



## EDITORIAL COMMENT

## Hypertension knowledge: A long distance race still far from the finish line

### Compreender a hipertensão: uma corrida de fundo ainda longe da meta

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Cardiovascular diseases (CVDs) are the leading cause of death globally: 17.9 million people died from CVDs in 2019, representing 32% of all deaths in the world, and 38% of premature deaths (before the age of 70 years) from non-communicable diseases were caused by CVDs.<sup>1</sup> In Europe, CVDs are responsible for over 3.9 million deaths a year (45% of all deaths) and are the leading cause of mortality under 65 years (29% of all deaths under 65 years); furthermore, CVDs are the main cause of disability-adjusted life years lost (DALYs): 64.7 million DALYs (23% of the total).<sup>2</sup>

Among the medical risk factors, hypertension made the largest average contribution to CVD mortality (50-62%) and morbidity (53-64%).<sup>2</sup> In Portugal, CVDs are the main cause of death (32 275 deaths, 29.7%, in 2015).<sup>3</sup>

Prevalence of hypertension is around 30-45% in adults across the world irrespective of income status<sup>4</sup> and becomes progressively more common with advancing age, with a prevalence of more than 60% in people aged >60 years.<sup>4</sup> In Portugal, the prevalence is 42%<sup>5</sup> and since we are getting older this prevalence is expected to increase.

It is common sense that the first step in treating any disease condition is to diagnose it, but hypertension is predominantly an asymptomatic condition, so unless structured

population screening programmes are undertaken, many people are unaware that they have hypertension.<sup>6</sup>

In Portugal, awareness of hypertension increased from 46% to more than 76% in one decade<sup>5,7</sup> and is now similar to that of several other developed countries.<sup>4</sup> In the vast majority of countries, there is a strong correlation between improvement in awareness and improved blood pressure control,<sup>5,6</sup> as would be expected; the same happens in Portugal with an increase in blood pressure control from 11%<sup>7</sup> to 42.5%.<sup>5</sup> Unfortunately, in many other regions of the world – especially Africa and Asia – far fewer people are aware of their blood pressure levels and this translates into significantly lower blood pressure control.

It is also well known that adherence to therapeutics in several chronic cardiovascular diseases (hypertension, diabetes, dyslipidaemia) with few or absolutely no symptoms is as low as 40% after 12 months<sup>8</sup> (and decreases even more subsequently). The reasons for patient non-adherence are complex and multifactorial, but certainly include (with a strong impact) patient knowledge and patient beliefs about not only the drugs, but also about their medical condition and their perception of the putative complications both of the disease and of the treatments. Non-adherence to therapy is an important factor contributing to low rates of blood pressure control.

Awareness of hypertension means only that knowing that one has the disease, but knowledge is a more comprehensive term that also means that the patient understands the risk factors for their disease, therapeutic options and

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their impact on mortality and morbidity, real prevalence and strength of their side effects, as well as the potential complications of not having hypertension under control.

In the vast majority of scientific publications, including the most recent national and or regional surveys of prevalence of hypertension, awareness is the only item addressed, especially in those carried out in developed regions of the globe.

In the last 10-15 years, several national (Portuguese Society of Hypertension, Portuguese Society of Cardiology, Portuguese Society of Stroke, Portuguese Foundation of Cardiology) and international (International Society of Hypertension, World Health Organization) organizations have carried out several projects and campaigns aimed at the general public to increase knowledge of some of the aspects of hypertension and its relationship with cardiovascular diseases.<sup>9</sup>

In this issue of the Journal, Cabral et al.<sup>10</sup> report that a sample of 240 Portuguese hypertensive patients correctly identified the major risk factors for the disease and the blood pressure goals, but did not know that hypertension is asymptomatic and misunderstood several aspects of pharmacological treatment of this condition (which certainly must be a strong contributing factor to the degree of adherence to it).

Although this sample is not representative of the Portuguese hypertensive population, as the authors recognize in the study limitations (all the patients were recruited from six pharmacies in the same region of the country and all the parameters are quite different from those of the most recent published national study on prevalence of hypertension<sup>5</sup>: mean age, gender distribution, systolic and diastolic average blood pressure, percentage of patients with blood pressure controlled), it clearly can be seen as a reasonable “picture” of our hypertensive patients. Their paper deserves a very careful reading since it clearly shows that a great deal of work still needs to be done to achieve the goal of improving hypertension control and consequently reducing the burden of cardiovascular mortality and morbidity.

In this very elegant and interesting cross-sectional study, the authors used three well-known questionnaires, previously validated in the Portuguese population, which assessed the knowledge of several distinct aspects of the disease, including etiology, diagnosis, treatment and prevention (the *Hypertension Knowledge Test*), beliefs and concerns about medications (the *Beliefs about Medicines Questionnaire*) and adherence to the medication (the *Maastricht Utrecht Adherence in Hypertension short version*).

With these important tools they were able to demonstrate that Portuguese hypertensive patients nowadays have quite good knowledge about risk factors and blood pressure

goals, but not so good knowledge of hypertension medication, with many negative feelings and concerns about drug treatments.

These results should drive us all to develop more targeted information pharmacological treatment programs for hypertension (and also about other cardiovascular risk factors!) designed to clarify and reduce the major doubts and fears that still remain in many patients. This would contribute to improving treatment adherence, one of the most important steps for the success of the fight against the “pandemic” of cardiovascular diseases.

## Conflicts of interest

The author has no conflicts of interest to declare.

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