New Study Data From Abbott Show Diabetic Ketoacidosis On The Rise – And Many People Still Aren't Checking Ketones

- Long-term analysis of nearly 660,000 people in the United Kingdom shows diabetic ketoacidosis rates increasing in people with both Type 1 and Type 2 diabetes, with high recurrence risk[1]
- Complementary studies from France and the United States reveal inconsistent ketone monitoring and wide variation in clinical practice[2,3]
- The data underscore the urgent need for better tools to detect rising ketones earlier to prevent diabetic ketoacidosis, a life-threatening condition for people with diabetes[1,2,3]

ABBOTT PARK, Ill., March 11, 2026 – Abbott, a global healthcare leader, today announced new real-world data that reveal a growing global burden of diabetic ketoacidosis (DKA). The findings also show significant gaps in early detection of rising ketones among people with diabetes and healthcare providers.[1,2,3]

DKA occurs when ketones build up in the blood to dangerous levels — often before symptoms are recognized — and can have serious health consequences.[4] In fact, DKA is a leading cause of death for people under 58 with Type 1 diabetes.[5] And, while traditionally associated with Type 1 diabetes, DKA is increasingly affecting people with Type 2 diabetes as well.

Across three studies from the United Kingdom, France and the United States, researchers found that DKA rates are rising, ketone monitoring remains inconsistent even among highly engaged users of diabetes technology, and clinicians lack standardized guidance on when and how to intervene before DKA develops.[1,2,3] Together, the findings highlight a dangerous and widening gap between awareness of DKA and the ability to detect rising ketones early enough to prevent it. These data were presented today at the 19th International Conference on Advanced Technologies & Treatments for Diabetes (ATTD) in Barcelona, Spain.

Long-term UK analysis shows rise in DKA and high recurrence risk[1]

A 23-year retrospective study of nearly 660,000 people with diabetes in the United Kingdom found DKA rates have risen sharply among people living with Type 1 and Type 2 diabetes. Drawing on one of the most extensive population-based cohorts ever examined for DKA, the analysis shows that incidence in adults with Type 1 diabetes more than tripled over the study period. In Type 2 diabetes, DKA incidence increased sixfold – a striking trend in a population not traditionally associated with DKA. While some of the increases may reflect underreporting in earlier years, the overall trend shows a clear and sustained rise in DKA.

The study also revealed high recurrence rates: 31.5% of people with Type 1 diabetes and 12.1% of people with Type 2 diabetes who experienced one DKA event went on to have another. Younger adults, women and individuals living in socioeconomically deprived areas faced disproportionately high risk.

"This long-term analysis shows that DKA is not only becoming more common, but also more likely to reoccur, and often in the same individuals," said Pratik Choudhary, M.D., endocrinologist at Leicester Diabetes Centre & University of Leicester and an author of the study. "DKA can develop quickly and display vague early signs, which is why so many people experience repeat episodes. These findings challenge assumptions about who is at risk and highlight the urgent need for earlier identification of rising ketones before DKA develops."

French study reveals high awareness but low ketone testing frequency[2]

A second study, conducted among 553 adults with Type 1 diabetes in the French SFDT1 cohort, found that while 95% of participants had heard of ketosis, 91% were aware of DKA and more than half had experienced a prior DKA event, 38% still reported never testing ketones.

The gap between awareness and action was driven by a number of factors, including difficulty recognizing early symptoms and time burden. These challenges were observed even among advanced technology users, including those on continuous glucose monitoring (CGM) devices and automatic insulin delivery (AID) systems.

The study also found meaningful differences in how often clinicians encouraged ketone testing. People using multiple daily injections of insulin were far more likely to report never being reminded to test and less likely to be prescribed ketone tests compared with those using pumps or AID systems, even though globally-recognized guidelines recommend that anyone on intensive insulin therapy should check their ketones when symptoms such as nausea, vomiting or dehydration occur.[4]

US clinician interviews show wide variation in ketone monitoring practice[3]

A third qualitative study with U.S. endocrinologists, pediatric endocrinologists and primary care physicians found wide variation in how ketone monitoring is taught and practiced. Healthcare providers described limited use of ketone data in routine care, inconsistent reliance on traditional ketone testing methods and wide variation in how they advise people to respond to rising ketones.

Even among specialists who routinely manage DKA, there was no consistent approach to when or how ketone monitoring should be used, underscoring that the gaps extend beyond patient behavior to the clinical system itself.

Clinicians cited several challenges that contribute to inconsistent ketone monitoring:

- A lack of standardized guidance in ketone monitoring
- Incomplete or unavailable ketone records
- Overreliance on CGM trends even though glucose levels do not reliably reflect ketone status

This variation means many people may not receive clear or timely guidance on when to test ketones or seek care, increasing the risk that rising ketones go unnoticed until they become emergencies.

“These studies show a troubling reality: people are still missing the early rise in ketones that can quickly turn into diabetic ketoacidosis,” said Mahmood Kazemi, M.D., chief medical officer for Abbott’s diabetes care business. “DKA can escalate in a matter of hours, often before symptoms are recognized, and today’s testing methods simply aren’t used consistently enough to catch it. This growing burden underscores the need for clearer clinical guidance and more accessible ways for people to see rising ketones sooner.”

Separately, a recent international expert paper supported by Breakthrough T1D also highlights the continued need for earlier visibility into rising ketones to help reduce the risk of DKA. While CGM systems have helped lower DKA rates, it remains a concern because glucose levels don’t always indicate when ketones are building — and ketone levels can rise well before glucose signals any problem. And while DKA is becoming more common, this only further reinforces the broader need for more proactive ketone monitoring rather than waiting until symptoms or elevated glucose appear.[6]

Today, most people with diabetes rely on blood or urine test strips to measure ketones, yet few test regularly and DKA rates remain high. The new data presented at ATTD reinforce these concerns, showing that barriers to recognizing and responding to rising ketones are reflected in the increasing rates of DKA now seen in both Type 1 and Type 2 diabetes.[1,2,3] Together, these findings point to the need for more accessible, real-time ways to detect rising ketones before DKA develops.

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[1]Seidu S. et al. Rising burden of diabetic ketoacidosis in the UK: 21-year trends, recurrence, and predictors from linked primary–secondary care data**.** Presented at ATTD 2026.

[2]Cosson E. et al. Patients’ knowledge and barriers to ketone self-monitoring: results from a prospective survey of T1DM patients from the French SFDT1 Cohort. Presented at ATTD 2026.

[3]Wysham C. et al. A qualitative study to understand providers’ perspectives on hyperketonemia, diabetic ketoacidosis healthcare burden and ketone monitoring in type 1 and type 2 diabetes care. Presented at ATTD 2026.

[4]American Diabetes Association. “Planning for Sick Days.” Accessed February 2026.https://diabetes.org/getting-sick-with-diabetes/sick-days.

[5]Nguyen, K. T. Journal of Diabetes Science and Technology (2021):https://doi.org/10.1177/19322968211042656.

[6]Dhatariya K. et al. *The Lancet Diabetes & Endocrinology* (2025): https://www.thelancet.com/journals/landia/article/PIIS2213-8587(25)00331-6/abstract.

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