Elevated Blood Pressure – HM 7

DEFINITION

For female and male clients, providers should screen for hypertension in accordance with the USPSTF's recommendation that blood pressure be measured routinely among adults and the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure's recommendation that persons with blood pressure less than 120/80 be screened every 2 years, and every year if pre-hypertensive according to nationally recognized standards of care. Elevation of blood pressure while using estrogen-containing (CHC) contraceptives may be related to the effects of estrogen or it may be due to other reasons. A clinically significant increase in blood pressure is seen in about 41.5 cases per 10,000 users of low-dose OCs. The risk may increase with duration of use. In these settings, estrogen must be discontinued because of the increased risk of stroke. CHC-induced blood pressure changes are reversible but may persist for 3-6 months after CHC discontinuation. Past hormonal contraceptive use and duration of use are not associated with high blood pressure in postmenopausal women.

SUBJECTIVE

May include:

1. No symptoms
2. C/O new onset headaches, nosebleed, blurred vision, dizziness, tinnitus, chest pain, shortness of breath, nausea, edema and/or anxiety
3. Past history of:
   a. Elevated blood pressure
   b. Cardiac or renal disease
   c. Obesity, diabetes, and hypercholesterolemia
   d. Oral contraceptive use
   e. Gestational hypertension
4. Medication history of (especially those which can elevate blood pressure):
   a. Oral contraceptives
   b. Systemic corticosteroids
   c. Nonsteroidal anti-inflammatory drugs (NSAIDS)
   d. Decongestants
   e. Appetite suppressants
   f. Atypical antipsychotics
   g. Tricyclic, MAOIs, and SNRI antidepressants
5. Family history of hypertension, stroke, premature cardiovascular disease, and/or diabetes
6. Use of nicotine products, alcohol, caffeine, drug misuse and recreational drugs
7. Foods that may increase BP (black licorice), high sodium intake
8. Recent physical, psychosocial, or environmental stresses
9. Over-the-counter supplements, herbal supplements

OBJECTIVE

Should include:

1. Ensure BP of patient is accurate; properly prepare the patient's position, use proper technique for measurement, take proper measurements needed for diagnosis and treatment of elevated BP/HTN, and properly document accurate BP readings
2. New blood pressure categories for hypertension screening include:
   a. Normal: <120 mm Hg and <80 mm Hg
   b. Elevated: 120–129 mm Hg and <80 mm Hg
   c. Hypertension Stage 1: 130–139 mm Hg or 80–89 mm Hg

d. Hypertension Stage 2: ≥140 mm Hg or ≥90 mm Hg
e. Hypertensive crisis: >180 mm Hg and/or >120 mm Hg

*Individuals with SBP and DBP in 2 categories should be designated to the higher BP category

3. Blood pressure greater than or equal to 130/80 verified on two occasions, at least one week apart, with no nicotine, caffeine or other stimulants used for 30 minutes prior to measurement (unless initial measurement greater to or equal to systolic greater than 180 and diastolic greater than 120 which would prompt more immediate action)
4. Height, weight & BMI
5. Documentation of correct size blood pressure cuff, patient position and location BP obtained from

May include:

1. Physical exam to assess for signs of hypertension such as thyroid enlargement, jugular vein distention, carotid bruits, tachycardia, murmurs, arrhythmia, extremity edema, and/or absence of peripheral pulses
2. Immediate referral to ER care for s/s of hypertensive crisis:
3. Any focal weakness or paresthesia; any other signs of stroke
4. Reported chest pain or discomfort
5. Observed dyspnea, decreased O2 saturation
6. Cognitive dysfunction; confusion
7. Pulmonary edema; diminished breath sounds

LABORATORY

May include:

1. Urinalysis for protein

ASSESSMENT

Elevated blood pressure - prehypertension

PLAN

1. If patient is currently symptomatic (severe headache, chest pain, or blurred vision) or BP greater than or equal to 180/120, refer to ER. In female patients using COC, advise her to immediately discontinue estrogen-containing contraceptives. Provide alternative method of birth control that does not contain estrogen. Progestin-only pills may be a good choice
2. If asymptomatic patient is already under treatment and usually has controlled hypertension, verify that medications have been taken today
3. If taking combined hormonal contraceptives:
   a. Mild increases in blood pressure may be treated initially by switching to a combined contraceptive with lower progestin or estrogen activity. Should allow three months for return to normal BP. If elevated BP continues combined method should be stopped.
   b. If blood pressure is equal or greater than 140/90 (either systolic or diastolic), Discontinue estrogen-containing contraceptives immediately and offer effective methods without estrogen. Recommend recheck blood pressure 3 times within 48- 72 hours. If all repeat BP measurements are less than 130/80 offer patient opportunity to continue estrogen-containing contraceptives and repeat BP every month for 2 months. If BP remains elevated, consult with MD and/or refer for evaluation of hypertension.
   c. Combined hormonal contraception is not recommended even for adequately controlled hypertension (MEC 3); offer alternative barrier or progestin-only methods, as indicated
4. Use of BP-lowering medications is recommended for:
   a. Secondary prevention of recurrent CVD events in patients with clinical CVD and an average SBP of 130 mm Hg or higher or an average DBP of 80 mm Hg or higher
   b. Primary prevention in adults with an estimated 10-year atherosclerotic cardiovascular disease (ASCVD) risk of 10% or higher and an average SBP 130 mmHg or higher or an average DBP 80 mm Hg or higher
   c. Primary prevention of CVD in adults with no history of CVD and with an estimated 10- year ASCVD risk<10% and an SBP of 140 mm Hg or higher or a DBP of90 mm Hg or higher

5. Medication management of hypertension should follow current guidelines for assessment, laboratory testing, and revisit schedules. Guideline for the pharmacological treatment of hypertension in adults - NCBI Bookshelf (nih.gov) 2021 or Diagnosing and Managing Hypertension in a Family Planning Setting (April 2021) (rhntc.org)
6. Lifestyle modifications outlined below should be discussed with any elevation in blood pressure.

CLIENT EDUCATION

1. Provide client with education on ways to lower blood pressure and review possible causes for hypertension to include but not limited to:
   a. Discuss modifiable versus non-modifiable risk factors
   b. Weight loss, if indicated, to include low calorie diet and moderate exercise plan 90- 150min/week.
   c. Reduce sodium through no salt added to food (<1,500 mg/d), avoidance of high sodium drinks and heavily processed foods; recommend DASH diet
   d. Potassium supplementation (3,500 to 5,000 mg/d), preferably in diet, is recommended for adults with elevated BP or HTN, unless contraindicated by CKD or use of drugs that reduce potassium excretion
   e. Decrease alcohol consumption and/or avoidance of stimulant drugs. Limit to one alcoholic beverage per day in women and two per day in men. Refer for drug/alcohol evaluation as needed.
   f. Cessation of tobacco products
   g. Stress reduction techniques
2. Discuss client's concerns regarding findings.
3. Provide home BP diary and instruction for obtaining proper and accurate BP reading
4. Recommend client RTC for recheck B/P within 3 to 6 months after initiation of lifestyle modifications, one month after combination of non-pharm and anti-htn drug therapy, PRN for problems

CONSULT / REFER TO PHYSICIAN

1. As needed for evaluation and treatment
2. For additional lab work up as needed
3. If secondary cause of hypertension is suspected and/or if organ damage is suspected.
4. Immediate referral for hypertensive emergency (Blood pressure 180/120 or symptomatic)

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