TAKE INITIAL BLOOD PRESSURE: Pt seated quietly for 5' with back on chair, feet on ground, and UE supported horizontal at heart level, measure 1x B UE, utilize higher UE BP and signify by circling measurement. ***Confirm over 2 visits***. Whelton 2017

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SYMPTOMATIC

ASYMPTOMATIC

BP: Potential HTN Emergency
>180 *OR* >120 **
Whelton 2017, JNC VII 2004

BP: HTN Stage 2
140-180 *OR* 90-120**
at 2 visits Whelton 2017

BP: HTN Stage 1
130-139 *OR* 80-89
At 2 visits Whelton 2017

BP: Elevated
120-129 & <80*
At 2 visits Whelton 2017

BP: Normal
<120 & <80*
Whelton 2017

Recheck after sitting 5 min
>180/120 ≤180/120

PCP F/U, BP referral letter (section 1), discuss non-pharm interventions

PCP F/U within 3-6 months for ASCVD risk, discuss non-pharm interventions Whelton 2017

Proceed with Tx

Call MD, Follow MD orders, *(JNC VII 2004)*, Monitor S/S continuously and BP every 5'. If BP continues to rise, consider alternate position of comfort.
If BP remains stable, consider performing passive interventions or testing.
Send MD letter for BP parameters and ASCVD risk (section 1 & 2).
At next visit discuss non-pharm interventions

If asymptomatic, continue PT, send MD letter for BP parameters and ASCVD risk (section 1 & 2), discuss non-pharm interventions

If mild/general symptomatic (malaise, nausea, feels unwell), use clinical judgment to adjust intensity of session

If suddenly symptomatic, Stop PT, call 911

STOP PT, CALL 911

Continue to monitor S/S and BP every 5', get AED, pt in position of comfort until EMS arrives.

Continue monitoring: take BP mid-tx If performing moderate to intense exercise or Pre-Tx BP 140-180 *OR* 90-120

Normal Response To Exercise
-SBP rises in linear fashion with exertion, 7-10mmHg for every MET level (Hillegass 2nd ed. p512, ASCM 3rd ed.)
-SBP increases 20mmHg or more with Min (50-55% Max HR, 3-5/10 or 9/20 RPE) to Mod(3 – 6 METs) (60-70% Max HR or 4-6/10 or 12-14/20 RPE) (CDC, Goodman and Synder 4th ed., p191)
-SBP increases 40-50mmHg with intense(> 7 METs) (70-85% Max HR, 7- 8/10 or 17/20 RPE (CDC, Goodman &Synder 4th ed., P191)
-HR rises linearly 10bpm for each MET level (ACSM 7th ed., p171)
-PSO_2 ≥ 90 – 100% (Valdez-Lowe 2009)

Cardiovascular Symptoms
Rynn 2005, ASA 2011
Sudden…
-Severe headache
-Nosebleeds
-Shortness of Breath
-Severe Anxiety
-Chest pain
} Call MD for advice

Sudden…
-Chest Discomfort (Nitroglycerin?)
-Difficulty Speaking & Seeing
-UE/LE/Face numbness or weakness
- Sudden trouble walking or dizziness, loss of balance, confusion

Terminate Tx If: ACSM 8th Ed
-SBP decreases ≥ 20mmHg
-SBP ≥ 250mmHg
-DBP ≥115mmHg
-HR doesn't ↑ with exercise (Beta Blockers?)
- Significant change in heart rhythm
-PSO_2: ≤ 70% Rajkumar 2006
-Cardiovascular sx arise (see list)

Normal Post Exercise Response
- SBP to pre-exercise level within 5-7' of stopping & resting Pierson 2007
- HR to pre-exercise level within 3-5' of stopping & resting Pierson 2007

Pt should remain in clinic until BP at baseline

Recheck BP 5' post Ex. If return to baseline is normal, only 1x measure is required, unless Initial BP is higher.

Orthostatic Hypotension:
1. Defined as a 20mmHg SBP or 10mmHg DBP drop in blood pressure within 1-3 minutes of standing up. (Freeman 2011, Joraschek 2017)
2. Referral to MD is recommended, especially with chronically low blood pressure, </ = 85/55, only if BP causes noticeable signs and symptoms (AHA 2011) : Nausea, dizziness, and lightheaded with activity (Bradley 2003); fainting; dehydration and unusual thirst; lack of concentration; blurred vision; cold, clammy, pale skin; rapid, shallow breathing; fatigue; and depression. (AHA 2011)
3. Investigate whether pt has experienced prolong bed rest; possible side effects from medications; heart, endocrine, or neurological conditions; systemic infection; or nutritional deficiency (B12 and folic acid, causing anemia). (AHA 2011)
4. Consider referral for evaluation for diabetes, PD, and other autonomic dysregulation disorders (Pickering 2005)

* Pts with SBP and DBP in different categories should be assigned higher BP

**Questions for Investigation of elevated BP: JNC VII 2004
1. What were you doing before your was BP checked?
Exercising, rushing to appt, Smoking, Drinking Caffeine?
Consider re-taking later in visit or at next visit if circumstantial
2. When is the last time you spoke to your MD about your BP?
3. Are you taking BP meds as prescribed?
If has side effects or not adherent, refer to MD

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