## PURPOSE

To assure that DOP inmates with Cardiovascular Diseases (Hypertension, Coronary Artery Disease, Congestive Heart Failure, Angina, Stroke, and related conditions) are receiving high quality Primary Care for their condition.

## POLICY

All DOP Primary Care Providers and Chronic Disease Nurses are to follow these guidelines when treating inmates with this chronic disease. Deviations from these guidelines are permissible only on a case by case basis. When deviations are made, they must be clearly documented in the medical record with a clear explanation of the rationale for the deviation.

## PROCEDURE

(Document care on Cardiovascular/Diabetes Flow Chart, DC- )

### *Initial evaluation*

1) **Chronic Disease Nurse (CDN) or MD/PA** should complete within 1 month of arrival at the first housing assignment after processing and/or after initial diagnosis.
2) **Vital Signs:** Blood pressure in both arms lying, standing and sitting, pulse in one arm standing and lying, height and weight without shoes, determine BMI.
3) **How to properly measure blood pressure**
   - **a)** The patient should be seated in a chair (not exam table) with feet on the floor for at least **5 minutes**
   - **b)** Arm supported at heart level
   - **c)** Appropriate sized cuff (bladder encircling at least 80% of arm)
   - **d)** Two measurements should be taken
4) **History of Present Illness:** Any current symptoms or side effects, compliance with medication. Cardiovascular Review of Systems (ROS) – Ask if they are having any chest pain, SOB, edema, palpitations, orthostatic symptoms, or exercise intolerance.
5) **Cardiac History:**
   - **a)** History of hypertension, angina, heart attack, palpitations, and/or heart failure.
   - **b)** When first diagnosed.
   - **c)** Previous medications and/or treatments, any previous problems with medications, any surgery or hospitalizations.
   - **d)** History of diabetes or elevated cholesterol.
6) **Social History:** Smoking, alcohol use, illicit drug use, exercise (how much and how often).
7) **Family History:** Heart attack or strokes in first or second-degree relatives in men <55 or women <65 years of age, diabetes, hypertension, elevated cholesterol.
8) **Physical Exam:**
   - **a) CDN:** Cardiovascular and pulmonary, plus any other areas of concern identified from history.
   - **b) MD/PA:** Should do a complete examination looking for signs of treatable causes to hypertension
9) **Assessment:**
   - **a) Hypertension**

i) ***Stable*** = BP < 140/90 (130/80 if Diabetic), no or stable side effects, no chest pain, no or minimal and stable SOB.
ii) ***Unstable*** = if any of the above are not met.

b) **Coronary Artery Disease (includes Angina, Unstable angina, post MI, Peripheral Vascular Disease, Stroke)**
i) ***Stable*** = No changes in CV medications in the past 60 days, no new or changing CV symptoms, and no significant changes in physical exam or vital signs
ii) ***Unstable*** = Does not meet the above criteria

c) **Congestive Heart Failure**
i) ***Stable*** = No changes in CHF medications in the past 60 days, no new or CHF changing symptoms, and no significant changes in physical exam or vital signs, no more then 5 pounds of unexpected weight gain in past 30 days
ii) ***Unstable*** = Does not meet the above criteria

10) **EKG:** If none done in the last 2 years. If a new EKG is obtained, have it reviewed by MD/PA at his/her next regular clinic.
11) **Labs:** CMP, lipid panels, and dip stick urinalysis if not done in the past 6 months, and have any abnormal values reviewed by MD/PA at his/her next regular clinic or visit to the unit.
12) **Educate:** Usually it is best to discuss no more then one or two issues at a single visit. Topics to be discussed listed in order of importance.
a) **Exercise –** 30 minutes of aerobic exercise 5 times a week.
b) **Medication compliance**
c) **Smoking cessation**
d) **Weight control –** If BMI > 30 refer for dietary counseling
e) **Low fat diet –** If LDL > 130 (100 if CAD) refer for dietary counseling.
f) **Salt reduction –** Particularly important in CHF, modest importance in hypertension, minimal importance in CAD

13) **Plan/follow up:**
a) **If initial evaluation by CDN**
i) ***Stable*** should see MD/PA within 6 mo. for hypertension, 3 mo. for CAD/CHF
ii) ***New diagnoses or unstable*** MD/PA within 1 mo.

