SUPPLEMENTAL MATERIALS

The early and long-term outcomes of coronary artery bypass grafting added to aortic valve replacement compared to isolated aortic valve replacement in elderly patients: A systematic review and meta-analysis.

Journal: Heart and Vessels

Stefano D'Alessandro MD, FECTS[1], Domenico Tuttolomondo MD[2], Gurmeet Singh MD[3], Daniel Hernandez-Vaquero MD[4], Claudia Pattuzzi MD[5], Alan Gallingani MD[5], Francesco Maestri MD[5], Francesco Nicolini MD, PhD [5,6] and Francesco Formica MD* [5,6].

[1] Cardiac Surgery Unit, San Gerardo Hospital, Monza, Italy.

[2] Cardiology Unit, University Hospital of Parma, Italy

[3] Department of Critical Care Medicine and Division of Cardiac Surgery, Mazankowski Alberta Heart Institute, University of Alberta, Canada.

[4] Cardiac Surgery Department, Hospital Universitario Central de Asturias, Oviedo, Spain

[5] Cardiac Surgery Unit, University Hospital of Parma, Italy

[6] Department of Medicine and Surgery, University of Parma

Corresponding Author:

Prof. Francesco Formica, MD
UOC Cardiochirurgia
Azienda Ospedaliera Universitaria di Parma
Via A. Gramsci, 14
43126 Parma, Italy
Tel.: +39 0521703278
E-mail: francescoformica.hs@gmail.com
francesco.formica@unipr.it

