
Using home BP data for assessing quality of hypertension care



A Viewpoint article in JAMA recommends that quality measure stewards allow healthcare organisations to use home blood pressure monitoring (HBPM) when assessing and reporting on hypertension control. Currently, assessment of the quality of hypertension care is based solely on office blood pressure (OBP).

"Given that BP readings are obtained as part of routine office care and are readily extracted from electronic health records, it made sense to use OBP for the first iteration of the quality measure. However, using OBP readings alone ignores scientific and technological advancements in BP measurement," article authors write.

The authors note that evidence-based guidelines actually recommend HBPM to confirm the diagnosis of hypertension and guide treatment, because 10% to 50% of patients with high OBP have normal BP outside the office. In addition, the authors say, clinicians understand that a single OBP reading is inadequate for assessing hypertension control.

"Yet, under the current Healthcare Effectiveness Data and Information Set measure, a patient with a single OBP reading of 140/89 mm Hg and normal HBPM readings (white coat effect) would be misclassified as having uncontrolled hypertension," the authors say, adding that it is frustrating for clinicians to successfully control BP as measured at home and know that the patient will not meet criteria for controlled BP because of a single abnormal OBP reading.

Moreover, relying on OBP can produce a misleading risk assessment. To support this contention, the authors cite the findings of a large cohort study (n = 63,910 patients): Compared with untreated normotensive individuals, untreated patients with white coat hypertension had a higher risk of mortality (hazard ratio, 1.79 [95% CI, 1.38-2.32]), but patients treated with BP medications who had white coat hypertension had no excess risk (hazard ratio, 1.06 [95% CI, 0.82-1.37]).

HBPM does have pitfalls, according to the authors, but many can be addressed with approaches that have been applied to OBP measurement. For example, while some patients do not know how to use HBPM devices, they can be coached on proper technique. Some patients also may selectively or erroneously report BP values, but many home devices store multiple BP readings, which can be reviewed on the device screen, uploaded to a computer, or transmitted directly to electronic health records. As regards devices being expensive, healthcare insurers could cover the costs for patients prescribed BP medications; community organisations can also provide free or low-cost devices.

"Although the clinical merits of HBPM are clear, establishing standards for HBPM in quality reporting will require balancing evidence and feasibility," the authors point out. As many healthcare systems are not ready to wholly supplant OBP with HBPM, a hybrid approach is likely needed, in which organisations report HBPM readings for patients when available and report OBP for other patients.

The authors conclude: "A shift from OBP to HBPM would be consistent with evidence-based recommendations, current practice patterns, and clinician and patient preferences. As the evidence in favour of HBPM continues to accumulate, it is time to update how the quality of hypertension care is evaluated and reported."

Source: [JAMA](#)

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Published on : Wed, 7 Nov 2018