**Hypertension Collaborative Practice Agreement**

Developed for Pharmacy Practice in the State of Colorado

[Prescriber/Prescriber Group] partnering with [Pharmacist/Pharmacist group]

1. **A. Policy Statement**

A pharmacist is an integral part of the healthcare team, improving medication safety, adherence, and patient outcomes for chronic disease states. Collaborative Practice Agreements improve patient outcomes by allowing pharmacists to titrate, initiate, and monitor medications for chronic disease management. In collaboration, [Prescriber/Prescriber group etc.] and [pharmacist, pharmacist group, etc.] agree to employ this Collaborative Practice Agreement in accordance with Colorado Board of Pharmacy Regulations.

Per BOP Regulations “Collaborative pharmacy practice agreement,” or “collaborative practice agreement” (CPA), means a written and signed agreement entered into voluntarily between one or more Colorado-licensed pharmacists and one or more physicians or advanced practice nurses. A CPA grants authority to the pharmacist or pharmacists to provide evidence-based healthcare services to one or more patients pursuant to a specific treatment protocol. Either party may withdraw from an agreement at any time.

A pharmacist and prescriber entering into a Collaborative Practice Agreement must follow all rules and regulations as set out in in the State Board of Pharmacy Rules and Regulations 3CCR 719-1, section 17.00.00, Collaborative Pharmacy Practice.

This document is to serve as a guideline on collaborative practice for hypertension management; it is not intended to encompass all aspects of therapy management. Clinical judgment and consideration of individual patient characteristics should be included when making decisions regarding patient care.

**B.** **Authority**

1. Pharmacists participating in collaborative practice will meet minimum competency requirements as outlined in Rule 17.00.30.
	1. The pharmacist holds a current license to practice in Colorado;
	2. The pharmacist is engaged in the practice of pharmacy;
	3. The pharmacist has earned a Doctor of Pharmacy degree or completed at least five (5) years of experience as a licensed pharmacist
	4. The pharmacist agrees to devote a portion of his or her practice to collaborative pharmacy practice;
	5. There is a process in place for the physician, advanced practice registered nurse, and pharmacist to communicate and document changes to the patient’s medical record; and
	6. The pharmacist carries adequate professional liability insurance in coverage of at least $1,000,000 per incident and at least $3,000,000 in aggregate.
2. “Prescriber”, for the purpose of this Board Rule 17.00.00, means a physician who is actively and unconditionally licensed by the Colorado Medical Board or an advanced practice registered nurse with prescriptive authority who is actively and unconditionally licensed by the Colorado State Board of Nursing. The prescriber must have an established relationship with the patient or patients who will be served by the pharmacist(s) under the collaborative pharmacy practice agreement. Any Physician Assistant who may wish to participate in collaborative practice must do so under the authority of their supervising physician.
3. The participating pharmacists and prescribers are listed at the end of this document.