Supplemental Figures

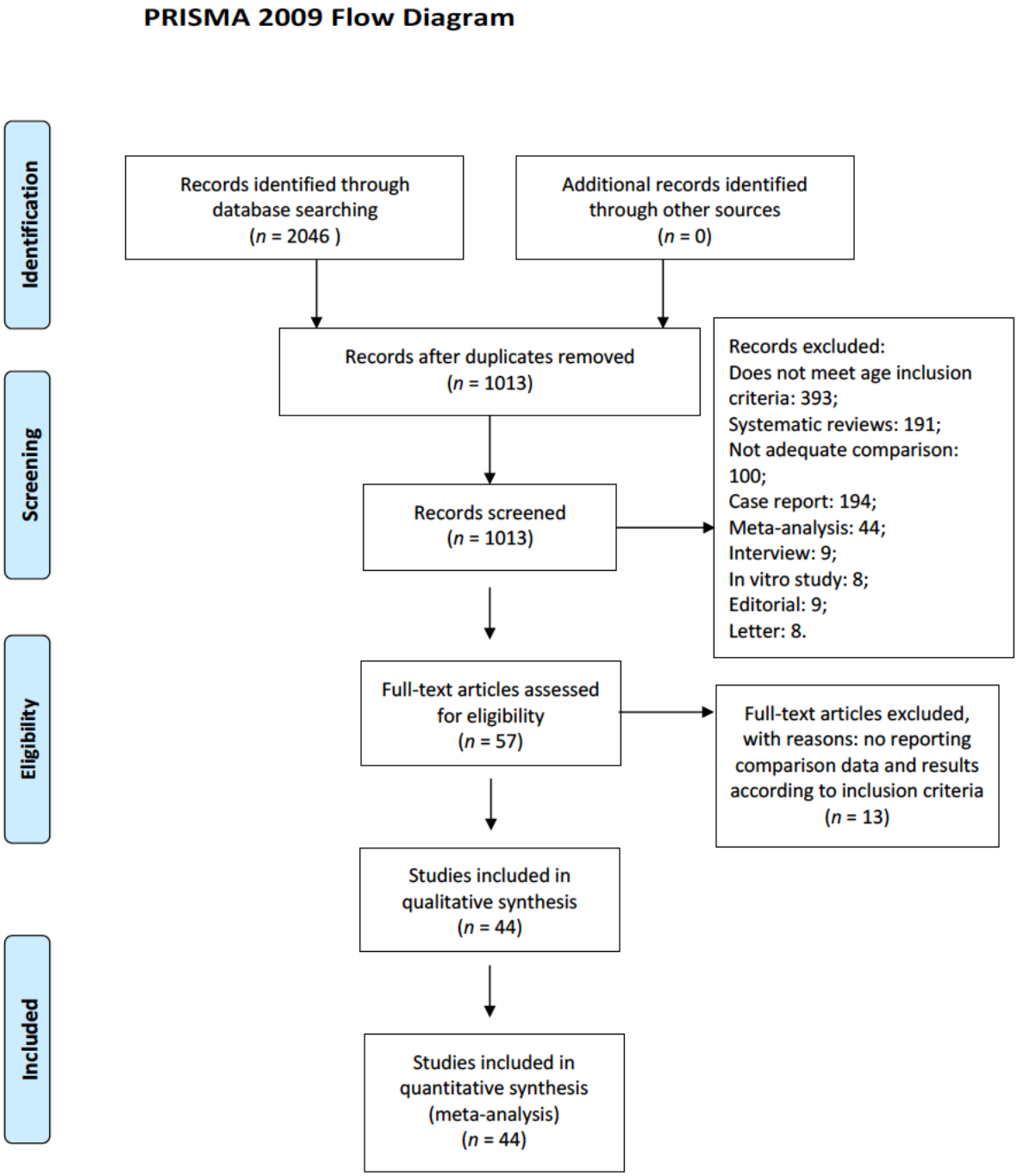


Figure 1. Study selection according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), presented as a flow diagram.

