**Case Study 1**

At 45-year-old male was diagnosed with hypertension after having a physical exam for an oilfield job. For the next several years he was non-compliant with medications and recommendations for lifestyle changes including exercise and nutrition. At the age of 48, his hypertension led to renal failure. This patient now receives peritoneal dialysis at home. He takes all prescribed medications, eats a heart healthy diet and walks daily.

**Best Model:** When originally diagnosed with hypertension, the patient should have taken the prescribed medications, started an exercise regimen and nutrition plan all in an effort to keep his hypertension under control, and prevent renal failure.

**PICOT Question:**
In patients with hypertension, what was the effect of a daily exercise regimen on blood pressure compared with no exercise over a 24 week period?

**Interventions**
- Provide patient education regarding medication adherence and healthy lifestyle behaviors including physical activity. (Hacihasanoglu, 2011)
- Teach patients to engage in 30 to 60 minutes of moderate intensity physical activity on a daily basis. (Anglum, 2009)
- The activity can include walking, jogging, cycling, swimming or any activity that is well tolerated by the patient. (Nakayama, 2013)
- Educate patients on the importance of attending all follow-up appointments and regular monitoring of blood pressure. (Hacihasanoglu, 2011)

**References**


**Case Study 2**

A thirty-five year old female patient was diagnosed with mild hypertension. She was advised to begin a moderate exercise program. It was also recommended that she follow up with her physician in three months. She began walking for 20 minutes for three times per week and then increased to 30 minutes five times per week. At her follow up appointment, her blood pressure reading fell to within normal limits. With this lifestyle change, the patient did not require medication.

**Results**
- Changes in lifestyle, such as an increase in physical activity is a integral part of the treatment for hypertension, and should be done prior to initiating pharmacological management. (Kjeldsen, 2014)
- Nurses should be actively involved in educating patients diagnosed with hypertension about managing obesity, improving diet and increasing physical activity. (Anglum, 2009)
- Patients that receive education about lifestyle modification in addition to medication adherence are more likely to show decreases in and maintain lower systolic and diastolic blood pressures. (Hacihasanoglu, 2011)