**C.** **Pharmacist Activities**

1. Prescriber and Pharmacist Interactions
	1. The prescriber will “refer” a patient for Collaborative Practice services.
		1. This “referral” constitutes an “order” per Colorado Rule 17
		2. This referral may come in multiple forms. The following are considered a referral for Collaborative Practice Activities
			1. A verbal order from the prescriber or prescriber’s delegate
			2. A written order from the prescriber
			3. A note in the chart requesting follow up with a pharmacist for CPA activities and sent via [fax, secure message, etc.] to the pharmacist.
	2. All CPA visits will be documented via SOAP note and be communicated to the referring provider [available in a shared medical record, faxed, sent via secure messaging, etc.] within 24 hours. The notes will be signed by the pharmacist.
	3. The pharmacist will clearly document medication changes
	4. All orders/prescriptions will be written according to the current accepted medical standard and signed by the pharmacist, sent under the prescriber’s name.
	5. Medication changes do not need to be approved by provider unless a specific CPA is not followed
	6. The provider may override any decision made by the pharmacist
	7. Urgent Communications
		1. Allergic/Adverse Reactions: All adverse and allergic reactions will be clearly documented in a SOAP note. If urgent follow-up is clinically necessary, patient will be referred to an acute care provider either via primary care, urgent care, or the emergency room, depending on severity.
		2. Patient with complaints or symptoms that fall outside Collaborative Practice will be referred to the primary care provider or ordering prescriber.
		3. If suicidal ideation arises during the patient-pharmacist interaction, the pharmacist will refer patient to Colorado Crisis Services, 988.
2. Scope of Practice: Pharmacists have full scope of practice to evaluate and treat all disease states listed in CPA protocol [Attachment A.] Pharmacists may start, stop, adjust any medication commonly used for the listed conditions, per guidelines. This includes laboratory testing for medication and disease state monitoring. The pharmacist may perform or review the following physical assessments: all vital signs, foot examinations as indicated.
3. Patient and Pharmacist Interactions
	1. Collaborative Practice may be addressed with the patient:
		1. In-person via an individual or group visit
		2. Via telephone (audio-only) visits
		3. Via secure Electronic Medical Record Messaging system
		4. Via secure video visits
	2. It is the responsibility of the patient to follow-up with recommended medications, ordered labs, appointments and phone follow-ups and this information should be communicated to the patient. The pharmacist will make all reasonable attempts to continue a good working relationship with patient if there are missed appointments.
	3. Patient Dismissal: Patients who are not engaged in treatment plans or who no-show appointments with the pharmacist may be referred to the initial prescriber who ordered the CPA. This may be done over-the-phone, via secure messaging, or via fax. Attempts to contact patient will also be documented in dismissal.
	4. Discontinuation of Pharmacist CPA Services
		1. When the patient meets their therapeutic goals, the patient will be referred back to the prescriber for continued treatment. (i.e, annual BP check, every 3-6 month A1C check, etc.)
		2. This will be clearly documented in the pharmacist SOAP note.
		3. A patient may be re-referred to pharmacist services in the future, if needed.
4. Retention of Records (Rule 17.01.01-17.03.00)
	1. CPA Agreements: Pharmacists shall maintain all records of collaborative pharmacy practice agreements, and have readily available for inspection by the Board or its inspectors at the location where evidence-based healthcare services are provided, the following:
		1. The agreement and protocol entered into with prescriber(s)
		2. Documentation reflecting pharmacist qualifications to participate in CPA
	2. CPA Activities: All records of collaborative pharmacy agreements shall be retained for a minimum of three years from the last date of healthcare service. Such records shall be available for inspection by the patient, the prescriber or prescribers, the Board or its inspectors, or any other authorized local, state, or federal law enforcement or regulatory agency.
		1. Records may be maintained in an alternative data retention system such as a data processing system or direct imaging system provided that:
			1. The records maintained in the alternative system contain all of the information required on the manual record;
			2. The data processing system is capable of producing a hard copy of the record upon the request of the Board, its representative, or of other authorized, local, state, or federal law enforcement or regulatory agencies;
			3. A back-up is conducted of the data processing system every twenty-four hours; and
			4. The records are immediately available for the previous two years.
	3. Confidentiality: The pharmacist shall provide adequate security to prevent indiscriminate or unauthorized access to confidential records. If confidential health information is transmitted through a data communication device, the confidential health information may not be accessed or maintained by the operator of the data communication device unless specifically authorized to do so by the patient. All protected health information obtained and maintained, including that obtained from the physician or other providers, must be strictly controlled in accordance with the requirements of Health Insurance Portability and Accountability Act of 1996, and the HITECH Act of 2009, and other federal and state laws and rules.

**Approval**:

\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[Prescriber Signature] [Date]

\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[Pharmacist Signature] [Date]

**Hypertension Protocol**

This protocol is based on current national evidenced based guidelines. Pharmacists will manage antihypertensive therapies in accordance with these accepted current guidelines and literature. Pharmacists may prescribe and dispense FDA approved medication(s) to eligible patients according to indications and contraindications recommended in the *2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines1* and the *Resistant Hypertension: Detection, Evaluation, and Management: A Scientific Statement From the American Heart Association*2 orsubsequent updated published guidelines recognized as the national standard of practice*.*

As outlined in the CPA agreement, the pharmacist may start, stop, or adjust any medication commonly used for hypertension, per current guidelines. This includes laboratory testing for medication and disease state monitoring. The scope of the agreement covers adult patients (≥18 years of age) with hypertension who are not currently pregnant, receiving hospice care, or who’s hypertension is already managed by a provider not included in the agreement (e.g. cardiology, nephrology).