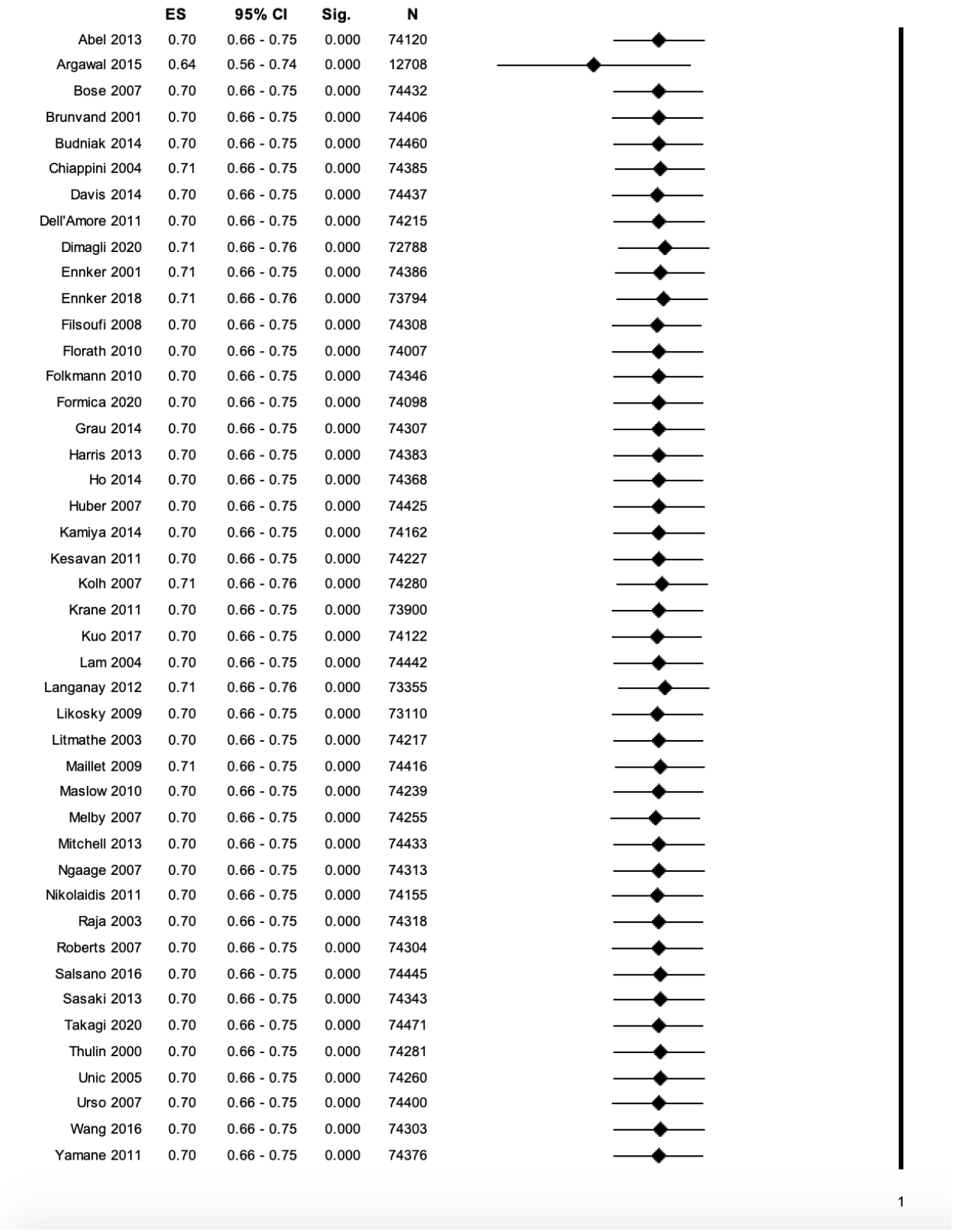


Figure 2A. Forest plot of the leave-one-out analysis comparing the early-term effect of coronary artery bypass grafting combined with aortic valve replacement versus isolated aortic valve replacement . *ES: odd ratio.*

