

Table S1 Characteristics of included studies

Study	Year	Age	Male%	Patients	Sample size	Treatmet	Country
Ikonomidis et al. <sup>1</sup>	2020	58(10)	71.9	T2DM+CVD	80	GLP-1RA, SGLT-2i	Greece
Paiman et al. <sup>2</sup>	2019	55 (11)	40.0	T2DM	47	GLP-1RA	Netherlands
Santos-Gallego et al. <sup>3</sup>	2021	62(12.1)	64.0	CVD	80	SGLT-2i	USA
Akasaka et al. <sup>4</sup>	2022	71.9(8)	60.3	T2DM+CVD	68	SGLT-2i	Japan
Rau et al. <sup>5</sup>	2021	62(6.8)	77.2	T2DM	42	SGLT-2i	Germany
Verma et al. <sup>6</sup>	2019	63.3(9)	46.4	T2DM+CVD	90	SGLT-2i	Canada
Hiruma et al. <sup>7</sup>	2021	52.8(9.7)	72.0	T2DM	42	SGLT-2i	Japan
Brown et al. <sup>8</sup>	2020	65.53(6.87)	57.6	T2DM+CVD	66	SGLT-2i	UK
Bojer et al. <sup>9</sup>	2021	62.2 (10)	80.0	T2DM+CVD	40	GLP-1RA	Denmark
Cioffi et al. <sup>10</sup>	2021	69(9)	55.8	T2DM	187	DPP-4i	Italy

Singh et al. <sup>11</sup>	2020	67.1(6.9)	66.1	T2DM+CVD	56	SGLT-2i	UK
Bami et al. <sup>12</sup>	2020	63.3 (9)	92.7	T2DM+CVD	97	SGLT-2i	Canada
Webb et al. <sup>13</sup>	2020	43.4(7)	46.0	T2DM	61	DPP-4i, GLP-1RA	UK
Omar et al. <sup>14</sup>	2021	64(11)	85.3	T2DM+CVD	179	SGLT-2i	Denmark
Oldgren et al. <sup>15</sup>	2021	64.4(7.2)	53.0	T2DM	49	SGLT-2i	Sweden
Ersbøll et al. <sup>16</sup>	2022	66.2 (9.2)	80.5	T2DM+CVD	87	SGLT-2i	Denmark
Lee et al. <sup>17</sup>	2020	68.7(11.1)	73.3	T2DM+CVD	92	SGLT-2i	UK
Bizino et al. <sup>18</sup>	2019	60(6)	59.2	T2DM	49	GLP-1RA	Netherlands
Otagaki et al. <sup>19</sup>	2019	65(13.8)	69.1	T2DM	42	SGLT-2i	Japan
Chen et al. <sup>20</sup>	2015	57.7(11.3)	73.3	CVD	83	GLP-1RA	China
Jorsal et al. <sup>21</sup>	2017	65(9.2)	89.2	T2DM+CVD	241	GLP-1RA	Denmark
Lepore et al. <sup>22</sup>	2016	56(10)	74.0	CVD	56	GLP-1RA	USA

Sardu et al. <sup>23</sup>	2018	72(6)	72.1	T2DM+CVD	559	GLP-1RA	Italy
Yamada et al. <sup>24</sup>	2017	69(8)	67.0	T2DM	115	DPP-4i	Japan
Yamamoto et al. <sup>25</sup>	2017	71(10)	63.8	CVD+T2DM	137	DPP-4i	Japan
Zhang et al. <sup>26</sup>	2017	59.1(11.8)	75.0	CVD	52	GLP-1RA	China
Zhang et al. <sup>27</sup>	2022	56.32(12.2)	83.3	CVD	56	SGLT-2i	China
E.Reis et al. <sup>28</sup>	2022	60.9(13)	82.5	CVD	40	SGLT-2i	Portugal
E.Nassif et al. <sup>29</sup>	2021	70.1(9.68)	49.4	CVD	324	SGLT-2i	USA
Mason et al. <sup>30</sup>	2021	62(8)	91.9	T2DM+CVD	74	SGLT-2i	Canada
Kumarathurai et al. <sup>31</sup>	2021	63.1(6.6)	80.0	T2DM+CVD	58	GLP-1RA	Denmark
Abraham et al. <sup>32</sup>	2021	69.7(9.7)	65.0	CVD	627	SGLT-2i	USA
Gamaza-Chulián et al. <sup>33</sup>	2021	66.8(8.6)	55.8	T2DM	52	SGLT-2i	Spain
Jensen et al. <sup>34</sup>	2020	64.7(12)	85.3	CVD	186	SGLT-2i	Denmark
Nielsen et al. <sup>35</sup>	2020	65.2(9.4)	90.1	T2DM+CVD	208	GLP-1RA	Denmark

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Note: CVD cardiovascular disease, DPP-4i dipeptidyl peptidase-4 inhibitor; GLP-1RA glucagon-like peptide-1 receptor agonist, SGLT-2i sodium glucose cotransporter type 2 inhibitor, T2DM type 2 diabetes mellitus.

#### List of included literature:

1. Ikonomidis I, Pavlidis G, Thymis J, et al. Effects of Glucagon-Like Peptide-1 Receptor Agonists, Sodium-Glucose Cotransporter-2 Inhibitors, and Their Combination on Endothelial Glycocalyx, Arterial Function, and Myocardial Work Index in Patients With Type 2 Diabetes Mellitus After 12-Month Treatment. *J Am Heart Assoc.* 2020;9(9):e015716. <https://doi.org/10.1161/JAHA.119.015716>
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9. Bojer AS, Sørensen MH, Bjerre J, et al. Metabolic improvement with short-term, glucagon-like peptide-1 receptor agonist treatment does not improve cardiac diastolic dysfunction in patients with type 2 diabetes: A randomized, double-blind, placebo-controlled trial. *Diabetes Obes Metab.* 2021;23(10):2374-84. <https://doi.org/10.1177/2047487320939217>
10. Cioffi G, Giorda CB, Lucci D, et al. Effects of linagliptin on left ventricular DYsfunction in patients with type 2 DiAbetes and concentric left ventricular geometry: results of the DYDA 2 trial. *Eur J Prev Cardiol.* 2021;28(1):8-17. <https://doi.org/10.1016/j.echo.2020.02.005>
11. Singh J, Mordi IR, Vickneson K, et al. Dapagliflozin Versus Placebo on Left Ventricular Remodeling in Patients With Diabetes and Heart Failure: The REFORM Trial. *Diabetes Care.* 2020;43(6):1356-9. <https://doi.org/10.2337/dc19-2187>
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