

FRAXture: does FRAX reflect the risk of fracture in real practice?

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Introduction

- The Fracture Risk Assessment Tool (**FRAX**) has been developed¹ as an algorithm to evaluate the **10-year risk of hip and major osteoporotic fractures**, based on **clinical risk factors**, with or without bone mineral density (BMD) at the femoral neck.

- In a context where costs are increasingly taken into account, the availability of such tool which requires **no costs (when performed without BMD)** comes up as a valuable resource that weights greatly on the clinicians' decision to treat a patient with an antiosteoporotic drug.

- The FRAX tool has recently been validated for the Portuguese population.

Objectives

With this work, the authors intended to assess FRAX accuracy when retrospectively performed in patients with hip fracture.

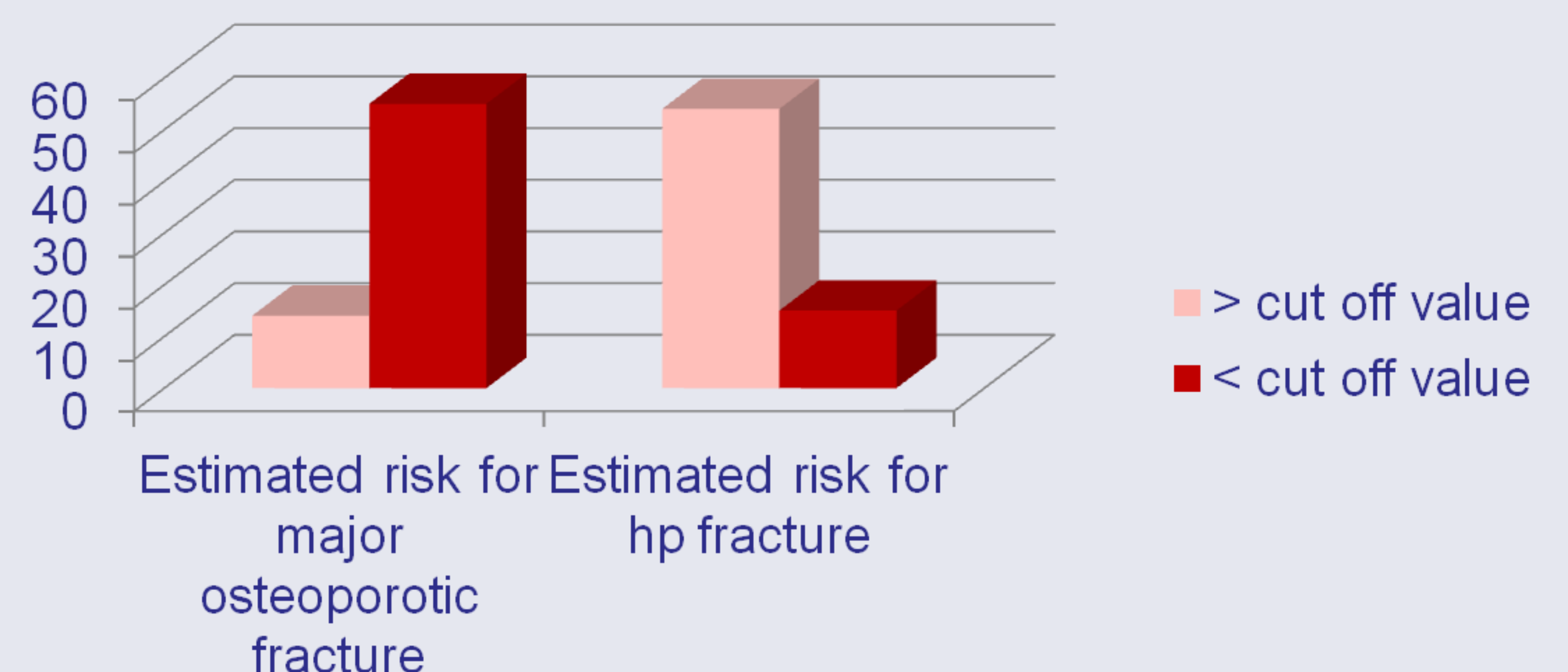
Methods

- A **retrospective cohort study** was run, in which 100 patients with hip fracture randomly selected from an Orthopedics Department were enrolled.
- FRAX tool (without BMD) was performed and patients were questioned about previous or current treatment with antiosteoporotic drugs.

Results

From the 100 patients enrolled, 31 couldn't cooperate (because of dementia or other medical intercurrents).

Frax item	Medium / %
Mean age	77.4±9.1 years
M:F	5:18
Mean BMI	25.9±4.6 kgs/m ²
Previous fracture	30.4%
Parent fractured hip	7.2%
Current smoking	2.9%
Glucocorticoids	5.8%
Rheumatoid arthritis	-
Secondary osteoporosis	5.8%
Alcohol >3U/day	7.2%
Mean risk for major osteoporotic fracture at 10 years	14.9±9.7%
Mean risk for major osteoporotic fracture at 10 years	8.0±8.4%



Conclusions

- In this cohort, established threshold for high risk for hip fracture **FRAX algorithm missed 21.7% of the patients who actually had a hip fracture.**
- Only 14.8% of the patients with high risk for hip fracture were being treated with antiosteoporotic drugs – **osteoporosis is underdiagnosed and undertreated**
- The use of FRAX in clinical practice – especially in primary healthcare – could improve the intervention on these patients.
- Limitations:** small cohort; retrospective study