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PHARMACEUTICAL INTERVENTIONS IN PATIENTS TREATED WITH DIRECT-ACTING ORAL ANTICOAGULANTS ADMITTED IN INTERNAL MEDICINE

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Background

❖ The increase in elderly patients with comorbilities who are treated with direct-acting oral anticoagulants (DOACs) makes necessary an **individualised pharmacotherapy follow-up during hospitalisation**.

Objective

❖Our objective is to describe the causes of pharmaceutical interventions related to DOACs and to determite the acceptance of these interventions by physicians.

Methods

Descriptive observational study of all patients with a DOAC prescription admitted in Internal Medicine from the Emergency Department and **descriptive analysis of pharmaceutical interventions** related to DOACs.

- ❖ Interventions were done through a message in the electronic prescription program.
- ❖ **Study period**: January to May 2017
- ❖ **Data sources**: electronic medical records and electronic prescription program.
- ❖ **Collected data**: demographic and clinical variables, laboratory data and concomitant treatments.

Results

- ✓ 78 patients
- ✓ 100 % of patients with nonvalvular atrial fibrillation treated with DOACs
- ✓ Mean age: 79 (54–93) years-old
- ✓ 55% men

Average of chronic concomitant medications prescribed before admission

↓

8.8 (2–16) medications

Pharmaceutical interventions were done in 49 patients to adapt anticoagulant therapy to acute episodes:

DOAC	% patients
Apixaban	49%
Rivaroxaban	37%
Dabigatran	14%

31 recommendations of DOAC dose reduction
52% accepted

18 recommendations of DOAC suspension
100% accepted

107 episodes of hospitalisation

Most common causes of DOAC dose reduction recommendations
Renal failure
Advanced age
Active bleeding
High risk of bleeding
Drug interaction
Low bodyweight

Most common causes of DOAC suspension	
Acute renal failure	Drug interaction
Active bleeding	Duplication of anticoagulants
High risk of bleeding	Liver failure

A total of **17 concomitant treatments were stopped** during the study period because of the potential interactions with DOACs:
benzodiazepins (8), **antiplaquet drugs** (5) and **others** (4)

Conclusions

❖Active surveillance is needed during the acute episodes in patients treated with DOACs.
❖Impaired renal function, advanced age, active bleeding, pharmacodynamic and pharmacokinetic interactions, liver failure and low bodyweight are causes of overexposure to DOACs.
❖Pharmaceutical interventions have a high rate of acceptance by physicians and can prevent adverse events.

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