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Primary Care Medical Directive for Hypertension Management

Adapted from Federation of Health Regulatory Colleges of Ontario Template Last Updated Feb 2019

Title: Hypertension Therapy

Number: _____

(Inclusion Criteria: Thiazide/Thiazide-like diuretic, Angiotensin Converting Enzyme Inhibitor, Angiotensin Receptor Blocker, Calcium Channel Blocker, Beta-adrenergic Antagonists)

Activation Date: _____ Review Due By: _____

Appendix A Attached: **Yes X** **No** **Title**: Antihypertensive Medications

Directive Order:

Adjust, renew, or discontinue first-line antihypertensive medication(s) (Thiazide/Thiazide-like diuretic, Angiotensin Converting Enzyme Inhibitor (ACE), Angiotensin Receptor Blocker (ARB), Calcium Channel Blocker (CCB), or Beta-adrenergic Antagonists (Beta-Blocker)) by authorized regulated health professional(s). Patient has been initiated on antihypertensive agent (s) by the primary care provider (PCP) to achieve patient's blood pressure (BP) goal, as needed

- Medication adjustments are done at monthly intervals until desired blood pressure (BP) goal is achieved

Desired Outcomes:

Patients will be provided with the appropriate antihypertensive medication(s) to support them in achieving their BP goal. Patients will receive maximum therapeutic effect on minimum antihypertensive medication dosage with minimal side effects.

Recipient Patients:

- Patient is willing to take antihypertensive medication(s) as prescribed
- Patient is willing and able to follow up with health care provider(s) as per the patient's hypertension action plan

Authorized Implementer(s):

Regulated Health Professional(s) providing hypertension management within their scope of practice including:

- Participation in a recognized hypertension management education program (e.g., Hypertension Canada Professional Education Program) and/or have completed professional core competencies for hypertension if available
- Review of the Hypertension Canada Guidelines updated bi-annually
- Review of the Medical Directive annually
- Review the product monograph of the prescribed medication(s)
- Demonstration of an understanding of guidelines based hypertension management, criteria, and protocols affiliated with its usage

Indications:

All patients diagnosed with hypertension, under the care of a PCP, who are seen for a hypertension management consult, have started antihypertensive medication(s) from the first- line category agents, and are deemed appropriate for their hypertension action plan.

Contraindications:

Absolute Contraindications:

- Under 18 years of age
- Evidence of hypotension (SBP less than 100 and/or DBP less than 60)
- Any patients requiring > 3 antihypertensive medications
- Specific medication contraindications as per product monograph

Relative Contraindications:

- Specific medication contraindications as per product monograph

Patient Consent: Consent is implied when the patient has participated in shared-decision making prior to adjustment, renewal, or discontinuation of the antihypertensive medication(s).

Appendix A Attached: **Yes X** **No** **Title**: Antihypertensive Medications
Appendix B Attached: **Yes X** **No** **Title**: Laboratory Monitoring

Guidelines for Implementing the Directive:

During initial consultation:

- Authorized Implementer(s) assess the patient's health history, current BP status, current antihypertensive medications including contraindications, medication adherence, side effects or adverse drug reaction (ADR)
- If changes in BP is felt to be representative of secondary causes (e.g., stress, pain) then recheck BP in 2-4 weeks before adjusting medication

During subsequent visits:

- Authorized Implementer(s) continue to assess BP status, side effects & adherence. For most patients, the BP goal will be less than 140/90 mmHg or less than 135/85 if using Automated Office Blood Pressure measurement. If the patient has diabetes, the BP goal will be less than 130/80 mmHg
- Regular monitoring is to include lab monitoring along with assessing adherence to the program which includes: antihypertensive medication(s) and/or low-sodium diet, exercise, and other vascular risk reduction therapy
- At least monthly visits to be scheduled until readings on two consecutive visits are below their target. Additional visits to be scheduled as needed for management of side effects, for monitoring significant medication changes, or other clinical issues (e.g., severe hypertension, symptomatic patients, intolerance of antihypertensive medications)
- If desired outcomes are NOT achieved by increasing antihypertensive medication(s) to maximum dosage, the authorized implementer to notify the PCP
- If the BP goal is achieved, the patient should be assessed for at least 2 more visits to help ensure the achievement of the goal is maintained. Then patients should be seen at maximum of 6 month intervals
- Consider change to combination therapies once stable doses of individual components have been achieved
- A change in dose or discontinuation of antihypertensive(s) may be necessary if patient is still hypertensive or has any side effects, respectively

