

# Assessed for Quality Clinical Practice Guidelines support the Rational Use of Direct Oral Anticoagulants in COVID-19 patients of Russia

## Measuring the impact and quality of clinical practice guidelines on national direct oral anticoagulants consumption in COVID-19 pandemic in Russia

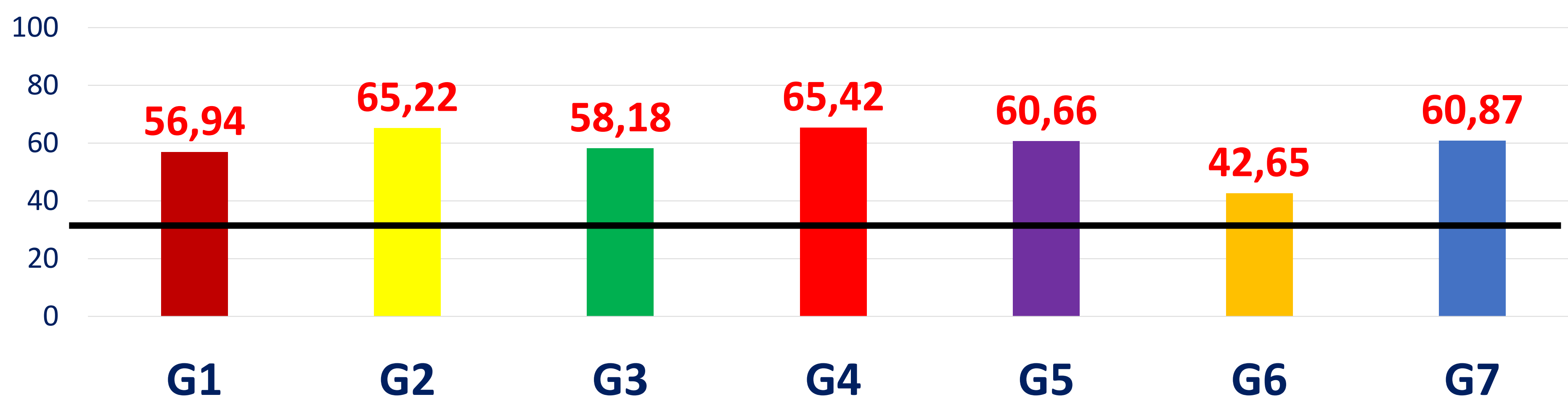
**Background:** The coronavirus pandemic triggered creation of clinical practice guidelines (CPGs) by professional medical associations. Quality of Russian CPGs has been scarcely studied. Direct oral anticoagulants (DOACs) in COVID-19 patients were problematic for evidence-based recommendations.

**Objectives:** To assess DOAC consumption in Russia during COVID-19 pandemic and quality of national CPGs that recommended their use.

**Methods:** We searched Russian databases for CPGs, published in 2020-23. We identified seven relevant documents. Three authors analysed Russian CPGs using AGREE II instrument. We calculated DOAC consumption in Defined Daily Doses (DDD) in all officially registered COVID-19 patients in 2020–2022 and compared it to CPG recommendations.

Baybulatova, E.A.; Chenkurov, M.S.; Korovyakova, E.A.; Zyryanov, S.K.; Ziganshina, L.E. Direct Oral Anticoagulants' Consumption and Expenditure in the COVID-19 Pandemic in Russia and Clinical Practice Guidelines for Their Use. *Pharmacoepidemiology* 2024, 3, 1-32. <https://doi.org/10.3390/pharma3010001>

