

How Dexcom's Real Time Continuous Glucose Monitoring (rtCGM) technology can improve quality of life and is likely to be cost saving

And why rtCGM should be offered as the standard of care for people with diabetes on intensive insulin therapy

KEY:

- HbA1c:** An indicator of blood glucose control over the last 2-3 months
- ICER:** Incremental cost-effectiveness ratio
- rtCGM:** Real-time continuous glucose monitoring
- Finger pricking:** Self-monitoring of blood glucose via finger prick testing
- T1D:** Type 1 diabetes
- T2D:** Type 2 diabetes

Quick Summary

Previous studies have shown that Dexcom rtCGM is cost-effective for people with T1D in multiple countries including the UK.^[1,2,3]



New generations of CGM, such as Dexcom rtCGM systems, are being introduced into clinical practice and should be offered as standard of care for glucose monitoring for people with both T1D and T2D.^[4,5,6]

A long-term health economic analysis was determined using the CORE Diabetes model to establish the cost-effectiveness for funding of Dexcom rtCGM technology versus finger prick testing. The analysis suggests that, compared to finger pricking, use of rtCGM results in significant improvements in HbA1c, and is likely to result in reductions in long term T2 diabetes-related complications and A&E department visits.^[7]

What is required to be approved for NHS funding?



Policy makers in the UK need evidence from long-term cost-effectiveness analyses in order to make informed reimbursement decisions.

These analyses need to compare the upfront cost of rtCGM systems with the clinical and economic benefits resulting from improved control of glucose levels, as well as reduced risks of rapid falls in blood sugar (a hypoglycaemic event), which can be fatal.

For funding to be approved, the National Institute for Health and Care Excellence (NICE) has outlined two main criteria that need to be met:

