Osteoporosis Screening in Community Pharmacies in Portugal

Rodrigo Murteira, David Lopes, Maria Cary, Zilda Mendes Centre for Health Evaluation & Research, National Association of Pharmacies (CEFAR-IF/ANF), Lisbon



BACKGROUND

Osteoporosis is an emerging medical and socioeconomic threat with an estimated high prevalence in Europe (16 million of women, 4 million of men aged over 50). Fragility fracture costs exceed those of many other chronic and are set to increase to €47.4 billion by 2030.¹

Osteoporotic fractures cause major morbidity and mortality, with many people who experience such fractures rapidly deteriorating in health status and experiencing a lower quality of life. Osteoporotic fractures and re-fractures can be prevented and better managed when people at high risk are earlier identified.²

The objective of this study was to assess the risk factors of osteoporosis in the female Portuguese population who are 50 years or older and to raise awareness about the disease.

In addition, we aimed to estimate the prevalence of risk factors for osteoporosis at national and regional level, and to describe the sociodemographic characteristics of screened individuals.

METHODS

FARMACIA •	RECRUITMENT	4 th May to 8 th July 2021
	POPULATION	Women aged 50 or older without osteoporosis
- <u></u>	STUDY DESIGN	Non-interventional, multicentre, cross-sectional
	DATA SOURCES	IOF Osteoporosis Risk Check

Data was collected using an adapted version of the IOF Osteoporosis Risk Check. The IOF Osteoporosis Risk Check is a tool to raise awareness of factors which are known to increase risk of osteoporosis and fractures.³ According to this instrument, an individual is at risk if it has at least one of the eight risk factors assessed. In addition, sociodemographic and anthropometric data was also collected.

The prevalence of risk factors for osteoporosis was calculated considering the ratio between the number of individuals at risk and the total number of valid screenings.

A prespecified sensitivity analysis was conducted to assess changes in national osteoporosis prevalence of including individuals for whom the screening result was unknown.

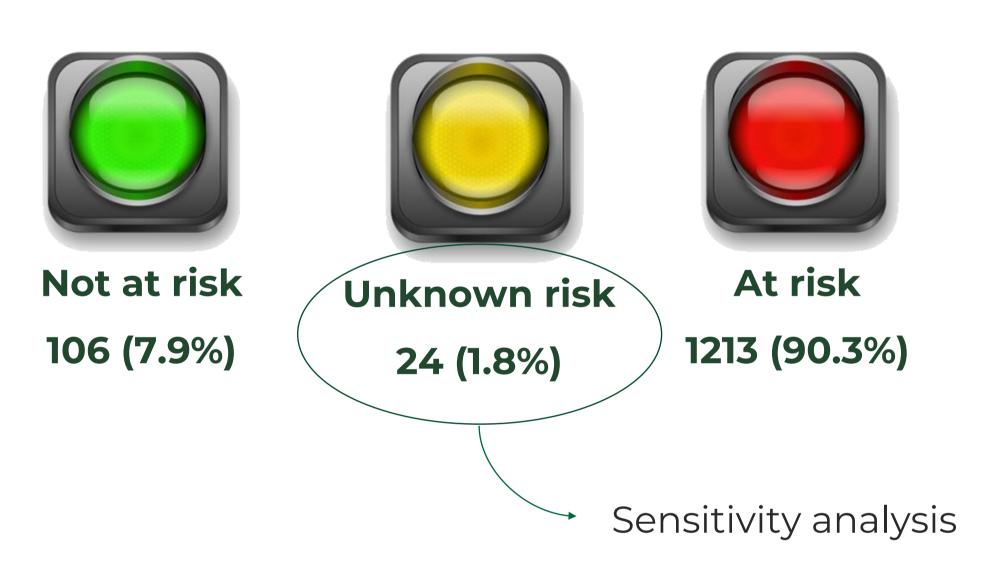
RESULTS

Baseline characteristics

PARTICIPATION	Pharmacies = 102 Participants: 1343
AGE	Median (IQR) = 62 (56-70)
EDUCATION	Up to 6 years (basic) = 47.1% Higher than 6 years = 52.9%
EMPLOYMENT STATUS	Employed = 45.6% Non-employed = 54.4%
ВМІ	Median (IQR) = 26.3 (23.7-29.4)