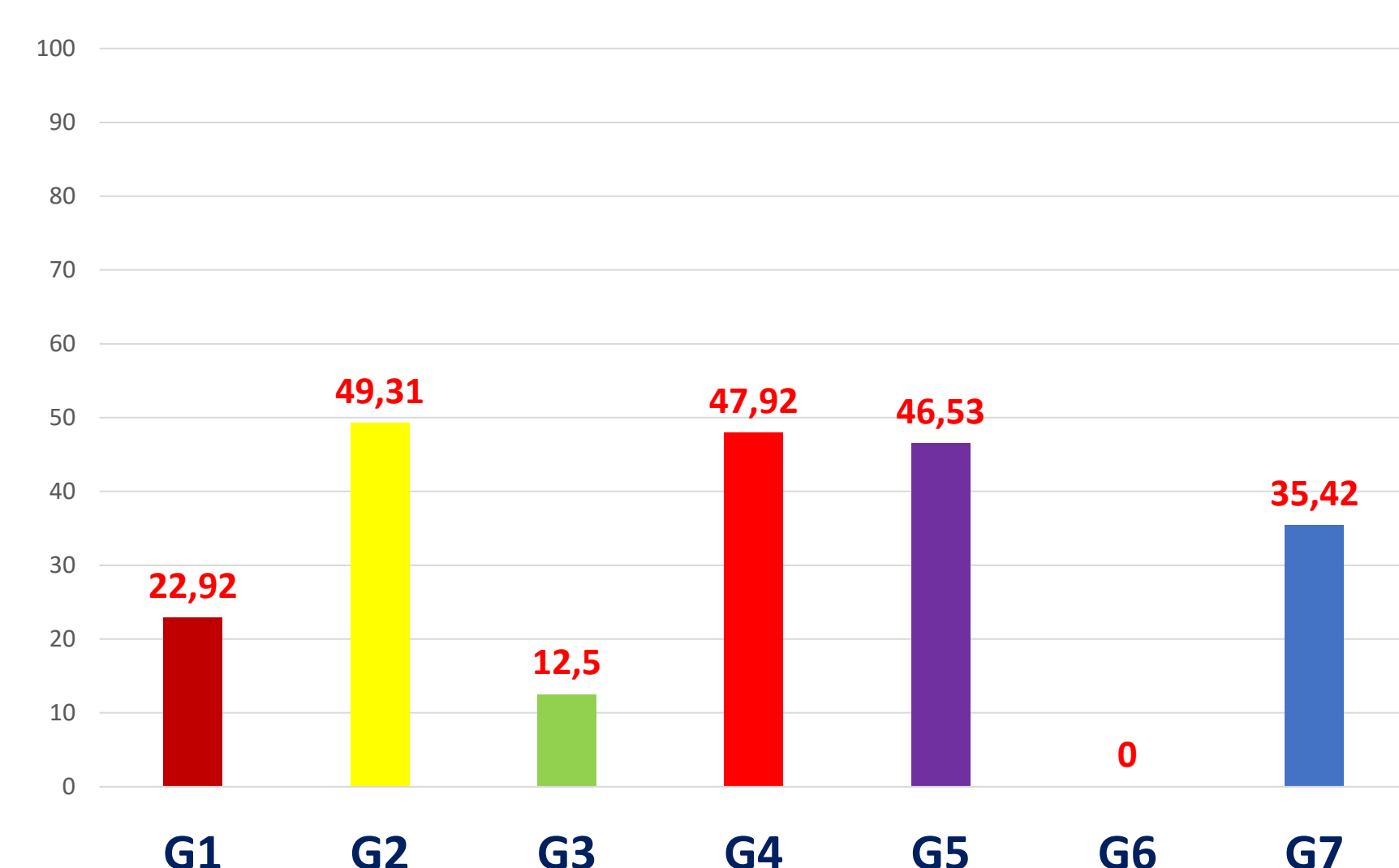
### Comparison of the Assessment of Seven CPGs for Treating COVID-19 with AGREE II (%)