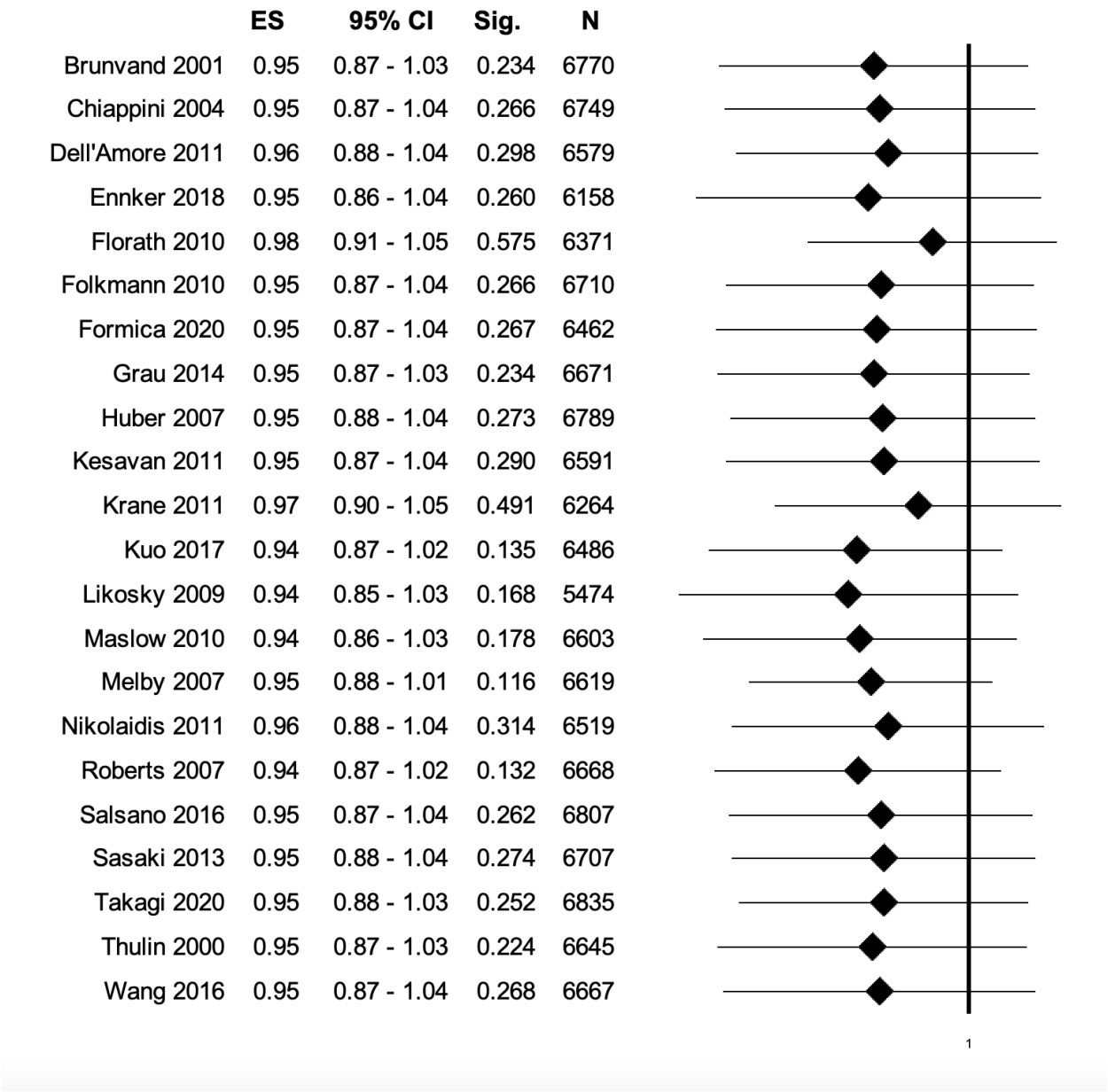
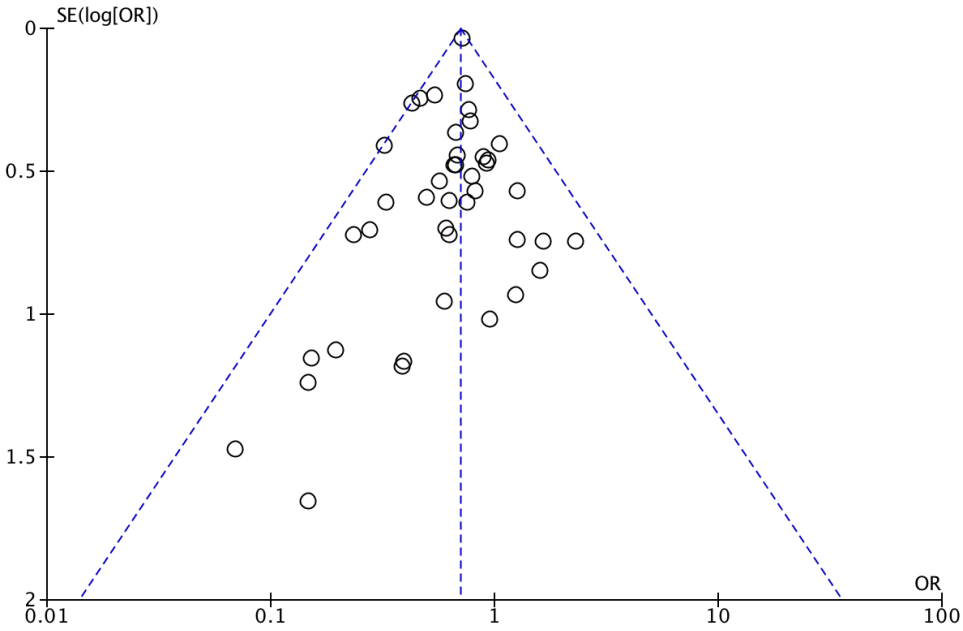


