## Duke University School of Medicine
### Management of Hypertension Guideline

<table>
<thead>
<tr>
<th><strong>Condition</strong></th>
<th><strong>Chronic Hypertension</strong></th>
<th><strong>Gestational Hypertension</strong></th>
<th><strong>Preeclampsia/Superimposed Preeclampsia</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diagnostic criteria</strong></td>
<td>Documented blood pressure $\geq 140/90$ prior to pregnancy or prior to 20 weeks gestation, and does not resolve in the postpartum period (12 weeks)</td>
<td>SBP $\geq 140$ but $\leq 160$ or DBP $\geq 90$ but $\leq 110$ on two occasions at least 4 hours apart after 20 weeks gestation with previously normal BP in a patient with NO history of hypertension</td>
<td>SBP $\geq 140$ but $\leq 160$ or DBP $\geq 90$ but $\leq 110$ on two occasions at least 4 hours apart after 20 weeks gestation with previously normal BP <strong>And</strong>: Proteinuria (&gt;300 mg on 24 hour urine, UPC &gt;0.3 mg/dL or Dipstick reading of 2+ when other methods are unavailable) <strong>OR</strong> (in the absence of proteinuria) -Thrombocytopenia (&lt;100,000) -Serum creatinine $&gt;1.1$ or doubling of baseline in absence of other renal disease) -Liver transaminases at twice normal concentration -Pulmonary edema -New onset HA unresponsive to medication and not accounted for by other dx or visual symptoms</td>
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<tr>
<td><strong>Outpatient management</strong></td>
<td>- Baseline labs - Low dose 81mg ASA - baseline ECG - Home BP monitoring - Antenatal testing per Duke guidelines</td>
<td>-Weekly CBC/CMP/UPC - Home BP checks - Weekly visits in the office - Antenatal testing per Duke Guidelines - If dx prior to 28 weeks, start LDA <em>Do NOT start antihypertensive medications</em></td>
<td>-Weekly CBC/CMP (UPC not needed once diagnosis is made) - Weekly visits in the office -Home BP checks - Antenatal testing per Duke Guidelines - Consider management with MFM - Recommend consult to MFM if $&lt;34$ weeks, consider if $&gt;34$ weeks *Do NOT start or up titrate antihypertensive medication for preeclampsia without severe features or for super-imposed preeclampsia without severe features (if on medications for cHTN, continue these but do not increase) *Patients with severe preeclampsia should managed inpatient</td>
</tr>
<tr>
<td><strong>Treatment recommendations</strong></td>
<td>For patients $&lt;20$ weeks: Start medications prior BP $\geq 140/90$ and no end organ damage For patients $\geq 20$ weeks – see Figure 1 *Preferred treatment: - Labetalol 100 mg BID up to 800 mg TID OR - Procardia XL 30 mg daily up to 120 mg daily total dose *Always start with lowest possible dose for management and max out one prior to starting a second agent</td>
<td>Only treat severe range BP $\rightarrow$ Treat with IR Procardia 10 mg, then send to OB Triage</td>
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<td><strong>Delivery timing</strong></td>
<td>No meds: 38-39/6 Controlled on meds: 37/0-39/6</td>
<td>37/0 weeks (without Severe range BP) 34/0 weeks (with Severe range BP or development of PEC with SF)</td>
<td>By 37 weeks (without Severe Features) By 34 weeks (with Severe Features) *Unstable Preeclampsia with SF should be delivered after maternal stabilization, even in the case of previable fetus</td>
</tr>
</tbody>
</table>
**Patients to NOT start or uptitrate on medication**

<table>
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<tr>
<th>Diagnosis</th>
<th>Action</th>
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<tbody>
<tr>
<td>New gHTN (with no history cHTN)</td>
<td>Patients to NOT start on medication</td>
</tr>
<tr>
<td>New preeclampsia <strong>W</strong>          <strong>O</strong>       <strong>U</strong>     <strong>T</strong>     <strong>E</strong>     <strong>R</strong> severe features</td>
<td>Patients to NOT start or uptitrate on medication</td>
</tr>
<tr>
<td>Chronic HTN with super-imposed preeclampsia <strong>W</strong>          <strong>O</strong>       <strong>U</strong>     <strong>T</strong>     <strong>E</strong>     <strong>R</strong> severe features</td>
<td>Patients to NOT start or uptitrate on medication</td>
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**Figure 1: Management of patients with prior diagnosis of cHTN (Not gHTN) – not on meds – new mild range BPs**

1. **New mild range BPs**
   - Less than 20 weeks
     - **Start anti-hypertensives**
       - **Normal**
         - **Start anti-hypertensives**
         - **Consider inpatient observation**
       - **Abnormal**
         - **DO NOT start medications**
   - GA 20-32/O weeks
     - **Draw UPC, CBC, CMP and uric acid**
     - **Normal**
     - **Abnormal**
     - **DO NOT start medications**
     - **Consider inpatient observation**
   - GA >32/O weeks
     - **Draw UPC, CBC, CMP and uric acid**
     - **Normal**
     - **Abnormal**
     - **DO NOT start medications**

**Figure 2: Management of patients with dx of cHTN – on meds – new mild range**

1. **New mild range BPs**
   - Less than 20 weeks
     - **Up titrate anti-hypertensives**
     - **Normal**
     - **Abnormal**
     - **DO NOT uptitrate medications**
   - GA 20-32/O weeks
     - **Draw UPC, CBC, CMP and uric acid**
     - **Normal**
     - **Abnormal**
     - **Up titrate anti-hypertensives**
     - **Do NOT uptitrate medication**
   - GA >32 weeks
     - **Draw UPC, CBC, CMP and uric acid**
     - **Normal**
     - **Abnormal**
     - **DO NOT uptitrate medications**
     - **Consider inpatient observation**