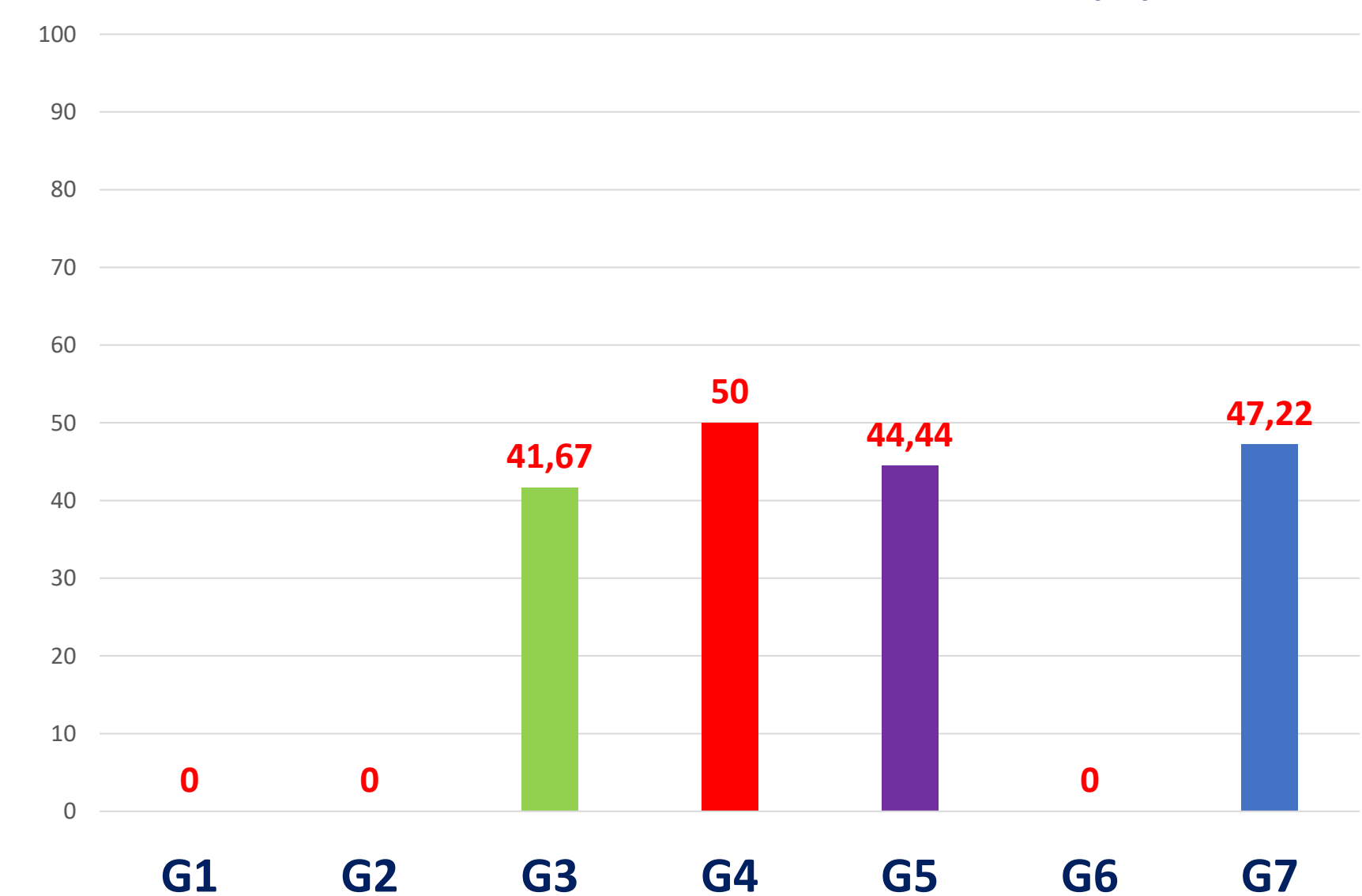
### Identified clinical practice guidelines to be assessed with AGREE II instrument

