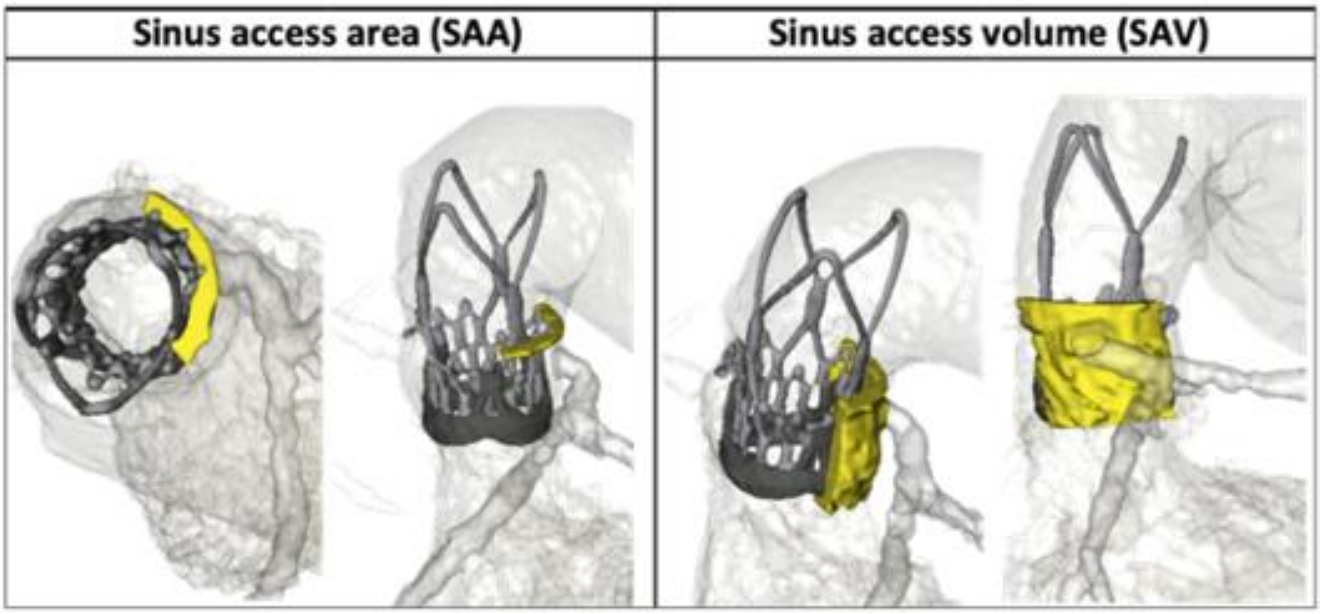
Supplementary data



Supplementary Figure 1. Measurement of sinus space.

Given that the 3D models were derived from post-implantation CT scans, precise measurements of relevant structures and regions of interest were possible. In order to capture the geometry of the sinus space between the valve frames, coronary ostia and surrounding aortic wall, we developed the following novel measurements: the sinus access area (SAA) represents the area (mm^2) between the upper crown of the ACURATE *neo* valve and the surrounding aorta within a 120-degree arc centred around the coronary ostium. The sinus access volume (SAV) represents the volume (mm^3) available between the coronary ostia, surrounding aortic sinus and the THV frame within a 120-degree arc centred around the coronary ostium. A 120-degree arc was selected to reflect native tricuspid valve cusp anatomy and transcatheter heart valve design. A 60-degree arc was felt to provide sufficient room for catheter entry and subsequent manipulation inside the aortic sinuses.