

Implementing High Value Care in Europe

Outpatient chronic care clinic

Diabeter

Context

Acquired in 2015 by Medtronic, Diabeter is a Dutch group of certified clinics that specialise in providing comprehensive and individualised care for children and young adults with type 1 diabetes. This acquisition marks Medtronic's first entry into an integrated care model focused on diabetes. This strategy offers more than pumps and sensors, but rather a holistic diabetes management solution focused on patient outcomes and costs¹. In 2019, Diabeter cared for more than 2,400 patients in their five locations across the Netherlands. The Diabeter outpatient care model includes four visits per year, virtual consultations, clinical and administrative staff services, a 24-hour medical hotline, lab costs, data platform and sensor equipment. Diabeter operates as part of Medtronic, but maintains its professional autonomy and independence in clinical decision making, therapy and brand choice, to ensure that patient care and patient data remain in the hands of clinicians.

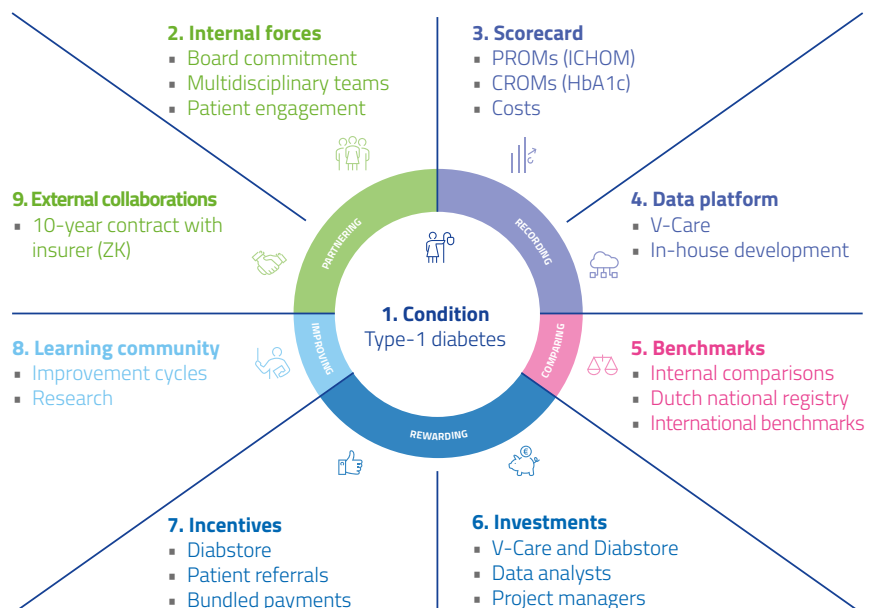


Achievements

The key outcome measure for type 1 diabetes is glycemic control (HbA1c levels). Above a threshold of 7.5% correlates with an increase in avoidable death. At Diabeter, 55% of pediatric patients are below this threshold, compared to only 28% of the Dutch paediatric population. Diabeter also has 3% hospitalisation rates versus an average of 8% in the Netherlands. Diabeter has achieved these results without increasing costs.

Implementation

Diabeter achieved superior outcomes through the rigorous pursuit of outcome measurement for type 1 diabetes patients. The in-house design of digital solutions ensures outpatient monitoring and access to products in real-time. Diabeter's Implementation Matrix is presented here.





Data platform

Beyond providing care, Diabeter created Diabstore, a digital retail solution to give patients ready access to prescribed devices and consumables such as insulin pumps, glucose meters, strips, and insulin. Patients can access Diabstore virtually or at point of care. All products are fully reimbursed and invoices are sent from the distributor directly to the insurance company. Diabeter services and Diabstore represent 74% of the bundle price. The other 26% is made up of other devices, care providers and pharmacies. To make care easier for both patients and caregivers, Diabeter developed and manages the VCare electronic platform, which uploads data from a patient's insulin pump or glucose meter to a Diabeter server that displays the patient's real-time health status on a central dashboard, allowing for direct extraction of CROM data. Colour codes reflect glucose data. An extended report is then sent on for analysis by a nurse, and subsequently emailed to the patient with information on trends, target settings, treatment plans, and follow-on appointments with Diabeter. If there are large deviations in the data uploaded by the patient, an alert is automatically sent to one of the medical doctors for immediate action. *"We didn't want to step out of the hospital setting,"* said Dr. Henk-Jan Aanstoot, *"But we understood that building a new and efficient IT system was not possible inside a regular hospital, so we decided to create our own."* Now outside the hospital setting, Diabeter has partnered with an independent IT company to build a web portal and patient app for collecting PROMs, where the response rate is 95%. In terms of metrics and scorecards, Diabeter has also begun to align its practice with the ICHOM Diabetes Standard Set, released in April 2019, in order to enable statistical comparison on both national and international levels.



