

INTERACTIONS BETWEEN HERBAL PRODUCTS AND DIRECT ORAL ANTICOAGULANTS: AGREEMENT BETWEEN DRUG INTERACTION DATABASES

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BACKGROUND AND IMPORTANCE

Direct oral anticoagulants (DOACs) are used for the prevention of thromboembolic events. They may interact with concomitant substances, including herbal products, with variable severity. Drug interaction databases often provide inconsistent information, leading to uncertainty in clinical decision-making.

AIM AND OBJECTIVES

To assess the level of agreement in the classification of interactions between herbal or food products and DOACs across four drug interaction databases.

MATERIALS AND METHODS

Descriptive cross-sectional study

Interaction databases

- Lexicomp
- Medinteract (SEFH)
- Micromedex
- Drugs.com

DOACs

- Apixaban
- Rivaroxaban
- Edoxaban
- Dabigatran

Statistical analyses: STATA BE/17.0

Overall agreement: Gwet's AC, quadratic weights
Sensitivity analysis: Fleiss' Kappa, quadratic weights

Re-Clasificación	Lexicomp	Medinteract	Micromedex	Drugs.com
Severe	X, D	Grave	Contraindicated, Major	Major
Moderate	C	Moderada	Moderate	Moderate
Minor	B	Leve	Minor	Minor
Undetermined	A	No determinado	-	Unknown

Agreement levels - Altman's thresholds

≤0.20 poor
0.21–0.40 fair
0.41–0.60 moderate
0.61–0.80 good
≥0.81 excellent

RESULTS

1992 potential interactions between DOACs and molecules of which **149 (7.5%) involved herbal or food products:**

- Apixaban 42 (28.2%)
- Dabigatran 42 (28.2%)
- Edoxaban 23 (15.4%)
- Rivaroxaban 42 (28.2%)

DOAC	Gwet's AC	Fleiss' Kappa
Apixaban	0.57	0.10
Dabigatran	0.55	0.05
Edoxaban	0.56	0.08
Rivaroxaban	0.56	0.10

CONCLUSION AND RELEVANCE

- ✓ Drug interaction databases showed inconsistent classification of DOAC–herbal product interactions, with overall agreement **ranging from poor to moderate**.
- ✓ Pharmacists should critically appraise interaction information before making clinical recommendations.
- ✓ Standardization of classification systems and further research on DOAC–herbal interactions are needed to strengthen clinical decision support.

