

<b>DETAINEE HOSPITAL GUANTANAMO BAY, CUBA</b>	<b>SOP NO: 055</b>
<b>Title: HIGH BLOOD PRESSURE MANAGEMENT</b>	<b>Page 1 of 5</b> <b>Effective Date: 16 Oct 03</b>
<b>SCOPE: Detention Hospital</b>	

**I. ENCL:**  
(1) Chronic Disease Medical Flow Sheet

**II. REFERENCES**

- (1) Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. The Seventh Report of the JNC on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. *JAMA*. 2003; 289(19):2560-72.
- (2) National Commission on Correctional Health Care Clinical Guideline for Correctional Facilities - Treatment of High Blood Pressure

**II. BACKGROUND**

High blood pressure is a disease that causes an increased risk for stroke, heart disease, and renal failure. While traditionally recognized as a problem in the United States, it is a significant cause of morbidity and mortality worldwide that can be reduced by early intervention. It is well established in Western populations, that the risk of stroke, CHD and other common cardiovascular diseases, have multiple determinants such as age, high blood pressure, hypercholesterol, obesity, and family history. How well these factors predict cardiovascular disease in non-Western populations is less certain, although recent evidence from Eastern Asian populations suggests that blood pressure may have a similar association. However, there is little evidence about these factors in other large populations such as in sub-Saharan Africa, India or South America. The evaluation and treatment of these determinants in a similar manner may be beneficial until future research dictates otherwise.

This guideline is adapted from the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure.

**III. POLICY**

This is the first SOP on high blood pressure management and this program will be conducted by a medical provider on the JTF staff under the guidance of the Senior Medical Officer (SMO). Scheduled blood pressure monitoring will occur to screen detainees for hypertension and to offer further evaluation and treatment.

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The Delta Medical Clinic is responsible for providing blood pressure monitoring and medical treatment as clinically indicated for detainees with high blood pressure. The SMO will ensure that the appropriate standards of care for the medical and administrative management of high blood pressure are adhered to.

**Definition of Hypertension.** The mean of two or more seated blood pressure (BP) readings on two or more occasions with a systolic BP greater than or equal to 140 or a diastolic BP greater than or equal to 90 will be considered hypertensive.

### IV. PROCEDURES

#### A. Correct Measurement of Blood Pressure:

1. Detainees should be seated for at least five minutes with arm supported at heart level. The BP cuff bladder should encircle at least 80% of the arm. Systolic BP measurement should be noted at the point at which the first sound is heard and the diastolic measurement should be noted at the point just before the sound disappears.

#### B. In-processing

1. **Initial history:** Upon arrival, detainees will have a history and physical examination recorded on the report of medical examination (see SOP 037). History and symptoms of diabetes, heart disease, hypertension, hyperlipidemia, and renal disease will be obtained. Current/past medication use including illicit drugs, alcohol, and tobacco will be obtained.
2. **Physical examination:** At least two blood pressure measurements will be obtained using the above-described methods. Elevated measurements will be verified using the contralateral arm. The weight and height of each detainee will be determined with calculation of the body mass index (see SOP 014). Physical examination will include fundoscopic examination, auscultation for carotid bruits, thyroid examination, thorough cardiovascular and lung exam, abdominal examination for bruits, abnormal pulsations, and organomegaly, neurologic examination, and assessment of distal extremities for pulses and edema.
3. **Diagnostic studies:** As indicated by the historical or physical exam findings, additional laboratory studies may be obtained to assess for identifiable causes of hypertension or for the presence of end-organ damage. These may include, but are not limited to: complete blood count (CBC), blood chemistries, urinalysis, lipid panel, and 12-lead electrocardiogram.
4. All detainees will be reassessed for repeat blood pressure measurements within one month, which will be recorded in the medical record and a mean blood pressure measurement determined. Detainees with known hypertension or abnormal findings by examination will be managed per guidelines listed below.

#### C. Classification of Blood Pressure (from JNC VII)

1. **Normal:** systolic BP less than 120 and diastolic BP < 80
2. **Prehypertension:** systolic BP 120-139 or diastolic BP 80-89

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3. **Stage 1 hypertension:** systolic BP 140-159 or diastolic BP 90-99
4. **Stage 2 hypertension:** systolic BP >159 or diastolic BP >99

### V. MEDICAL EVALUATION AND MANAGEMENT

#### A. Management of Detainees with Hypertension

##### 1. General Guidelines:

- i. All detainees will be educated regarding lifestyle modification. Please refer to SOP 014 for guidelines on the weight management program. Weight control and dietary sodium restriction have been shown to lower BP.
- ii. The blood pressure goal to reduce the risk of cardiovascular disease is a systolic and diastolic BP less than 140/90 mm Hg or less than 130/80 mm Hg for individuals with diabetes or renal disease.
- iii. Current clinical trials have demonstrated efficacy from several classes of antihypertensives including: angiotensin-converting enzyme inhibitors, beta-blockers, calcium channel blockers, and thiazide diuretics. 2 or more antihypertensive medications may be needed to reach the desired BP goal. While thiazide diuretics have been used in the most trials and have demonstrated efficacy both as single drug and in combination, providers should be cognizant of the hot weather climate and the potential risk for electrolyte abnormalities and dehydration.

##### 2. Detainees with Prehypertension:

- i. Unless there is a medical indication for medical therapy such as: recurrent stroke, heart failure, diabetes, previous myocardial infarction, or high risk for coronary disease, no medical therapy is indicated. Management will include future assessment and lifestyle modification.

##### 3. Detainees with Hypertension (stage 1)

- i. In addition to lifestyle modification, the use of medication will likely be required to meet the goals.

##### 4. Detainees with Hypertension (stage 2)

- i. Detainees with stage 2 hypertension will require antihypertensive medical therapy in addition to lifestyle modification.

#### B. Detainees enrolled in the blood pressure management program will be categorized in the following manner based on the blood pressure classification and degree of control (using NCHC guidelines):

1. **Peer Control:** Includes detainees with hypertension (systolic BP >159 or diastolic BP > 99) or those with significant cardiovascular comorbidities. These detainees will be monitored at least monthly or more frequent as necessary until BP goal is attained. Once BP goal is met and is stable, visits can be done every 3-6 months. Visits should include blood pressure determinations, assessment of medication tolerance, and education. Serum

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creatinine and potassium should be obtained 1-2 times each year. Results will be recorded on the *Chronic Disease Medical Flow Sheet* (see enclosure 1).

2. **Fair Control.** Includes detainees with systolic BP 140-159 or diastolic BP of 90-99. These detainees will be monitored at least every 2-3 months for blood pressure determination, assessment of medication tolerance, and education. Results will be recorded on the *Chronic Disease Medical Flow Sheet* (see enclosure 1).
3. **Good Control.** Includes detainees with a blood pressure less than 140/90. These detainees should be seen initially every 3-4 months and if controlled and stable, this may decrease to twice yearly. Visits should include blood pressure determination, medication tolerance, and lifestyle education with the results recorded on the *Chronic Disease Medical Flow Sheet* (see enclosure 1).

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**STANDARD OPERATING PROCEDURES**  
**Detention Hospital**  
**Guantanamo Bay, Cuba**

<b>REVIEWED AND APPROVED BY:</b>	
_____ Officer in Charge	_____ Date
<b>IMPLEMENTED BY:</b>	
_____ Director for Administration	_____ Date
_____ Senior Enlisted Advisor	_____ Date
<b>ANNUAL REVIEW LOG:</b>	
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