

A Comparative Study of International Guidelines for the Management of Hypertension

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Background

We compared four Clinical Guidelines (CG) (US, European, French and UK) published between 2003 and 2006 on the management of hypertension.

Purpose

Differences across countries in CG produced on the same topic warrant a comparative study to understand where differences originate from.

Methods

We analyzed the structure and all steps of CG development: blood pressure stratification, method of self-measure, methods of cardiovascular risk estimation, place and role of lifestyle modification, choice of antihypertensive therapeutic class, frequency of follow up and, finally list of references of the full report. We then analyzed their differences in the full report, and differences in deriving recommendations from the full report. Finally, we analyzed similarities and discrepancies in the selection of scientific references across CG.

Results

We observed differences between CG at almost every step of the guideline development. Whereas the definition of hypertension was consistent across CG, they differ in grade stratification. Differences in the number and intervals of recommended follow-up were found between CG, despite similar full reports. Differences in recommendations for self-measurements of blood pressure were found in both the CG and their full report. We noticed differences in cardiovascular risk estimation or its absence in one case. Selection of antihypertensive drugs varies across CG. The differences in the full report may be explained by different publication dates of CG or by the choice of references (1.2% are common to all four CG, 2.2% to three CG, and 8.8% to two CG).

Discussion

Substantial differences exist in the national and international recommendations for the management of hypertension across all CG. These differences can be explained by the different publication dates of CG, discrepancies in the translation of full report to guidelines and differences between the full reports that can be traced back to the use of different references.