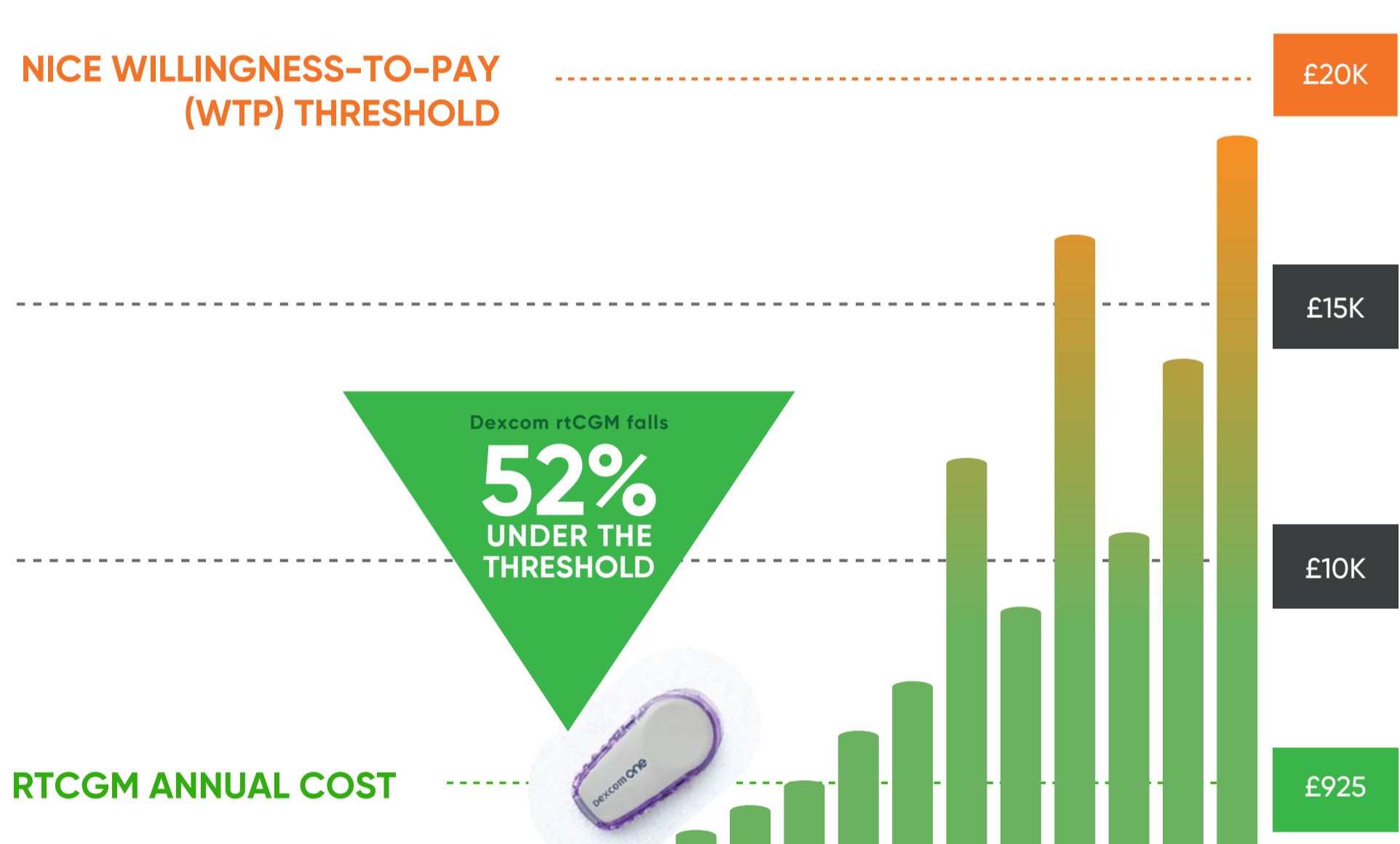
- PROOF OF GOOD VALUE FOR MONEY
- HIGH-QUALITY EVIDENCE



CHECKPOINT 1

ICER under £20,000

Simply put, a cost-effectiveness ratio is the net cost of the device divided by changes in health outcomes. This is called an ICER.



At an annual cost of £925, Dexcom technology is cost-saving in comparison to SMBG for people with type 1 and type 2 diabetes over the long-term.^[1-3,7]

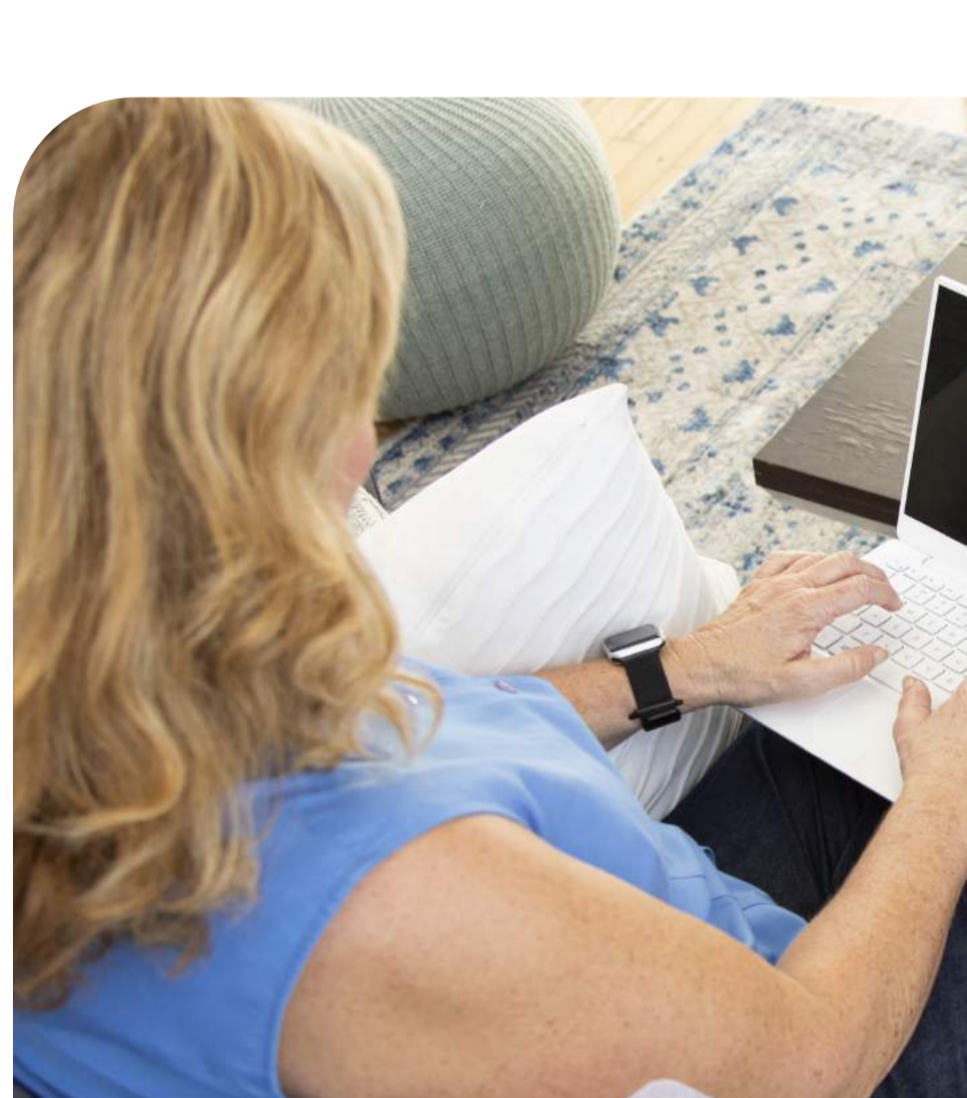
Dexcom has a range of rtCGM technology to meet the needs of all people with diabetes at varying price points. Inclusion of the advanced technology range may also be cost saving and provide a favourable budget impact in the short term.

