

Supplemental Material

Table S1. ICD and CPT Codes for Data Collection.

| Diagnosis / Procedure | ICD-10 Code | CPT Code |
|---|------------------------------|----------------------------|
| Lp(a) Test | -- | 83695 |
| Aortic stenosis | I35.0 | -- |
| apolipoprotein-B100 | -- | 82172 |
| Coronary artery calcium | I25.84 | -- |
| Carotid stenosis | I65 | 00 |
| Chronic kidney disease | N18- | -- |
| Coronary computed tomography angiography | -- | 75571, 75572, 75573, 75574 |
| Diabetes mellitus | E08-E13 | -- |
| End-stage renal disease | N18.6 | -- |
| Family history of cardiovascular disease | V17.1, V17.3, Z82.3, Z82.49, | -- |
| Heart failure | I50 | -- |
| High-sensitivity C-reactive protein | -- | 86140, 86141 |
| Hypothyroidism | E03- | -- |
| Ischemic heart disease | I20-I25 | -- |
| Lipid panel | -- | 80061 |
| Lipoprotein (NMR) | -- | 83704 |
| Menopause | N95- | -- |
| Peripheral vascular disease | I73 | -- |
| Stroke | I61, I63, I64 | -- |

CPT = Current Procedural Terminology; ICD = International Classification of Diseases. Other abbreviations as per Table 1 and 2.

Table S2. Unique Lp(a) Testing by Year in Patients with Incident CVD Diagnoses or Cardiovascular Testing.

| Unique Lp(a) Testing by Diagnosis by Year | | | | | | | | | | | |
|--|------------------------------|----------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|------------------|
| | Overall | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | P |
| Diagnosis | | | | | | | | | | | |
| AS | 3.1 (836/27216) | 3.1 (51/1642) | 2.5 (41/1628) | 2.6 (53/2045) | 3.2 (117/3699) | 3.9 (139/3532) | 3.1 (119/3816) | 2.8 (106/3740) | 2.7 (88/3250) | 2.2 (67/3108) | 0.004 |
| CAC | 6.1 (612/10068) | 7.6 (14/184) | 4.1 (10/245) | 5.2 (50/969) | 5.9 (51/860) | 7.1 (78/1040) | 6.9 (85/1229) | 5.8 (95/1628) | 5.5 (99/1785) | 5.9 (123/2089) | 0.380 |
| CS | 3.2 (1227/38412) | 3.5 (61/1768) | 2.3 (39/1679) | 2.4 (67/2748) | 2.7 (138/5041) | 3.4 (168/4972) | 3.3 (180/5435) | 3.2 (186/5746) | 3.5 (173/4950) | 3.5 (181/5178) | 0.032 |
| FHx | 3.3 (4623/141128) | 3.6 (131/3678) | 3.5 (177/5048) | 3.2 (242/7493) | 3.1 (460/14672) | 3.6 (629/17675) | 3.4 (697/20434) | 3.2 (753/23485) | 2.7 (673/24685) | 3.3 (700/21144) | <0.001 |
| HF | 1.9 (2129/114668) | 1.3 (71/5437) | 1.5 (85/5535) | 1.3 (130/9826) | 1.9 (294/15115) | 2.3 (335/14458) | 2.2 (341/15420) | 1.8 (295/16670) | 1.8 (267/15138) | 1.7 (252/14715) | <0.001 |
| IHD | 2.9 (6469/222472) | 4.3 (516/12034) | 4.2 (459/11015) | 1.8 (358/19459) | 2.7 (820/30641) | 2.7 (769/28390) | 1.6 (478/29138) | 2.4 (733/30159) | 3.2 (879/27457) | 2.7 (693/25747) | <0.001 |
| PVD | 2.0 (1132/57699) | 2.2 (78/3618) | 1.7 (60/3548) | 1.4 (73/5115) | 1.7 (124/7129) | 2.2 (154/7134) | 2.1 (149/7238) | 2.1 (161/7821) | 2.0 (152/7462) | 1.8 (130/7289) | 0.062 |
| Stroke | 1.7 (1202/68914) | 1.5 (60/4119) | 1.4 (58/4123) | 1.6 (90/5634) | 1.7 (141/8435) | 1.6 (137/8602) | 1.5 (141/9213) | 1.9 (183/9623) | 2.1 (190/9239) | 1.7 (150/8812) | 0.175 |
| Unique Lp(a) Testing by Test / Procedure by Year | | | | | | | | | | | |
| | Overall | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | P |
| Test / Procedure | | | | | | | | | | | |
| apoB | 63.0 (5188/8287) | 28.9 (112/388) | 68.6 (1172/1709) | 79.6 (744/935) | 55.7 (345/619) | 61.9 (352/569) | 60.4 (284/470) | 56.2 (410/729) | 65.5 (547/835) | 59.4 (1158/1950) | <0.001 |
| Lipoprotein NMR | 15.8 (1831/11577) | 9.3 (201/2164) | 9.5 (179/1889) | 15.9 (194/1221) | 32.8 (212/646) | 48.4 (267/552) | 34.6 (284/820) | 23.4 (239/1020) | 13.3 (98/736) | 18.5 (109/589) | <0.001 |
| hsCRP | 10.4 (9543/91327) | 5.5 (471/8650) | 11.1 (1381/12451) | 10.9 (1047/9638) | 8.7 (729/8367) | 10.5 (845/8056) | 11.4 (1086/9545) | 11.3 (1339/11855) | 9.8 (982/9979) | 13.0 (1181/9108) | <0.001 |
| CCTA | 6.8 (1853/27311) | 2.7 (22/802) | 2.8 (41/1473) | 4.1 (82/1999) | 5.8 (140/2400) | 9.2 (236/2580) | 7.3 (247/3382) | 8.0 (377/4690) | 7.3 (338/4629) | 6.9 (366/5285) | <0.001 |
| Lipid Panel | 1.8 (10753/590026) | 2.4 (1893/78113) | 1.7 (1572/92632) | 1.5 (1224/80807) | 1.7 (1065/64532) | 2.0 (1146/56469) | 2.2 (1142/52083) | 1.9 (1082/57270) | 1.4 (757/53441) | 1.4 (781/54146) | <0.001 |

