

# Blood Pressure (BP) Screening during Health Supervision Exams (HSE) in Primary Care

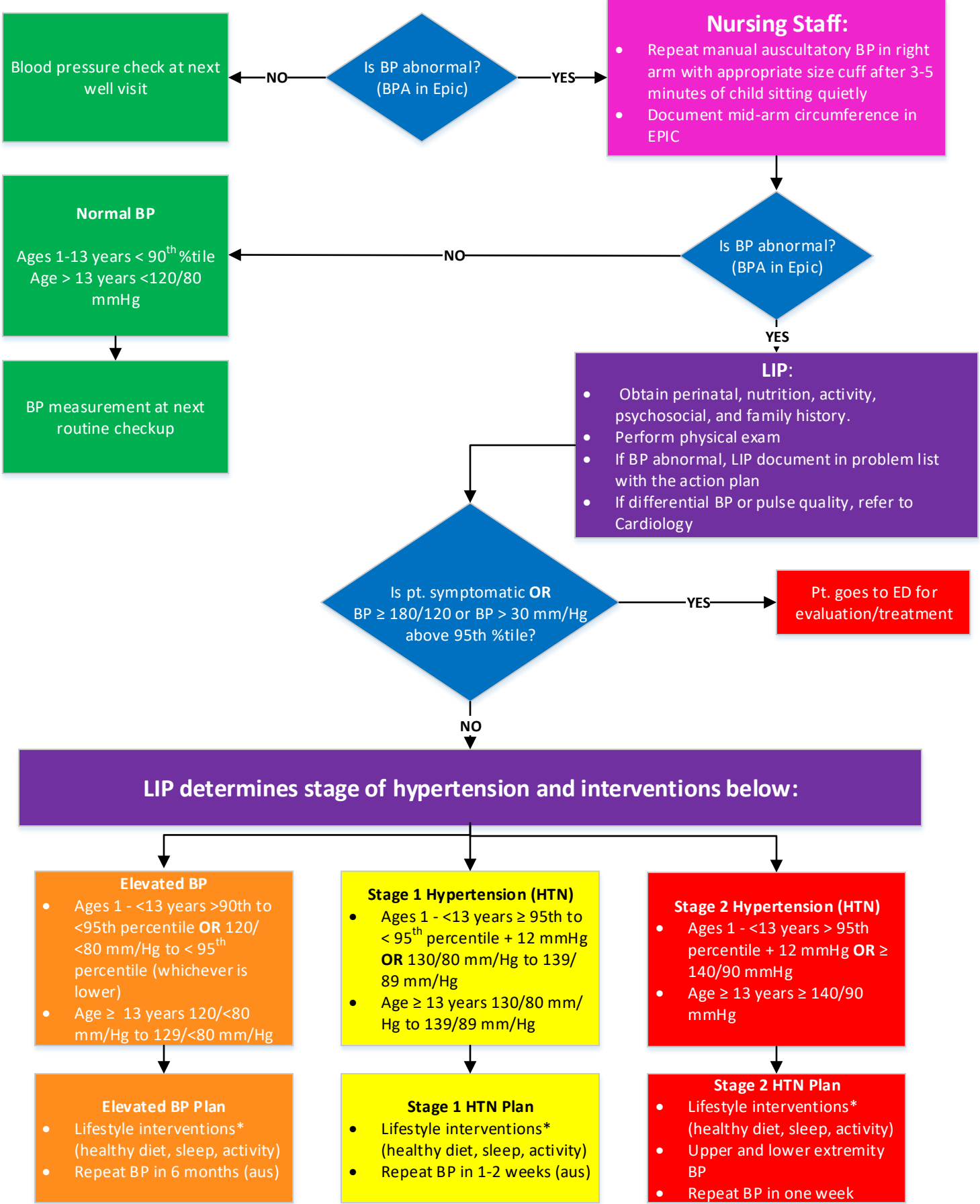
This pathway has been developed from published guidelines, in collaboration with pediatric nurses, primary care pediatricians, and pediatric nephrologists. This guidance is to assist in decision making and is not intended to replace clinical judgment.

**Inclusion Criteria:**  
 All children  $\geq 3$  years of age presenting for HSE or one or more of the following:  
 obesity (BMI  $\geq 95\%$ ),  
 taking medications known to increase BP, renal disease,  
 history of aortic arch obstruction or coarctation,  
 diabetes