CHECKPOINT 2

High-Quality Evidence

The people studied had elevated HbA1c, which affects more than 53% of people with diabetes in the UK^[8] and can increase the risk of developing diabetes-related complications.

A long-term health economic analysis was determined using the IQVIA CORE Diabetes model (CDM). CDM is a published and validated long-term model that can be used for people with both T1D and T2D. The model simulates the progression of diabetes and diabetes-related complications based on a series of interdependent sub-models. The study shows that rtCGM was associated with increased quality-adjusted life expectancy and increased mean lifetime costs versus people with T2D who rely on finger prick testing only.^[7]



Clinical data was sourced from a USA retrospective cohort study of insulin-treated people with type 2 diabetes (T2D) and was adapted to the UK.^[9]

RESULT = CONSIDERATION FOR NATIONAL FUNDING

ICER UNDER £20,000 ✓ HIGH-QUALITY EVIDENCE ✓

The estimated yearly cost of diabetes to the NHS in 2022 is

£10 BILLION^[10,11]



- Dexcom rtCGM technology is now available at a significantly lower price than when initial cost-effectiveness data was generated. The initial cost-effectiveness data for T1 was based on G6, the T2 cost-effectiveness data is based on a cost of £1850. Dexcom ONE is available on Drug Tariff at £900 per year.
- Despite a wealth of clinical evidence and economic analysis showing that Dexcom rtCGM technology can increase quality-adjusted life expectancy and is likely to be cost saving over time it's not being offered as the standard of care for people with diabetes on intensive insulin therapy.



This cost-effectiveness analysis provides the policy makers and healthcare system with the economic argument for investment in Dexcom rtCGM technology.

This will support the NHS in providing equal access to rtCGM for people with T1D and T2D, thus removing inconsistent postcode prescribing.

CITATIONS: ¹ Roze S, et al. Long-term Cost-Effectiveness of Dexcom G6 Real-time Continuous Glucose Monitoring Versus Self-Monitoring of Blood Glucose in Patients With Type 1 Diabetes in the U.K. *Diabetes Care*. 2020;43(10):2411-2417. ² Roze S, et al. Long-term cost-effectiveness of the Dexcom G6 real-time continuous glucose monitoring system compared with self-monitoring of blood glucose in people with type 1 diabetes in France. *Diabetes Ther*. 2022;13(1):235-244. ³ Roze S, et al. Evaluation of the Long-Term Cost-Effectiveness of the Dexcom G6 Continuous Glucose Monitor versus Self-Monitoring of Blood Glucose in People with Type 1 Diabetes in Canada. *Clinician Outcomes Res*. 2021;11(3):717-725. ⁴ Type 1 diabetes in adults: diagnosis and management. NICE guideline [NG17]. <https://www.nice.org.uk/guidance/ng17>, accessed on 21/02/2023. ⁵ Diabetes (type 1 and type 2) in children and young people: diagnosis and management. NICE guideline [NG18]. <https://www.nice.org.uk/guidance/ng18>, accessed on 21/02/2023. ⁶ T2 diabetes in adults: diagnosis and management. NICE guideline [NG28]. <https://www.nice.org.uk/guidance/ng28>, accessed on 21/02/2023. ⁷ Isett JJ, et al. Cost-Effectiveness of a Real-Time Continuous Glucose Monitoring System Versus Self-Monitoring of Blood Glucose in People with Type 2 Diabetes on Insulin Therapy in the UK. *Diabetes Ther*. 2022;13(1):1875-1890. ⁸ Whyte MB, et al. Disparities in glycaemic control, monitoring, and treatment of type 2 diabetes in England: a retrospective cohort analysis. *PLoS Med*. 2019;16(10): e1002942. ⁹ Karner AJ, et al. Association of Real-time Continuous Glucose Monitoring With Glycemic Control and Acute Metabolic Events Among Patients With Insulin-Treated Diabetes. *JAMA*. 2021;325(22):2273-2284. ¹⁰ <https://www.england.nhs.uk/2022/03/nhs-prevention-programme-cuts-chances-of-type-2-diabetes-for-thousands> ¹¹ <https://www.diabetes.co.uk/cost-of-diabetes.html>