**Disease Assessment:**

Pharmacists will assess the current state of the patient’s hypertension control including blood pressure and heart rate. The pharmacist will also evaluate the patient’s current medications (prescription, non-prescription, and herbal products), medication history (allergies, failures, intolerances), medical, social, and family history, and lifestyle. Therapeutic treatment decisions will be made based on numerous factors including but not limited to laboratory tests, goals of therapy, patient preference, allergies, comorbidities, previous intolerances, and affordability.

*Goals of Therapy1*

**Table 1. Therapeutic Goals**

|  |  |
| --- | --- |
| **Clinical Condition** | **BP Goal (mmHg)** |
| **General** |
|  Clinical CVD or 10-year ASCVD risk > 10% | <130/80 |
|  No clinical CVD and 10-year ASCVD risk < 10% | <130/80 |
| Older persons (>65 years of age; noninstitutionalized, ambulatory, community-living adults) | <130 SBP |
| **Specific comorbidities** |
|  Diabetes mellitus CKD CKD after renal transplantation Heart failure Stable ischemic heart disease Secondary stroke prevention Peripheral arterial disease | <130/80 |

ASCVD = atherosclerotic cardiovascular disease; BP = blood pressure; CKD = chronic kidney disease; CVD = cardiovascular disease; SBP = systolic blood pressure

**Disease Treatment:**

*Lifestyle Management*

Healthy lifestyles are recommended for all patients with hypertension. Pharmacists may assess if patients have significant room for improvement in diet and/or exercise and assist with appropriate goal setting toward healthier lifestyles.

**Table 2: Lifestyle Management**

|  |  |
| --- | --- |
|  |   |
| **Smoking cessation** | * Cessation of tobacco products
 |
| **Weight management** | * Maintain healthy body weight (BMI 18.5-24.9 kg/m2)
* Aim for at least 1- kilogram reduction in body weight for most adults who are overweight
 |
| **Nutrition** | * DASH dietary pattern
* Consume a diet rich in fruits, vegetables, whole grains, and low-fat dairy products, with reduced content of saturated and total fat
* Sodium intake <1500 mg/day optimal; at least 1000 mg/day reduction for most adults
* Potassium intake 3500-5000 mg/day, preferably by consumption of a diet rich in potassium
 |
| **Physical activity** | * Moderate-to-vigorous intensity aerobic activity ≥150 min/week spread over at least 3 days/day with no more than 2 consecutive days without activity
* Resistance training 2-3 sessions/week on nonconsecutive days
* Flexibility training and balance training 2-3 times/week for older adults
* Increase physical activity as tolerated
* Prolonged sitting should be interrupted every 30 minutes
 |
| **Moderation in alcohol intake** | For individuals who choose to drink alcohol, intake should be limited to:* Women: < 1 drink per day (maximum of 7/week)
* Men: < 2 drinks per day (maximum of 14/week)
 |
| **Caffeine** | * Limit caffeine intake to <300 mg/day
* Avoid use in uncontrolled hypertension
 |

BMI = body mass index; DASH = Dietary Approaches to Stop Hypertension

*Drug Therapy Management*

If blood pressure is not at goal as outlined in Table 1 or according to another goal set by the referring provider, the pharmacist may initiate, adjust, or discontinue antihypertensive medications (Appendix A) based on patient assessment. Medications may be ordered with up to one year of refills to allow for flexibility with a patient’s prescription benefits. Pharmacists may also prescribe home blood pressure monitors as appropriate. Pharmacists may order any appropriate laboratory monitoring for medications based on recommendations in the package inserts.

Antihypertensive medications at subsequent visits should be initiated, adjusted within the standard dosage range, or discontinued to reach blood pressure goals.

*Examples of recommended treatment algorithms are included at the end of this publication.*

*Management of Hypertensive Crises:*

 Hypertensive crises are defined as severe elevations in BP (>180/120 mmHg).

