

ANALYSIS OF GLYCEMIC CONTROL IN ELDERLY TYPE 2 DIABETIC PATIENTS INSTITUTIONALIZED IN SOCIO-HEALTHCARE CENTERS

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Background and importance: Diabetes affects between 25% and 33% of the elderly, with higher prevalence in those over 65. This group is at greater risk for complications such as cardiovascular disease and frailty, significantly impacting their quality of life. Proper glucose control is essential to prevent complications in old age.

Aim and objectives: Evaluate the control of type 2 diabetes mellitus (DM2) in patients institutionalized in socio-healthcare centers (SHC) through hemoglobin A1c (HbA1c) values adjusted for frailty criteria.

Materials and methods: A retrospective **multicenter** observational study conducted from January to March 2024. **Elderly patients** (>65 years) with a diagnosis of **DM2** institutionalized in three SHCs were included. The following variables were collected from the electronic medical records:

-**Demographic:** Age, gender

-**Clinical:**

1. The latest **HbA1c** value recorded during the 2023-2024 period.

2. **Frailty:** Patients were stratified according to the criteria established by the American Diabetes Association (ADA) and the geriatric assessment used in daily practice, differentiating as follows:

→2.1 Healthy patient >65 years: 0-1 chronic diseases, intact functional/cognitive status, life expectancy >10 years. HbA1c: 7-7.5%.

→2.2 Pre-frail patient: 2-3 chronic diseases, mild functional/cognitive impairment (Barthel \geq 60 or Katz C-D). HbA1c: 7.5-8%.

→2.3 Frail patient: \geq 3 comorbidities, severe functional/cognitive impairment (Barthel 40-35, Katz E-F). HbA1c: 8-8.5%.

→2.4 Dependent/end-of-life patient: Katz G, Barthel \leq 35, immobile, and fully dependent. Do not measure HbA1c.

Based on these criteria, it was assessed whether the latest HbA1c value was adjusted according to frailty.

Endocrinology consultations(ECs) over the past 2 years and the implementation of the proposed measures were also evaluated.

Results Total: 512 patients → 124 DM2 patients(24%) selected. Mean age of 84 \pm 7 years, 64% of whom were women

HbA1c data

- Not determined in 15% (19)
- Value 0-7% in 43%(53)
- Value 7-7.5% in 16% (20)
- Value 7.5-8% in 5%(6)
- Value 8-8.5% in 7%(9)
- Value >8.5% in 14%(17)

Frailty assessment:

- Healthy elderly 20%(25)
- Pre-frail 36%(45)
- Frail 25%(31)
- Dependent 17%(21)
- No data 2%(2).

Adjustment of HbA1c based on frailty:

- HbA1c was adjusted in 11%(14) of the cases
- Not adjusted in 56%(69)
- Unnecessary to measure in 15%(18)
→patient's dependency or terminal status
- No recent HbA1c data were available in 19%(23)

An EC was performed in 2%(3) of the cases, and the proposed glycemic control measures were applied.

Conclusions: DM2 in the elderly is a significant issue considering its **high prevalence**(24%) and potential complications. In **most cases** in the study, glycemic control by HbA1c was **not adjusted** according to frailty, and in 43% of cases, it was below the appropriate range for healthy elderly patients. Endocrinology consultations were scarce, despite the importance of specialist management in vulnerable and complex patients. Therefore, we recommend increasing these consultations. The presence of a pharmacist in SHCs would be advisable to optimize the use of antidiabetic medications.

