Appendix A: Diagnosis and Management of Hypertension Algorithm

<table>
<thead>
<tr>
<th>MOBP</th>
<th>AOBP</th>
<th>Systolic (mm Hg)</th>
<th>Diastolic (mm Hg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;80</td>
<td>&lt;120</td>
<td>80-84</td>
<td>85-89</td>
</tr>
<tr>
<td>80-84</td>
<td>120-129</td>
<td>130-139</td>
<td>85-94</td>
</tr>
<tr>
<td>85-89</td>
<td>130-139</td>
<td>140-159</td>
<td>90-99</td>
</tr>
<tr>
<td>90-99</td>
<td>140-159</td>
<td>160-179</td>
<td>100-109</td>
</tr>
<tr>
<td>100-109</td>
<td>160-179</td>
<td>≥180</td>
<td>≥110</td>
</tr>
</tbody>
</table>

*Validated AOBP levels for the other classifications are currently unavailable and hence only previously published MOBP levels are listed.

If screening or random BP is elevated (AOBP ≥ 135/85 or MOBP ≥ 140/90) (Office, home, pharmacy)

Dedicated office visit to assess BP, Family History, physical examination and lab tests. CVD risk should be assessed at this time.

AOBP < 135/85
MOBP < 140/90

Diabetes – NO
Not hypertensive
Reassess as indicated

AOBP ≥ 135/85
MOBP ≥ 140/90

Diabetes – YES and AOBP ≥ 130/80
MOBP ≥ 140/90

Hypertension

AOBP, MOBP ≥ 180/110

Consider 24-hour ambulatory or home BP monitoring, if appropriate
ABPM (mean 24-hour) > 130/80
ABPM (mean awake) > 135/85
HBPM 135/85

Abbreviations: AOBP = automatic office blood pressure; ABPM = ambulatory blood pressure monitoring; BP = blood pressure; CVD = cardiovascular disease; DBP = diastolic blood pressure; HBPM = home blood pressure monitoring; MOBP = manual office blood pressure.
Discuss with patient the clear benefits of changes in health behaviours such as eating a well-balanced diet, and reducing sodium intake (DASH diet), physical activity, maintaining healthy weight, reducing alcohol intake and smoking cessation in lowering BP.

Discuss with patient pharmacological treatment in those with high CVD risk (>15% 10-year risk) or CKD or target organ damage.

Discuss with patient pharmacological treatment in those with high CVD risk (>15% 10-year risk), CKD, target organ damage.

Initiate pharmacological treatment with a single medication in all patients.

Initiate pharmacological treatment with 2 medications as separate or single pill combination in all patients.

Reassess within one to two months until desired BP is reached.

Reassess within one to two months until desired BP is reached.

### Medication Class Examples (initial adult dose)

<table>
<thead>
<tr>
<th>Medication Class</th>
<th>Examples (initial adult dose)</th>
<th>When initiating 2 medications at the same time, use lower doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diuretic</td>
<td>Hydrochlorothiazide 12.5 mg once daily</td>
<td></td>
</tr>
<tr>
<td>ACE-I OR ARB (if ACE-I intolerant)</td>
<td>Ramipril 2.5 mg once daily OR Candesartan 8 mg once daily</td>
<td></td>
</tr>
<tr>
<td>Calcium Channel Blocker</td>
<td>Amlodipine 5 mg once daily</td>
<td></td>
</tr>
</tbody>
</table>

Start a single medication from the list below (unless compelling indication):

Start 2 medications from the list below as separate or single pill combination (unless compelling indication):

**Achieved desirable BP?**

- **NO**
  - Increase dose, or add additional drug from the list above.
  - Follow up 1-2 months
  - **Achieved desirable BP?**
    - **NO**
      - Increase dose, or add additional drug from the list above.
      - If intolerant, contraindicated or experiencing side effects, consider adding one of the following:
        - Beta-blocker (e.g. metoprolol 50 mg BID)
        - Potassium Sparing Diuretic (e.g. spironolactone 12.5 mg once daily)
      - Follow up 1-2 months
    - **YES**
  - **YES**

- **YES**
  - Continue therapy and provide ongoing care as required

**Achieved desirable BP?**

- **NO**
  - Consider consultation with a care provider with hypertension expertise
- **YES**

**Achieved desirable BP?**

- **YES**
  - Continue therapy and provide ongoing care as required
- **NO**
  - Consider consultation with a care provider with hypertension expertise

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