

PUBLISHED ABSTRACT

Implementation of the 2017 ACC/AHA Guidelines on Hypertension in Clinical Practice

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Background

In 2017, the American College of Cardiology (ACC) and American Heart Association (AHA) released guideline recommendations which defined hypertension using lower values and instituted lower treatment thresholds compared to prior guidelines. The new guidelines defined elevated blood pressure (BP) as a systolic or diastolic BP of 130 mm Hg or 80 mm Hg or greater, respectively. This study assessed the rate of compliance of these guidelines in clinical practice at the internal medicine resident and cardiology fellow clinics affiliated with Mount Sinai Beth Israel.

Methods

The charts of patients who participated in a clinical encounter from January 1 to February 28, 2019, at the General Medical Associates and Mount Sinai Heart at Union Square clinics were reviewed. To distinguish from compliance with prior guidelines, primarily patients with SBP between 130 to 139 mmHg and DBP between 80 to 89 mmHg were included. From the data, the assessment of the patient's systolic and diastolic BP measurements with respect to goal BP as defined by the 2017 ACC/AHA guidelines and implementation of a management plan were obtained. Acknowledgement of blood pressure control and types of intervention were recorded.

Results

Internal medicine residents and cardiology fellows correctly evaluated a patient's BP goal for 84 of 562 (14.95%) patient encounters. For the internal medicine clinic, residents correctly identified BP goals for 47 of 435 (10.80%) patient encounters and implemented a plan for 34 of 47 (72.34%) patient encounters (**Figure 1**). The most frequent intervention was counseling about lifestyle modifications for 15 of 34 (44.12%) patient encounters. For the cardiology clinic, fellows correctly assessed BP goals for 37 of 127 (29.13%) patient encounters and implemented a plan for 25 of 37 (67.57%) patient encounters. The most frequent intervention was uptitrating current antihypertensive medications for 11 of 25 (44.00%) patient encounters (**Figure 2**).

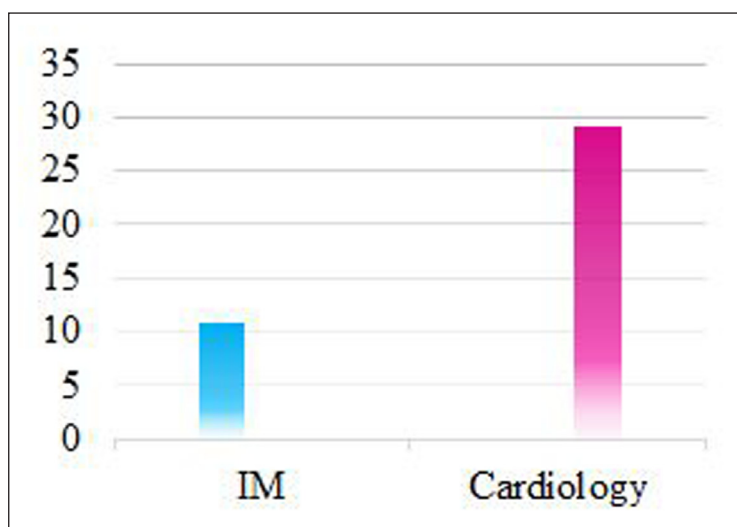


Figure 1: Percentage of accurately assessed blood pressure goals by IM residents and cardiology fellows.

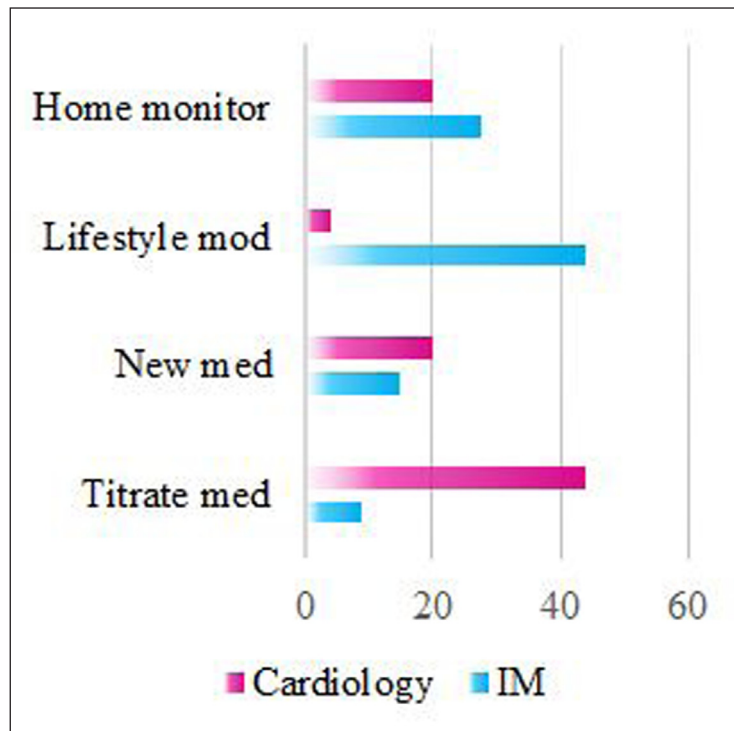


Figure 2: Percentages of choice of management plan by IM residents and cardiology fellows.

Conclusions

The data supports that the 2017 ACA/AHA guidelines on hypertension are not adequately adopted at the trainee level. Cardiology fellows have a greater rate of adherence of the new guidelines as compared to that of internal medicine residents. Internal medicine residents primarily focused on conservative measures such as lifestyle modification while cardiology fellows implemented changes to medication regimens.

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