

## HOM HTN Treatment Algorithm

The care of hypertension in Haitian patients depends on many factors: cost, availability and side effect profile of medications, challenges related to salt education and nutritional limitations, environmental determinants and Haitian health beliefs. Treatment modalities include diet and lifestyle modification and medications. \* *Many Haitians do not recognize the last digit in a B/P reading: 150/90 = 15/9*

### **Dietary Challenges**

The average Haitian diet offers little dietary diversity, a typical meal is predominantly starches and oil-based foods (rice and red beans) with very little protein, fruits, or vegetables. Salt is a major component in Kreyol cooking, used as a food preservative due to the lack of electrical power and refrigeration and because of acquired taste. Most Kreyol recipes call for a teaspoon to a tablespoon of salt!

### **Culture Consideration**

Salt is culturally associated with vitality and strength beyond the obvious beneficial effects of protection from dehydration in hot environments. There are also certain folklore beliefs such as "salt added to any beverage can help purify blood tainted by strong emotion".

### **Environmental Risk Factors**

Chronic severe water restriction and endemic infectious diarrhea (now including cholera) increase the risk of dehydration and resulting hypokalemia. This risk, coupled with side effects of pharmacologic treatment impacts the risk/benefit ratio of increased mortality by kidney injury or hypokalemia.

### **Drug therapy**

- 1) Calcium Channel Blockers – Amlodipine
  - Best for those of African heritage, although effectiveness in mixed heritage is not as well studied, still considered first choice due to less impact on potassium, no lab testing involved.
  - Relatively inexpensive and easily obtained
  - Small % of patients have L.E. edema, considered less debilitating than side effects r/t other drugs
- 2) HCTZ (Hydrex)
  - Cheapest, easily obtained
  - Mild impact on potassium
  - Recommend that patients take with a piece of fruit.
  - Usual dose 12.5 (ideal) recommendation is to add second drug rather than increasing to 25 mg
- 3) ACE (Lisinopril or Enalapril)
  - Most expensive, but available. Enalapril is cheaper but must take BID vs qd for Lisinopril
  - May increase K<sup>+</sup> so a good choice to use in combination with HCTZ
  - Cannot use if dehydrated or c/o of lightheaded
  - S. E. = Cough
- 4) Beta Blockers (Atenolol more expensive, metoprolol a little cheaper)
  - Easily available
  - Not indicated as a preferred drug for HTN in this population, less effective
  - S. E. Increased fatigue, decrease heart rate and impotence.
  - Cannot use with asthmatics

Verapamil, Lasix and Clonidine are not recommended as first line therapies and play a minor role in treatment of HTN in Haiti. Verapamil cannot be used in combination with Beta Blockers, Lasix cannot be used in absence of lab testing due to risk potassium depletion and dehydration. Clonidine is not indicated due to s.e. hypotension, dry mouth and non-compliance r/t multiple doses per day.

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