

# Antidiabetic prescription and use pattern in the population. Results from the EpiChron Cohort Study



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## Introduction

Non-adherence to medication has a global impact on patients, especially those with chronic conditions such as type 2 diabetes mellitus.

## Objetives

To study antidiabetic treatment initiation, add-on, switching, and medication persistence in the first year of type 2 diabetes mellitus treatment.

## Methods

Observational study including  $\geq 14$ -year old patients who initiated antidiabetic treatment (ATC A10B), between 2013 and 2014 in the EpiChron Cohort (Spain).

Assessed variables: age, administrative health area (urban/rural), deprivation index, number of drugs dispensed simultaneously and number of comorbidities.

A descriptive analysis of treatment initiation, add-on and treatment switching was conducted for 1 year. Non-persistence was considered as a gap of  $\geq 90$  days between two dispensations. Cox regression models were used to estimate the likelihood of non-persistence.

**EpiChron Cohort** links demographic, clinical (primary and specialized care), and drug dispensation information of the Spanish National Health System in Aragon (1.3 million inhabitants).

## Results

Metformin was the most prescribed oral antidiabetic (80.5%) a, followed by fixed combination therapy in 15-79 year-old adults (10.9%), and DPP-4 inhibitors in those over 80 years (12.7%).

Individuals initiating metformin treatment showed a lower likelihood of addition or treatment change.

Treatment persistence at one year was 69%. Patients over 40 years (HR 0,53-0,63), from rural (HR 0.79) or deprived areas (HR 0.77-0.82), and with polypharmacy (HR 0.84) had a lower risk of discontinuation.

	INITIAL MONOTHERAPY TREATMENT					*p-value
	Metformin	iDPP-4	Repaglinide	Sulfonylureas	Total	
<b>Frecuency (N (% col))</b>						
<b>Persistence</b>	2038 (68.8%)	135 (76.7%)	33 (61.1%)	30 (63.8%)	<b>2236 (69.0%)</b>	0,068
<b>Discontinuation</b>	926 (31.2%)	41 (23.3%)	21 (38.9%)	17 (36.2%)	1005 (31.0%)	

## Discussion

The observed prescription pattern follows the clinical evidence. The lower incidence of metformin treatment adjustments suggests that using this drug at initiation could reduce the risk of complications compared with other antidiabetics. The high persistence rate found, consistent with the literature, is influenced by age, area of residence, and the presence of polypharmacy.

## Conclusions

Given the high clinical and social impact of diabetes, the implementation of strategies to avoid undesirable consequences of treatment discontinuation in high risk groups of patients is essential.