Every vascular surgeon knows that CT measures the aorta larger than ultrasound. I always assumed that CT magnified the aorta, and that the actual diameter was better assessed with ultrasound imaging. The authors have made a valuable point with the present research using a phantom, that CT is closer to reality. However, they missed the point that the reason for knowing aneurysm diameter is to plan when to intervene. It is worth remembering that the Small Aneurysm Trial did not tell us when to intervene for aortic aneurysms, it told us when not to! For AAA under 5.5 cm in diameter, the risks of treatment were not exceeded by the risk of rupture. What a shame vascular surgeons never did the Medium Aneurysm Trial which might, of course, have provided definitive evidence that intervention above 5.5 cm is beneficial.

The authors are right, however, to highlight variations in methodology used to measure aortic diameter. The aorta is unchanged whichever measuring method is used; however, different values may be recorded using ultrasound, CT or MRI. Sonographers and radiologists should consider reporting the method they use to measure aortic diameter, and as vascular surgeons, we should get used to clarifying that from radiology reports. From the perspective of a national programme, it is more important that everyone uses the same technique, than which technique is employed. All NAAASP technicians undergo formal training and accreditation, and regular ongoing quality assurance. The aim is to minimise the variation between technicians and surveillance visits. Perhaps vascular scientists outside NAAASP who regularly scan the aorta should consider moving to the ITI method, which has been shown to be reliable and reproducible.
References