* Hypertensive emergencies involve severe elevations in BP associated with evidence of new or worsening target organ damage. Examples of target organ damage include: hypertensive encephalopathy, intracranial hemorrhage, acute ischemic stroke, acute myocardial infarction, acute left ventricular failure with pulmonary edema, unstable angina, dissecting aortic aneurism, acute renal failure, and eclampsia.
* Hypertensive urgencies are situations associated with severe BP elevation in otherwise stable patients without acute or impending change in target organ damage or dysfunction.

 Patients who present with hypertensive crises will be referred to emergency care for further evaluation and management.

*Management of Hypotension:*

If sitting BP <100/60 mmHg in any patient OR if standing BP <110/60 mmHg in patients ≥65 years, the patient should be assessed for symptoms of hypotension (i.e. dizziness, light-headedness, fatigue). If symptomatic, the patient may be referred for urgent or emergent care for further evaluation and management. Antihypertensive medications may also be tapered down or discontinued as appropriate.

*Follow Up & Laboratory Monitoring*

Patients should follow up as recommended by the pharmacist and based on guidelines. Medication adjustments may occur after evaluating and documenting lab tests, measuring blood pressure and heart rate, and evaluating for adverse effects.

Pharmacists may order all laboratory tests and perform physical assessments as outlined in this protocol. If results are within normal limits and/or stable, the pharmacist will document in their treatment note their plan. Abnormal, but not critical, laboratory and vital sign values will be expected and documented appropriately. If a laboratory value or vital sign is critical, as defined in this document, the pharmacist will make the appropriate decision to send patient to urgent care, emergency care, or follow-up with primary care provider within 2 weeks, or as appropriate.

**Table 3: Assessments and Follow-Up**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| **Lab** | **Baseline** | **Follow-Up** | **Critical/Notify provider if:**  |
| **SCr and eGFR****(as part of a CMP)** | All patients within 12 months of starting diuretic, ACEi, ARB, or MRA. | Within 4 weeks of starting or titrating a diuretic, ACEi, ARB, or MRA or within 4 weeks of a significant change from baseline.  | SCr increased by >0.4 mg/dL or > 30% or is progressive. |
| **Serum sodium, potassium, calcium****(as part of a CMP)** | All patients within 12 months | Annually and within 4 weeks of starting or titrating diuretic, ACEi, ARB, MRA or within 7 to 10 days of abnormal result. | K+ <3.0 mmol/L or >6.0 mmol/LNa+ <130 mmol/L or>150 mmol/LCa2+ < 8.5 mg/dL>12 mg/dL |
| **Spot urinary albumin-to-creatinine ratio**  | All patients within 12 months if patient has diabetes or otherwise clinically indicated. | Annually. May order if on ACEI/ARB. May order repeat lab to confirm abnormal result. |  New abnormal result or if progressive increase.≥30 to 299 mg/g creatinine (microalbuminuria)≥300 (macroalbuminuria) |
| **Blood Urea Nitrogen** | Prior to starting diuretic if dehydration suspected or if otherwise clinically indicated. | If patient is on a diuretic, ACEi or ARB and dehydration is suspected or if otherwise clinically indicated. | Change in BUN:SCr ratio to >20:1 |
| **Uric acid** | Within 12 months of starting a diuretic if gout flare is a concern | Within 4 weeks of starting or titrating a diuretic or within 4 weeks of abnormal result if gout a concern | >7 mg/dL |
| **Lipid Profile** | As initial screening if no lipid profile in the last 5 years for any patient aged 40-75 years with HTN |  | TG > 1000 mg/dL |
| **Hemoglobin A1C or fasting blood glucose** | As initial screening for diabetes mellitus or pre-diabetes in any adult with overweight or obesity and HTN |  | A1C >5.7%FBG> 100 mg/dL |

ACEi = angiotensin converting enzyme inhibitor; ARB = angiotensin receptor blocker; BUN = blood urea nitrogen; CMP = complete metabolic panel; eGFR = estimated glomerular filtration rate; FBG = fasting blood glucose; HTN = hypertension; MRA = mineralocorticoid receptor antagonist; SCr = serum creatinine; TG = triglycerides

