Background
Case and single center reports have documented the feasibility and suggested the effectiveness of endovascular graft (EVG) treatment of ruptured abdominal and thoracic aortic aneurysms (RAAA and RTAAA). Accordingly, we collected the world experience.

Methods
Rupture was defined as blood outside the aneurysm sac. Information was received from 48 centers on 442 RAAA and 221 RTAA treated with an EVG. Many patients were hypotensive, some had free intraperitoneal or intrapleural ruptures, and many were prohibitive risks for open repair. Local, epidural, or general anesthesia was used. Fluid resuscitation was often restricted. Supraceliac aortic balloon control was required in a few RAAA patients. For the RAAA a variety of bifurcated and tubular EVGs were used including modular and unibody construction. For the RTAA single or multiple tubular EVGs were used.

Results
Except for three centers, EVGs were used for RTAA only after a computed tomography scan was obtained. EVGs were employed in 18 to 76% of all patients seen at each center with RAAA or RTAA. Of the 442 patients receiving an EVG for a RAAA, 364 survived > 30 days, a procedural mortality of 18%. Of the 221 patients undergoing EVG treatment for a RTAA, 182 survived > 30 days, a procedural mortality of 18%.

Conclusions
This world experience reflects selective usage of EVGs for RAAA and RTAA. Nevertheless, the mortality of 18% and the successful treatment of patients inoperable by standard surgical techniques suggest that EVGs, when feasible, may provide better treatment outcomes than open surgery. Expanded use of EVGs in the ruptured aneurysm setting is supported.