## Supplementary

Table S1 ICD codes used for defining comorbidities

| Baseline comorbidities | ICD-9 | ICD-10 |
| :---: | :---: | :---: |
| Ischaemic stroke | 434, 436 | 163, I64 |
| Diabetes | 250 | E10-E14 |
| Hypertension | 401-405 | 110-115 |
| Heart failure | 425, 428 | 142, 143, 150 |
| Atrial fibrillation | 427D | 148 |
| Peripheral vascular disease | 440-444 | 170-174, 177 |
| Hyperlipidemia | - | E78 |
| History of cancer | 200-208 | C |
| Myocardial infarction | 410 | I210-I214, I219 |
| NSTEMI | 410B | 1214 |
| STEMI | 410A | 1210-1213 |
| Stroke | - | 161-164, 169 |

ICD, International Classification of Disease; NSTEMI, non-ST Elevation Myocardial Infarction; STEMI, ST-Elevation Myocardial Infarction.


Figure S1 Flow-chart over included and excluded patients. AVR, aortic valve replacement; CABG, coronary artery bypass grafting.

Table S2 Preoperative patient's characteristics in 335 dialysis patients that underwent aortic valve replacement with or without concomitant CABG

| Variables | Total population ( $\mathrm{n}=335$ ) | AVR ( $\mathrm{n}=260$ ) | $A V R+C A B G(n=75)$ | $P$ value |
| :---: | :---: | :---: | :---: | :---: |
| Gender (male) | 248 (74\%) | 185 (71.2\%) | 63 (84\%) | 0.032 |
| Age (years) | $67.1 \pm 10.5$ | $65.8 \pm 10.6$ | $71.5 \pm 8.7$ | <0.001 |
| Body mass index | $27.0 \pm 5.2$ | $26.8 \pm 5.3$ | $27.8 \pm 4.7$ | 0.16 |
| Logistic Euroscore (\%) | $8.3 \pm 4.26$ | $8.0 \pm 4.2$ | $9.3 \pm 4.2$ | 0.016 |
| Previous myocardial infarction | 71 (21.2\%) | 42 (16.2\%) | 29 (38.7\%) | 0.001 |
| Previous stroke | 31 (9.3\%) | 29 (11.2\%) | 2 (2.7\%) | 0.030 |
| Diabetes | 114 (34\%) | 77 (29.6\%) | 37 (49.3\%) | 0.003 |
| Hypertension | 241 (71.9\%) | 182 (70\%) | 59 (78.7\%) | 0.18 |
| Heart failure | 125 (37.3\%) | 88 (33.8\%) | 37 (49.3\%) | 0.022 |
| Atrial fibrillation | 94 (28.1\%) | 73 (28.1\%) | 21 (28\%) | 1.00 |
| Peripheral vascular disease | 73 (21.8\%) | 55 (21.2\%) | 18 (24\%) | 0.70 |
| History of cancer | 70 (20.9\%) | 57 (21.9\%) | 13 (17.3\%) | 0.49 |
| Hyperlipidemia | 69 (20.6\%) | 43 (16.5\%) | 26 (34.7\%) | 0.002 |

Mean $\pm$ standard deviation or numbers and percentages. AVR, aortic valve replacement; CABG, coronary artery bypass grafting.

Table S3 Early complications in 335 dialysis patients that underwent aortic valve replacement with or without concomitant CABG

| Variables | Total population $(\mathrm{n}=335)$ | AVR ( $\mathrm{n}=260)$ | AVR + CABG ( $\mathrm{n}=75$ ) |
| :--- | :---: | :---: | :---: |
| Thirty-day mortality | $29(8.7 \%)$ | $24(9.2 \%)$ | $5(6.7 \%)$ |
| Reoperation for bleeding | $53(15.8 \%)$ | $45(17.3 \%)$ | $8(10.6 \%)$ |
| Postoperative heart failure | $44(13.1 \%)$ | $29(11.1 \%)$ | 0.47 |
| Perioperative stroke | $36(10.7 \%)$ | $26(10 \%)$ | 0.17 |
| Deep sternal wound infection | $14(4.2 \%)$ | $9(3.4 \%)$ | $10(13.3 \%)$ |

Number and percentage. AVR, aortic valve replacement; CABG, coronary artery bypass grafting.

