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The role of primary care nurses in CGM

The family and community nurse (EFyC) is a health professional who provides comprehensive care to individuals, families, and communities, particularly those with chronic illnesses such as diabetes.

In recent years, continuous glucose monitoring (CGM) devices have transformed the approach to diabetes management and have revolutionized the control and follow-up of the disease. CGM is a tool that allows for the continuous measurement of glucose levels and sends data to a receiving device. However, to achieve maximum benefit from this technology, **therapeutic education** (TE) is key, understood as a learning process that helps people with diabetes understand their condition, manage their treatment, and improve their quality of life.

The family and community nurse (EFyC) plays a key role in therapeutic education regarding the use of continuous glucose monitoring in individuals with diabetes under their care, as they provide holistic, person-centered care that improves health outcomes, satisfaction, and quality of life for people with diabetes.

Therapeutic education in the use of CGM involves training individuals in the correct use of the device from an instrumental perspective, such as how to place and change the sensor, how to view data, and how to download it. However, it is crucial to interpret the results of the ambulatory glucose profile (AGP) by analyzing glucose measurements with specific software, identifying patterns, trends, hypo- and hyperglycemias, and the factors influencing them, and taking action accordingly. Additionally, it encourages adopting healthy lifestyle habits, addressing psychological aspects and social determinants of the disease. »

» With all the above, we must create an **individualized action plan** with personalized objectives, evidence-based, and agreed upon with the person with diabetes. This plan should include insulin dose adjustments, nutrition, physical activity, and emotional control.

We must not forget that individuals with type 2 diabetes mellitus (T2DM) often suffer from various chronic diseases and/or complications, such as heart failure (HF), chronic kidney disease (CKD), hypertension, obesity, hyperlipidemia, or frailty and aging. For this group of patients, we should address not only glycemic control but also overall cardiovascular risk, frailty, and all familial and social determinants. Therefore, the approach should be holistic and interdisciplinary, focused on improving the quality of life for people with diabetes.

CHALLENGES IN IMPLEMENTING CGM IN PRIMARY CARE CONSULTATIONS

The recent funding from our health care system for CGM in individuals with T2DM on multiple doses of insulin leads us to a change in our clinical practice. Contributions from the EFyC in therapeutic education regarding diabetes, particularly in CGM, have several significant benefits for people with T2DM. These benefits can be categorized into 3 main groups: improvement in glycemic control and quality of life, fewer complications and hospitalizations, and empowering individuals with diabetes while improving treatment adherence.

In the transition towards integrating CGM within the primary care context, family and community nursing professionals face several challenges that need to be addressed from an educational standpoint.

The first challenge we encounter as family and community nurses in this implementation is addressing our patients' level of technological literacy, which inevitably influences the choice of the CGM system we indicate, particularly if we have different options.

Once this hurdle is overcome, the next challenge is to conduct structured, individualized, and ongoing therapeutic education over time. We must adapt training to meet each person's needs, capabilities, and circumstances, considering cultural, socioeconomic, and lifestyle factors.

The use of CGM devices contributes to improved glycemic control in individuals with diabetes and prevents complications associated with poor control, such as neurological damage, kidney disease, and blindness. For example, CGM devices can help individuals identify patterns in their glucose levels, allowing them to make more informed decisions about managing their diabetes. Moreover, this technology can also help individuals avoid hypoglycemia, a condition in which glucose levels drop dangerously low, by providing real-time alerts when glucose levels are too low.

To obtain the maximum benefit from CGM, it is important to select the most appropriate device, assisting individuals in choosing the CGM system that best fits their needs and lifestyle, considering various factors such as ease of use and specific device characteristics, like the type of alerts.

Training in the correct use of CGM and the interpretation of provided data is fundamental. Users of CGM systems should understand that CGM consists of a device that adheres to the skin and continuously measures interstitial glucose levels through a sensor inserted under the skin. The sensor sends glucose data to the device receiver, displayed on a screen. Since this data refers to interstitial glucose, it is crucial to understand the difference from capillary glucose.

