



## Pharmacologic Agents for Treatment of Hypertension

### SCAN Formulary Drugs

Medication	Total Daily Dose & Administration	Dosing Schedule	2023 Formulary Status		2024 Formulary Status		Adverse Drug Reactions
			TIER	UM	TIER	UM	
<b>Angiotensin Converting Enzyme Inhibitors (ACEIs)</b>							
<i>benazepril</i>	2.5mg to 40mg	daily to BID	1		1		Angioedema, cough, hyperkalemia, dizziness, headache
<i>captopril</i>	12.5mg to 150mg	BID to TID	1		1		Angioedema, cough, hyperkalemia, dizziness, headache, skin rash
<i>enalapril</i>	2.5mg to 40mg	daily to BID	1		1		Angioedema, cough, hyperkalemia, dizziness, headache
<i>fosinopril</i>	5mg to 40mg	daily to BID	1		1		Angioedema, cough, hyperkalemia, dizziness, headache
<i>lisinopril</i>	2.5mg to 40mg	daily to BID	1		1		Angioedema, cough, hyperkalemia, dizziness, headache
<i>moexipril</i>	3.75mg to 30mg	daily	1		1		Angioedema, cough, hyperkalemia, dizziness, headache
<i>perindopril</i>	4mg to 8mg	daily to BID	1		1		Angioedema, cough, hyperkalemia, dizziness, headache
<i>quinapril</i>	5mg to 40mg	daily	1		1		Angioedema, cough, hyperkalemia, dizziness, headache
<i>ramipril</i>	1.25mg to 20mg	daily	1		1		Angioedema, cough, hyperkalemia, dizziness, headache
<i>trandolapril</i>	1mg to 4mg	daily	1		1		Angioedema, cough, hyperkalemia, dizziness, headache

Angiotensin Receptor Blockers							
<i>candesartan</i>	8mg to 32mg	daily	2		2		Angioedema, cough, hyperkalemia, dizziness, headache
<i>irbesartan</i>	75mg to 300mg	daily	1		1		Dizziness, fatigue, hyperkalemia, hypotension
<i>losartan</i>	12.5mg to 100mg	daily to BID	1		1		Dizziness, fatigue, hyperkalemia, hypotension
<i>olmesartan</i>	20mg to 40mg	daily	2		2		Dizziness, headaches, hyperkalemia, hypotension
<i>olmesartan &amp; amlodipine</i>	20mg/5mg to 40mg/10mg	daily	2		2		Headache, peripheral edema, hyperkalemia, hypotension
<i>olmesartan medoxomil &amp; amlodipine &amp; hydrochlorothiazide tabs</i>	20 /5 /12.5 mg to 40/10/25mg	daily	2		2		Headache, peripheral edema, hyperkalemia, hypotension, anorexia, dizziness
<i>telmisartan</i>	20 to 80 mg	Daily	2		2		Cough, upper respiratory infection
<i>valsartan</i>	40mg to 320mg	daily	1		1		Dizziness, fatigue, hyperkalemia, hypotension
<i>valsartan &amp; amlodipine</i>	160/5mg to 320/10mg	daily	1		1		Headache, peripheral edema, hyperkalemia, BUN increase
<i>valsartan &amp; amlodipine &amp; hct</i>	160/5/12.5mg to 320/10/25mg	daily	2		2		BUN increase, edema, dizziness, hypo/hyperkalemia, headache, fatigue
Thiazides Diuretics							
<i>chlorthalidone</i>	12.5 to 25mg	daily	1		1		Phototoxicity, hypokalemia, anorexia, dyspepsia

