

Dra. Elizabeth Abreu.
Specialist in Internal Medicine and Diabetology. Vice President of the Sociedad de Diabetología y Nutrición del Uruguay (SDNU). Co-coordinator of the Comité de Diabetes 1 SDNU.



Dra. María Soledad Freire.
Specialist in Endocrinology and Metabolism. Head of the Diabetology Department, Asociación Española. Postgraduate degree in Health Management.



Technology applied to diabetes in Uruguay:

advances, challenges, and opportunities

Technology applied to diabetes has marked a turning point in the treatment of our patients. In Uruguay, different technological tools have been progressively incorporated in recent years with the aim of improving metabolic control, diabetes education and, above all, quality of life. These technologies are available throughout the country because access depends mainly on the Sistema Nacional Integrado de Salud (SNIS) or the National Resources Fund (FNR), provided that the eligibility criteria are met.

Among the technologies currently available are continuous glucose monitoring (CGM), insulin delivery systems (CSII), mobile applications, and telemedicine.

Although Uruguay has made considerable progress in incorporating these technologies, further work is needed to train health care teams and users and to ensure universal access to these services.

The objective of this article is to review the main technologies available in Uruguay, their accessibility and clinical benefits, and to identify current barriers to their implementation and strategies for improvement.

INTRODUCTION

The National Integrated Health System (SNIS) is Uruguay's health care organization model, which brings together public and private providers within a single structure with the aim of ensuring universal, equitable, and high-quality access to health care for the entire population. Within this model, the National Resources Fund (FNR) plays a fundamental role in financing high-cost technologies, including various tools used in diabetes treatment.

What technologies are available in Uruguay?

CONTINUOUS GLUCOSE MONITORING (CGM)

Continuous glucose monitoring is the continuous measurement of interstitial glucose using an electronic device and represents one of the most important advances in diabetes treatment in recent years. The ability to know glucose levels in real time, identify trends, and receive alerts for episodes of hypoglycemia or hyperglycemia has changed the way glycemic control is interpreted.

INDICATIONS: According to the 2026 ADA recommendations.

HOW IS ACCESS PROVIDED?

- Patients with T1DM aged > 4 years and ≤ 21 years.
- Patients with T2DM aged > 4 years and ≤ 21 years receiving MDI (multiple daily insulin injections).

Patients meeting these criteria receive financing through the SNIS and must pay US$10 per sensor.

Patients who wish to gain access but do not meet these coverage criteria may do so through their healthcare provider by paying the price established by each institution; some devices can also be purchased from community pharmacies.

Access during pregnancy is subject to specific coverage conditions. Financing is provided by the Ministry of Public Health (MSP) and the FNR at no cost, and intermittent or flash CGM is supplied if the following criteria are met:

- Patients with T1DM, confirmed pregnancy, and aged > 22 years.
- Patients with T2DM, confirmed pregnancy, receiving MDI, and aged > 22 years.
- All other patients with T2DM and confirmed pregnancy who require insulin, regardless of age.

Which CGM systems are available in Uruguay?

Currently, different types of systems are available in Uruguay, with variations in sensor duration, presence or absence of alarms, data display modality, accuracy (MARD), and other characteristics. »

Intermittently scanned or flash CGM, real-time CGM, and predictive systems are available. ***Table 1***.

SYSTEM	TYPE	DURATION	MARD	ALERTS / FUNCTIONS	APPROVAL / POPULATION
FreeStyle Libre 2 Plus	Intermittently scanned with reader or real-time with smartphone	15 days	8.2%	No calibration required; high- and low-glucose alerts and signal-loss alarm; 6-m range; water resistant	Pregnancy, adults, and children aged > 2 years
SIBIONICS GS1	Real-time with smartphone	14 days	8.83%	Data every 5 min; no calibration required; no transmitter; 6-m range; optional alarms; remote viewing and data sharing; 60-min warm-up	From 3 years of age
Accu-Chek SmartGuide	CGM with predictive algorithm	14 days	9.2%	Initial calibration; 1-h warm-up; water resistant to 1 m for 60 min; prediction of low glucose within 30 min and 2 h, and nocturnal low glucose	Adults aged > 18 years
Other available sensors	Various	Not specified	Not specified	Aidex, Yuwell, I Can	Available on the market

TABLE 1. CGM systems available in Uruguay

CONTINUOUS SUBCUTANEOUS INSULIN INFUSION SYSTEMS

Continuous subcutaneous insulin infusion systems represent one of the most important advances in the treatment of insulin-requiring diabetes.

