

Supplementary Figure 1 **Association of pH and age with calcium levels. A** pH levels in hypocalcaemic and normocalcaemic patients **B** Calcium levels according to age group

Supplementary Figure 2 **Calcium levels in patients with COVID-19, CAP or VP according to disease severity.** Calcium levels at presentation in patients with mild, moderate and severe disease as defined for each subgroup (see methods). Red line represents median, ns= not significant, ** $p < 0.01$, **** $p < 0.0001$

Supplementary Figure 3 **Paired calcium and Vitamin D levels in patients with mild versus severe COVID-19 disease.** Calcium levels at presentation, and paired Vitamin D levels measured within three days of a positive SARS-CoV-2 PCR positive result. Red line represents median, ns= not significant, ** $p < 0.01$,