Year	CPG code name
2022	G1
2021	G2
2021	G3
2020	G4
2021	G5
2021	G6
2021	G7

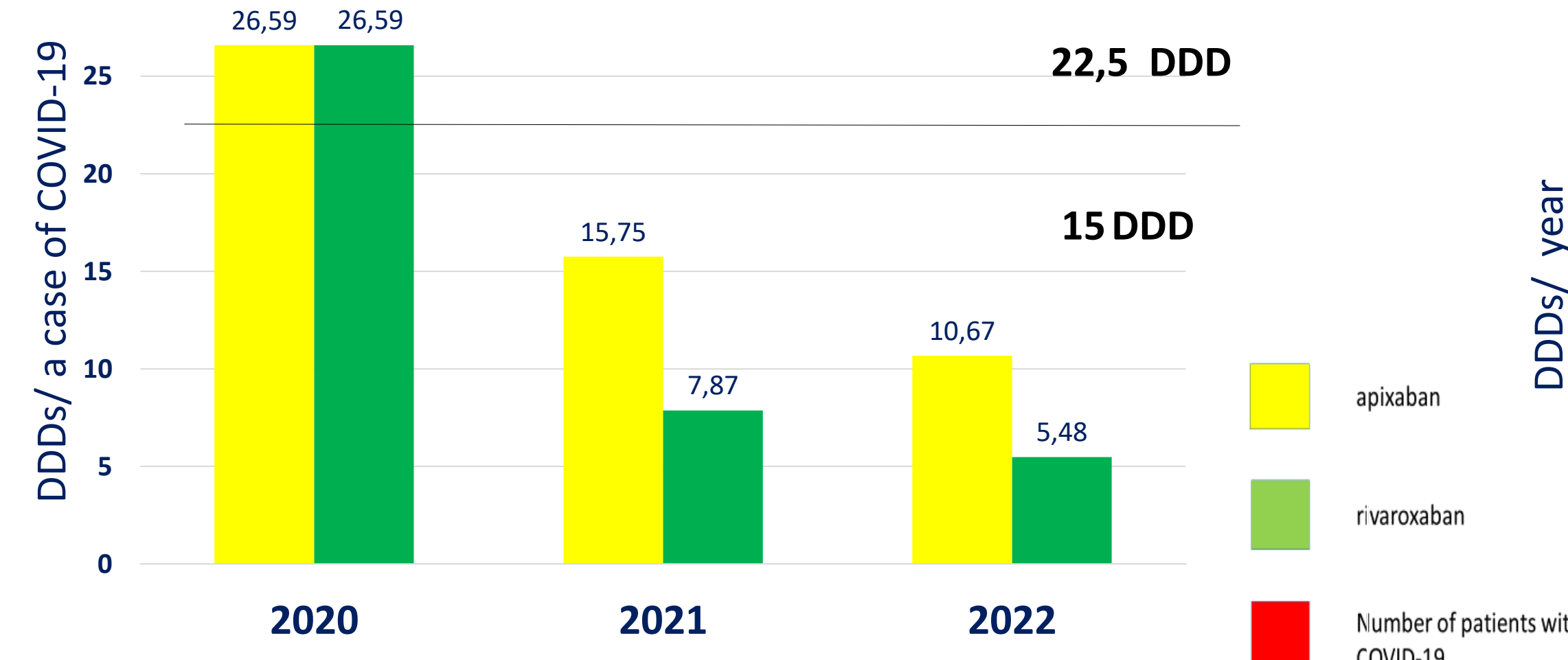
### DOMAIN #3 RIGOUR OF DEVELOPMENT (%)



