HOT OFF THE PRESS: CLINICAL

Bibliometric information to study trends in hypertension research

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Research on hypertension can go in different directions. When these efforts can be brought together successfully (today sometimes described as translational research), this will help research move forward. In this context, a recent publication on how bibliometric information can be used to study trends in hypertension research is of interest. Bibliometric analyses provide objective information on scientific output within a defined area (such as hypertension, vascular medicine or cardiovascular disease) or in general terms, and can be used to compare and evaluate activity. Alas, this is commonly used for scientific ranking, for giving priority to recourses, and for political decision making.

Devos and Ménard¹ recently published interesting findings from bibliometric analyses on more than 90 000 published original articles concerning hypertension during 1999 through 2018, complementing their earlier publication on trends in published hypertension research in Europe². Among the 20 countries contributing the most hypertension related articles, most work comes from the United States (30%), followed by Japan (11%), China (9%), United Kingdom (7%), Germany (6%), Italy (6%), Canada (5%), France (4%), Australia (4%), and Brazil (4%); while all European countries among these 20 taken together represent 39%. However, temporal trends show a different pattern. Here, China shows the greatest increase in number of publications, followed by South Korea, Poland, Brazil, and Turkey; while France and Japan show a (small) decrease in number of articles over time. Of note, the increase in published work in hypertension during this study (43%) was less than the increase observed for cardiovascular (64%) or biomedicine (96%). The authors further studied spatial trends for international collaborations

and show that during 1999-2003 there were three clusters: the European Union; the Nordic countries; and the United States, Germany, and United Kingdom. This changed towards the end of the study (2014-2018), where two clusters were observed: The United States, United Kingdom, Canada, and China; and Germany, Italy, the Netherlands, and France. Finally, the authors show that only four out of the 20 countries (i.e., United Kingdom, Denmark, Taiwan, and Poland) increased hypertension specific research performance more than research as a whole, as based on bibliometric data.

Thus, the number of publications in hypertension increases over time, but less than other areas within cardiovascular medicine and biomedicine. This should call for action. Time trends for countries and clusters show changes, suggesting that the way researchers collaborate is changing. This may be important for hypertension research to reach out globally. Finally, whether these findings should prompt researchers, journals and publishers to adopt the way of collaborating and publishing hypertension research, to the benefit of our patients, warrants further discussion.

Rereferences

- 1.Devos P, Menard J. Trends in worldwide research in hypertension over the period 1999–2018: a bibliometric study. *Hypertension*. 2020;76:1649– 1655. doi: [10.1161/HYPERTENSIONAHA.120.15711](https://doi.org/10.1161/HYPERTENSIONAHA.120.15711)
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