**Appendix A: Medication Classes and Recommended Agents**

*All medications may be started at their usual starting dose per package inserts and evidence-based drug databases, based on patient-specific factors such as renal and liver function.*

**Table 4: Medications by Class**

|  |
| --- |
| **Thiazide or Thiazide-like Diuretics***Examples: chlorthalidone, hydrochlorothiazide, indapamide, metolazone* |
| Chlorthalidone is preferred on the basis of prolonged half-life and proven trial reduction of CVD.Monitor for hyponatremia and hypokalemia, uric acid and calcium levels.Use with caution in patients with history of acute gout unless patient is on uric acid-lowering therapy. |
| **ACE Inhibitors***Examples: benazepril, captopril, enalapril, fosinopril, lisinopril, moexipril, perindopril, quinapril, ramipril, trandolapril* |
| Do not use in combination with ARBs or direct renin inhibitor.There is an increased risk of hyperkalemia, especially in patients with CKD or in those on K+ supplements or K+ sparing drugs.There is a risk of acute renal failure in patients with severe bilateral renal artery stenosis.Do not use if patient has history of angioedema with ACE inhibitors.Avoid in pregnancy. |
| **Angiotensin Receptor Blockers***Example: azilsartan, candesartan, eprosartan, irbesartan, losartan, Olmesartan, telmisartan, valsartan* |
| Do not use in combination with ACE inhibitors or direct renin inhibitor.There is an increased risk of hyperkalemia, especially in patients with CKD or in those on K+ supplements or K+ sparing drugs.There is a risk of acute renal failure in patients with severe bilateral renal artery stenosis.Do not use if patient has history of angioedema with ACE inhibitors.Avoid in pregnancy. |
| **Calcium Channel Blockers - Dihydropyridines***Examples: amlodipine, felodipine, isradipine, nicardipine SR, nifedipine LA, nisoldipine* |
| Avoid use in patients with HFrEF; amlodipine or felodipine may be used if required.May cause dose-related pedal edema; this is more common in women than men. |
| **Calcium Channel Blockers – Non-dihydropyridines***Examples: diltiazem, verapamil* |
| Avoid routine use with beta blockers because of increased risk of bradycardia and heart block.Do not use in patients with HFrEF.Major drug interactions exist with diltiazem and verapamil (CYP3A4 major substrate and moderate inhibitor). |
| **Direct renin inhibitor***Example: aliskiren* |
| Do not use in combination with ACE inhibitors or ARBs.There is an increased risk of hyperkalemia, especially in patients with CKD or in those on K+ supplements or K+ sparing drugs.Aliskiren may cause acute renal failure in patients with severe bilateral renal artery stenosis.Avoid in pregnancy. |
| **Diuretics - Loop***Example: bumetanide, furosemide, torsemide* |
| Preferred diuretics in patients with symptomatic heart failure.Preferred diuretics over thiazides in patients with moderate-to-severe CKD (e.g. eGFR < 30 mL/min). |
| **Diuretics – Aldosterone Antagonists***Examples: eplerenone, spironolactone* |
| Preferred agents in primary aldosteronism and resistant hypertension.Spironolactone is associated with greater risk of gynecomastia and impotence as compared with eplerenone.Avoid use with K+ supplements, other K+ sparing diuretics, or significant renal dysfunction. |
| **Diuretics – Potassium Sparing***Examples: amiloride, triamterene* |
| Monotherapy agents are minimally effective as antihypertensives. Use in combination with a thiazide can be considered in patients with hypokalemia on thiazide monotherapy.Avoid in patients with significant CKD (e.g. eGFR <45 mL/min). |
| **Beta Blockers***Examples: acebutolol, atenolol, betaxolol, bisoprolol, carvedilol, labetalol, metoprolol, nebivolol, nadolol, penbutolol, pindolol, propranolol* |
| Avoid abrupt cessation.Beta blockers are not recommended as first-line agents unless the patient has IHD or HF; avoid agents with intrinsic sympathomimetic activity in these patients (i.e. acebutolol, penbutolol, pindolol).Cardioselective agents are preferred in patients with bronchospastic airway disease requiring a beta blocker; avoid noncardioselective agents in patients with reactive airway disease. |
| **Alpha-1 Antagonists***Examples: doxazosin, prazosin, terazosin* |
| May cause orthostatic hypotension, especially in older adults.May be considered second-line in patients with concomitant BPH. |
| **Central Alpha-2 Agonists***Examples: clonidine, guanfacine, methyldopa* |
| Generally last line because of significant CNS adverse effects, especially in older adults.Avoid abrupt cessation of clonidine which may lead to hypertensive crisis; taper to avoid rebound hypertension. |
| **Direct Arterial Vasodilators***Examples: hydralazine, minoxidil* |
| Associated with sodium and water retention and reflex tachycardia; use with a diuretic and beta blocker.Hydralazine is associated with drug-induced lupus-like syndrome at higher doses.Minoxidil is associated with hirsutism and requires a loop diuretic. Minoxidil can induce pericardial effusion. |