These technologies allow more precise and flexible insulin delivery, facilitating individualized adjustments and improving glycemic control in selected individuals.

The main reported benefits include improved time in range, reduced hypoglycemia, and improved quality of life for people with diabetes and their families.

INDICATIONS: According to the 2026 ADA recommendations.

In Uruguay, access to these devices is regulated by the National Resources Fund according to specific criteria related to metabolic control, hypoglycemia, and therapeutic adherence.
Their incorporation has had a particularly important impact in pediatric and adolescent populations. ***Tables 2 and 3***.

APPS AND DIGITAL PLATFORMS

Digital platforms associated with diabetes devices allow glucose information to be shared and enable remote follow-up by healthcare teams. In Uruguay, these tools are used mainly through platforms linked to continuous glucose monitoring and automated insulin delivery systems.

Beyond the platforms specific to each device, Uruguay does not currently have integrated national digital systems for the remote clinical follow-up of patients with diabetes.

TELEMEDICINE

In Uruguay, telemedicine has evolved from being an emerging tool during the COVID-19 pandemic to becoming a structural component of the healthcare system, supported by a specific legal framework. Approval of Law No. 19.869 in 2020 established the regulatory framework for its implementation and development as a healthcare service, promoting the use of

CATEGORY	FNR REGULATIONS
Population	T1DM up to 21 years of age
Indications	Poor control with MDI, hypoglycemia, glycemic variability
Requirements	Diabetes education and adherence
Devices	MiniMed 780G, Nano TouchCare
Follow-up	Periodic specialist follow-up
Coverage	Pump + supplies

TABLE 2 FNR regulations.

SYSTEM	DEVICE TYPE	CGM INTEGRATION	RESERVOIR	POPULATION COVERAGE IN URUGUAY
MiniMed 780G	Hybrid closed-loop system with Quick-set infusion set	Integrates Guardian 3 and Guardian 4 CGM	300 IU	Children aged < 2 years, weighing < 22 kg, or requiring < 10 IU TDD, within current FNR coverage
Nano TouchCare by Medtrum	Patch insulin pump	Integrated with its CGM	200 and 300 IU	Introduced in Uruguay; since December 2025, the FNR has funded the patch pump for patients aged 2–21 years

TABLE 3 Automated insulin delivery systems available in Uruguay.

THE DEVELOPMENT OF TELEMEDICINE IN DIABETES IN URUGUAY REMAINS HETEROGENEOUS AND DEPENDS LARGELY ON INSTITUTIONAL INITIATIVES AND EACH HEALTH CARE TEAM

DEVICE / SYSTEM	PATIENT APP	PROFESSIONAL / REMOTE PLATFORM
FreeStyle Libre	FreeStyle LibreLink	LibreView
SIBIONICS GS1	SIBIONICS App	SIBIONICS ProView
Accu-Chek SmartGuide	SmartGuide / Predict	Accu-Chek Care
MiniMed 780G	MiniMed Mobile	CareLink
Nano TouchCare by Medtrum	TouchCare / EasyPatch	EasyView Pro

» information and communication technologies (ICT) for clinical care, diagnosis, treatment, prevention, and medical education.

However, the development of telemedicine in diabetes in Uruguay remains heterogeneous and depends largely on institutional initiatives and each healthcare team.

In most cases, telemedicine is provided through teleconsultations, video calls, electronic messaging, and remote review of device-associated platforms. Despite these limitations, experience over recent years has shown that remote care can complement face-to-face follow-up and promote care that is more accessible, flexible, and personalized. D

CONCLUSIONS

The gradual incorporation of new technologies has significantly changed the management of diabetes in Uruguay, enabling more personalized, dynamic care centered on the needs of each individual.

Continuous glucose monitoring, automated insulin delivery systems, digital platforms, and telemedicine have changed daily clinical practice, facilitating more precise therapeutic decisions and improving the safety and quality of life of many people with diabetes.

In our setting, these advances have been particularly relevant in pediatric populations, adolescents, pregnancy, and people receiving intensified insulin treatment. However, challenges remain regarding equity of access, continuing training, and the integration of digital tools within the health care system.

Uruguay has made steady progress in incorporating technologies applied to diabetes, although opportunities for further development remain in structured remote follow-up, platform interoperability, and expansion of access to these tools.

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