# COMPARATIVE ANALYSIS OF ANTICHOLINERGIC SCALES IN OLDER PATIENTS: A SYSTEMATIC REVIEW TOWARDS A GOLD STANDARD TOOL

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## BACKGROUND AND IMPORTANCE

The association between anticholinergic burden (AB) and numerous adverse effects and health problems in the elderly is well-established. However, there is no universally accepted gold-standard tool for estimating AB in older patients.

# AIM AND OBJECTIVES



To identify and compare anticholinergic scales (AS) applicable to chronic elderly patients, analyze the methodology behind their development, and evaluate their main characteristics.

#### MATERIAL AND METHODS

- SYSTEMATIC REVIEW (PROSPERO ID CRD42024505226) October 2023
- INCLUSION CRITERIA: Studies specifying the list of included drugs and the methodology for the development of AS.
- DATA EXTRACTION: composition of AS, categorization of anticholinergic potential, consideration of drug dosage effects and any demonstrated correlation with healh outcomes in older patients.

#### **RESULTS**



18 IDENTIFIED AS: ABC, ADS, DBI, ACB, CHEW, CRAS, ARS, AAS, ALS, DS, AEC, MARANTE SCALE, GAS, BAAS, KAS, CALS, Swe-ABS and Evidence-based ABS.

Number of included drugs	
<100	ABC, ACB, CRAS, ARS, AAS, ALS, MARANTE
100-200	ADS, DBI, CHEW, DS, AEC, BAAS, Swe-ABS
>200	GAS, KAS, CALS, ABS

# Anticholinergic potential classification

All AS except DBI

#### **Dose-effect consideration**

ADS, DBI, MARANTE.

- Derived from previously published AS: ADS,
   CRAS, DS, GAS, BAAS, KAS, CALS, Swe-ABS.
- Designed after literatura review on anticholinergic properties of medication:
   ABC, ACB, ARS, AEC.
- Mixed method: AAS, ALS.
- Experimental method: CHEW, ABS.
- Mathemathical formula developed by experts:
   DBI, MARANTE.

## Health outcomes

No health outcomes associations were found or studies were lacking in older patients for DS, AEC, BAAS, KAS, CALS, Swe-ABS and ABS.

## CONCLUSIONS AND RELEVANCE



A significant number of AS have been identified, many developed from existing scales, thus inheriting similar advantages and limitations. Many do not consider drug dosing, and some have not demonstrated health outcome correlations in older patients. There is a clear future need for a universal, standardizable, and easily updatable tool to overcome these limitations and reliably estimate AB in these vulnerable patients.

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ANTICHOLINERGIC SCALES, OLDER PATIENTS,
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