

# ANTICHOLINERGIC RISK EVALUATION IN HOSPITALISED PATIENTS

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## Background and importance

The combination of drugs with anticholinergic action can cause side effects in people with morbidity. This risk increases with age and frailty. There are different scales to estimate the anticholinergic risk (AR) but there is substantial variability between them. The "Anticholinergic Burden Calculator" (ABC) tool allows the calculation of the Drug Burden Index (DBI), which takes into account the prescribed dose and includes sedative drugs.

## Aim and objectives

Objective 1: To determine the AR, expressed in DBI, of patients admitted to a second-level hospital.

Objective 2: To analyse their comorbidities and to relate them to possible anticholinergic side effects

## Materials and methods

Cross-sectional study carried out from patients admitted to the hospital ward. Patients older than 65 years and with more than five prescribed drugs were included in the study. The variables collected from the electronic medical history were: age, gender, morbidity, hospital service, drugs and dose. To obtain the AR, the ABC tool was used, expressing the values in DBI. According to AR, the patients were classified into three groups: without risk (0), medium risk (<1) and high risk ( $\geq 1$ ).

The comorbidities of each patient were analysed. Those that were related to anticholinergic effects were selected and classified into two groups: a) somatic symptoms (dry mucosa, constipation, urinary retention) and b) neuropsychiatric symptoms (cognitive and functional dysfunction, agitation, falls).

**183 patients**

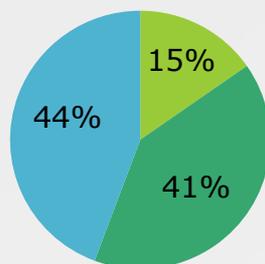
84.3 years (SD=8.9)  
♀ 60.1%

## Results

### Anticholinergic Risk

Average all patients  
DBI= 0.97 (SD 0.86)

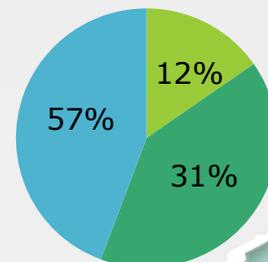
Average patients  
HIGH RISK  
DBI= 1.7 (SD 0.79)



■ WITHOUT RISK  
■ MEDIUM RISK  
■ HIGH RISK

% PATIENTS

**Comorbidities related to anticholinergic effects** 49.2% (n=90) → 87.4% neuropsychiatric symptoms



## Conclusion and relevance

Most of the patients presented anticholinergic risk. Half of them had comorbidities that could be related to the effects of anticholinergic drugs. These comorbidities increased in direct proportion to anticholinergic risk. It would be advisable to implement a hospital protocol to reduce the anticholinergic burden.