile and identification of the most optimal treatment strategy.

A tool to tailor care for type 2 diabetes mellitus

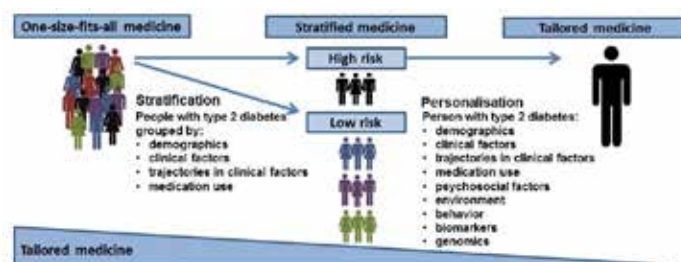


Figure 1. Steps to tailored medicine

Making efficient use of all available information, persons with type 2 diabetes at higher and lower risk of complications can be identified. More detailed information will lead to smaller subgroups of persons based on their cardiovascular risk, with the ultimate goal to identify the best treatment for each individual with type 2 diabetes.

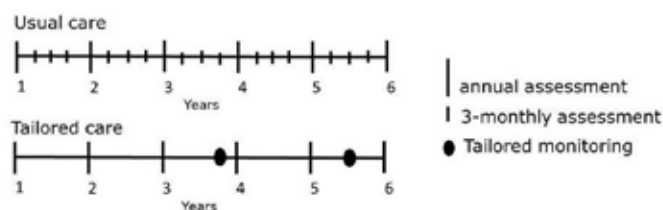


Figure 2. Transition from usual care to tailored care

Based on persons' risk of developing a complication, an appropriate monitoring interval can be determined. In patients at low risk for a complication, monitoring between the annual assessments may be omitted, while in patients at higher risk for a complication, monitoring of risk factors can be performed more frequently, allowing for additional measurements and timely medical intervention.

Amber van der Heijden is a postdoctoral researcher with a focus on the use of advanced statistical methods to facilitate a more cost-effective care for persons with type 2 diabetes. She has expertise in longitudinal data analysis and prediction and simulation modelling techniques.