ACE = angiotensin-converting enzyme; ARB = angiotensin receptor blocker; BP = blood pressure; BPH = benign prostatic hyperplasia; CCB = calcium channel blocker; CKD = chronic kidney disease; CNS = central nervous system; CVD = cardiovascular disease; eGFR = estimated glomerular filtration rate; HF = heart failure; HFrEF = heart failure with reduced ejection fraction; IHD = ischemic heart disease

**Table 5: Recommended Agents in Special Populations**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Population** | **Thiazide** | **B-blocker** | **ACEi#** | **ARB#** | **CCB** | **MRA** | **Loop** | **α1-blocker** | **Arterial Vasodilator** | **Central α2-agonist** |
| **Heart Failure** |  |
| * **HFrEF\***
 |  | I | I | I |  | II | II |  | II |  |
| * **HFpEF**
 |  | I | I | I |  | II | II |  |  |  |
| **Stable Ischemic Heart Disease^** | II | I | I | I | II | II |  |  |  |  |
| **Post MI** |  | I | I |  |  | I |  |  |  |  |
| **Diabetes Mellitus** |  |
| * **(-) albuminuria**
 | I |  | I | I | I |  |  |  |  |  |
| * **(+) albuminuria**
 | II |  | I | I | II |  |  |  |  |  |
| **Chronic Kidney Disease** |  |
| * **Stage 1-2, (-) albuminuria**
 | I |  | I | I | I |  |  |  |  |  |
| * **Stage 1-2 (+) albuminuria**
 |  |  | I | I |  |  |  |  |  |  |
| * **Stage 3+ (+/-) albuminuria**
 |  |  | I | I |  |  |  |  |  |  |
| **History of stroke/TIA** | I |  | I | I |  |  |  |  |  |  |
| **Resistant HTN** | I | II | I | I | I | II |  | II | II | III |

ACEi = angiotensin converting enzyme inhibitor; ARB = angiotensin receptor blocker; CCB = calcium channel blocker; HFpEF = heart failure with preserved ejection fraction; HFrEF = heart failure with reduced ejection fraction; HTN = hypertension; MI = myocardial infarction; MRA = mineralocorticoid receptor antagonist; TIA = transient ischemic attack

I = primary agent, II = secondary agent, III = tertiary agent

\*Preferred B-blockers include metoprolol succinate, carvedilol, or bisoprolol; ACEi or ARB used when administration of angiotensin receptor/neprilysin inhibitor (ARNI) not possible

# When an ACEi and ARB are both an option, only one will be used (i.e. avoid combination of ACEi + ARB)

^Guideline directed management and therapy B-blockers for blood pressure control or relief of angina include carvedilol, metoprolol tartrate, metoprolol succinate, nadolol, bisoprolol, propranolol, and timolol

**References**

* + - 1. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Coll Cardiol* 2018;71:e127-e248
			2. Carey RM, Calhoun DA, Bakris GL, et al. Resistant Hypertension: Detection, Evaluation, and Management: A Scientific Statement From the American Heart Association. Hypertension. 2018;72(5):e53-e90.