The Authorized Implementer(s) will advise patient taking antihypertensive(s) to:

- Return for a follow-up PC visit within the recommended timeframe from the initial prescription as per the patient's hypertension action plan
- Participate in home BP monitoring if available (patient +/- family education is required)
- Seek medical attention for any serious or significant adverse medication reactions
- Report any possible side effects to the prescribing health professional or their primary care provider

Documentation & Communication:

The Authorized Implementer(s) will document the following:

- Date and time
- Clinical assessment
  - Evaluation of the patient's response & tolerability to treatment (e.g., BP status, medication adherence, reported side effects or ADR, any changes in baseline blood pressure)
- Antihypertensive (s) name, dose, route, frequency, quantity, and duration, specific actions: adjustment, renewal, discontinuation
- Refills
- Authorized Implementer's name, designation, and signature
- Medical Directive Title & Number

Communication should include:

- The adjustment, renewal, or discontinuation will be provided to the patient with a copy in the chart
- Notify patient's PCP when adjusting, renewing and/or discontinuing antihypertensive medication(s) as per the patient's hypertension action plan
- If patient is still hypertensive or experiences any side effects:
  - This will be communicated to the prescribing health professional and PCP and documented in the chart
  - The PCP will be notified of any observed or reported serious adverse event immediately/as soon as possible
- Authorized Implementer(s) carrying out this directive may direct questions to the PCP at any time
- Authorized Implementer(s) will seek consultation with the PCP regarding individual patient issues/care as needed

Review and Quality Monitoring Guidelines:

- The Medical Director/Lead Physician, is responsible to review and modify the directive on an annual basis, as required
- If new information becomes available between annual reviews, such as new clinical best practice recommendations, the directive will be reviewed by an Authorizer and an Implementer
- The Authorized Implementer(s) is responsible to monitor the use of this Medical Directive and to review its use on an annual basis & communicate to the Medical Director/Lead Physician/ Nurse Practitioner

Administrative Approvals (as applicable):

Appendix C Attached: **Yes** X **No** **Title:** Signature(s) of Physician Approving Medical Directives

Approving Physician (s) or Nurse Practitioners Authorizer (s):

The Medical Director/Lead Physician will also sign the signature page at the back of the directive, authorizing use of the directive

Adapted from:

Diagnosis and Management of Hypertension Working Group: Veterans Affairs. 2014. VA/DoD clinical practice guideline for the diagnosis and management of hypertension in the primary care setting (Version 3). Veterans Affairs.

Godwin, M. et al. 2007. Intensive scheduled management strategy for improving blood pressure control for patients in primary care.

Heart and Stroke Foundation of Ontario and Registered Nurses Association of Ontario (RNAO). 2005 (revised 2009 supplement). Nursing management of hypertension: Toronto, Canada: Heart and Stroke Foundation of Ontario and Registered Nurses' Association of Ontario. http://rnao.ca/bpg/guidelines/nursing-management-hypertension

Hypertension Canada. 2018. Hypertension Canada's 2018 Guidelines for Diagnosis, Risk Assessment, Prevention and Treatment of Hypertension in Adults and Children. Retrieved from http://guidelines.hypertension.ca/

North York Family Health Team. 2010. Medical Directive: Hypertension therapy-non-diabetes (NYFHT-003B)

SPRINT Trial: Antihypertensive drug management to achieve systolic blood pressure < 120 mmHg in SPRINT. Retrieved from https://www.sprinttrial.org/public/Intensive_BP_Control_in_SPRINT.pdf