b) **If initial evaluation by MD/PA,** may be followed up by CDN (at MD/PA discretion, time intervals are minimums, short time intervals would be appropriate where indicated clinically):
i) ***Stable***
(1) ***Hypertension –*** in 6 to 12 mo.
(2) ***CAD/CHF*** – in 3 to 6 mo.
ii) ***Unstable***
(1) ***Hypertension*** – in 3 to 6 mo.
(2) ***CAD/CHF*** – in 1 to 3 mo.

c) **Labs/EKG:**
i) **Lipid panel –** annually
ii) **BMP –** annually
iii) **Hepatic panel –** annually if on medications
iv) **Dip stick urinalysis –** annually
v) **EKG – if** having any chest pain, dyspnea on exertion, or exercise intolerance

***Follow up evaluations:***

1) **General guidelines**
   - **a)** Visits may be more frequent if clinical situation indicates a need for more frequent visits:
   - **b)** When patient are seen by MD/PA, they **do not need to be seen separately by CDN**
   - **c)** Nursing staff (not necessarily the CDN) should complete the following sections of the flow chart prior to MD/PA seeing the patient: vital signs, habits, lab, meds.
   - **d)** The MD/PA should review the flow sheet, make any corrections needed, complete the remaining sections and then sign it. A notation (can be brief, if most of documentation is on the flow chart) should also be made in the "Provider Progress Notes" DC-752
2) **Intervals**
   - **a) Stable patients**
     - **i) Hypertension**
       - **(1)** Minimum to see either **MD/PA:** every **12** months
     - **ii) CAD/CHF**
       - **(1)** Minimum to see either **MD/PA or CDN:** every **6** months
       - **(2)** Minimum to see **MD/PA:** every **12** months
   - **b) Unstable patients:**
     - **i) Hypertension**
       - **(1)** Minimum to see either **MD/PA or CDN:** every **3** months
       - **(2)** Minimum to see **MD/PA:** every **6** months
     - **ii) CAD/CHF**
       - **(1)** Minimum to see either **MD/PA or CDN:** every **1 -2** months
       - **(2)** Minimum to see **MD/PA:** every **3** months
3) **Vital signs:** Check sitting BP in both arms, if here was a previous significant difference between the two arms (also check standing BP if there are any complaints of dizziness or lightheadedness), weight.
4) **Interval history:** Ask about the following:
   - **a) Compliance with medications**
   - **b) Medication side effects**
5) **Cardiovascular review of systems:** Ask if they are having any chest pain, SOB, edema, palpitations, orthostatic symptoms, or exercise intolerance.
6) **Other problems –** Ask if they are having any other problems/symptoms
7) **Health habits –** Ask about smoking, exercise, diet compliance
8) **Labs/EKG:**
   - a) **Lipid panel –** annually
   - b) **BMP –** annually
   - c) **Hepatic panel –** annually if on medications
   - d) **Dip stick urinalysis –** annually
   - e) **EKG –** if having any chest pain, dyspena on exertion, or exercise intolerance
9) **Education:** Review risk factors that have not previously been discussed and/or ones that are on going. Limit to one or two topics per visit**.**
10) **Referral:** If being seen by Chronic Disease Nurse, refer to MD/PA any patient who is not meeting BP goals, having new or worsening symptoms, or has new abnormalities on labs/EKG. Referrals can be done via**:**

**a) Telephone or face to face consultation - preferred method**
- **i)** Normally should be done the same or next day after clinic
- **ii)** Contact should be made within 7 days
- **iii)** Should be done with the regular unit provider unless the above time limits can not be met
- **iv)** If another provider is consulted, then should be reviewed with the regular provider as soon as reasonable

**b) Chart review** by MD/PA
- **i)** Preferably within 48 hours
- **ii)** Contact should be made within 7 days
- **iii)** Should be done with the regular unit provider unless the above time limits can not be met
- **iv)** If another provider is consulted, then should be reviewed with the regular provider as soon as reasonable

**c) Appointment for patient – least preferred method**
- **i)** May be necessary if there are elements of the examination that need to be confirmed by provider or there are significant problems with compliance
- **ii)** Preferably scheduled within 48 hours
- **iii)** Contact should be made within 7 days


4/30/11

Paula Y. Smith, MD, Director of Health Services Date

SOR: Deputy Medical Director