Table S4 Early postoperative complications in the propensity score matched population

| Variables | Total population $(n=130)$ | Mechanical valve $(\mathrm{N}=60)$ | Biological valve ( $\mathrm{N}=70)$ |
| :--- | :---: | :---: | :---: |
| Thirty-day mortality | $8(6.1 \%)$ | $5(8.3 \%)$ | $3(4.2 \%)$ |
| Reoperation for bleeding | $3(2.3 \%)$ | 0 | $3(4.2 \%)$ |
| Postoperative heart failure | $21(16.1 \%)$ | $7(11.6 \%)$ | $14(20 \%)$ |
| Perioperative stroke | $5(3.8 \%)$ | $2(3.3 \%)$ | $3(4.2 \%)$ |
| Deep sternal wound infection | $3(2.3 \%)$ | $2(3.3 \%)$ | $1(1.4 \%)$ |

Table S5 Demographics and patient characteristics of matched groups

| Variables | Total population ( $\mathrm{n}=130$ ) | Mechanical valve ( $\mathrm{n}=60$ ) | Biological valve ( $\mathrm{n}=70$ ) | $P$ value |
| :---: | :---: | :---: | :---: | :---: |
| Gender |  |  |  | 0.57 |
| Male | 91 (70\%) | 44 (73.3\%) | 47 (67.1\%) |  |
| Female | 39 (30\%) | 16 (26.7\%) | 23 (32.9\%) |  |
| Age (years) | $62.2 \pm 7$ | $61.6 \pm 7.1$ | $62.8 \pm 6.9$ | 0.15 |
| Body mass index | $26.9 \pm 6.1$ | $27.3 \pm 7.4$ | $26.4 \pm 4.8$ | 0.52 |
| Length of stay (day) | $23.7 \pm 21.1$ | $24.5 \pm 23.1$ | $23.1 \pm 19.4$ | 0.98 |
| Logistic Euroscore (\%) | $7.2 \pm 4.1$ | $7.2 \pm 4.4$ | $7.1 \pm 4$ | 0.93 |
| Previous myocardial infarction | 27 (20.8\%) | 12 (20.0\%) | 15 (21.4\%) | 1.00 |
| Previous stroke | 17 (13.1\%) | 7 (11.7\%) | 10 (14.3\%) | 0.86 |
| Previous TIA | 5 (3.8\%) | 3 (5.0\%) | 2 (2.9\%) | 0.85 |
| Diabetes | 39 (30.0\%) | 18 (30.0\%) | 21 (30.0\%) | 1.00 |
| Hypertension | 91 (70.0\%) | 43 (71.7\%) | 48 (68.6\%) | 0.85 |
| Heart failure | 47 (36.2\%) | 21 (35.0\%) | 26 (37.1\%) | 0.94 |
| Atrial fibrillation | 36 (27.7\%) | 17 (28.3\%) | 19 (27.1\%) | 1.00 |
| PCI | 7 (5.4\%) | 4 (6.7\%) | 3 (4.3\%) | 0.83 |
| Pulmonary disease | 13 (10.0\%) | 7 (11.7\%) | 6 (8.6\%) | 0.77 |
| Congenital heart disease | 4 (3.1\%) | 2 (3.3\%) | 2 (2.9\%) | 1.00 |
| Peripheral vascular disease | 22 (16.9\%) | 10 (16.7\%) | 12 (17.1\%) | 1.00 |
| History of cancer | 19 (14.6\%) | 9 (15.0\%) | 10 (14.3\%) | 1.00 |
| Hyperlipidemia | 15 (11.5\%) | 9 (15.0\%) | 6 (8.6\%) | 0.39 |
| Concomitant CABG | 10 (7.7\%) | 6 (10.0\%) | 4 (5.7\%) | 0.56 |

TIA, transient ischemic attack; PCI , percutaneous coronary intervention; CABG, coronary artery bypass grafting.


Figure S2 Kaplan-Meier analysis of aortic valve reoperations in the bAVR and the mAVR groups. bAVR, biological aortic valve replacement; $m A V R$, mechanical aortic valve replacement.

