**Develop and Implementation Plan for DNP Project**

**Introduction**

According to the estimates provided by Hosseininasab et al. (2014), the prevalence rates of hypertension in the US are increasing. The complications that arise from hypertension have contributed to increases in the healthcare costs, a factor that makes it an important issue to address. Despite the increasing health problem pegged on the prevalence of hypertension in the US, studies have demonstrated that the diagnosis and management of hypertension is based on several blood pressure readings that are conducted in various clinical settings at random times during the day. Therefore, it is widely accepted that there are diagnostic and disease management pitfalls relating to hypertension. This has further been intensified by the introduction of new diagnostic guidelines of blood pressure by the American Heart Association and the American College of Cardiology. Therefore, this DNP Project set to increase the awareness of blood pressure guidelines among the American population. This paper develops an implementation plan for the DNP project. Given that here are significant factors that influence the blood pressure readings in the clinical settings, there is need to adopt daily blood pressure monitoring in the home setting to increase the awareness of the patient about the disease process.

**Developing and implementing the plan**

In the management of hypertension, McManus et al. (2018) identified patient self-monitoring of the blood pressure as one the most valuable instruments of increasing awareness. Self-monitoring is particularly important among patients who have poorly controlled hypertension. Through self-monitoring, it is possible to titrate medications, improve the disease control and screen for white-coat hypertension. As defined by Doane et al. (2018), white coat hypertension refers to the false increase in the blood pressure when the patient is in the conventional office or in the emergency room. While citing a report by the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure, the authors observe that home-based hypertension readings are equal or better predictors of target organ damage and cardiovascular risk compared to office readings.  Therefore, this DNP project adopts the self-monitoring plan to enable and motivate the participation of the patient in the management of a condition that is often asymptomatic.

In developing this plan, it is important to note that home monitoring measures are not included in many insurance plans. This makes cost a barrier to the implementation of the plan. This plan would begin by patient and staff education. The plan explains the value of the home monitoring in controlling the high blood pressure for both the patient and the physicians. Therefore, the education is provided to the clinical staff at each facility includes proper measurement techniques, how to monitor the home readings and how to provide timely advice for the patient in relation to lifestyle changes and medication titration. On the other hand, the patient education focuses on a range of topics such as the definition of hypertension, significance of blood pressure management, the proper techniques of hypertension measurements, frequency of monitoring blood pressure and the protocol for the management of blood pressure.

Once the education phase is completed, the preparation for the implementation begins. To successfully implement a self-monitoring blood pressure program, staffing, budgeting and scheduling are integral. There should be at least one physician and healthcare team at the office. For the physicians participating in the project, there should be a budget for at least two self-measured blood pressure loaner devices. This is instrumental in the budgeting phase, as it will help in mitigating the costs that are not covered by the insurance in home monitors. As such, the plan sets to purchase loaner devices for patients that are either unable or unwilling to purchase such devices for themselves.

As Tucker et al. (2017) explains, there are patients who often meet the criteria for participating in self-measured blood pressure programs but do not have the capability to afford the devices. This project envisages a device loaner plan that provides the patients with device access options and caters for patients who are unwilling to purchase such devices because they do not have a definite hypertension diagnosis. There are certain recommended features for loaner devices as stipulated by Hosseininasab et al. (2014). Since these devices are for use by different patients, variable sized cuffs are more preferable. The devices should have automatic inflation functionality and have screens that are large enough to accommodate patients with poor eyesight. The devices should have memory that stores at least 30 blood pressure readings and have the ability to average blood readings taken within a certain time. Of more importance, the devices must be clinically validated and tested for accuracy. This project recommends the use of devices that are acknowledged and preferred by the American Heart Association and the American Society of Hypertension

The scheduling involves developing a plan to train the staff on how to implement the program in practice. Besides, the patients identified for the program will require tailored education provided by a medical assistant or registered nurse. Once the patients complete the week of training for the diagnosis of hyperextension and assessment of the control measures for blood pressure, the staff should calculate the average from the self-measured blood pressure and subsequently feed the data into the medical records of the patient.

The patients are then allowed to begin the program, with significant emphasis on the need for each patient to adhere to the proper assessment and measurement techniques. For this project, the patients will record their readings in a seven-day recording log. Once the seven days are completed, the patients return the logs to the office or submit scanned copies of the log at the office for the review by the physician. The expected outcome for those with existent hypertension is the ability of the patient to manage the blood pressure as per the current recommendations of the hypertension guidelines. The patients will be able to understand the role of hypertension medication plays in the management of blood pressure. On the other hand, the expected outcome for those who do not have hypertension is the identification of the factors that contribute to elevated blood pressure. This would increase the awareness among the patients on the need for lifestyle changes and frequent rechecking of the blood pressure.

**Conclusion**

Every adult with hypertension should have a detailed, clear and current evidence based care plan of ensuring that the patient achieves treatment and self-management goals. Increasing the awareness of the patient about the underlying diagnostic and management challenges in hypertension goes a long way in effectively improving the accuracy of the treatment plan. Given that here are significant factors that influence the blood pressure readings in the clinical settings, there is need to adopt daily blood pressure monitoring in the home setting to increase the awareness of the patient about the disease process.

**References**

Doane, J., Buu, J., Penrod, M., Bischoff, M., Conroy, M., & Stults, B. (2018). Measuring and Managing Blood Pressure in a Primary Care Setting: A Pragmatic Implementation Study.*The Journal Of The American Board Of Family Medicine*, *31*(3), 375-388. DOI: 10.3122/jabfm.2018.03.170450

Hosseininasab, M., Jahangard-Rafsanjani, Z., Mohagheghi, A., Sarayani, A., Rashidian, A., & Javadi, M. et al. (2014). Self-Monitoring of Blood Pressure for Improving Adherence to Antihypertensive Medicines and Blood Pressure Control: A Randomized Controlled Trial.*American Journal Of Hypertension*, *27*(11), 1339-1345. DOI: 10.1093/ajh/hpu062

McManus, R., Mant, J., Franssen, M., Nickless, A., Schwartz, C., & Hodgkinson, J. et al. (2018). Efficacy of self-monitored blood pressure, with or without telemonitoring, for titration of antihypertensive medication (TASMINH4): an unmasked randomised controlled trial. *The Lancet*, *391*(10124), 949-959. DOI: 10.1016/s0140-6736(18)30309-x

Tucker, K., Sheppard, J., Stevens, R., Bosworth, H., Bove, A., & Bray, E. et al. (2017). Self-monitoring of blood pressure in hypertension: A systematic review and individual patient data meta-analysis. *PLOS Medicine*, *14*(9), e1002389. DOI: 10.1371/journal.pmed.1002389