



# Juxtaposing Hypertension Guidelines: Are They Different? A Pragmatic Look to ESC and ESH Guidelines on (Arterial) Hypertension

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Hypertension is a major public health challenge as its prevalence continues to increase despite the optimisation of therapies. According to the latest WHO/Europe report, “Action on salt and hypertension”, 36.9% of people in Europe have hypertension [1]. In 2019, more than 20% of deaths in Europe have been caused by high systolic blood pressure, and the proportion of hypertensive patients who do not achieve adequate blood pressure control was from more than 60% up to over than 80%, very heterogeneous if we look at each European country individually [2].

This situation calls for clear and harmonised guidelines to promote prevention and adequate treatment starting from the primary care setting. With this in mind, the first European guidelines were published 17 years ago by a joint effort of the European Society of Hypertension (ESH) and the European Society of Cardiology (ESC). Until 2018, the two societies continued to work together to harmonise hypertension management in Europe, with the 2018 ESC/ESH guidelines [3] being cited, at the present day, 14,772 times and highly regarded by the scientific and medical communities. However, in the last 18 months we have witnessed the subsequent publication of hypertension guidelines from both societies [4]. Although this is an acknowledgement of the relevance of arterial hypertension to European physicians and researchers, the existence of discrepancies on this topic may lead to confusion and disagreement rather than simplification and harmonisation. “Which guidelines do we

need to follow?” is the immediate question asked by physicians. In this editorial, we have juxtaposed the ESH and ESC guidelines to compare them in terms of major similarities and differences, looking for an answer to this question.

In 2023, the ESH released the “Guidelines for the management of arterial hypertension” [5], authored by a task force of 59 European specialists of hypertension and endorsed by the European Renal Association (ERA) and the International Society of Hypertension (ISH), with 47 practical recommendations over 197 pages. These guidelines were followed by the 2024 ESH “Clinical practice guidelines for the management of arterial hypertension”, endorsed by the ERA, the ISH and the European Federation of Internal Medicine (EFIM), 15 pages of pragmatic and concise explanations of the guidelines explicitly addressed to general practitioners (GPs) [6]. In 2024, ESC released their “Guidelines for the management of elevated blood pressure and hypertension” [7], endorsed by the European Society of Endocrinology (ESE) and the European Stroke Organisation (ESO), with 36 practical recommendations over 107 pages.

From a practical point of view, the two sets of guidelines are very similar (Fig. 1). Both recommend to:

1. Diagnose hypertension on the basis of office systolic and diastolic blood pressures of 140/90 mmHg.
2. Aim for 130/80 mmHg as optimal blood pressure, although the ESH guidelines are scrupulous in identifying personalised targets for specific subpopulations (such as the elderly), whereas the ESC guidelines apply the ALARA (as low as reasonably achievable) principle.
3. Relying heavily on home BP monitoring to tailor treatment and, in general, on out-of-office measurements (ambulatory BP and home BP) to confirm diagnosis.
4. Perform a comprehensive initial assessment, including checking for orthostatic hypotension, screening or assessment for/of comorbidities and hypertension-mediated organ damage (HMOD).

