### SYMPTOMS AND LABS

#### HIGH RISK

- **BP Measurement:** BP 99th% + 5 mmHg or higher (Stage II hypertension)
- **Exam/Symptoms:** Papilledema, severe headaches, vomiting

**SUGGESTED PREVISIT WORKUP**
- Labs and imaging recommended for stage I hypertension
  - **PLUS** Fractionated serum metanephrines (Best first screen for pheochromocytoma) & ECHO
  - **RECOMMEND:** If asymptomatic, call pediatric nephrologist for urgent appointment. If symptomatic or papilledema on exam, send patient to emergency room

### SYMPTOMS AND LABS

#### MODERATE RISK

- **BP Measurement:** BP 95-99th%ile + 5 (Stage I hypertension)
- **Exam/Symptoms:** Normal exam, +/- mild headaches

**SUGGESTED WORKUP**
- Labs: Comprehensive metabolic panel, CBC, urinalysis, TSH reflex FT4, renin, aldosterone
  - **Imaging:** Renal ultrasound with Doppler evaluation
  - **RECOMMEND:** Diet and lifestyle changes recommended for pre-hypertension
  - **PLUS** Recheck BP q1-2 weeks. If three or more readings in this range then obtain recommended labs and refer to pediatric nephrology for next routine available appointment (may obtain imaging in advance or can schedule imaging with appointment)

### SYMPTOMS AND LABS

#### LOW RISK

- **BP Measurement:** 90th to < 95th%ile for height and age
  - **OR** > 120/80 (pre-hypertension) but < 95th%ile
- **Exam:** Normal Exam, (with or without obesity)

**SUGGESTED MANAGEMENT**
- Labs: Urinalysis
  - **RECOMMEND:**
    - Aim for sodium intake < 2000mg daily
    - Counsel to increase exercise.
    - Counsel to improve BMI to < 85th%ile if indicated (e.g. Let's Go 5-2-1-0, see obesity referral guideline)
  - Recheck BP in 6 months

### CLINICAL PEARLS

- All children age 3 and older should have their BP measured at least once annually. All BP measurements should be resting, arm measurements (manual preferred if able).
- For children with heart disease, chronic kidney disease or diabetes, please contact the appropriate specialist for recommendations for any degree of elevated blood pressure.
- Epic practices can use Review Flowsheet called “AMB VITALS WITH-AGE PERCENTILES” for automated calculation of BMI percentile for age, gender and height.