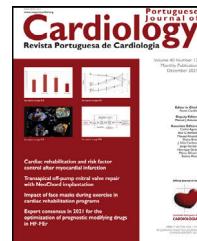


Portuguese Society of  
**CARDIOLOGY**

# Revista Portuguesa de **Cardiologia**

Portuguese Journal of **Cardiology**

[www.revportcardiol.org](http://www.revportcardiol.org)

## EDITORIAL COMMENT

## Information sources and clinical records: Current challenges

### Fontes de informação e registos clínicos: desafios atuais

José Eduardo Aguiar

*Cardiology Functional Unit, North Alentejo Local Health Unit, Portugal*

Available online 12 April 2022

Atherosclerosis is a progressive inflammatory process that can manifest in different vascular beds, and causes major health problems such as myocardial infarction, ischemic stroke and peripheral arterial disease. It is associated with various risk factors such as hypertension, dyslipidemia, obesity, diabetes and smoking.

The REACH registry,<sup>1</sup> one of the most important international studies in the atherosclerosis population, demonstrated that the rate of cardiovascular events at one year increases with the number of symptomatic territories.

The e-COR study,<sup>2</sup> the results of which are representative of the whole of Portugal, showed that 68% of the Portuguese population had two or more risk factors for cardiovascular disease and 22% had four or more. This study reinforces data from previous studies with regard to the low level of control of risk factors for cardiovascular disease, especially hypertension and diabetes, with known implications in terms of morbidity and mortality from cerebrovascular and cardiovascular disease.

The study by Ascençao et al.<sup>3</sup> published in the current issue of the *Journal* aimed to characterize the population with atherosclerosis among primary health care users in the Lisbon and Tagus Valley Regional Health Administration. A

total of 318 692 adult users were identified who met at least one of the criteria of atherosclerosis used by the authors. Three defining criteria were used: (1) recording of at least one clinical manifestation of atherosclerosis in any field of the primary health care database of the Regional Health Administration (SIARS); (2) presence of at least three risk factors; or (3) dispensing of an antiplatelet drug, naphthridofuryl, or pentoxifylline.

The study's results suggest that patients without clinical manifestations of atherosclerosis have worse control of blood pressure and cholesterol than those with manifestations, despite the proportion of patients taking antihypertensive drugs (in the presence of hypertension) and lipid-modifying drugs (in the presence of dyslipidemia) being similar in both groups, which may denote low therapeutic intensity. The overall results of the study suggest that control of cardiovascular risk factors is suboptimal in patients with atherosclerosis. These results were put in the context of the health profile of the Portuguese population in general and with the results obtained in the REACH registry. When the general population that participated in the first National Health Examination Survey (INSEF 2015)<sup>4</sup> was used as reference, the results were similar. The results of INSEF 2015 are in line with the prevalence estimated by the e-COR study (43.1% and 8.9% for hypertension and diabetes, respectively), so the conclusions are similar for this compar-

---

E-mail address: [joseeduardoaguiar@gmail.com](mailto:joseeduardoaguiar@gmail.com)

<https://doi.org/10.1016/j.repc.2022.02.007>

0870-2551/© 2022 Sociedade Portuguesa de Cardiologia. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

ison. Although the REACH registry mostly included patients with clinical manifestations of atherosclerosis (82% vs. 29%), Ascenço et al. present similar results regarding recorded hypertension (78% vs. 80%) and prescription of antidiabetic drugs (36% vs. 38%) and lipid-modifying agents (73% vs. 70%). Regarding control of risk factors, particularly in hypertension, the proportion of controlled individuals was higher in REACH (50% vs. 40%). However, as mentioned above, most of the population included in REACH presented clinical manifestations of atherosclerosis.

The study by Ascenço et al. has several merits. The main one is undoubtedly that it used clinical databases and the Control and Monitoring Center (for invoiced drugs) of the National Health Service as sources of information for health research. The SIARS data are very useful for producing scientific evidence and supporting decisions in health care. The characterization of patients using primary health care is valuable, as observed by the authors, for the understanding of atherosclerosis and its clinical relevance.

Systematic clinical records are crucial to clinical research. These records enable quality control of the medical work and evaluation of the results obtained. It is essential to create conditions for these records to become a mandatory part of clinical practice. It is necessary to evaluate in order to improve quality. These indicators should be used to improve care: not as penalizing assessment processes, and always from an integrative perspective.

The general practitioner is in a unique position to act on modifiable risk factors and reduce overall cardiovascular risk. It is only a matter of creating the conditions for this role to be exercised, particularly time to observe and communicate with the patient, enter the documentation in computer records and verify adherence to drug therapy. According to a community study in Portugal by Cabral et al.,<sup>5</sup> 28% of hypertensive patients showed low adherence, 38% medium adherence and only 34% reported high adherence to antihypertensive therapy.

The patient's clinical file should centralize all clinical records of primary and secondary care, prescription and

referral on a single platform, where professionals exchange clinical information, certifying that they have taken notice and ensuring therapeutic reconciliation – a practice already in operation in some northern European countries.<sup>6</sup>

In order to reduce the burden of disease and costs related to atherosclerosis in Portugal, we cannot permanently postpone this reform of the mindset and responsibility of doctors, family medicine practices, hospitals, universities and government entities.

## Conflicts of interest

The author has no conflicts of interest to declare.

## References

1. Ohman EM, Bhatt DL, Steg PG, et al. The Reduction of Atherothrombosis for Continued Health (REACH) Registry: an international, prospective, observational investigation in subjects at risk for atherothrombotic events-study design. *Am Heart J.* 2006;151, 786e1–e10.
2. Instituto Nacional de Saúde Doutor Ricardo Jorge. Prevalência de fatores de risco cardiovascular na população portuguesa. Lisboa: INSA IP; 2019.
3. Ascenço R, Alarcão J, Araújo F, et al. A aterosclerose nos cuidados de saúde primários: estudo da vida real. *Rev Port Cardiol.* 2022;41.
4. Instituto Nacional de Saúde Doutor Ricardo Jorge. 1º Inquérito Nacional de Saúde com Exame Físico (INSEF 2015): Estado de Saúde. Lisboa: INSA IP; 2016.
5. Cabral A, Moura-Ramos M, Castel-Branco M, et al. Cross-cultural adaptation and validation of a European Portuguese version of the 8-item Morisky medication adherence scale. *Rev Port Cardiol.* 2018;37:297–303.
6. Ordem dos médicos <https://ordemdosmedicos.pt/uma-experiencia-num-centro-de-saude-sueco/>