

# Patient's and physician's acceptance of a pharmacist-led intervention to reduce anticholinergic burden

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## Background and importance

The anticholinergic burden has been repeatedly associated with adverse events in elderly patients.

## Aim and objectives

To determine the acceptance of a pharmacist-led intervention to reduce the anticholinergic burden.

## Material and methods

**Design:** Interventional prospective study carried out from January to May 2021.

**Population:** Institutionalized patients from a Spanish nursing home.

**Variables collected:** Sex, age, prescribed drugs, prescribed anticholinergic drugs (ADs) according to Drug Burden Index (<https://www.anticholinergicscales.es/>), Charlson index, Barthel index, intervention proposals and intervention acceptance.

Pharmacists led the design of the treatment interventions: every patient was interviewed and their treatment reviewed; pharmacist then proposed treatment modifications of ADs on deprescription (withdrawal, dose reduction or switch), these modifications were evaluated by physicians and later offered to patients.

The study was carried out according to national ethical standards, and patient's written consent were collected. Statistical analyses were carried out with Pearson's chi-squared test.

## Results

### Population characteristics:

157 patients assessed, 99 (63.1%) received ADs and were included. 59,6 % men, mean age 72,5 ± 7,9 years.

Median prescribed drugs: 10 (1-19), median prescribed ADs: 2 (1-5).

Median Charlson Index: 2 (0-9). Mean Barthel index: 88,0 ± 15,2

### Intervention

Treatment modifications were proposed for 37/99 patients who received a total of 85 ADs. Overall, 97 treatment modification proposals we designed.

The ADs most frequently proposed for intervention were: tramadol (15), pregabalin (9), lorazepam (8), alprazolam (8), and tamsulosin (7).

Interventions	Intervention proposals	Accepted by physicians	Accepted by patients
<b>Withdrawal</b>	47 (48.4%)	28 (59.6%)	22 (46.8%)
<b>Dose reduction</b>	41 (42.3%)	22 (53.7%)	12 (29.3%)
<b>Switch</b>	9 (9.3%)	5 (55.6%)	4 (44.4%)
<b>Total</b>	97	56	39

### Statistical analysis

No statistically significant differences in acceptance were found according to intervention design (P>0.05).

Interventions over anxiolytics and sedatives were rejected significantly more often by patients when compared to other drugs (P<0,005).

## Conclusions:

A significant percentage of physicians and patients rejected the proposed interventions. The success of the intervention was limited by the patient's rejection, particularly in treatment modifications of anxiolytics and sedatives.

This study suggests that pharmacists may find difficult to achieve anticholinergic burden reductions by suggesting ADs changes to physicians and patients.