**Exclusion Criteria:**  
 Infants  $< 1$  year  
 Unable to cooperate with auscultatory BP

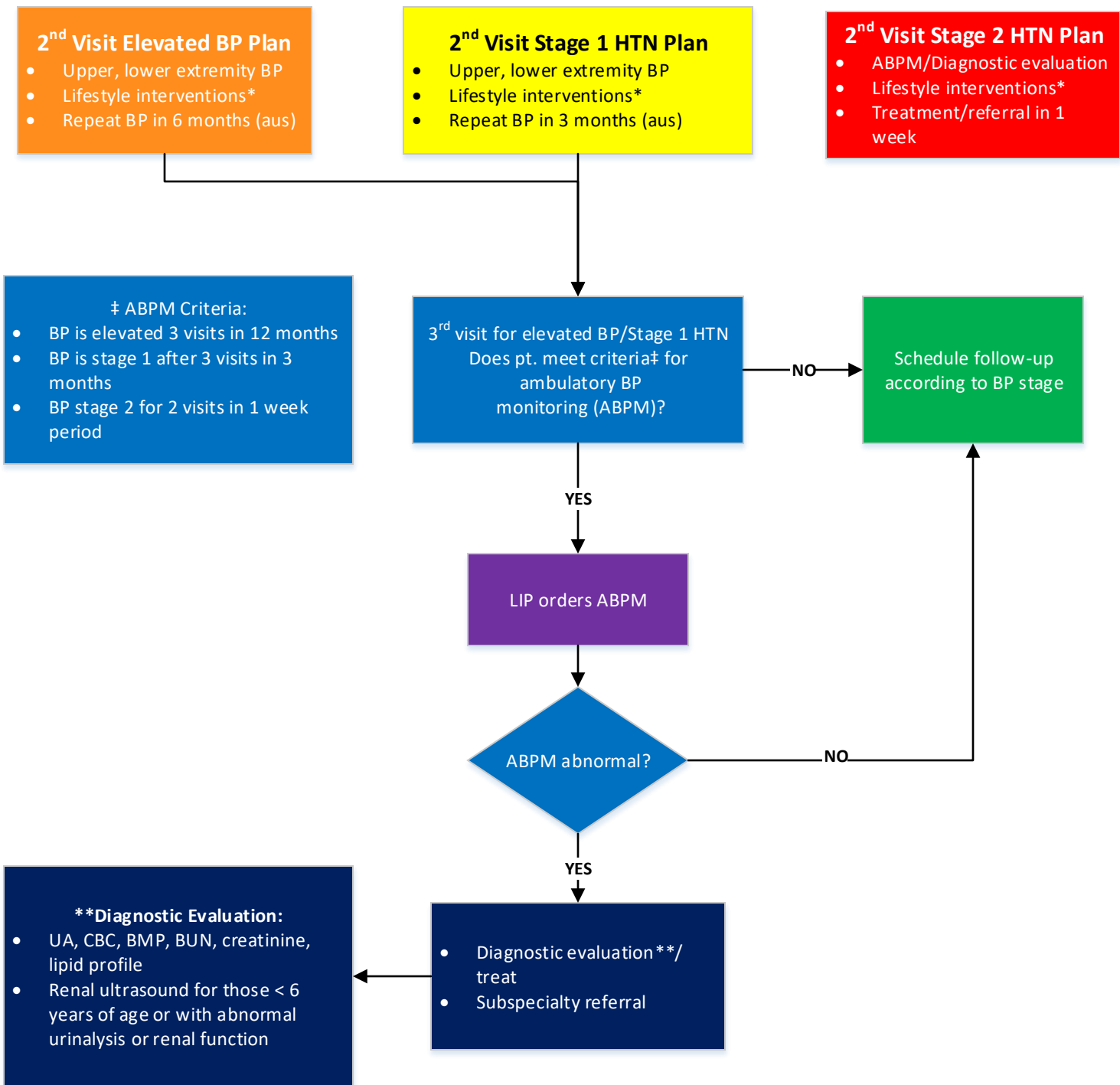
- Medications known to increase BP:**
- OTC decongestants
  - Caffeine
  - Chronic use of NSAIDs
  - Stimulants for ADHD
  - Hormonal contraception
  - Steroids
  - Tricyclic antidepressants
  - Illicit drugs

**Nursing Staff obtains vital signs including blood pressure and height for well visits for patients  $\geq 3$  years of age and at chronic care visits if patient meets criteria**



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LIP determines stage of Hypertension and interventions below:



**\*Lifestyle Interventions - management recommendations:**

- DASH diet
- Avoid excessive sodium consumption
- Vigorous activity (40 minutes moderate to vigorous aerobic physical activity at least 3-5 days per week)
- Optional – dietician or weight management clinic referral

## \*\* Diagnostic Evaluation/Screening Tests and Relevant Populations

Patient Population	Screening Tests
All patients	<ul style="list-style-type: none"> <li>• Urinalysis</li> <li>• Chemistry panel, including electrolytes, BUN, and creatinine</li> <li>• Lipid profile (fasting or non-fasting to include high-density lipoproteina and total cholesterol)</li> <li>• Renal ultrasonography in those &lt; 6y of age or those with abnormal urinalysis or renal function</li> </ul>
In the obese (BMI > 95 <sup>th</sup> percentile) child or adolescent, in addition to the above	<ul style="list-style-type: none"> <li>• Hemoglobin A1c (accepted screen for diabetes)</li> <li>• Aspartate transaminase and alanine transaminase (screen for fatty liver)</li> <li>• Fasting lipid panel (screen for dyslipidemia)</li> </ul>
Optional tests to be obtained on the basis of history, physical examination, and initial studies	<ul style="list-style-type: none"> <li>• Fasting serum glucose for those at high risk for diabetes mellitus</li> <li>• Thyroid stimulating hormone</li> <li>• Drug screen</li> <li>• Sleep study (if loud snoring, daytime sleepiness, or reported history of apnea)</li> <li>• CBC, especially in those with growth delay or abnormal renal function</li> </ul>

### Conditions under which children < 3 years of age should have BP measured:

- History of prematurity < 32 week’s gestation or small for gestational age, very low birth weight, other neonatal complications requiring intensive care, umbilical artery line
- Congenital heart disease (repaired or unrepaired)
- Recurrent urinary tract infections, hematuria, or proteinuria
- Known renal disease or urologic malformations
- Family history of congenital renal disease
- Solid-organ transplant
- Malignancy or bone marrow transplant
- Treatment with drugs known to raise BP
- Other systemic illnesses associated with HTN (neurofibromatosis, tuberous sclerosis, sickle cell disease, etc.)
- Evidence of elevated intracranial pressure

## Contributing Members

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## References

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