The table shows the number of participants who had a CVD diagnosis or cardiovascular testing in a given year and Lp(a) testing any time from 2012-2021. Values are presented as % (n with Lp(a) test / n diagnosed). The p-value refers to the trend in the rate of testing for each diagnosis of the study period. apoB = apolipoprotein-B100, AS = aortic stenosis, CAC = coronary artery

calcification, CCTA = coronary computed tomography angiography, CS = carotid stenosis, FHx = family history of CVD, HF = heart failure, hsCRP = high-sensitivity C-reactive protein, IHD = ischemic heart disease, NMR = nuclear magnetic resonance, PVD = peripheral vascular disease.

Table S3. Unique Lp(a) Testing by Year in Patients with Other Related Diagnoses.

| | Unique Lp(a) Testing by Diagnosis by Year | | | | | | | | | | |
|-----------------------|---|---------------------------|---------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------|
| | Overall | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | P |
| Diagnoses | | | | | | | | | | | |
| CKD | 1.2 (2228/186924) | 1.1 (194/7342) | 0.8 (103/2705) | 1.2 (205/6921) | 1.3 (284/2346) | 1.2 (255/0782) | 1.4 (275/20158) | 1.2 (301/24553) | 1.1 (244/22998) | 1.2 (251/21452) | <0.001 |
| ESRD | 0.7 (411/55333) | 0.9 (29/3213) | 0.6 (27/4295) | 1.4 (87/6199) | 1.1 (71/6459) | 0.7 (46/6336) | 0.7 (42/5803) | 0.3 (33/10427) | 0.7 (40/5399) | 0.4 (21/5120) | <0.001 |
| DM | 1.0 (3328/343012) | 1.2 (294/25486) | 0.9 (193/22760) | 1.1 (377/34547) | 1.1 (455/43409) | 1.1 (444/40271) | 0.9 (379/40445) | 0.8 (327/41380) | 0.9 (328/37833) | 0.7 (287/40327) | <0.001 |
| Hypothyroidism | 1.2 (2927/243897) | 1.2 (252/20485) | 1.0 (197/19038) | 1.4 (350/25420) | 1.3 (438/32973) | 1.2 (330/28382) | 1.3 (356/28235) | 1.2 (345/28148) | 1.1 (280/26050) | 0.7 (172/23173) | <0.001 |
| Menopause | 1.5 (1480/97288) | 1.6 (101/6325) | 1.4 (114/8405) | 1.6 (142/9068) | 1.7 (194/11529) | 1.6 (170/10473) | 1.5 (185/12365) | 1.8 (214/12231) | 1.5 (170/11338) | 1.0 (113/11281) | <0.001 |
| Statin Use | 1.2 (12253/1046270) | 0.5 (320/65894) | 1.2 (920/74875) | 1.6 (1308/83139) | 1.3 (1071/85085) | 1.7 (1385/82792) | 1.3 (1470/11603) | 1.4 (1794/124341) | 1.0 (1585/152090) | 1.4 (2029/146556) | <0.001 |

The table shows the number of participants who had a relevant diagnosis in a given year and Lp(a) testing any time from 2012-2021. Values are presented as % (n with Lp(a) test / n diagnosed). The p-value refers to the trend in the rate of testing for each diagnosis of the study period. CKD = chronic kidney disease, ESRD = end-stage renal disease, DM = diabetes mellitus.