Investments

A care manager is assigned to each individual patient to coordinate care between the patient and the multidisciplinary team – clinicians, nurses, behavioural specialists, dieticians and administrative staff. Working together, the team invests in an initial period of intense care, since the outcomes in the first year determine those for the next fifteen years. Patient glycemic levels are reported through remote technology and patients can react and self-adjust their insulin doses accordingly. Remote consultations enable quick checkins – in between appointments, Diabeter averages 24 points of contact, compared with the nationwide average of two. Patients also have access to a round-the-clock emergency hotline. Diabeter's communications with its patients include sharing extensive data analysis. Dr. Henk Veeze, co-founder of Diabeter, notes that *"Sharing real-time data makes the levers actionable. The goal is to integrate this evaluation in the current care plan,"* and this real-time data is used to empower patients further in contributing to their own outcomes.



Learning community

Diabeter has created a unique working environment through expertise-centered policies for its medical staff and an appealing interior design of its facilities, acting on a body of evidence between work environment and patient outcomes². When teams are empowered to apply their expertise to improve results, stress and burnout at work decline while patient satisfaction rises. Leadership at Diabeter enacted a policy of removing the administrative burden on doctors and nurses to make sure they devote 100% of their time to patients, leading to Diabeter clinicians treating an average of twice as many patients relative to the national average. This dedication to a pleasant working environment permeates the physical as well as social environment at Diabeter. Diabeter facilities are conveniently located in city centres, with easy access to public transportation. Sterile medical surroundings have been replaced with cheerful, architectural design. No white coats. Natural light and bright colours abound with round tables in consultation rooms. It's a place where patients and staff are happy to spend their time. As Dr. Veeze concludes, *"Now 10% of Dutch hospitals have handed their patients to Diabeter, including two out of seven university hospitals."*



External collaborations

Diabeter signed a 10-year bundled payment partnership with Zilveren Kruis (ZK), the largest insurance company in the Netherlands. ZK refers type 1 diabetic patients to a Diabeter centre, where treatment and follow-up are covered by a fixed fee, including costs associated with hospitalisations or complications (e.g. blindness, vascular diseases and kidney replacement therapy). If costs are lower than the bundle price, or if outcomes achieved are higher than the target, then value is financially rewarded. In general, the Dutch health system sets a limit to the number of patients that a provider may have covered by an insurer, but based on Diabeter's superior outcomes, ZK covers all Diabeter patients without budget limits. This partnership is exceptional in the Netherlands, where insurers usually sign only one-year contracts with providers. As part of the contract terms, Diabeter's performance is based on patient glycemic levels. According to improvements in these results, individual patients are allocated a score between +2 and -2 points, and thus, Diabeter incurs bonuses or penalties. Dr. Veeze recalls that, *"When we launched Diabeter, the goal was never to reduce costs. Our goal was to improve outcomes. For example, we gave nurses twice as much time to take care of patients. But through focusing on the highest quality care, we have achieved more with reduced costs."*

Highlights

The single condition focus and the commitment to employee satisfaction empowers Diabeter clinicians to remain concentrated on the full spectrum of patient needs, leading the group to consistently outpace the national averages for outcome data.

This case was written with contributions from Veeze H. and Aanstoot H.J., co-founders of Diabeter.

References:

1. Medtronic press release, April 2, 2015.
2. <https://www.siemens-healthineers.com/en-us/services/enterprise-services-and-solutions/case-studies> (accessed on December 12, 2019).

Image by Myles Tan