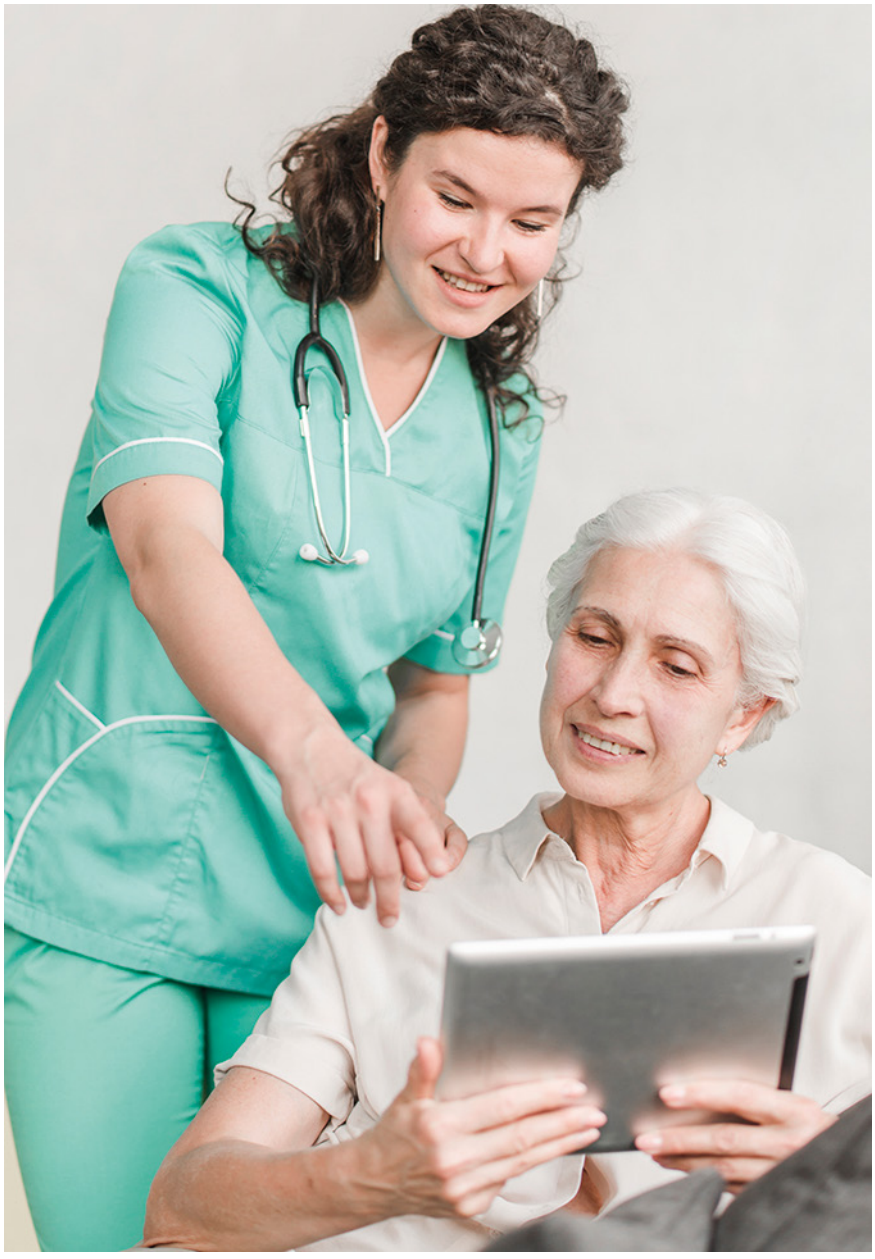
As previously mentioned, analyzing CGM data provides valuable insights into interstitial glucose levels, which can help identify glucose patterns and trends. Learning to interpret CGM data is essential for making informed decisions about diabetes management.

Establishing specific, agreed-upon, individualized goals using CGM data helps us adjust treatment and meet the established targets. Using CGM data and the set interstitial glucose targets, we can create a specific action plan that will include decisions regarding food intake, exercise, drugs, and dose titration as necessary with the help of the health care team.