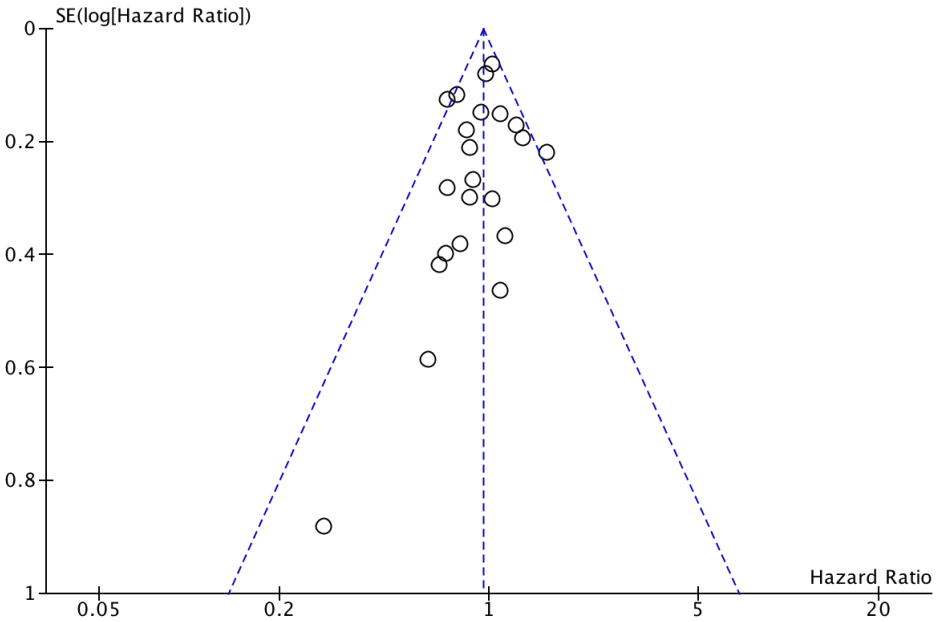
Figure 2B. Forest plot of the leave-one-out analysis comparing the long-term effect of coronary artery bypass grafting combined with aortic valve replacement versus isolated aortic valve replacement . *ES: odd ratio.*

FIGURE 3.

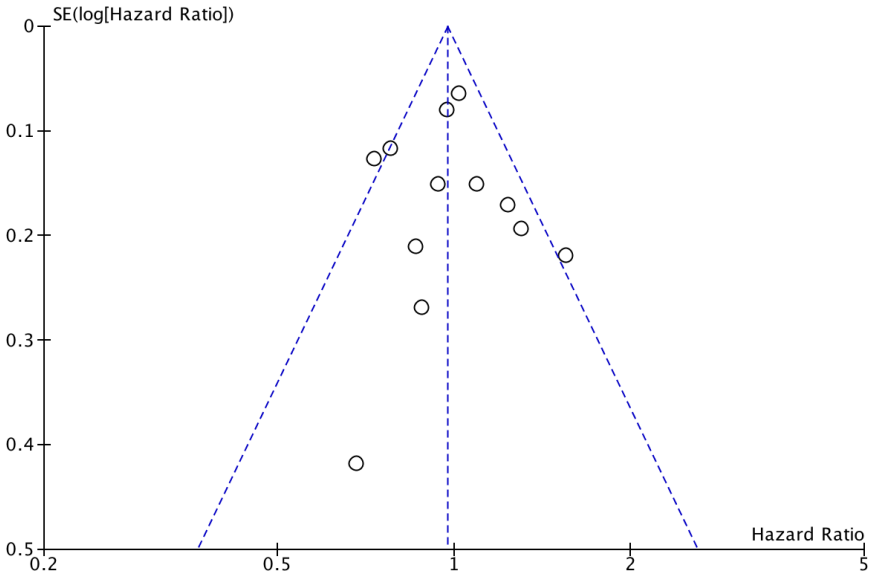
Funnel plots for pubblication bias assesment.



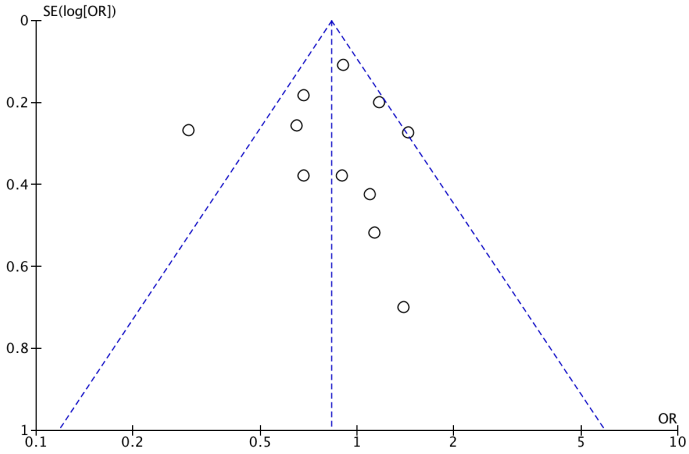
A. No publication bias was reported related to the early mortality. Egger's linear regression test: p=0.06; Begg and Mazumdar's test: p=0.15.



