EFFECTS OF BLOOD PRESSURE SELF MEASUREMENT AND TELEMEDICINE COMMUNICATION ON PHYSICIAN PRESCRIBING HABITS

ACC Moderated Poster Contributions
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Background: Blood pressure control plays an integral role in the prevention of cardiovascular disease (CVD). Aside from lifestyle changes, pharmacotherapy is the physician’s most effective method of lowering blood pressure. We hypothesize that patient involvement in a program centered on frequent self measurement of blood pressures and frequent reporting via telemedicine will bring about changes in physician prescribing habits.

Methods: This was a secondary analysis of a telemedicine trial of 241 patients with uncontrolled hypertension (BP≥150/90 mmHg). Patient from two large medical centers were recruited and randomized to usual care (control group-C, N=122) or Telemedicine with usual care (T, N=120). The T group was provided a digital sphygmomanometer and training, along with CVD risk reduction counseling. They were instructed to report their BP, HR, weight, steps/day, and tobacco use twice weekly for 6 months. All patients had baseline and 6-month follow-up visits. Monthly reports on blood pressure and treatment guidelines were provided to both the patient and physician in the T group. At the end of the study, patients’ anti-hypertensive medications were compared to their baseline therapy.

Results: The average age of patients was 59±13 years; the proportion of African Americans was 80%; initial average blood pressure was 155.9±13.7/ 88.9±11.2. At baseline, 56.8% of patients were taking between 1-2 anti-hypertensives. There was a statistically significant change in the number of anti-hypertensive medications prescribed to patients in the Telemedicine group (2.20±1.20 to 2.34±1.15, p=0.004), but not in the control group (1.95±1.02 to 1.91±1.21, p=0.468). Multivariate analysis did not show any difference in results with respect to age, ethnicity, education, or income.

Conclusion: Patients in the telemedicine group were more likely to be prescribed more anti-hypertensive medications during the study. This may indicate that patient involvement in self-reporting via telemedicine changes the information available to the physician in such a way that leads to more appropriate and effective pharmacotherapy, better blood pressure control, and overall reduction in cardiovascular risk.