<i>hydrochlorothiazide</i>	12.5 to 25mg	daily	1		1		Anorexia, dizziness, phototoxicity, hypotension
<i>metolazone</i>	2.5mg to 5mg	daily	2		2		Dizziness, muscle cramps, orthostatic hypotension
<b>Loop Diuretics</b>							
<i>bumetanide oral</i>	0.5mg to 4mg	daily to TID	2		2		Hypokalemia, hyperuricemia, azotemia, hyponatremia
<i>furosemide oral</i>	20 to 160mg	daily to BID	1		1		Hypokalemia, hyperuricemia, dizziness, headache
<i>torseamide oral</i>	2.5mg to 50mg	daily to BID	2		2		Hypokalemia, hyperuricemia, azotemia, hyponatremia
<b>Potassium Sparing Diuretics</b>							
<i>amiloride</i>	2.5mg to 10mg	daily	2		2		Headache, fatigue, dizziness, hyperkalemia
<i>amiloride &amp; hydrochlorothiazide</i>	5/50mg to 10/100mg	daily	1		1		Hyperkalemia, headache, body weakness, arrhythmia, nausea, anorexia
<i>triamterene &amp; hydrochlorothiazide</i>	37.5 mg/25mg or 75 mg/50mg	daily	1		1		Hyperkalemia, dizziness, fatigue, orthostatic hypotension
<b>Aldosterone Receptor Blockers</b>							
<i>eplerenone</i>	50mg to 100mg	daily	3		3		Dizziness, diarrhea, coughing, fatigue and flu-like symptoms
<i>spironolactone</i>	12.5mg to 50mg	daily to BID	1		1		Hyperkalemia, drowsiness, lethargy, mental confusion
<i>spironolactone &amp; hydrochlorothiazide</i>	25/25mg to 50/50mg	daily to BID	1		1		Hyperkalemia, drowsiness, lethargy, mental confusion

Adrenergic Inhibitors							
<i>doxazosin</i>	1mg to 16mg	daily	2		2		Dizziness, somnolence, fatigue, edema, headache, nausea
<i>prazosin</i>	1mg to 20mg	BID to TID	2		2		Dizziness, headache, drowsiness, lack of energy, weakness, palpitations, nausea
<i>terazosin</i>	1mg to 20mg	daily to BID	1		1		Asthenia, postural hypotension, dizziness, somnolence, nasal congestion/rhinitis, and impotence
Central $\alpha$ 2-agonists and Other Centrally Acting Drugs							
<i>clonidine tabs immediate release</i>	0.1mg to 1.2mg	BID to TID	1		1		Dry mouth, drowsiness, dizziness, constipation, sedation
<i>clonidine patches</i>	0.1mg to 0.3mg	1 patch transdermally weekly	4		4		Dry mouth, drowsiness, fatigue, headache, lethargy, sedation, insomnia, dizziness, impotence/sexual dysfunction, dry throat, constipation, nausea
<i>guanfacine ir</i>	0.5mg to 2mg	daily	2		2		Dry mouth, sedation (somnolence), weakness (asthenia), dizziness, constipation and impotence
Beta Blockers							
<i>acebutolol</i>	200mg to 800mg	daily	2		2		Fatigue, dizziness, headache, constipation, diarrhea, dyspepsia, nausea, dyspnea
<i>atenolol</i>	12.5mg to 100mg	daily	1		1		Bradycardia, dizziness, fatigue, nausea
<i>atenolol &amp; chlorthalidone</i>	50/25mg to 100/25mg	daily	1		1		Bradycardia, dizziness, fatigue, nausea
<i>bisoprolol</i>	2.5mg to 10mg	daily	2		2		Fatigue, insomnia, diarrhea, chest pain

<i>bisoprolol &amp; hydrochlorothiazide</i>	2.5/6.25mg to 20/12.5mg	daily	2		2		Fatigue, insomnia, diarrhea, chest pain
<i>carvedilol</i>	3.125mg to 25mg	BID	1		1		Hypotension, dizziness, fatigue, bradycardia
<i>carvedilol phosphate extended release</i>	10mg to 80mg	daily	4		4		Hypotension, dizziness, fatigue, bradycardia
<i>metoprolol succinate er</i>	50mg to 400mg	daily	2		2		Dizziness, headache, fatigue, depression, bradycardia
<i>metoprolol tartrate tabs 25mg, 50mg, &amp; 100mg</i>	25mg to 400mg	BID	1		1		Dizziness, headache, fatigue, depression, bradycardia
<i>metoprolol &amp; hydrochlorothiazide</i>	25/12.5mg to 200/25mg	daily	2		2		Dizziness, headache, fatigue, depression, bradycardia
<i>nadolol</i>	20mg to 160mg	daily	2		2		Bradycardia, dizziness, nausea, diarrhea, flatulence
<i>nebivolol</i>	5mg to 40mg	daily	2		2		
<i>propranolol ir tabs</i>	20mg to 160mg	BID	1		1		Dizziness, headache, fatigue, depression, bradycardia
<i>propranolol er caps</i>	60mg to 180mg	daily	2		2		Dizziness, headache, fatigue, depression, bradycardia
<i>propranolol oral solution</i>	20mg to 160mg	BID	2		2		Dizziness, headache, fatigue, depression, bradycardia
<i>timolol oral</i>	10mg to 40mg	BID	1		1		Bradycardia, fatigue, headache, dizziness, dyspnea