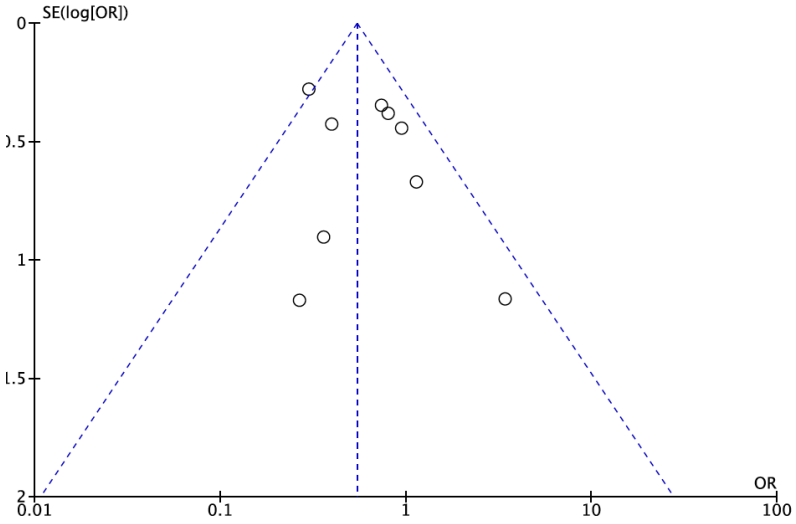
B. No publication bias was reported related to the long-term survival. Egger's linear regression test: p = 0.27; Begg and Mazumdar's linear regression test: p = 0.19.



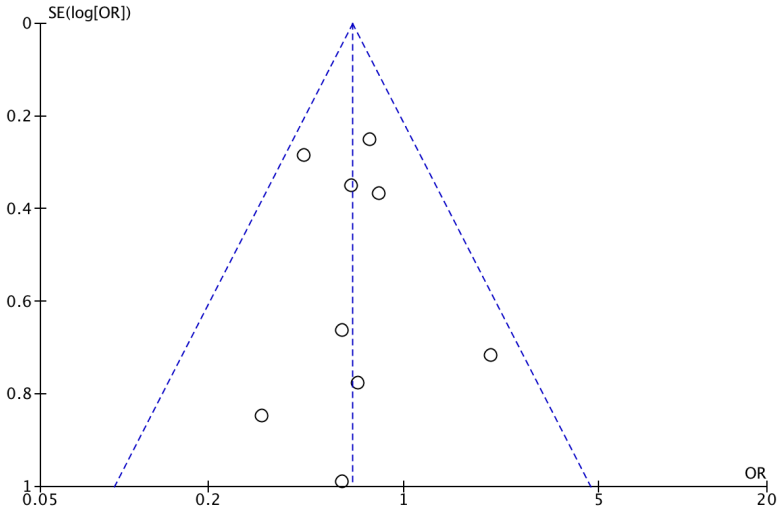
C. No publication bias was reported related to long-term survival of studies reporting a maximum follow-up of ten years or more. Egger's linear regression test: p=0.83; Begg and Mazumdar's test: p=0.90.



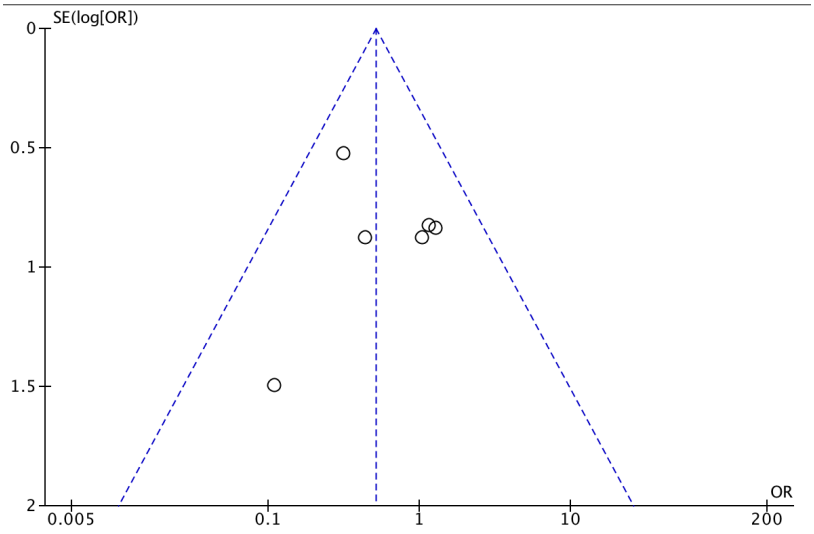
D. No publication bias was reported related to postoperative atrial fibrillation. Egger's linear regression test: p=0.96; Begg and Mazumdar's test: p=0.58.



