



Supplementary Fig. 3. Kernel density estimation of patient distribution A; gender, B; age (≥ 65 , $65 >$), C; BMI (≥ 25 , $25 >$). The borderline to classify patients with HFNC and ventilatory management was $(LIV) = 4.51 \times (ROX \text{ index}) + 1.75$. ROX index and LIV were significant in multiple logistic regression analyses. BMI, body mass index; HFNC, High flow nasal cannula; LIV, lung infiltration volume; MV, mechanical ventilation; ROX index, the ratio of oxygen saturation index.