**Supplementary materials 1**

#### search strategy in Pubmed

(((((((((Risk Factors[Title/Abstract]) OR (Factor, Risk[Title/Abstract])) OR (Factors, Risk[Title/Abstract])) OR (Risk Factor[Title/Abstract])) OR (Population at Risk[Title/Abstract])) OR (Risk, Population at[Title/Abstract])) OR (Populations at Risk[Title/Abstract])) OR (Risk, Populations at[Title/Abstract])) AND ((((((((((((((((((((((((Acute Kidney Injury[Title/Abstract]) OR (Acute Kidney Injuries[Title/Abstract])) OR (Kidney Injuries, Acute[Title/Abstract])) OR (Kidney Injury, Acute[Title/Abstract])) OR (Acute Renal Injury[Title/Abstract])) OR (Acute Renal Injuries[Title/Abstract])) OR (Renal Injuries, Acute[Title/Abstract])) OR (Renal Injury, Acute[Title/Abstract])) OR (Renal Insufficiency, Acute[Title/Abstract])) OR (Acute Renal Insufficiencies[Title/Abstract])) OR (Renal Insufficiencies, Acute[Title/Abstract])) OR (Acute Renal Insufficiency[Title/Abstract])) OR (Kidney Insufficiency, Acute[Title/Abstract])) OR (Acute Kidney Insufficiencies[Title/Abstract])) OR (Kidney Insufficiencies, Acute[Title/Abstract])) OR (Acute Kidney Insufficiency[Title/Abstract])) OR (Kidney Failure, Acute[Title/Abstract])) OR (Acute Kidney Failures[Title/Abstract])) OR (Kidney Failures, Acute[Title/Abstract])) OR (Acute Renal Failure[Title/Abstract])) OR (Acute Renal Failures[Title/Abstract])) OR (Renal Failures, Acute[Title/Abstract])) OR (Renal Failure, Acute[Title/Abstract])) OR (Acute Kidney Failure[Title/Abstract]))) AND ((((((((((Aneurysm, Dissecting[Title/Abstract]) OR (Dissecting Aneurysm[Title/Abstract])) OR (Aneurysms, Dissecting[Title/Abstract])) OR (Dissecting Aneurysms[Title/Abstract])) OR (Dissection, Blood Vessel[Title/Abstract])) OR (Blood Vessel Dissection[Title/Abstract])) OR (Aortic Dissection[Title/Abstract])) OR (Aortic Dissections[Title/Abstract])) OR (Dissection, Aortic[Title/Abstract])) OR (Dissections, Aortic[Title/Abstract]))

**Supplementary materials 2**



The conbined incidence of AKI after TAAD repair surgery



The conbined incidence of CRRT after TAAD repair surgery

**Supplementary materials 3**



The forest plot of the advanced age

**Supplementary materials 4**



The sensitivity analysis of the advanced age

**Supplementary materials 5**



 The forest plot of long CPB time

**Supplementary materials 6**



The forest plot of high BMI

**Supplementary materials 7**



The sensitivity analysis of high BMI

**Supplementary materials 8**



The funnel plot of high BMI

**Supplementary materials 9**



The combined in-hospital mortality in patients with postoperative AKI

**Supplementary materials 10**



The combined 30-days mortality in patients with postoperative AKI

**Supplementary materials 11**



The combined RR of in-hospital mortality in patients with and without postoperative AKI

**Supplementary materials 12**



The combined RR of 30-days mortality in patients with and without postoperative AKI