All these educational strategies aim at preventing and managing complications. Early identification of hyper- and hypoglycemia involves detecting early signs and symptoms of glucose fluctuations and taking action if they occur, which in turn focuses on preventing chronic complications through long-term glycemic control. »

THERAPEUTIC EDUCATION IN THE USE OF CGM INVOLVES TRAINING INDIVIDUALS ON THE CORRECT USE OF THE DEVICE, INCLUDING HOW TO PLACE AND CHANGE THE SENSOR, HOW TO VIEW DATA, AND HOW TO DOWNLOAD IT, BUT ABOVE ALL, HOW TO INTERPRET THE RESULTS OF THE AMBULATORY GLUCOSE PROFILE

THE FAMILY AND COMMUNITY NURSE PLAYS A FUNDAMENTAL ROLE IN THERAPEUTIC EDUCATION REGARDING THE USE OF CONTINUOUS GLUCOSE MONITORING FOR THE DIABETIC PATIENT THEY CARE FOR, AS IT PROVIDES HOLISTIC, PERSON-CENTERED CARE THAT IMPROVES HEALTH OUTCOMES, SATISFACTION, AND THE QUALITY OF LIFE FOR PEOPLE WITH DIABETES.



In the case of individuals with T2DM with various comorbidities—frailty and advanced age may also be present in the context of chronicity—we should consider the psychosocial support we must provide from family and community nursing consultations, addressing the management of the emotional impact of the disease through stress and anxiety management strategies.

DATA INTERPRETATION IN INDIVIDUALS WITH T2DM MUST REFER TO CURRENT METRICS

In the population we primarily serve, EFyC will have considerable relevance for the second group identified by Battelino et al. (Figure 1), the elderly or those at high risk of hypoglycemia. Here, we must primarily focus on reducing hypoglycemias, making sure that our patients with diabetes know how to address them effectively using the information provided by the CGM system and anticipating, whenever possible, these hypoglycemic events.

The significance and contributions of CGM in the educational process must be accompanied by reinforcement of all those factors that increase the risk of hypoglycemia, such as poor injection technique, reuse of insulin needles, or the presence of lipohypertrophy. Additionally, we should ensure adequate food intake, especially in those with cognitive impairments, to safely administer rapid-acting insulin. Furthermore, it is important to follow up using CGM data to evaluate their progress and make any necessary changes.

All these actions must be implemented through communication strategies tailored to achieve personalized education by adjus-

FIGURE 1. Control targets in CGM. International Consensus on Time in Range. ** Includes glucose levels < 54 mg/dl / * Includes glucose levels > 250 mg/dl / # High risk of hypoglycemia.**Battelino T, et al. Diabetes Care. 2019 Aug; 42(8): 1593-1603.

» ting the educational content to each person's individual needs, considering their level of knowledge, skills, motivations, and barriers.

Workshops and support groups can be organized to foster interaction among individuals with diabetes, allowing for the exchange of experiences and disease management strategies.

It is essential to involve family members or caregivers in the educational process, providing information and strategies to support the individual in their diabetes management, contributing to a favorable environment for behavioral change.

Allowing spontaneous access to primary care consultations for individuals with diabetes, in addition to scheduled consultations with health care professionals, enables continuous feedback, providing ongoing reinforcement of the patient's progress, recognizing achievements, and discussing areas for improvement, which motivates and strengthens learning. Proximity to individuals with diabetes, their families, their environment, and their personal and social determinants, along with assertive and empathetic communication that facilitates the patients' expression of doubts and concerns, creates an atmosphere of trust and support, improving the effectiveness of therapeutic education.

To strengthen the role of the EFyC in therapeutic education regarding CGM and the use of technologies, continuous training is necessary to make sure that nurses receive updated training in emerging technologies and therapeutic education, and to improve accessibility and time dedicated during consultations to provide structured therapeutic education for our patients with diabetes.

Strengthening the role of family and community nurses in therapeutic education and continuous glucose monitoring is fundamental to improving management of T2DM and ensuring comprehensive, personalized care. D

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