

**Online Supplement Table:** International Classification of Diseases, Ninth Revision, Clinical Modification codes used to identify comorbidities and procedures

Comorbidities and Procedures	ICD-9-CM Codes
Bleeding complication	998.1; 998.11; 998.12
Blood transfusion	99.00-99.09
Stroke or transient ischemic attack	997.02; 430; 431; 432.0; 432.1; 432.9; 433.01; 433.11; 433.21; 433.31; 433.81; 433.91; 434.0; 434.00; 434.01; 434.1; 434.10; 434.11; 434.9; 434.90; 434.91; 436; 435.0-435.3; 435.08; 435.09
Acute kidney injury	584.5-584.9; 586
Intra-aortic balloon pump	37.61
Extracorporeal membrane oxygenation	39.65
Impella or Tandem Heart	37.62; 37.66; 37.68
Cardiopulmonary bypass	39.66; 39.61
Permanent pacemakers	37.70 to 37.76; 37.80 to 37.89; 00.50-00.53; 00.53
Aortic valvuloplasty	35.01; 35.96