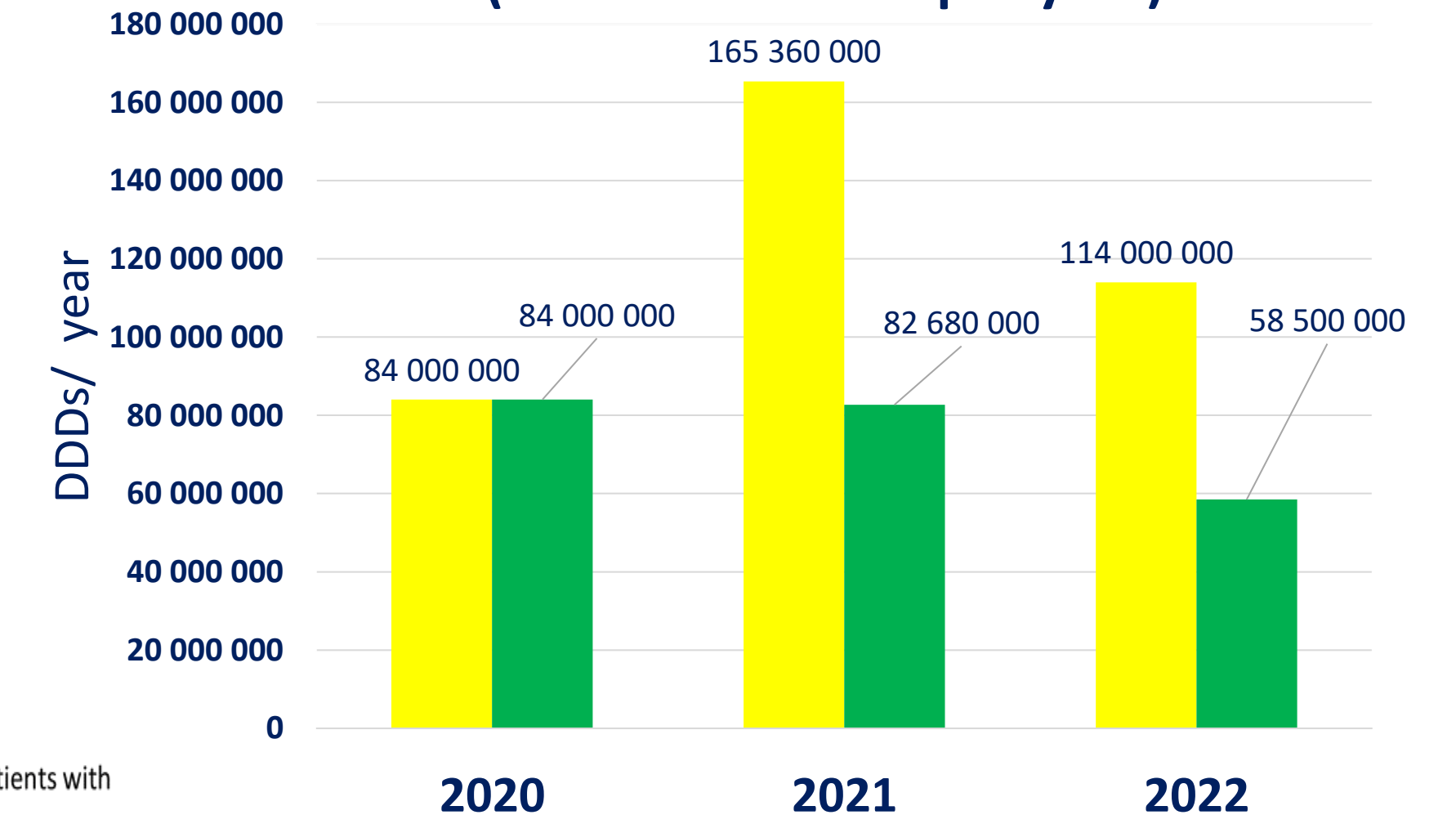
### DOMAIN #6 EDITORIAL INDEPENDENCE (%)



