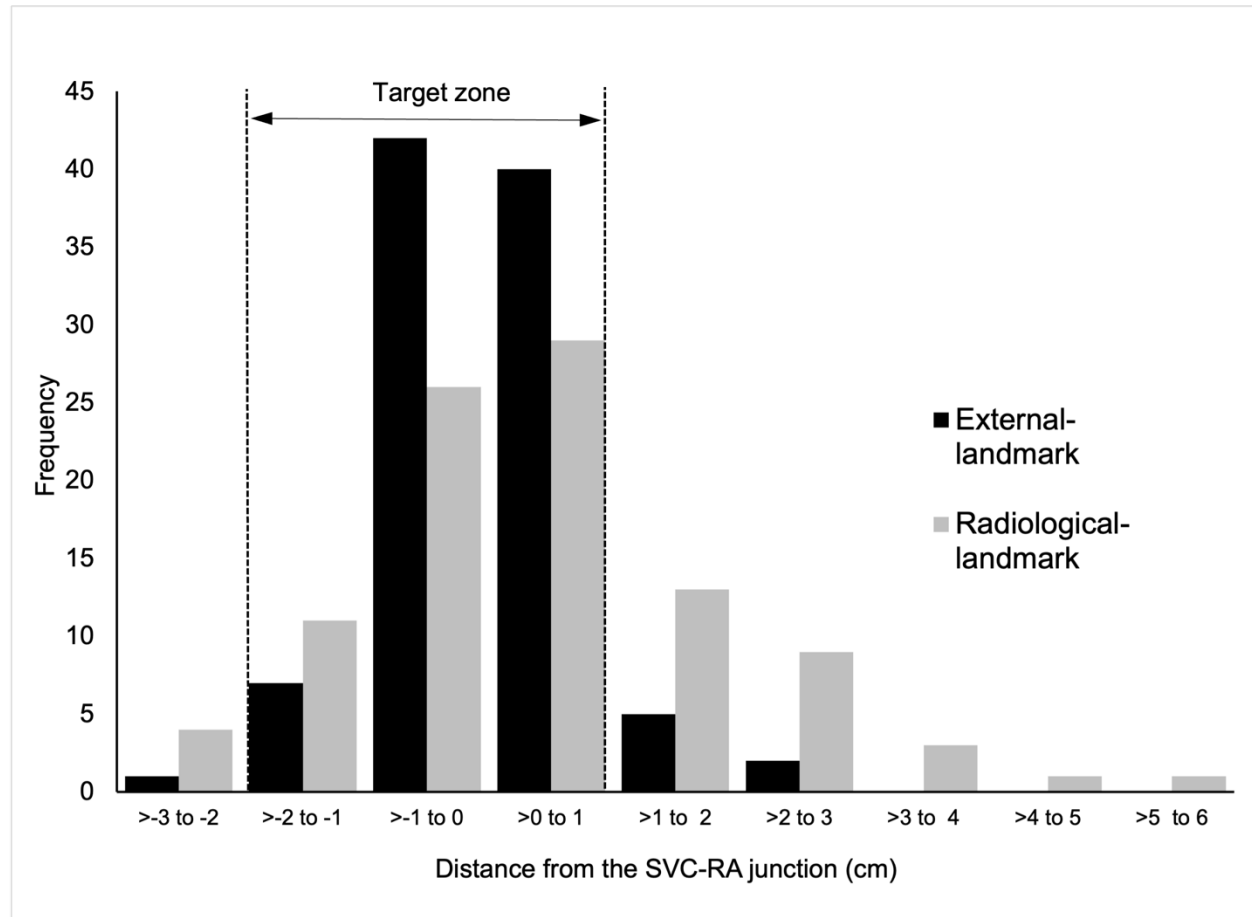




Supplementary Fig. 1 The bar chart shows the number of cases with estimated CVC tip positions relative to the SVC–RA junction for both the EL and RL methods. Zero indicates the SVC–RA junction level. Positive values are below the junction; negative values are above. The optimal target range is within 1 cm below to 2 cm above the SVC–RA junction.