Calcium Channel Antagonists, Non-dihydropyridines							
<i>cartia xt</i>	120mg to 360mg	daily	2		2		Edema, headache, nausea, dizziness, rash, and asthenia
<i>diltiazem tabs</i>	120mg to 360mg	daily to BID	2		2		Edema, headache, nausea, dizziness, rash, and asthenia
<i>diltiazem er caps</i>	120mg to 360mg	daily	2		2		Edema, headache, nausea, dizziness, rash, and asthenia
<i>dilt-xr</i>	120mg to 360mg	daily	2		2		Edema, headache, nausea, dizziness, rash, and asthenia
<i>taztia xt</i>	120mg to 360mg	daily	2		2		Edema, headache, nausea, dizziness, rash, and asthenia
<i>verapamil ir</i>	120mg to 360mg	daily to BID	1		1		Constipation, dizziness, nausea, hypotension, headache, edema
<i>verapamil er</i>	120mg to 360mg	daily	2		2		Constipation, dizziness, nausea, hypotension, headache, edema
<i>verapamil sr</i>	120mg to 360mg	daily	2		2		Constipation, dizziness, nausea, hypotension, headache, edema
Calcium Channel Antagonists, Dihydropyridines							
<i>amlodipine</i>	2.5mg to 10mg PO daily	daily	1		1		Edema, dizziness, flushing, palpitation, fatigue, nausea
<i>amlodipine &amp; benazepril</i>	2.5mg/10mg to 10mg/20mg	daily	1		1		Edema, dizziness, flushing, palpitation, fatigue, nausea
<i>felodipine er</i>	2.5mg to 20mg	daily	2		2		Peripheral edema, headache, or flushing
<i>isradipine</i>	2.5mg to 10mg	daily	2		2		Headache, edema, dizziness, palpitations, and gastrointestinal disturbances

<i>nifedipine caps</i>	60mg to 120mg	daily	2		2		Edema, dizziness, headache, asthenia, flushing, increased angina, palpitations
<i>nifedipine caps</i>	30mg to 60mg	daily	2		2		Headache, fatigue, dizziness, constipation, nausea
<i>nifedipine er</i>	30mg to 60mg	daily	2		2		Headache, fatigue, dizziness, constipation, nausea
<i>nisoldipine er</i>	10mg to 40mg	daily	4		4		Peripheral edema, headache, dizziness, pharyngitis, vasodilation, sinusitis, palpitations
<b>Renin Inhibitors</b>							
<i>aliskiren</i>	150mg to 300mg	daily	3		3		Diarrhea, hyperkalemia, hypotension
<b>Direct Vasolidators</b>							
<i>hydralazine oral</i>	25mg to 100mg	BID to QID	2		2		Headache, anorexia, nausea, vomiting, diarrhea, palpitations, tachycardia, angina pectoris
<i>minoxidil</i>	2.5mg to 50mg	daily	2		2		Salt and water retention, pericarditis, pericardial effusion, tamponade, hypertrichosis, rashes, nausea, vomiting, breast tenderness

Brand-name drugs are capitalized and generic drugs are listed in lower-case italics.

#### References:

1. James PA, Oparil S, Carter BL, et al. 2014 evidence-based guideline for the management of high blood pressure in adults: report from the panel members appointed to the Eighth Joint National Committee (JNC 8). JAMA 2014; 311:507.
2. Reuben, D. (2014). Hypertension. In Geriatrics at your fingertips (16th ed.). New York: American Geriatrics Society.
3. Online Lexicomp (09/2023): 1100 Terex Road, Hudson, OH 44236