CASE STUDY: HYPERTENSION

A.C. is a 56-year old black woman who presents to her primary care provider (PCP) concerned about high BP. At an employee health screening last month, she was told she had hypertension. Her medical history is significant for allergic rhinitis, diabetes mellitus (DM), and osteoarthritis in her right knee. Her BP was 144/84 and 146/86 mmHg last year during an employee health screening at work.

A.C.'s father had hypertension and died of a MI at age 54. Her mother had DM, CKD, gout, and HTN and died of a stroke at age 68. A.C. smokes 1 pack per day of cigarettes and thinks her BP is high because of job-related stress. She does not believe that she really has HTN. A.C. does not engage in any regular exercise and does not restrict her diet in any way, although she knows she should lose weight.

Physical exam shows she is 5′8″ tall, weighs 108 kg (BMI = 35.2), BP is 148/88 (left arm) and 146/86 (right arm) and heart rate is 80 bpm. Six months ago, her BP values were 152/88 and 150/84 when she was seen by her doctor for allergic rhinitis.

A.C. takes metformin (Glucophage) 1000 mg PO BID before breakfast and dinner for her DM, fluticasone (Flonase) for her allergic rhinitis, and naproxen (Naprosyn) 500 mg PO BID for her osteoarthritis.

A.C.'s fasting lab serum values are as follows:

BUN: 32 mg/dL (7-18 mg/dL)
Cr: 1.5 mg/dL (0.6-1.2 mg/dL)
Albuminurea: 210 mg/24 hrs (< 30 mg/24 hrs)
Glucose: 165 mg/dL (70-115 mg/dL)
K: 4.8 mEq/L (3.5-5.2 mEq/L)
Uric acid: 6.9 mg/dL (2.6-6.0 mg/dL)
Total cholesterol: 240 mg/dL (< 200 mg/dL)
LDL-C: 165 mg/dL (< 130 mg/dL)
HDL-C: 32 mg/dL (> 35 mg/dL)
Triglycerides: 240 mg/dL (35-135 mg/dL)

An ECG is normal except for left ventricular hypertrophy (LVH).

Assess A.C.'s current and past medical history and provide a treatment plan to control her hypertension.