

# Medications<sup>4,5,12,14-16, 34</sup>

Drug class	Agent (Brand Name)	Starting dose	Target dose	ODB coverage	NIHB coverage	Cost for target dose (90 days)	Benefits in HFrEF	Harms and monitoring	Parameters for initiation	Laboratory and clinical monitoring (within 1-2 wks of initiation)	When to consider dose reduction/discontinuation
ARNi	<b>Sacubitril-valsartan<sup>17</sup> (Entresto)</b>	50-100 mg BID (50 mg strength includes 24.3 mg sacubitril and 25.7 mg valsartan; 100 mg strength includes 48.6 mg sacubitril and 51.4 mg valsartan)	200 mg BID (200 mg strength includes 97.2 mg sacubitril and 102.8 mg valsartan)	LU 497	LU	\$729 - 747	<ul style="list-style-type: none"> <li>↓ CV mortality or HF hospitalization</li> <li>↓ CV mortality</li> <li>↓ HF hospitalization</li> <li>↓ All-cause mortality</li> <li>↓ HF symptoms</li> </ul>	<ul style="list-style-type: none"> <li>Closely monitor BP for symptomatic hypotension</li> <li>Electrolytes for hyperkalemia</li> <li>Renal function for elevated creatinine</li> <li>Acute kidney injury, angioedema, cough, dizziness and diuretic dosing for hypovolemia</li> </ul>	HFrEF NYHA II-IV SBP > 100 mmHg eGFR > 30 mL/min K+ < 5.2mmol/L	BP HR Symptomatic hypotension SCr K+ Blood urea nitrogen	Symptomatic hypotension SCr > 30% increase and CKD depending on eGFR and specific ARNi/ACEi/ARB K+ > 5.4 mmol/L Acute illness (SADMANS medication) Child-Pugh B or C Symptoms or history of angioedema, pregnancy, renal artery stenosis
OR ACEi	<b>Enalapril<sup>18</sup> (Vasotec)</b>	1.25-2.5 mg BID	10 mg BID/20 mg BID in NYHA IV	Yes	Yes	\$60 - 76	<ul style="list-style-type: none"> <li>↓ CV mortality</li> <li>↓ HF hospitalization</li> <li>↓ HF symptoms</li> </ul>	<ul style="list-style-type: none"> <li>Monitor BP for symptomatic hypotension</li> <li>Electrolytes for hyperkalemia</li> <li>Renal function for elevated creatinine</li> <li>Acute kidney injury, angioedema and cough</li> </ul>	HFrEF NYHA I-IV SBP > 100 mmHg K+ ≤ 5.5 eGFR >30ml/min (caution below < 30 mL/min) Post MI + EF <40% Perindopril is suggested for older adults due to safety advantages		
	<b>Lisinopril<sup>19</sup> (Prinivil, Zestril)</b>	2.5-5 mg daily	20-35 mg daily	Yes	Yes	\$29 - 57					
	<b>Perindopril<sup>20</sup> (Coversyl)</b>	2-4 mg daily	4-8 mg daily	Yes	Yes	\$29 - \$41					
	<b>Ramipril<sup>21</sup> (Altace)</b>	1.25-2.5 mg BID	5 mg BID	Yes	Yes	\$25 - 29					
	<b>Trandolapril<sup>22</sup> (Mavik)</b>	1-2 mg daily	4 mg daily	Yes	Yes	\$33 - 38					
OR ARB	<b>Candesartan<sup>23</sup> (Atacand)</b>	4-8 mg daily	32 mg daily	Yes	Yes	\$31 - 36	<ul style="list-style-type: none"> <li>↓ CV mortality or HF hospitalization</li> <li>↓ CV mortality</li> <li>↓ HF hospitalization</li> <li>↓ All-cause mortality</li> </ul>	<ul style="list-style-type: none"> <li>Closely monitor BP for symptomatic hypotension</li> <li>Risk of orthostatic hypotension</li> <li>Electrolytes for hyperkalemia</li> <li>Renal function for elevated creatinine</li> <li>Acute kidney injury, angioedema and cough</li> </ul>	ACEi intolerant HFrEF NYHA I-IV SBP > 100 mmHg K+ ≤ 5.5 eGFR >30ml/min (caution below < 30 mL/min) Post MI + EF <40%		
	<b>Valsartan<sup>24</sup> (Diovan)</b>	40 mg BID	160 mg BID	Yes	Yes	\$51 - 56					
Beta-blocker	<b>Carvedilol<sup>25</sup> (Coreg)</b>	3.125 mg BID	25 mg BID/50 mg BID (>85 kg)	LU 183	Yes	\$49 - 95	<ul style="list-style-type: none"> <li>↓ All-cause mortality</li> <li>↓ HF hospitalization</li> </ul>	<ul style="list-style-type: none"> <li>Monitor renal function, heart rate, BP, transient fluid retention, fatigue</li> </ul>	HR > 60 bpm SBP > 100 mmHg	HR SBP No lab work required	HR < 50 bpm Symptomatic hypotension (carvedilol is more likely to lower BP because of its alpha-blocking activity)
	<b>Bisoprolol<sup>26</sup> (Monacor)</b>	1.25 mg daily	10 mg daily	Yes	Yes	\$17 - 22					
MRA	<b>Spirolactone<sup>27</sup> (Aldactone)</b>	12.5 mg daily	25-50 mg daily	Yes	Yes	\$13 - 21	<ul style="list-style-type: none"> <li>↓ All-cause mortality</li> <li>↓ CV mortality</li> <li>↓ HF hospitalization</li> </ul>	<ul style="list-style-type: none"> <li>Closely monitor potassium, renal function, diuretic dosing</li> </ul>	SBP > 100 mmHg eGFR > 30 mL/min K+ ≤ 5.4mmol/L	Symptomatic hypotension SCr K+	Symptomatic hypotension K+ > 5.4 mmol/L SCr > 30% increase within 4 wks of initiation
	<b>Eplerenone (Inspra)<sup>28</sup></b>	25 mg daily	50 mg daily	LU 458	LU	\$142 - 149					
SGLT2i	<b>Dapagliflozin<sup>29</sup> (Forxiga)</b>	10 mg daily	10 mg daily	Yes	Yes	\$75 - 81	<ul style="list-style-type: none"> <li>For patients with or without concomitant type 2 diabetes:</li> <li>↓ HF symptoms</li> <li>↑ Quality of life</li> <li>↓ CV mortality</li> <li>↓ HF hospitalization</li> </ul>	<ul style="list-style-type: none"> <li>Closely monitor renal function, electrolytes, BP, genital mycotic infections, risk of hypoglycemia (not a significant concern unless patients have diabetes and are taking sulfonylureas or insulin)</li> </ul>	SBP > 100 mmHg eGFR > 25 mL/min	Symptomatic hypotension SCr Glycemic control (if diabetes) Serum/urine ketones and lactate (if presenting in acute decompensation) Genital mycotic infection	Symptomatic hypotension SCr > 30% increase within 4 wks of initiation Development of ketones or elevated lactate if presenting acutely decompensated
	<b>Empagliflozin<sup>30</sup> (Jardiance)</b>	10 mg daily	10-25 mg daily	Yes	Yes	\$278 - 287					
	<b>Canagliflozin<sup>31</sup> (Invokana)</b>	100 mg daily	100-300 mg daily	Yes	Yes	\$289 - 310					