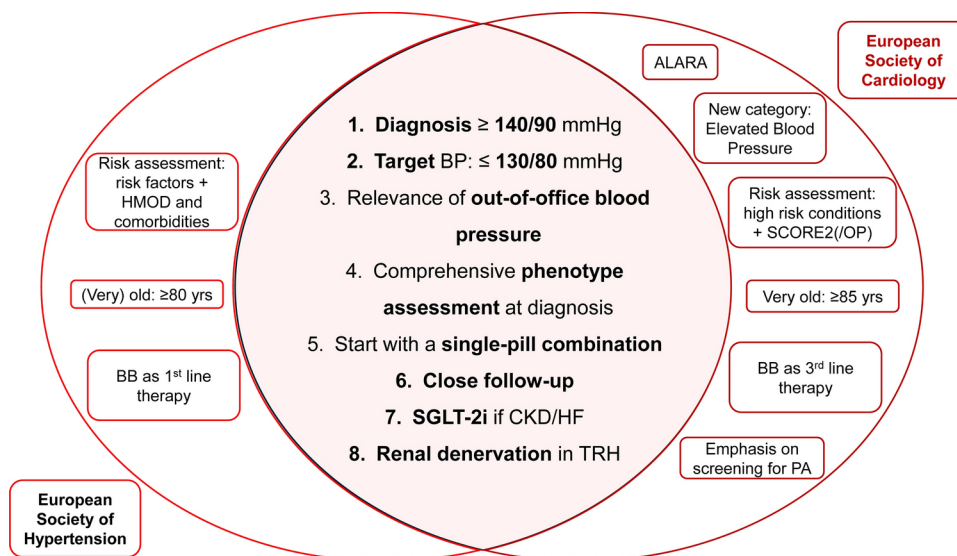
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**Fig. 1** Differences and similarities between the ESH (left) and ESC (right) guidelines on hypertension. The central oval summarises the various points of agreement, while the side semicircles indicate the main points of disagreement. *ALARA*, as low as reasonably achievable; *BB*, beta-blockers; *CKD*, chronic kidney disease; *HF*, heart failure; *HMOD*, hypertension-mediated organ damage; *PA*, primary aldosteronism; *TRH*, true resistant hypertension



5. Start treatment early and with a single-pill combination: although both guidelines refer to cardiovascular risk assessment - in different ways - both recommend starting treatment on the basis of blood pressure levels and, after an initial period of lifestyle intervention, starting with a single-pill combination of two drugs.
6. Close follow-up: blood pressure target should be reached in 3 months.
7. Add SGLT-2i if chronic kidney disease and/or heart failure are present.
8. Consider renal denervation in true resistant hypertension.

In addition, both cover hypertensive urgencies and emergencies as well as the specific management of hypertension when various comorbidities coexist.

It should be noted that the focus on primary care setting is shared and predominant in both societies' guidelines: this list of similarities is very pragmatic from a clinical point of view and, in particular, the first 6 points are directly aimed at GPs, providing clear indications easily to implement in routine primary care practice.

Why are they so similar? Well, this is easy to understand: they are based on the same evidence, are only 1 year apart and both "originates" from the previous joint guidelines. Nevertheless, and probably because of the different partner societies involved, some differences should be reported:

1. The ESC guidelines added a new category of "elevated blood pressure": although this changes the classification of patients, from a pragmatic management point of view there are no strong differences.
2. Cardiovascular risk assessment: The ESC guidelines rely on high cardiovascular risk conditions and, when these are not present, on SCORE2/SCORE2OP risk calculation, while the ESH guidelines define risk categories

based more on risk factors, HMOD and comorbidities, using SCORE2/SCORE2OP mainly for a complementary risk assessment.

3. Screening for secondary hypertension, especially primary aldosteronism, is strongly encouraged in ESC guidelines.
4. Age stratification is different for the very elderly (80 years for ESH and 85 years for ESC), and ESH provides more detailed indication of tailored treatment for this category.
5. As mentioned above, ESC guidelines support the ALARA principle for BP treatment targets.
6. Beta-blockers: This is probably the most controversial discrepancy. The ESH included beta-blockers as first-line therapy, whereas the ESC relegated them to third-line therapy.

There are a number of open questions about both guidelines, one of the most important (given the rapid pace of technological advancement and diffusion) being when, how and which wearables could be considered clinically accurate for the diagnosis and management of hypertension: we are in the digital era, and wearables are the next future [8]. Another two, peakier, would be whether both societies will return to publishing joint guidelines and whether GPs' societies will be involved in the writing process.

In conclusion, the effort of ESH and ESC to cover the management of arterial hypertension is remarkable and recognises the burden that hypertension still represents despite continuous medical advances. So, "Which guidelines do we need to follow?" The pragmatic answer is both, and it will not be difficult because they are - for the most part - the same.

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## Declarations

**Conflict of interests** On behalf of all authors, the corresponding author states that there is no conflict of interest.

**Ethical approval** As the paper is a commentary it is not subjects to ethical approval.

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