

ABSTRACT

ADHERENCE OF NURSE PRACTITIONERS TO JNC 8 GUIDELINES

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The purposes of the evidence based project were to implement a best practice algorithm for treatment of hypertension (HTN) based on JNC 8 guidelines; compare nurse practitioners HTN pharmacotherapy prescribing practices before and after implementation of a HTN algorithm; and compare hypertensive adult patients' systolic blood pressure (SBP) readings before and after the implementation of a HTN algorithm. A quasi-experimental pre-test and post-test design was used to collect and analyze data from 61 patient charts to compare nurse practitioner adherence to JNC 8 guidelines for NPs' prescribing practices and subjects' blood pressure (BP) outcome before and after the implementation of a hypertension treatment algorithm. Nurse practitioner JNC 8 guideline knowledge was also examined pre-intervention and post-intervention. Post intervention, results showed that there was a 14% increase in awareness and knowledge of JNC 8 guidelines and a 29% increase in the NPs' use of prescribing practices according to the JNC 8 guidelines. One hundred percent of Non-Black and 68% of Black subjects were treated appropriately using the JNC8 guidelines. Of the subjects with DM, 100% of the Non-Black and 50% of the Black subjects were treated with JNC 8 guideline recommended pharmacologic therapy. Thirty-three percent of Black subjects with CKD were on JNC 8 guidelines recommended therapy. There were no changes in the antihypertensive class used by the nurse practitioners from the pre-implementation to post-implementation phase. There was a 54% increase in adjustment of a current HTN

pharmacologic agent for uncontrolled HTN and a 36% increase in documentation of lifestyle and medication adherence teaching. There was a statistically significant difference between the pre-implementation and post-implementation phase for documented lifestyle and medication adherence patient education ($\chi^2 = 22.00, p < .0001$) as well as a statistically significant difference in the pre-intervention and post-intervention SBP readings for the subjects ($M = -6.9, SD 15.3$) $t(60) = -3.54, p = 0.0008$. There was also a statistically significant difference in the pre-implementation and post-implementation DBP readings for the subjects ($M = -2.5, SD 8.6$) $t(60) = -2.31, p = 0.0244$.

HTN guidelines are an important tool to assist health care providers develop treatment regimens for patients to reach optimal BP control. A hypertension algorithm based on JNC 8 guidelines should be implemented to guide nurse practitioners in the care of their patients for improved patient outcomes. Further research is needed to analyze nurse practitioners use of JNC 8 guidelines and also on the impact that JNC 8 guidelines has on BP control, target organ damage, and cardiovascular events. Barriers to implementation of the JNC 8 guidelines should be addressed. Lastly, HTN clinical quality measures should be performed to compare the quality of HTN treatment to other organizations and patient outcomes.