Appendix A

Antihypertensive Medications

Drug Name	Usual Starting Dose	Titration Schedule	Maximum Titration	Maximum Dose
Thiazide Diuretics/Thiazide-Like Diuretics				
Hydrochlorothiazide (Hydrodiuril®)	12.5 mg daily	12.5 mg daily x 28 days 25 mg daily x 28 days 50 mg daily	12.5 mg per dose per 28 days	25 mg daily (50 mg daily maximum dose **ONLY** in consultation with physician)
Chlorthalidone (Hygroton®)	12.5 mg daily	12.5 mg daily x 28 days 25 mg daily x 28 days 50 mg daily	12.5 mg per dose per 28 days	25 mg daily (50 mg daily maximum dose **ONLY** in consultation with physician)
Indapamide (Lozide®)	1.25 mg daily	1.25 mg daily x 28 days 2.5 mg daily x 28 days 5 mg daily	1.25 mg per dose per 28 days	2.5 mg daily (5 mg daily maximum dose **ONLY** in consultation with physician)
Angiotensin Converting Enzyme Inhibitors (ACE)				
Ramipril (Altace®)	1.25 mg daily	1.25 mg daily x 14-28 days 2.5 mg daily x 14-28 days 5 mg daily x 14-28 days 10 mg daily x 14-28 days 20 mg daily (or divided BID)	1.25 – 10 mg per dose per 14-28 days	10 mg daily (20 mg daily (or divided BID) maximum dose **ONLY** in consultation with physician)
Perindopril (Coversyl®)	2 mg daily	2 mg daily x 14-28 days 4 mg daily x 14-28 days 8 mg daily x 14-28 days 16 mg daily	2 – 8 mg per dose per 14-28 days	8 mg daily (16 mg daily maximum dose **ONLY** in consultation with physician)
Enalapril (Vasotec®)	5 mg daily	5 mg daily x 14-28 days 5 mg BID x 14-28 days 10 mg BID x 14-28 days	5 – 10 mg per dose per 14-28 days	10mg bid (20 mg BID maximum dose **ONLY** in consultation with physician)

Drug Name	Usual Starting Dose	Titration Schedule	Maximum Titration	Maximum Dose
		20 mg BID		
Lisinopril (Prinivil®, Zestril®)	5 mg daily	5 mg daily x 14-28 days 10 mg daily x 14-28 days 20 mg daily x 14-28 days 40 mg daily	5 – 20 mg per dose per 14-28 days	20mg daily (40 mg daily maximum dose **ONLY** in consultation with physician)
Quinapril (Accupril®)	5 mg daily	5 mg daily x 14-28 days 10 mg daily x 14-28 days 20 mg daily x14- 28 days 40 mg daily	5 – 20 mg per dose per 14-28 days	20 mg daily (40 mg daily maximum dose **ONLY** in consultation with physician)
Fosinopril (Monopril®)	5 mg daily	5 mg daily x 14-28 days 10 mg daily x 14-28 days 20 mg daily x 14-28 days 40 mg daily	5 – 20 mg per dose per 14-28 days	20 mg daily (40 mg daily maximum dose **ONLY** in consultation with physician)
Benazepril (Lotensin®)	5 mg daily	5 mg daily x 14-28 days 10 mg daily x 14-28 days 20 mg daily x 14-28 days 40 mg daily	5 – 20 mg per dose per 14-28 days	20 mg BID (40 mg daily maximum dose **ONLY** in consultation with physician)
Angiotensin Receptor Blockers (ARB)				
Candesartan (Atacand®)	4 mg daily	4 mg daily x 14-28 days 8 mg daily x 14-28 days 16 mg daily x 14-28 days 32 mg daily(or divided BID)	4 – 16 mg per dose per 14-28 days	16 mg daily (32 mg daily maximum dose **ONLY** in consultation with physician)
Irbesartan (Avapro®)	75 mg daily	75 mg daily x 14-28 days 150 mg daily x 14-28 days 300 mg daily	75 – 150 mg per dose per 14-28 days	150 mg daily (300 mg daily maximum dose **ONLY** in consultation with physician)