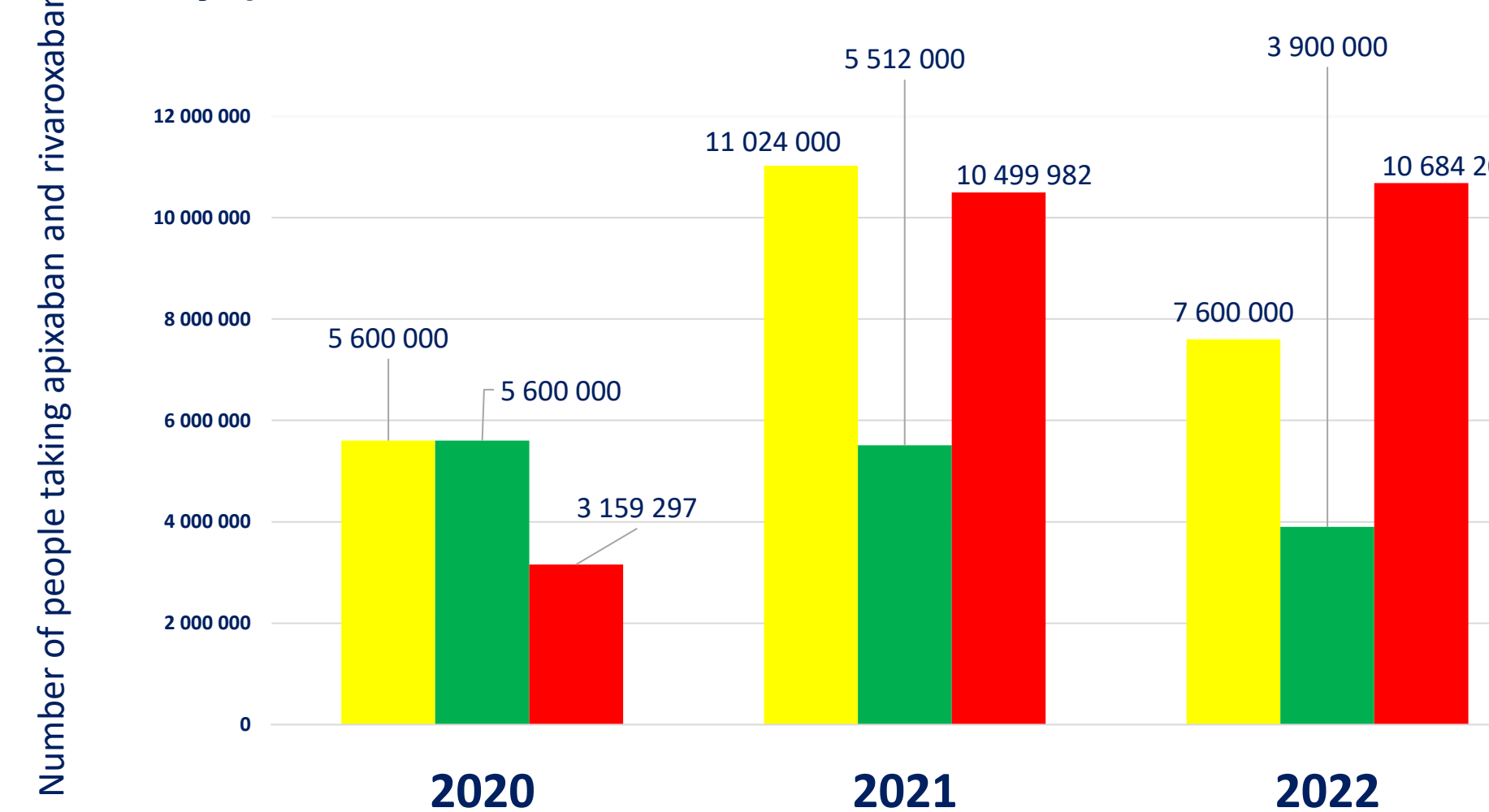
### DDDs/a case of COVID-19 of apixaban and rivaroxaban in the Russian Federation (2020 to 2022)



