

S7 Table. A summary of the study outcomes: adverse events.

| First author (y) | Reported adverse events | TPVR (%) | SPVR (%) |
|----------------------------|---|----------|----------|
| Alassas (2018) [48] | Failure of transcatheter valve | 2.1 | 0.0 |
| | Femoral artery pseudoaneurysm | 2.1 | 0.0 |
| | Femoral AV fistula | 2.1 | 0.0 |
| | Stent fracture of prosthetic valve | 2.1 | 0.0 |
| | Sternal wound infection | 0.0 | 12.2 |
| Andresen (2018) [47] | Bleeding requiring reoperation and blood transfusion | 0.0 | 7.1 |
| | Pacemaker implantation | 0.0 | 7.1 |
| Bou Chaaya (2023) [36] | Ventricular tachycardia | 7.4 | 10.3 |
| Caughron (2018) [23] | Major vascular complications | 0.0 | 3.3 |
| | Major bleeding | 0.0 | 13.3 |
| | Major stroke | 2.8 | 0.0 |
| | Minor bleeding | 2.8 | 23.3 |
| | New atrial fibrillation/flutter | 2.8 | 13.3 |
| | Pacemaker implantation | 2.8 | 6.7 |
| Coats (2005) [42] | Acute psychosis | 0.0 | 1.1 |
| | Acute renal failure requiring hemodialysis | 0.0 | 1.1 |
| | Arrhythmia | 0.0 | 8.5 |
| | Chest infection | 0.0 | 9.6 |
| | Complete heart block requiring permanent pacemaker implantation | 0.0 | 1.1 |
| | Early in-stent stenosis | 2.9 | 0.0 |
| | Endocarditis | 2.9 | 0.0 |
| | Late RVOT restenosis | 17.1 | 0.0 |
| | Neurological events | 0.0 | 2.1 |
| | Pericarditis | 0.0 | 2.1 |
| | Pericardial effusion | 0.0 | 4.3 |
| | Pleural effusion | 0.0 | 16.0 |
| | Pneumothorax | 0.0 | 5.3 |
| | Prolonged temperature associated with blood culture yielding <i>Candida albicans</i> | 2.9 | 0.0 |
| | Pseudoaneurysm requiring surgical intervention | 0.0 | 1.1 |
| | Stent fracture | 2.9 | 0.0 |
| | Sudden hemodynamic collapse requiring re-sternotomy | 0.0 | 1.1 |
| | Systemic inflammatory response syndrome | 0.0 | 1.1 |
| | Tracheostomy and prolonged ventilation support | 0.0 | 2.1 |
| | Vocal cord palsy | 0.0 | 2.1 |
| Durongpisitkul (2022) [50] | All major complications requiring cardiopulmonary resuscitation, prolong ICU or hospital stay | 11.1 | 32.9 |
| Egbe (2024) [37] | Prosthetic valve dysfunction | 17.2 | 9.4 |
| | Surgical explantation of infected bioprosthesis | 4.7 | 3.1 |
| | Transcatheter debulking of vegetation | 3.1 | 0.0 |

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|-----------------------|---|----------|----------|
| Enezate (2019) [25] | Bleeding | 4.6 | 26.4 |
| | Mechanical complications of heart valve prosthesis (valve dislodgement, embolization, and significant stent fracture) | 1.7 | 2.0 |
| | Vascular complications (conduit rupture, access site complications, and pulmonary artery injury) | 2.3 | 2.0 |
| Gröning (2024) [41] | Pulmonary stenosis | 28.6 | 64.9 |
| | Combined stenosis/regurgitation | 7.1 | 12.8 |
| Haas (2018) [39] | Cardiac complications | 42.4 | 29.1 |
| | Hemorrhage/hematoma | 4.7 | 6.3 |
| | Infection/fever | 1.0 | 5.0 |
| | Respiratory complications | 4.2 | 23.3 |
| | Other (not specified) | 3.7 | 11.5 |
| Hribernik (2022) [43] | Compartment syndrome in left leg | 0.0 | 0.3 |
| | Conduit rupture after stent implantation | 0.8 | 0.0 |
| | Coronary artery injury requiring intraoperative repair | 0.0 | 0.3 |
| | Displaced atrial pacing wire | 0.8 | 0.0 |
| | Embolization of catheter introduced device | 0.8 | 0.0 |
| | Iatrogenic ventricular injury requiring pericardial patch | 0.0 | 0.3 |
| | Mediastinal hematoma requiring sternotomy | 0.0 | 0.3 |
| | Mediastinitis/sternal infection | 0.0 | 0.8 |
| | Pericardial effusion requiring pericardiocentesis | 0.0 | 0.5 |
| | Perinephric hematoma | 0.8 | 0.0 |
| | Postoperative bradycardia requiring permanent pacemaker | 0.0 | 0.3 |
| | Postoperative stroke | 0.0 | 0.5 |
| | Postoperative hypotension requiring resuscitation and chest reopening | 0.0 | 0.3 |
| | Postprocedural death within 30 days | 0.0 | 1.1 |
| | Pulmonary edema | 0.8 | 0.0 |
| | Right brachial nerve palsy | 0.8 | 0.0 |
| | RVOT obstruction due to rotation of pulmonary valve requiring removal of the valve | 0.0 | 0.3 |
| | Sternal dehiscence | 0.0 | 0.3 |
| | Wire injury to right lower lobe requiring coil occlusion | 0.8 | 0.0 |
| Megaly (2021) [27] | Respiratory complications | 3.9 | 16.6 |
| | Vascular complications requiring surgery | 0.4 | 0.2 |
| | Ventricular arrhythmia | 12.3 | 11.1 |
| O'Donnell (2017) [46] | RVOT perforation | 8.0 | 0.0 |
| | Supraventricular tachycardia | 8.0 | 0.0 |
| | Ventricular tachycardia | 4.0 | 0.0 |
| Ou-Yang (2020) [44] | Atrial flutter | 2.9 | 3.3 |
| | Pericardial effusion | 0.0 | 6.7 |
| Shamma (2018) [30] | Acute right coronary artery injury during repeat sternotomy | 0.0 | 1.0 |
| | Embolization of the pre-stent | 1.6 | 0.0 |

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|-----------------------|---|----------|----------|
| | High-degree heart block requiring pacemaker implantation | 0.0 | 1.0 |
| | Perforation of the preexisting RVPA conduit | 1.6 | 0.0 |
| | Recurrent pneumothorax | 0.0 | 1.0 |
| Steinberg (2017) [32] | Bleeding or infection requiring mediastinal exploration | 0.0 | 1.4 |
| | Cardiopulmonary arrest with crushed valve from chest compressions | 1.3 | 0.0 |
| | Cardiopulmonary arrest with residual neurological deficits | 0.0 | 1.4 |
| | Conduit rupture with procedure cessation prior to valve implantation | 1.3 | 0.0 |
| | Death within 30 days | 0.0 | 2.8 |
| | Heart block requiring permanent pacemaker implantation | 0.0 | 1.4 |
| | Hemidiaphragmatic paralysis | 0.0 | 0.7 |
| | Hemothorax, pneumothorax, or pleural effusion requiring chest tube placement | 1.3 | 3.4 |
| Wadia (2018) [34] | Non-intraoperative postprocedural events that impacted patient comfort, functional status, or length of hospitalization | 12.8 | 32.3 |