**Figure 1: Accurate Blood Pressure Measurement**

|  |
| --- |
| * **Properly prepare the patient**
	+ Have patient relax, sitting in a chair with feet flat on floor, back supported, for at least 5 minutes
	+ Avoid caffeine, tobacco use, or exercise within 30 minutes of BP measurement
	+ Ensure patient has emptied his/her bladder
	+ Neither the patient nor the clinician should talk during the measurement
	+ Remove all clothing covering the location of cuff placement
* **Use proper technique for BP measurement**
	+ Use a BP measurement device that has been validated and ensure that the device is calibrated periodically
	+ Support the patient’s arm (e.g. resting on a desk)
	+ Position the middle of the cuff on the patient’s upper arm at the level of the right atrium (midpoint of the sternum)
	+ Use the correct cuff size, such that the bladder encircles 80% of the arm and note if a larger- or smaller-than-normal cuff size is used
	+ Place the cuff on bare skin
	+ Either the stethoscope diaphragm or bell may be used for auscultatory readings
* **Take the proper measurements needed for diagnosis and treatment of elevated BP/hypertension**
	+ Record BP in both arms at the first visit and use the arm that gives the higher reading for subsequent readings
	+ Separate repeated measurements by at least 1 minute
	+ For auscultatory determinations, use a palpated estimate of radial pulse obliteration pressure to estimate SBP; Inflate the cuff 20-30 mm Hg above this level for an auscultatory determination of the BP level
	+ For auscultatory readings, deflate the cuff pressure 2 mm Hg per second and listen for Korotkoff sounds
* **Properly document accurate BP readings**
	+ Record the systolic and diastolic BP; if using the auscultatory technique, record systolic and diastolic BP as onset of the first Korotkoff sound and disappearance of all Korotkoff sounds, respectively, using the nearest even number
	+ Note the time of most recent BP medication administration (if applicable)
* **Average the BP readings**
* **Provide BP readings to patient**
 |

**Example SOAP Notes for Hypertension Visit**

**Initial Visit Template**Subjective: Patient presents for Initial PharmD HTN Visit. Patient was referred by [provider] for a BP of X mmHg on x/x/x.

* Patient has had HTN for xx years. Over these years they have learned xxx about HTN. They are/are not familiar with their BP goal. They can/cannot explain long-term complications of HTN. They are/are not familiar with a healthy diet and exercise routine for HTN.
* Baseline HTN knowledge:
* Current medications:
* Adherence:
* Food choices:
* Physical activity:
* Tobacco/substance use:
* Alcohol intake:
* Stress: Present/absent
* Personal beliefs about HTN:
* Patient motivation for improving HTN control:

Objective: Blood Pressure, Heart Rate, Previous labs as applicable, Home BP readings as applicable

Assessment:

* Patient’s BP is above goal of < X mmHg
* Contributing factors include:
* Treatment options discussed include:

Plan:

* Today we will make the following changes:
* Education and encouragement provided.
* Follow-up scheduled:
* A large percentage of today's visit was focused around HTN initial education including: explanation of current lab results, goals of therapy, complication of poorly control BP, importance of taking prescribed medications daily, lifestyle recommendations including XXX, and need for continued f/u to assist with HTN management. Patient verbalizes understanding, and all questions were answered to patient satisfaction.
* Note sent to XXX via XXX.

**Follow-Up Visit Template**

Subjective: Patient presents for HTN FUV. At last visit [x weeks ago] we [made no changes, increased x medication, etc.]

* Denies/reports hypotension, other adverse effects of medication including XXX
* Adherence: Reports XXX missed doses of medication over the last 2 weeks
* Biggest HTN concern today:
* Physical activity:
* Diet changes:
* Tobacco/substance use:
* Alcohol intake:
* Stress:
* Motivation for improving HTN control:

Objective: Blood Pressure, Heart Rate, Previous labs as applicable, Home BP readings as applicable

Assessment:

* Patient’s BP is above goal of < X mmHg
* Contributing factors include:
* Treatment options discussed include:

Plan:

* Today we will make the following changes:
* Education and encouragement provided.
* Follow-up scheduled:
* Note sent to XXX via XXX.