Trans-Atlantic Debate: Whether Evidence Supports Reducing the Threshold Diameter to 5 cm for Elective Interventions in Women with Abdominal Aortic Aneurysms

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INTRODUCTION

Current practice guidelines recommend the repair of asymptomatic abdominal aortic aneurysms once they reach the 5.5-cm diameter threshold, and are based on information from randomised controlled trials. However, as aneurysms are more common in men, women are under-represented in these trials, and questions persist with regard to whether this repair threshold should apply to them. In addition, women have smaller aortas to begin with and in most aneurysm cohorts are older, have more atherosclerotic risk factors, are less likely to be anatomical candidates for endovascular repair, and do less well after emergent or elective repair of their aneurysm. These are just some of the issues that our discussants address in determining whether the repair threshold should be at a smaller diameter for women.

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Part One: For the Motion. Evidence Supports Reducing the Threshold Diameter to 5 cm for Elective Interventions in Women With Abdominal Aortic Aneurysms

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INTRODUCTION

The decision of when to repair an asymptomatic abdominal aortic aneurysm (AAA) is based on the comparison between the risk of aneurysm rupture and the risk of surgical repair. Although there are multiple clinical risk factors that can influence the risk of rupture, the maximum diameter of the aneurysm has been shown to be the most consistently predictive measure of rupture risk. As women have smaller aortic diameters than men, should the diameter threshold for aneurysm intervention be different for women and men? To address this question, we present the argument that there are sufficient data to support a decrease in the aneurysm diameter threshold for AAA repair for women. There is well-documented evidence that not only do female patients have smaller aortic diameters, but their AAAs also rupture at smaller diameters compared with men, and have an increased risk of fatal aneurysm rupture compared with men. Furthermore, women experience higher mortality when undergoing repair of an aneurysm rupture. Thus, at the current time, evidence supports a reduction in the diameter threshold for elective AAA interventions in women to 5 cm.

DATA EXIST TO CHANGE THE DIAMETER THRESHOLD

At what aneurysm size is the risk of early intervention outweighed by the risk of rupture and death? This answer is complicated by the difficulty in estimating the rupture risk of aneurysms based on population studies, which vary widely. To address this question, four randomized controlled trials (RCTs) have been performed to determine whether early aneurysm repair is beneficial in patients with small aortic aneurysms. The UK Small Aneurysm and the ADAM