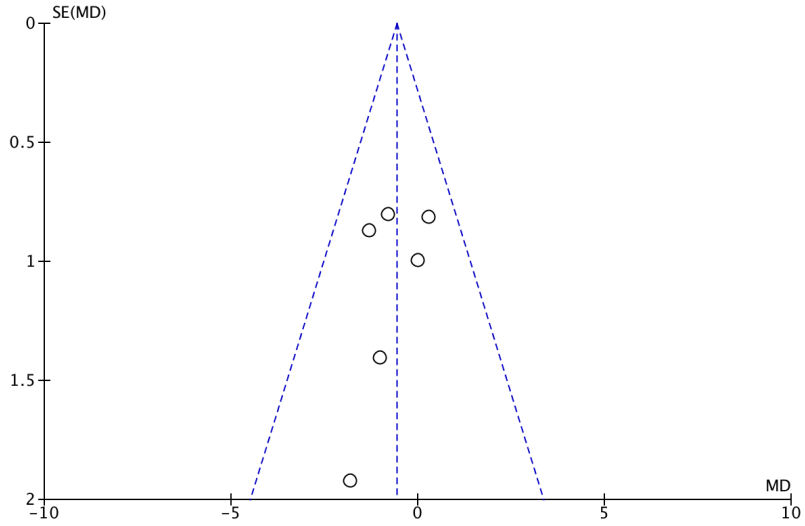
E. No publication bias was reported related to postoperative acute renal failure. Egger's linear regression test: p=0.33; Begg and Mazumdar's test: p=0.29.



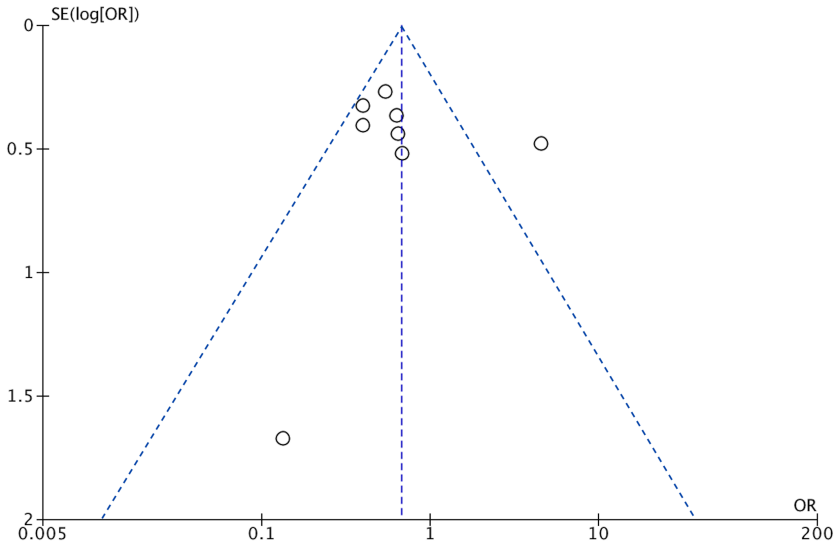
F. No publication bias was reported related to need for postoperative dyalisis. Egger's linear regression test: p = 0.53; Begg and Mazumdar's test: p > 0.99.



