





Supplementary Fig. 1. Shapley additive explanation summary plot for endotracheal tube (ETT) size and depth prediction by gradient boosted regression tree (GBRT) models . (A) Shapley additive explanation summary plot for input variables in the GBRT model for predicting the size of uncuffed ETTs. (B) Shapley additive explanation summary plot for input variables in the GBRT model for predicting the size of cuffed ETTs. (C) Shapley additive explanation summary plot for input variables in the GBRT model for predicting the depth of uncuffed ETTs. (D) Shapley additive explanation summary plot for input variables in the GBRT model for predicting the depth of cuffed ETTs. The red and blue dots represent the higher and lower values of the variables , respectively . Large Shapley values indicate a high contribution to output regardless of positive or negative . Older age, heavier weight , and taller height contribute to a larger size of the ETT . Older age, heavier weight , taller height, and male sex were associated with deeper ETT depth.