

# Tracking progress on the spot

Heart disease, stroke, blindness, kidney failure and foot amputations. Diabetes complications can be very difficult for people living with this condition, and are a major challenge for society and the health system.

In diabetes care, information is power; the power to control blood sugar. Controlling blood sugar levels is essential in order to reduce the risk of both severe short and long-term consequences. But most people with diabetes fail to meet their target. Faster, on-the-spot blood sugar tests can help.

According to the World Health Organisation, about 60 million people in the European region have diabetes, and this number is on the rise, mostly due to lifestyle-related risk factors<sup>1</sup>. Around 3.5 times as much is spent caring for people with type 2 diabetes who have complications than is spent on those who do not have complications<sup>2</sup>.

In addition to daily blood sugar testing which gives a snapshot of the amount of sugar in the blood, monitoring the 'glycated haemoglobin' or 'HbA1c' of people with diabetes is a well-established way to track longer-term progress in controlling blood sugar. Tracking HbA1c has been shown to reduce the risk of complications<sup>3</sup> as the lower the HbA1c, the lower the risk of developing diabetes-related complications.

Every 3-6 months, patients give a blood sample to check the longer-term process. This sample is sent to a lab for analysis and patients must make a second appointment to discuss the results with their doctor a week or two later. But what if a simple HbA1c blood test could be done by a doctor with results ready within minutes? This is now possible, thanks to technology known as 'point-of-care HbA1c testing'<sup>4</sup>.

Just like their routine blood sugar test, patients place a finger-stick drop of blood into a small device which tells them their HbA1c levels within 5-10 minutes. Doctors can perform the test at the beginning of a consultation and be ready to discuss the outcome before the patient leaves. Feedback is immediate – no need to wait, no need for a second appointment.

A nine-country European study found that 37.4% of patients with type 2 diabetes do not achieve target levels of blood sugar control<sup>5</sup>. Giving patients instant feedback on their progress can help<sup>6</sup>. Studies also show that better HbA1c control increases life expectancy and reduces healthcare costs<sup>7</sup>.

### Medtech: value for people

- Can save lives and reduce complications by monitoring diabetes<sup>6</sup>
- Enables blood sugar testing by GPs, preferred by patients<sup>8</sup>
- Helps to improve doctor-patient communication and patient satisfaction<sup>9,10,11</sup>

### Medtech: value for governments

- Better HbA1c control increases life expectancy and reduces healthcare costs<sup>12</sup>.
- Can help to tackle health inequalities as diabetes is more common in deprived communities<sup>13</sup>
- Supports efficient delivery of health services in the community without compromising on effectiveness or patient satisfaction<sup>13</sup>
- Delivers value through innovation and provides high-quality jobs in Europe

### Medtech: value for regulators

- Point-of-care HbA1c offers clinical effectiveness equal to or better than pathology laboratory testing<sup>9,10,11,14</sup>
- Significant improvement in baseline HbA1c levels after six and 12-months<sup>4</sup>
- Supports better-informed decision-making

### Medtech: value for payers

- Reduces number of follow-up consultations
- Potentially reduces emergency admission and hospital care, as well as risk of complications resulting from poor glycaemic control
- Decreases the number of follow-up consultations enabling health systems to operate more efficiently<sup>15</sup>
- Costs of point-of-care test can be offset by savings elsewhere in the healthcare system<sup>10,16,17</sup>



#### NOTES

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- 13) Raphael, D, Anstice S, Raine K, et al. The social determinants of the incidence and management of type 2 diabetes mellitus: are we prepared to rethink our questions and redirect our research activities? *Leadersh Health Serv (Bradf Engl)*. 2003;16:10-20.
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- 16) Plüddemann A, Price CP, Thompson M, et al. Primary care diagnostic technology update: point-of-care testing for glycosylated haemoglobin. *Br J Gen Pract*. 2011;61:139-140.
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