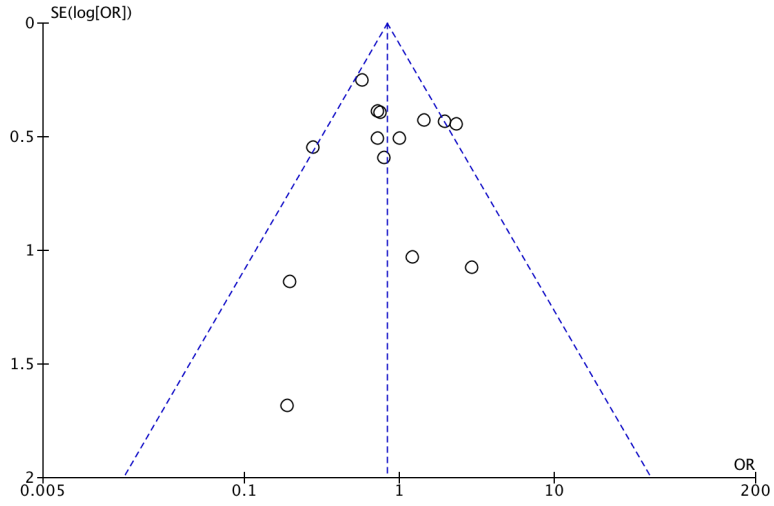
G. No publication bias was reported related to postoperative intra-aortic balloon pump usage. Egger's linear regression test: p = 0.67; Begg and Mazumdar's test: p = 0.88.



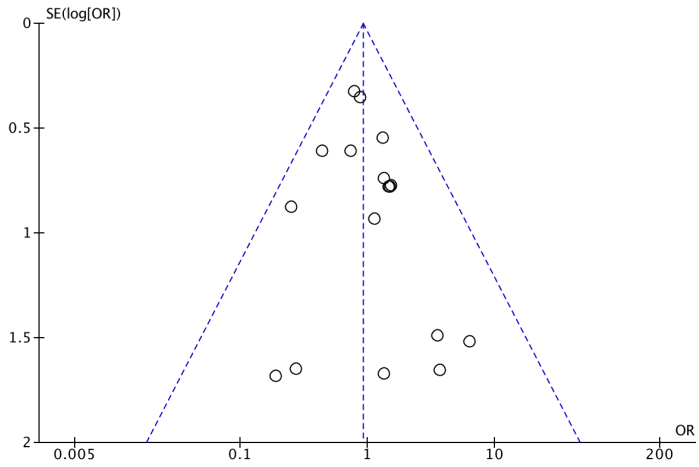
H. No publication bias was reported related to length of hospital stay. Egger's linear regression test: p=0.42; Begg and Mazumdar's test: p=0.32.



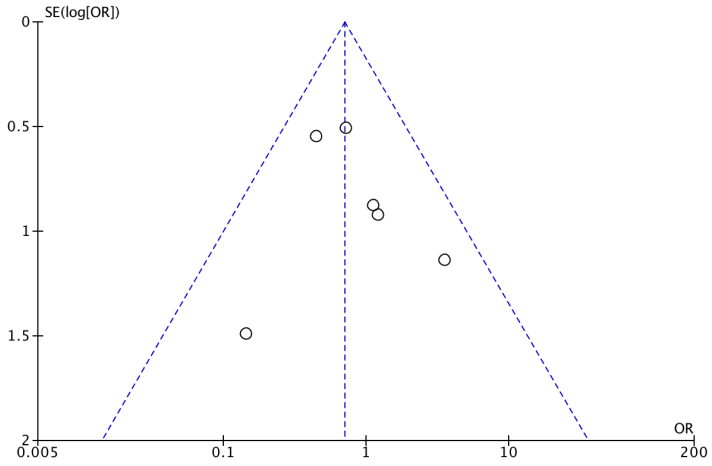
I. No publication bias was reported related to prolonged mechanical ventilation (> 48 hours). Egger's linear regression test: p = 0.76; Begg and Mazumdar's test: p = 0.21.



L. No publication bias was reported related to re-thoracothomy for postoperative bleeding/tamponade. Egger's linear regression test: p = 0.93; Begg and Mazumdar's test: p = 0.89.



M. No publication bias was reported related to postoperative stroke. Egger's linear regression test: p=0.89; Begg and Mazumdar's test: p=0.78.



N. Funnel plot to assess publication bias. No publication bias was reported related to postoperative pneumonia. Egger's linear regression test: p = 0.64; Begg and Mazumdar's test: p = 0.57.