Simplified Hypertension Treatment Approach

**ACE-Inhibitor* / Thiazide Diuretic**

Lisinopril / HCTZ

(Advance as needed)

- 20 / 25 mg X ½ daily
- 20 / 25 mg X 1 daily
- 20 / 25 mg X 2 daily

*Pregnancy Potential: Avoid ACE-Inhibitors

If not in control

**Calcium Channel Blocker**

Add amlodipine 5 mg X ½ daily → 5 mg X 1 daily → 10 mg daily

If not in control

**Beta-Blocker OR Spironolactone**

Add atenolol 25 mg daily → 50 mg daily

(Keep heart rate > 55)

OR

IF on thiazide AND eGFR ≥ 60 ml/min AND K < 4.5
Add spironolactone 12.5 mg daily → 25 mg daily

*For those with high cardiovascular risk consider adding a statin according to guidelines which can result in an additional 25% reduction in cardiovascular events.*

Rationale:
The Eighth Joint National Committee (JNC 8) guidelines include a solid evaluation of the efficacy of medications for HTN treatment in different patient populations\(^1\). The guidelines also offer providers a treatment algorithm that can accommodate use of different medications alone or in combination to achieve BP goals but leaves the specific medications and approach to the provider. The JNC 8 guidelines do not address issues such as ease of implementation of different approaches, patient adherence, or cost considerations, which can lead to underutilization and reduced effectiveness of recommended treatments. For the *Be There San Diego Initiative*, we sought to focus on an approach that is consistent JNC guidelines while minimizing barriers to effective use and widespread dissemination. Hence, we encourage San Diego providers to use the basic approach defined on page 1.

Suggested Approach:
Key features of the approach include starting treatment with a daily combination hypertensive medication (e.g. ACE Inhibitor/Thiazide Diuretic) and then increasing the dose in steps as needed. If BP goal not achieved, additional medications can be added and dose stepped up as needed (e.g. Calcium Channel Blocker, followed by Beta Blocker or Spironolactone). This approach has numerous advantages such use of a combination medication and simple steps that maximizes impact on heart attacks and strokes, improves adherence, and reduces needed number of visits and costs.

Endorsed by University of Best Practices: Date 4/7/14

The following organizations and medical groups endorse and/or are using the approach as the basis for their internal HTN guidelines:

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<thead>
<tr>
<th>Arch Health Partners</th>
<th>Neighborhood Healthcare</th>
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<tr>
<td>Clinicas de Salud del Pueblo</td>
<td>North Coast Family Medical Group</td>
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<tr>
<td>Council of Community Clinics</td>
<td>North County Health Services</td>
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<tr>
<td>County of San Diego, Health and Human Services Agency</td>
<td>St Vincent de Paul Village Health Clinic</td>
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<td>County of San Diego, Sheriff’s Department</td>
<td>San Diego Physicians Medical Group</td>
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<td>Health Services Advisory Group</td>
<td>Scripps Coastal</td>
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<td>Imperial Beach Health Center</td>
<td>Scripps Clinic</td>
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<td>Kaiser Permanente</td>
<td>Sharp Community Medical Group</td>
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<td>La Maestra Community Health Center</td>
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<td>MultiCultural Medical Group</td>
<td>Sycuan Medical/Dental Center</td>
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<td>Vista Community Clinic</td>
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*Be There San Diego is a robust coalition of medical groups, hospitals, health plans, and the County of San Diego Health and Human Services Agency working together to make San Diego the nation’s first "heart attack and stroke free zone."*

*For more information contact Kitty Bailey, k3bailey@ucsd.edu*

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\(^1\) *JAMA*. 2014;311(5):507-520.