NU641: Advanced Clinical Pharmacology

Case Study Week 2 - Hypertension

## Instructions

Review the patient case study and answer the questions provided. You are expected to include two evidence-based practice articles to support your work. Additionally, you will need to include the national guidelines for any treatment plans/options. All papers must conform to the most recent APA standards.

## Case Study

Darius, a 65-year-old black man, was referred to the clinic for evaluation of high blood pressure noted on an initial screening. He reports having headaches and nocturia. He states that he has gained 8 pounds over the last year.

**Past medical history:**

* Appendectomy 30 years ago
* Peptic ulcer disease 10 years ago
* Type 2 diabetes mellitus for 10 years
* Gout

**Family history:**

* Father had hypertension; died of myocardial infarction at age 55.
* Mother had diabetes mellitus and hypertension; died of cerebrovascular accident at age 60.

**Physical examination:**

* Height 69 in, weight 90 kg
* BP: 140/89 mm Hg (left arm), 138/82 mm Hg (right arm)
* Pulse: 84 beats/minute, regular
* Funduscopic examination: mild arterial narrowing, sharp discs, no exudates or hemorrhages

**Laboratory findings:**

* Blood urea nitrogen: 24 mg/dL
* Serum creatinine: 1.1 mg/dL
* Glucose: 95 mg/dL
* Potassium: 4.0 mEq/L
* Total cholesterol: 201 mg/dL
* High-density lipoprotein cholesterol: 30 mg/dL
* Triglycerides: 167 mg/dL
* Urinalysis: within normal limit (no proteinuria)
* Electrocardiogram and chest radiograph: mild left ventricular hypertrophy

**Social history:**

* Tobacco: 35 pack years
* Alcohol: 1 pint of vodka/week
* Coffee: 2 cups/day

**Diagnosis: Stage 1 Hypertension**

1. List specific goals for treating Darius’ hypertension.
2. What drug therapy would you prescribe? Why?
3. What are the parameters for monitoring success of the therapy?
4. Discuss specific patient education based on the prescribed therapy.
5. List one or two adverse reactions for the selected agent that would cause you to change therapy.
6. What would be the choice for second-line therapy?
7. What over-the-counter and/or alternative medications would be appropriate for Darius?
8. What lifestyle changes would you recommend to Darius?
9. Describe one or two drug–drug or drug–food interaction for the selected agent.