Drug Name	Usual Starting Dose	Titration Schedule	Maximum Titration	Maximum Dose
Losartan (Cozaar®)	25 mg daily	25 mg daily x 14-28 days 50 mg daily x 14-28 days 100 mg daily	25 – 50 mg per dose per 14-28 days	50 mg daily (100 mg daily maximum dose **ONLY** in consultation with physician)
Valsartan (Diovan®)	80 mg daily	80 mg daily x 14-28 days 160 mg daily x 14-28 days 320 mg daily (or divided BID)	80 -160 mg per dose per 14-28 days	160 mg daily (320 mg daily maximum dose **ONLY** in consultation with physician)
Azilsartan (Edarbi®)	40 mg daily	40 mg daily x 14-28 days 80 mg daily x 14-28 days	40 per dose per 14-28 days	40 mg daily (80 mg daily maximum dose ONLY in consultation with physician)
Eprosartan (Teventen®)	400 mg daily	400 mg daily x 14-28 days 600 mg daily x 14-28 days 800 mg daily	200 mg per dose every 14-28 days	600 mg daily (800 mg daily maximum dose ONLY in consultation with physician)
Dihydropyridine Calcium Channel Blockers (DHP-CCB)				
Amlodipine (Norvasc®)	2.5 mg daily	2.5 mg daily x 7-28 days 5 mg daily x 7-28 days 10 mg daily x 7-28 days 20 mg daily (or divided BID)	2.5 – 5 mg per dose per 7-28 days	10 mg daily (20 mg daily maximum dose **ONLY** in consultation with physician)
Felodipine (Plendil®, Renedil®)	2.5 mg daily	2.5 mg daily x 7-28 days 5 mg daily x 7-28 days 10 mg daily x 7-28 days 20 mg daily (or divided BID)	2.5 – 5 mg per dose per 7- 28 days	10 mg daily (20 mg daily maximum dose **ONLY** in consultation with physician)
Nifedipine XL (Adalat XL®)	30 mg daily	30 mg daily x 7-28 days 60 mg daily x 7-28 days	30 mg per dose per 7-28 days	60 mg daily

Drug Name	Usual Starting Dose	Titration Schedule	Maximum Titration	Maximum Dose
		90 mg daily x 7-28 days 120 mg daily		(90 – 120 mg daily maximum dose **ONLY** in consultation with physician)
Non-Dihydropyridine Calcium Channel Blockers (Non-DHP-CCB)				
Diltiazem (Tiazac ER®, Tiazac XC®, Cardizem CD®)	120 mg daily	120 mg daily x 7-28 days 180 mg daily x 7-28 days 240 mg daily x 7-28 days 360 mg daily	120 mg per dose per 7-28 days	240 mg daily (360 mg daily maximum dose **ONLY** in consultation with physician)
Beta-adrenergic Antagonists (Beta-Blockers)				
Bisoprolol (Monocor®)	1.25 mg daily	1.25 mg daily x 7-28 days 2.5 mg daily x 7-28 days 5 mg daily x 7-28 days 10 mg daily x 7-28 days 20 mg daily (or divided BID)	1.25 – 10mg per dose per 7-28 days	10 mg daily (20 mg daily (or divided BID) maximum dose **ONLY** in consultation with physician))
Atenolol (Tenormin®)	12.5 mg daily	12.5 mg daily x 7-28 days 25 mg daily x 7-28 days 50 mg daily x 7-28 days 100 mg daily x 7-28 days 200 mg daily (or divided BID)	12.5 – 100 mg per dose per 7-28 days	100 mg daily (200 mg daily (or divided BID) maximum dose **ONLY** in consultation with physician)
Metoprolol (Lopresor®, Betaloc®)	12.5 mg BID	12.5 mg BID x 7-28 days 25 mg BID x 7-28 days 50 mg BID x 7-28 days 100 mg BID x 7-28 days 200 mg BID	12.5 – 100mg per dose per 7-28 days	100 mg BID (200 mg BID maximum dose **ONLY** in consultation with physician)

Appendix B

Regular Laboratory Monitoring by Medication Class

Drug Class	Laboratory Monitoring	Frequency
Thiazide Diuretics	Electrolytes Uric Acid Serum Creatinine	Baseline and within 14 days of dosage change and every 6 – 12 months once stabilized
ACE	Potassium Serum Creatinine	Baseline and within 14 days of dosage change and every 6 – 12 months once stabilized
ARB	Potassium Serum Creatinine	Baseline and within 14 days of dosage change and every 6 – 12 months once stabilized
DHP-CCB	NA	NA
Non-DHP-CCB	NA	NA
Beta-Blockers	NA	NA

Appendix C

Authorizer Approval Form (Make Fillable Form)

Name	Signature	Date

Last Updated Feb 2019