



## Regarding the article “Clinical implication of visit-to-visit blood pressure variability”

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I’ve read the review article [1] concerning the advances and problems of office visit-to-visit blood pressure variability (BPV) with interest. The author claimed that visit-to-visit BPV is a pathophysiological condition that is still controversial and requires further research. There are several problems with this article, and I would like to critically comment on its content. First, how many physicians actually use visit-to-visit BPV in clinical practice? Do physicians record the standard deviation (SD) or coefficient of variation (CV) of multiple office BP measurements in their medical charts and use them for CV risk stratification? What do the authors mean by “more research” is needed on this topic? In clinical practice, it is apparent that office BP levels are far more important than BPV. Second, the authors quoted my paper (ref. 1) as an example of the problematic use of SD in 24-h BP values as inter-individual BPV. However, the changes in ambulatory BPV were analyzed by two-tailed paired *t*-tests, as described in the article, which indicates intra-individual variability. Moreover, because SD in 24-h BP values reflects diurnal BP changes, changes in this measure have no meaning. Thus, the information provided in this review article seems incorrect as to this respect [2]. Third, on page 996 [2], the author indicated that “home and office BP coincide”, but no data are shown. If this is true, does the author think that either home

or office BP readings are sufficient to evaluate BPV if the measurement method is standardized? Finally, in the Conclusion section, the authors stated that automated office measurements are better than out-of-office measurements for the evaluation of BPV, but its feasibility is challenging. The author should indicate whether they recommend automated office BP measurements in the future. If visit-to-visit BPV is really important, the author should clarify the path to its clinical application.

### Compliance with ethical standards

**Conflict of interest** The author declares that he has no conflict of interest.

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### References

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2. Hoshide S. Clinical implication of visit-to-visit blood pressure variability. *Hypertens Res.* 2018;41:993–9.

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