

Supplementary Table 2: Prediction model Risk Of Bias Assessment Tool (PROBAST)

| STUDY | SCORE | STUDY TYPE | Risk of Bias (ROB) | | | | Applicability | | | Overall | |
|---|-----------------------------|----------------------------|---|------------|---------|----------|---------------|------------|---------|---------|---------------|
| | | | Participants | Predictors | Outcome | Analysis | Participants | Predictors | Outcome | ROB | Applicability |
| Martinez-Sellis M, Muñoz P et al. ⁹ | PALSUSE | Development only | - | + | + | - | ? | + | + | - | + |
| | | | Participants undergoing medical treatment and later those with implantable devices excluded; Use of univariate analysis, Exclusion of subgroups of patients, No information RE handling of missing data, No internal validation | | | | | | | | |
| De Feo M, Cotrufo M et al. ¹⁰ | DE FEO | Development only | - | + | + | - | ? | + | + | - | + |
| | | | Left sided native valve active surgically managed patients only, <20 events per variable (EPV) for development cohort (40 patients), No information RE handling of missing data, No internal validation | | | | | | | | |
| Gatti G, Benussi B et al. ¹¹ | ANCLA | Development only | - | + | + | - | ? | + | + | - | + |
| | | | Surgical patients only. <20 EPV for development cohort (28 patients), No information RE handling of missing data, No internal validation | | | | | | | | |
| Olmos C, Vilacosta I et al. ¹² | RISK-E | Development and validation | - | ? | + | - | ? | + | + | - | + |
| | | | Surgical patients with left-sided IE only. Duke criteria used up to 2002 and modified Duke criteria thereafter. Only 68 patients with the outcome in the validation sample – PROBAST recommends >100. | | | | | | | | |
| Di Mauro M, Dato GMA et al. ¹³ | EndoSCORE | Development only | - | + | + | + | ? | + | + | - | + |
| | | | Surgical patients; No information RE handling of missing data | | | | | | | | |
| Varela Barca L, Fernandez-Felix BM et al. ¹⁴ | APORTEI | Validation only | - | + | + | + | ? | + | + | - | + |
| | | | Surgical patients only, 342 patients with the outcome (>100 as per guidelines for a validation study); No information RE handling of missing data | | | | | | | | |
| Gatti G, Perrotti A et al. ³ | AEPEI I & II | Development only | - | + | + | - | ? | + | + | - | + |
| | | | Surgical patients only. <20 EPV for development cohort (56 in-hospital death); No information RE handling of missing data | | | | | | | | |
| Costa MAC, Wollman DR et al. ¹⁵ | COSTA | Development only | + | + | + | - | + | + | + | - | + |
| | | | <20 EPV for development cohort (49 in-hospital death); No information RE handling of missing data | | | | | | | | |
| Chee OZ, Tan YQB et al. ¹⁶ | SHARPEN | Development only | + | + | + | - | + | + | + | - | + |
| | | | <20 EPV for development cohort (54 in-hospital death); No information RE handling of missing data | | | | | | | | |
| Park LP, Chu VH et al. ¹⁷ | Simplified Risk Score (ICE) | Development and validation | + | + | + | ? | + | ? | + | + | + |
| | | | Prosthetic valves excluded; selection of predictors made a priori by an experienced cardiologist | | | | | | | | |
| Lopez J, Fernandez-Hidalgo N et al. ¹⁸ | LOPEZ | Development and validation | - | ? | + | + | ? | + | ? | - | ? |
| | | | Surgical patients with left-sided active IE only; Duke criteria used up to 2002 and modified Duke criteria thereafter; Sufficient EPVs for the development study; 132 and 122 patients with the outcome for internal and external validation respectively (>100 as per guidelines for a validation study). Outcome included in-hospital mortality AND/OR urgent surgery | | | | | | | | |
| He PC, Wei XB et al. ¹⁹ | Modified MELD-XI | Development only | + | + | + | - | + | + | + | - | + |
| | | | <20 EPV for development cohort (70 in-hospital death) | | | | | | | | |
| Bjurman C, Snygg-Martin U et al. | CystatinC | Development only | + | - | + | - | + | - | ? | - | + |
| | | | Grade of myocardial infarction as predictor not clearly defined, <20 EPV for development cohort (42 death at 5 years) | | | | | | | | |
| EPV: Events per variable; + indicates low ROB/low concern regarding applicability; - indicates high ROB/high concern regarding applicability; ? indicates unclear ROB/unclear concern regarding applicability | | | | | | | | | | | |