

# EFFECT OF SARS-CoV-2 PANDEMIC ON DIRECT ORAL ANTICOAGULANTS USE IN THE PRIMARY CARE SETTING

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## BACKGROUND

Direct oral anticoagulants (DOAC) were moderately used in the Primary Care setting due to their associated risks in elderly and high cost; in contrast, Acenocoumarol was much more common in Catalonia, even if it requires intense monitoring. During the SARS-CoV-2 pandemic the use of DOAC has been encouraged to reduce patients' medical visits.

## AIM AND OBJECTIVES

- Analyze the change in DOAC use in our area
- Evaluate prescription appropriateness.

## MATERIALS AND METHODS

- Cross-sectional study analyzing the use of DOAC in a population of a PC Area in Barcelona in September 2020. Results were compared to historical data from December 2018.
- Demographic variables (age, gender), pharmacotherapeutical data (drugs, dose, frequency) and clinical data (glomerular filtration [GF], International normalized ratio [INR], CHA2DS2-VASc score) were obtained from the Electronic Medical Record (September 2020).
- Prescription appropriateness was evaluated according drugs' Summary of Product Characteristics.

## RESULTS

- The study included 351,732 patients in 2018 and 364,350 in 2020.
- 9,194 (2.65%) and 10,017 (2.75%) of them were treated with oral anticoagulants, respectively.

### DOAC prescription appropriateness in 2020

The main indication was atrial fibrillation: 8403 patients (83.9 %)

There were cases where anticoagulation was not recommended according to CHA2DS2-VASc

- 892 male had CHA2DS2-VASc < 2
- 554 women had CHA2DS2-VASc < 3

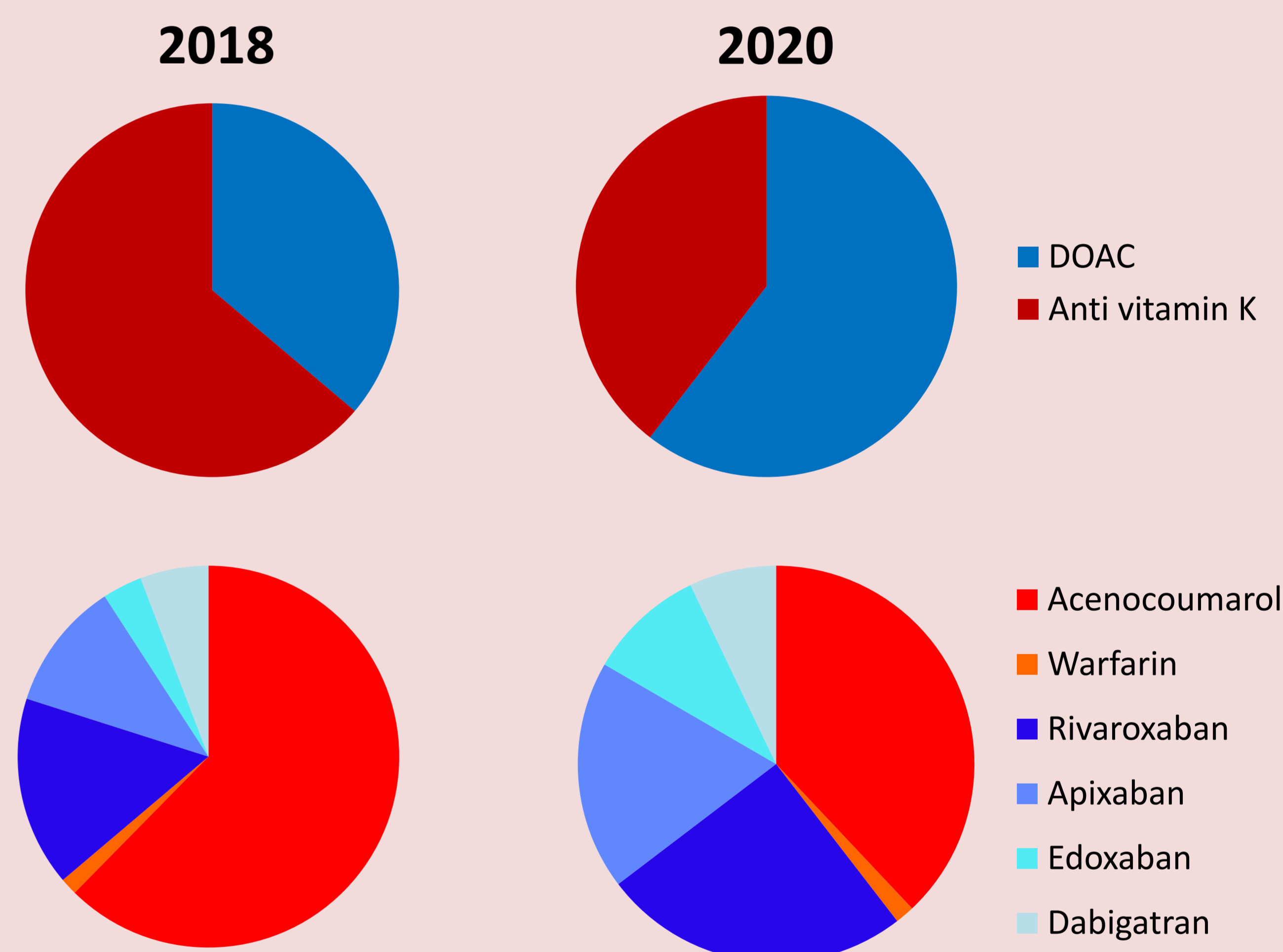
Cases of DOAC contraindication (1136; 18.8 %)

