

**Table S1:** Selected variables in the lasso for the outcome in-hospital mortality

|                             | Outcome model |         | Treatment model |
|-----------------------------|---------------|---------|-----------------|
|                             | SAVR          | TF-TAVR |                 |
| Logistic EuroSCORE          | x             | x       | x               |
| Frailty Score               | x             | x       | x               |
| NYHA III or IV              | x             |         | x               |
| CAD                         | x             | x       | x               |
| Hypertension                | x             |         | x               |
| Carotid disease             | x             |         | x               |
| Renal disease, GFR <15      | x             | x       | x               |
| Emergency                   | x             | x       | x               |
| Female                      |               | x       | x               |
| Previous MI within 1 year   |               | x       | x               |
| Previous MI after 1 year    |               | x       | x               |
| COPD                        |               | x       | x               |
| Atrial fibrillation         |               | x       | x               |
| Diabetes                    |               | x       | x               |
| Age in years                |               |         | x               |
| Previous MI within 4 months |               |         | x               |
| Previous CABG               |               |         | x               |
| Previous cardiac surgery    |               |         | x               |
| Peripheral vascular disease |               |         | x               |
| Pulmonary hypertension      |               |         | x               |
| Renal disease, GFR <30      |               |         | x               |
| Constant                    | x             | x       | x               |

**Figure S1:** Overlap plot

