

Elderly/frail patients and type 2 diabetes mellitus control in the post-COVID era

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ABSTRACT

The elderly population with type 2 diabetes mellitus presents a greater risk of falls, cognitive impairment and reduced functional capacity, and therefore a large portion of this population is encompassed within the poly pathological patient group. The presence of frailty is a factor to consider in elderly patients. Due to their lower capacity for adapting to change, frail patients have suffered particularly from the emergence of teleconsultation.

Currently, most of the world's population has a life expectancy exceeding 60 years.¹ The Spanish population in particular is one of the most long-lived in the world, which entails an even greater aging of the population. According to data from the Spanish National Institute of Statistics, the life expectancy in Spain between 1999 and 2019 went from 75.4 to 80.9 years for men and from 82.3 to 86.2 years for women.²

Spain is rapidly heading towards an aging population; therefore, tools need to be developed to properly manage elderly patients and keep them healthy, thereby preventing, reversing or delaying their frailty.

According to data from the di@bet.es study, the prevalence of type 2 diabetes mellitus (DM2) in those older than 75 years is 30.7% for men and 33.4% for women, 10% of whom were not diagnosed.³

A comprehensive and holistic assessment is essential for the proper management of these patients. These patients need to be assessed in all of their spheres (cognitive, functional, social and nutritional) so as to perform proper screening, properly anticipate problems and provide better management.⁴

The elderly population with DM2 presents a greater risk of falls, cognitive impairment and reduced functional

capacity, and therefore a large portion of this population is encompassed within the poly pathological patient group.⁵ Therefore, the following steps are recommended:

1. Clinical assessment that includes the search for the complications of diabetes:
 - Risk of hypoglycaemia (especially when taking secretagogues or insulin or when the renal function is reduced).
 - Diabetic foot.
 - Vision loss.
 - Erectile dysfunction.
 - Hearing loss.
 - Nutritional Assessment (Mini Nutritional Assessment [MNA]).
 - Associated comorbidities.
 - Inappropriate prescriptions.
 - Therapeutic compliance (Morisky-Green test, PREDIMED questionnaire, Rapid Assessment of Physical Activity scale and obtaining drugs at the chemist's).
2. Functional assessment:
 - Physical function (ability to perform basic activities: Barthel scale; instrumental activities of daily living: Lawton and Brody scale).
 - Mental function (cognitive aspects: Mini Mental Lobo; mood state: Yesavage and Goldberg scale).
 - Social function (Gijón scale).

Another factor to consider in elderly patients is the presence of frailty. An active search for conditions that increase their risk is therefore essential:

- Age over 80 years.
- Living alone.
- Loss of spouse/pair in the past year.
- Chronic disabling disease.
- Polypharmacy (four or more drugs).
- History of falls.
- Hospital admissions in the past year.
- Scarce socioeconomic resources.

Having a properly stratified and monitored elderly patient is a fundamental step for individualising and providing the best recommendations based on the crucial moments of their lives. Our work continues to be mostly by telephone. As mentioned in previous sections, we need to be proactive and have clear objectives and interventions.

The blood glucose objectives that we establish with elderly patients should be individualised and adapted to their physical and functional capacity. In frail elderly patients, we need to establish less strict objectives, with glycated haemoglobin levels between 7.6% and 8.5%.⁵

In elderly patients, therapeutic education is of special importance.⁶ We should transmit the information in such a way that our patient can understand the information and assure us that they know how to manage themselves, anticipate or make decisions in situations of hypoglycaemia, hyperglycaemia, diet, exercise, etc. To this end, we should count on the collaboration of the main caregiver, if there is one.

Healthcare practitioners should direct the elderly population towards healthy aging, encouraging them to achieve a functional capacity that provides them the best wellbeing in this stage.⁶ We should advise them to stay active and engage in regular physical exercise, to maintain a proper diet and empower them to prevent potential complications. A healthy elderly individual will thereby not become a frail elderly patient who ends up with a disability.

THE FRAIL PATIENT DURING THE COVID-19 PANDEMIC

Due to their lower capacity for adapting to change, frail patients have suffered particularly from the emergence of teleconsultation. The sensory problems common in advanced ages, coupled with less knowledge of technological resources, have made many frail patients feel neglected by

health care, which has led to greater isolation and a risk of losing control of their chronic conditions, which include DM2.

We also need to consider that they are a population at greater risk of presenting complications and higher mortality should they be infected by the COVID-19 virus. In many cases, fear of this infection has contributed to promoting self-isolating behaviours, with all the negative consequences that these entail.

Health professionals should therefore have a differentiated approach with elderly and frail patients, promoting as much as possible the use of telemedicine options that provide greater direct contact, such as videoconferencing, but also promoting to a greater measure in-person consultations and, through the active search of those patients who have stopped contacting the healthcare system, to reconnect with them and restart their quality care.

Another issue of considerable importance for frail patients with diabetes is maintaining adequate control while minimising the risks. Recommendations have been developed on the use of drugs during the pandemic, which include a series by an international expert group belonging to 28 scientific societies (summarised in table 1).⁷

However, our understanding of COVID-19 changes so frequently that after this document was published, new studies and new recommendations emerged that, for example, recommended not discontinuing metformin, because it could have an additional beneficial effect. Therefore, prudence should be our main companion.

Table 1. Use of antidiabetic agents in patients with COVID-19

- **Metformin:** For the possibility of dehydration and lactic acidosis, the drug should be discontinued in infected patients.
- **SGLT2-i:** These increase the risk of ketoacidosis and should be discontinued in case of COVID or respiratory infections.
- **DPP4i:** These are generally well tolerated during the infection and can be maintained.
- **GLP-1RA:** These should be closely monitored, and hydration should be carefully maintained.
- **Insulin:** Should be maintained and monitored (if possible, every 2–4 hours or using continuous glucose monitors). We should be alert to increases in insulin requirements that can lead to the suspicion of worsening symptoms in a patient with COVID-19.

GLP-1RA, receptor agonists of the glucagon-like peptide-1; DPP4i, dipeptidyl peptidase type 4 inhibitors; SGLT2-i, sodium-dependent glucose cotransporter 2 inhibitors.

Along these lines, a recently published retrospective study observed that sitagliptin treatment at the time of hospitalisation for COVID-19 virus infection was associated with reduced mortality, improved clinical results and a higher number of discharges compared with standard treatment.⁸

To summarise, elderly and frail patients require differentiated care, promoting as much as possible direct contact and maintaining an active approach through the search for those patients who have become cut off from the healthcare system and using those therapeutic options that have been shown effective and safe in this patient subgroup.

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