- Renal impairment (76; 1.3 %)
- Valvulopathy (1060; 17.5 %)

Cases in which DOAC were not recommended

- Use of non-steroidal anti-inflammatory drugs (44; 0.7 %)
- Use of phenytoin or phenobarbital (7; 0.1 %)
- Use of selective serotonin or noradrenaline reuptake inhibitors (1356; 22.4 %)
- Dose was not appropriately reduced in 526 patients (5.3 %).

### Distribution of type of anticoagulants prescribed in 2018 and 2020



|                      | 2018       |        |      | 2020       |        |      | p       |
|----------------------|------------|--------|------|------------|--------|------|---------|
|                      | Prevalence | CI 95% |      | Prevalence | CI 95% |      |         |
| Oral anticoagulant   | 2,6        | 2,6    | 2,7  | 2,8        | 2,7    | 2,8  | <0,05   |
| Acenocoumarol        | 62,4       | 61,4   | 63,4 | 38         | 37     | 39   | <0,0001 |
| Warfarin             | 1,5        | 1,2    | 1,7  | 1,6        | 1,3    | 1,8  | >0,05   |
| DOAC                 | 36,19      | 35,2   | 37,2 | 60,5       | 59,5   | 61,4 | <0,0001 |
| Apixaban             | 10,9       | 10,3   | 11,6 | 18,7       | 18     | 19,5 | <0,0001 |
| Edoxaban             | 3,4        | 3      | 3,8  | 9,5        | 9      | 10,1 | <0,0001 |
| Dabigatran           | 5,8        | 5,3    | 6,3  | 7,1        | 6,6    | 7,6  | <0,05   |
| Rivaroxaban          | 16,1       | 15,4   | 16,9 | 25,1       | 24,3   | 26   | <0,0001 |
| % Apixaban (DOAC)    | 30,2       | 28,7   | 31,8 | 31         | 29,8   | 32,1 | >0,05   |
| % Edoxaban (DOAC)    | 9,3        | 8,4    | 10,3 | 15,8       | 14,9   | 16,7 | <0,0001 |
| % Dabigatran (DOAC)  | 16         | 14,8   | 17,3 | 11,8       | 11     | 12,6 | <0,05   |
| % Rivaroxaban (DOAC) | 44,5       | 42,8   | 46,2 | 41,5       | 40,3   | 42,8 | <0,05   |

Prevalence of direct oral anticoagulants (DOAC) in our population, comparison between 2018 and 2020.

- ❖ DOAC use has increased notably in our Primary Care area during the SARS-CoV-2 pandemic. There was an increased use of edoxaban and a decreased use of dabigatran and rivaroxaban.
- ❖ We found a relevant percentage of DOAC prescription when treatment was contraindicated (18.8%) or not recommended.
- ❖ Interventions should be done to improve DOAC prescription and ensure patients' safety.