13

Screening results



Risk factor characterization

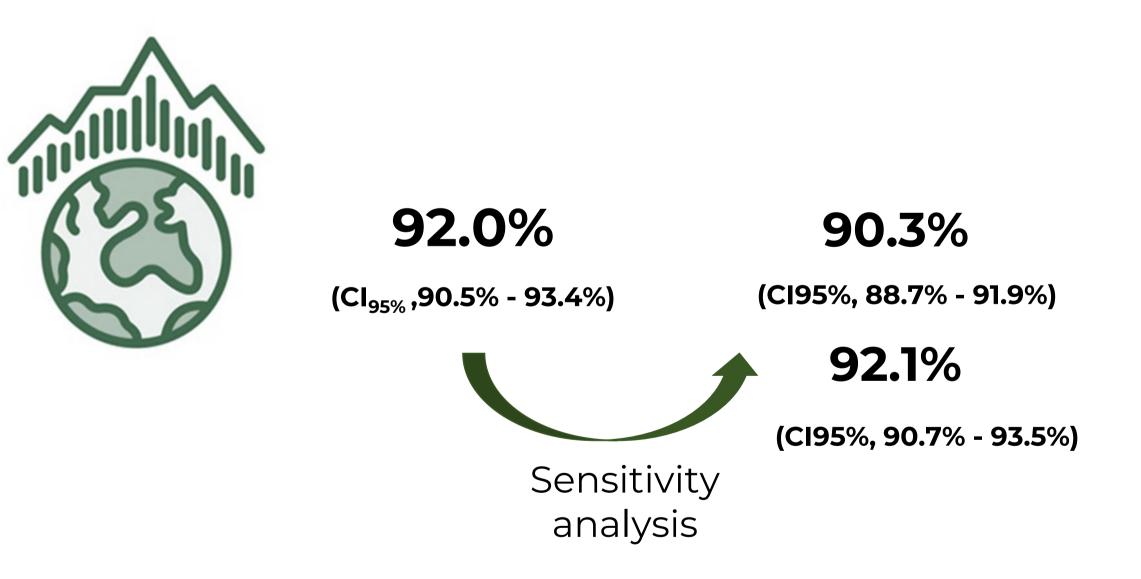


Previous or concomitant treatments – 76.3%

Age ≥ 60 – 67.5% Disorders – 54.9%

Lost more than 4cm in height – 19.0% Broken bone after the age of 50 – 14.1% Family of hip fracture – 14.0% Alcohol consumption and smoking – 9.0% Risk Factors
20.5% - 1 RF
33.5% - 2 RF
28.9% - 3 RF

Prevalence of risk factors for osteoporosis



Conclusions

Our study has several key findings:

BMI < 19 - 1.7%

The majority of participants screened are at risk of osteoporosis and, therefore, suggesting that the prevalence of risk factors for osteoporosis is very high in Portugal.

Almost 1 in 2 participants have at least 3 risk factors for osteoporosis.

Lower educated and non-employed participants are more prone to have osteoporosis risk factors.

To our knowledge, the present study is the first study that estimates osteoporosis risk factors within the Portuguese Population using the Osteoporosis Risk Check questionnaire. The assessment of osteoporosis risk factors can help to select people for further screening and thereby reduce the morbidity and mortality of the osteoporosis within the population.

REFERENCES

- 1 International Osteoporosis Foundation. Broken bones, broken lives: a roadmap to solve the fragility fracture crisis in Europe. International Osteoporosis Foundation, 2018
- 2 Osteoporosis: assessing the risk of fragility fracture. London: National Institute for Health and Care Excellence (UK); 2017.
- 3 International Osteoporosis Foundation. Could you be at risk of broken bones due to osteoporosis? International Osteoporosis Foundation, 2019. Available at: https://www.osteoporosis.foundation/news/could-you-be-risk-broken-bones-due-osteoporosis-20191016-0910

ACKNOWLEDGEMENTS

Authors gratefully acknowledge all pharmacies and pharmacists for their involvement in the screening and participants who voluntarily participate in this project.

Authors would also like to thank Amgen for sponsoring this screening initiative.