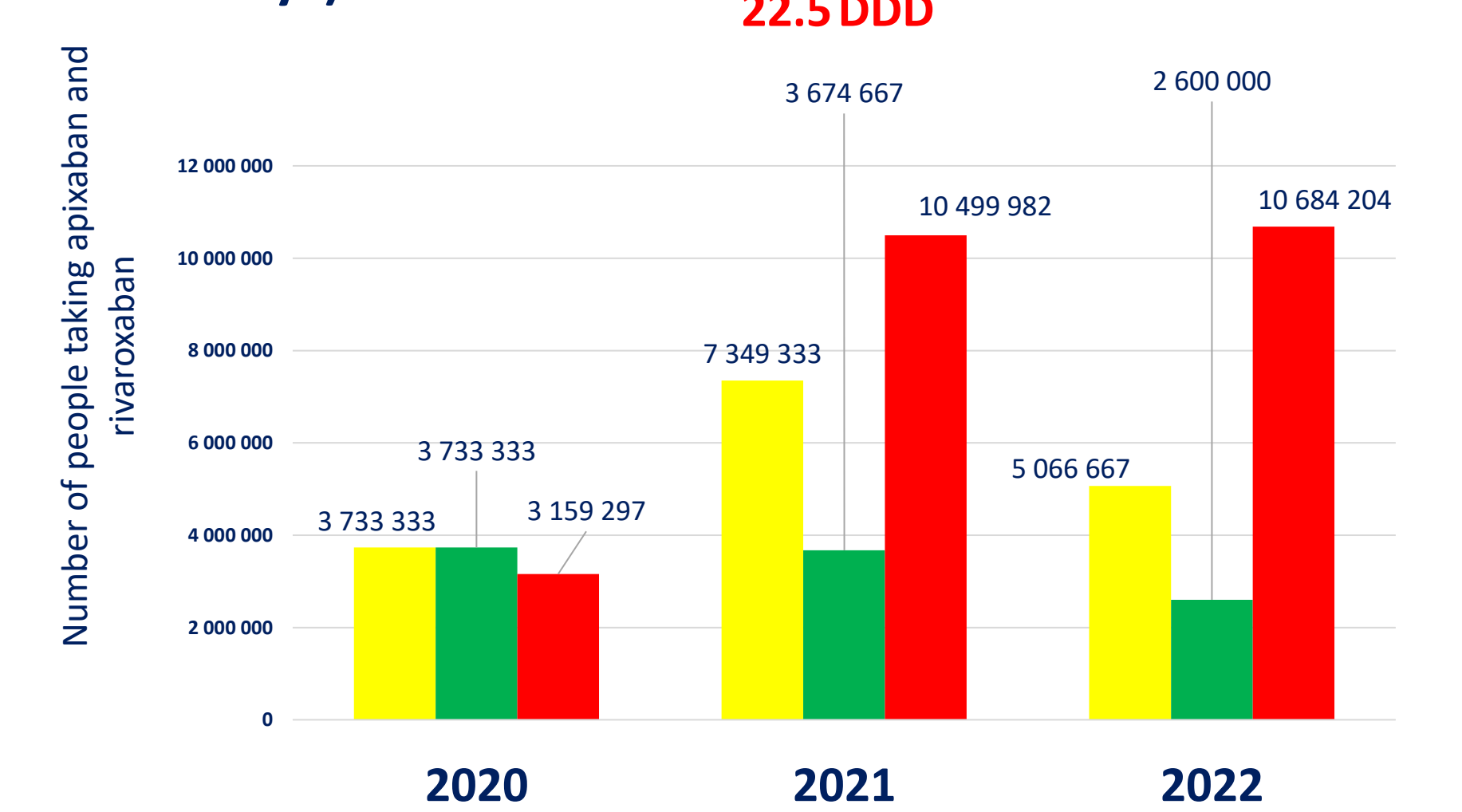
### Gross national consumption of apixaban and rivaroxaban in the Russian Federation in 2020–2022 (number of DDDs per year)



### Number of people taking apixaban and rivaroxaban in the Russian Federation in 2020–2022 (15 DDD, 30 days).



### Number of people taking apixaban and rivaroxaban in the Russian Federation in 2020–2022 (22.5 DDD, 45 days).



### Conclusions:

1. Assessment scores of AGREE II instrument were highest for domains scope and purpose and clarity of presentation. Domains of concern were rigor of development and editorial independence.
2. During the coronavirus pandemic, the highest level of DOAC consumption (DDD) was in 2020, exceeding the recommendations of Russian CPGs for DOACs. By 2022, DOAC consumption decreased with an increase in the share of apixaban in the structure of DOAC consumption.
3. In 2021, the hypothetical dose of apixaban per patient with COVID-19 corresponded to the recommended 30-day course of prophylaxis by national CPGs.



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